PRODUCT CATALOGUE | 2019

Your One Stop Shop for Heavy Machinery Wear Parts | Edition 3

West-Trak®

UNRIVALLED STRENGTH

IF IT DIGS, RIPS, HAULS, PULLS, PUSHES OR TRACKS, WE'LL HAVE SOMETHING TO HELP!

We know wear, We know-how, since 1993

Today, we're a multi-generational family business who owns the wear parts industry in New Zealand. For more than 25 years we've specialised in supplying the toughest, hardest wearing machinery parts & steel plate products in the world. Leading from the front is our passion, determination & expertise, to reduce downtime & improve performance of heavy machinery that simply has to work.

We're trusted advisers to the Mining, Quarrying, Civil Construction, Forestry and Engineering industries throughout New Zealand and major suppliers of after-market wear parts, for all makes and models of Excavators, Bulldozers, Loaders, Scrapers, Graders, Compactors, Dump Trucks, Crushers, Skidders, Forwarders and Harvesters.

From urgent spare parts to custom built products, we're committed to providing the answers you need. When you deal with our expert sales & service teams, you'll get high quality innovative solutions, backed by an unrivalled product range, a huge internal knowledge base and rapid delivery service.

Our global network of world leading manufacturers across more than 20 countries, gives us access to the largest range of wear parts on the planet, with a full range of Ground Engaging Tools, Undercarriage Parts, Abrasion Resistant Steel, Buckets, Rippers, Forestry Tyre Tracks, Rubber Tracks & other custom made products.

As a one-stop wear parts shop with branches in Auckland & Westport we provide fast & free nationwide distribution. With our purpose built workshop & track shops, onsite field technicians, qualified engineers & trained parts specialists, we have your needs covered!

WHAT YOU GET WITH WEST-TRAK

One Stop Shop

Largest range of wear parts in New Zealand, for all makes & models of earth-moving machinery.

Expert knowledge

Trusted advice & real solutions that work, backed by 25 years of hands on experience in your industry.

Fast Response Times

Fast, efficient, unrivalled service to deliver you the right part, at the right price, on time, every time.

Design & Build

Innovative engineering design & custom fabrication skills to enhance your productivity & performance.

Guaranteed Quality

Highest quality product & workmanship in the market, with guaranteed form, fit & function.

Solid Backup Support

We come to you with nationwide, on-site sales & technical support for the best solutions every time.

FAST FACTS ABOUT US

25+ Years
Industry Experience

Nationwide
Sales, Service & Support

Branches
Auckland & Westport

30+
Employees

Parts
For over 3500 Models

90% of Orders
Dispatched in 24hrs

Free Freight
New Zealand wide

20,000+
Plans & Drawings

800 Tonnes
Of Undercarriage Parts

400 Tonnes
Of Ground Engaging Tools

300 Tonnes
Of Steel Plate & Profiles

80 Tonnes
Of Forestry Tyre Tracks

INDUSTRIES WE SERVE

MINING

Every hour of down time means an impact on productivity & profit. Our mining solutions will increase uptime and ensure better performance of your front line machines.

QUARRY

High wear & tear environments need the toughest wear steels. Armour-up and protect your assets with our high quality quarry wear parts, to increase productivity and reduced downtime.

FORESTRY

When you're miles away in the back country, your machines need to keep productive. Our forestry products & solutions will help you stick to the slopes & stay on track.

CIVIL CONSTRUCTION

While you're hard at work building infrastructure the economy relies on, we'll keep your machines moving with quality parts & fast delivery service you can rely on.

ENGINEERING

Fixing break downs fast & finding the right parts for your projects can be challenging. Our range of heavy engineering products & expertise will help you deliver on time.

OUR CAPABILITIES

Bucket Builds

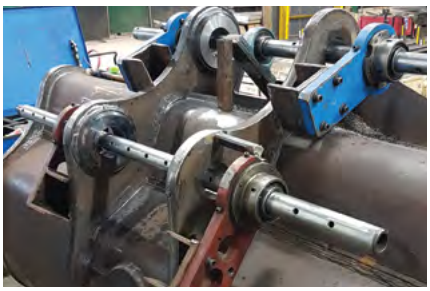
Get more bang for your Bucket and boost productivity with a stronger, more durable West-Trak Bucket on your Machine! We're the experts at building heavy duty Excavator & Loader Buckets that survive the toughest quarry & mining environments in the world.

CNC Profile Cutting

We provide the fastest steel plate processing lead times in the industry! 90% of our orders are dispatched within 24 hours! You'll get the highest quality gas & plasma cutting from our experienced plate processing engineers.

Drawing & Design

Our team of mechanical design engineers & CAD drawing experts use the latest Solidworks software to design customised wear parts to suit your needs. We can convert your hand drawn sketches or cardboard templates into 2D or 3D working drawings.



Machining & Lineboring

With our large machine shop and years of fitter turning experience, we offer all the tools & tolerances you need! Our engineers are master craftsmen, skilled in fitting, turning, welding, tool making lineboring and mechanical problem-solving.

Rolling & Pressing

Rely on our years of heavy engineering experience to supply the toughest & highest quality Steel Plate, rolled or pressed to your required shape. As direct importers, stockists & processors of Wear Steels, we can form the hard stuff for any application.

Track Group Bolt-ups

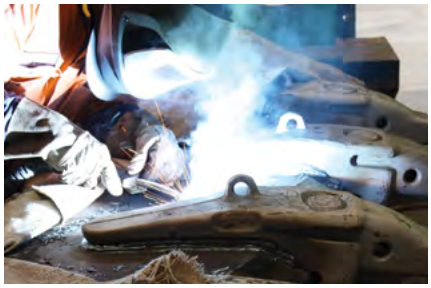
Stay on Track for longer with less hassle, less downtime! We make it easy by supplying Track Groups with your choice of Track Shoes already bolted on. You can roll off the old and roll on the new, to keep on tracking.

Track Wear Reporting

We'll help you stay on track and increase uptime of your Excavators & Dozers by monitoring & measuring the performance of your Undercarriage system. Don't get caught out with un-expected break downs and downtime.

Track Press & Rebuilds

Rebuilding is a great way to get more from your Track Chains & Track Shoes. Our 400 tonne Track Press can service upto D11 size chains for pin & bush turns. We also offer a Track Shoe relugging service.



Welding & Fabrication

We weld the toughest through hardened Wear Steels. Our specialized steel requires proper welding & heat treatment methods to survive the roughest quarry, mining & forestry environments.

NATIONWIDE DISTRIBUTION

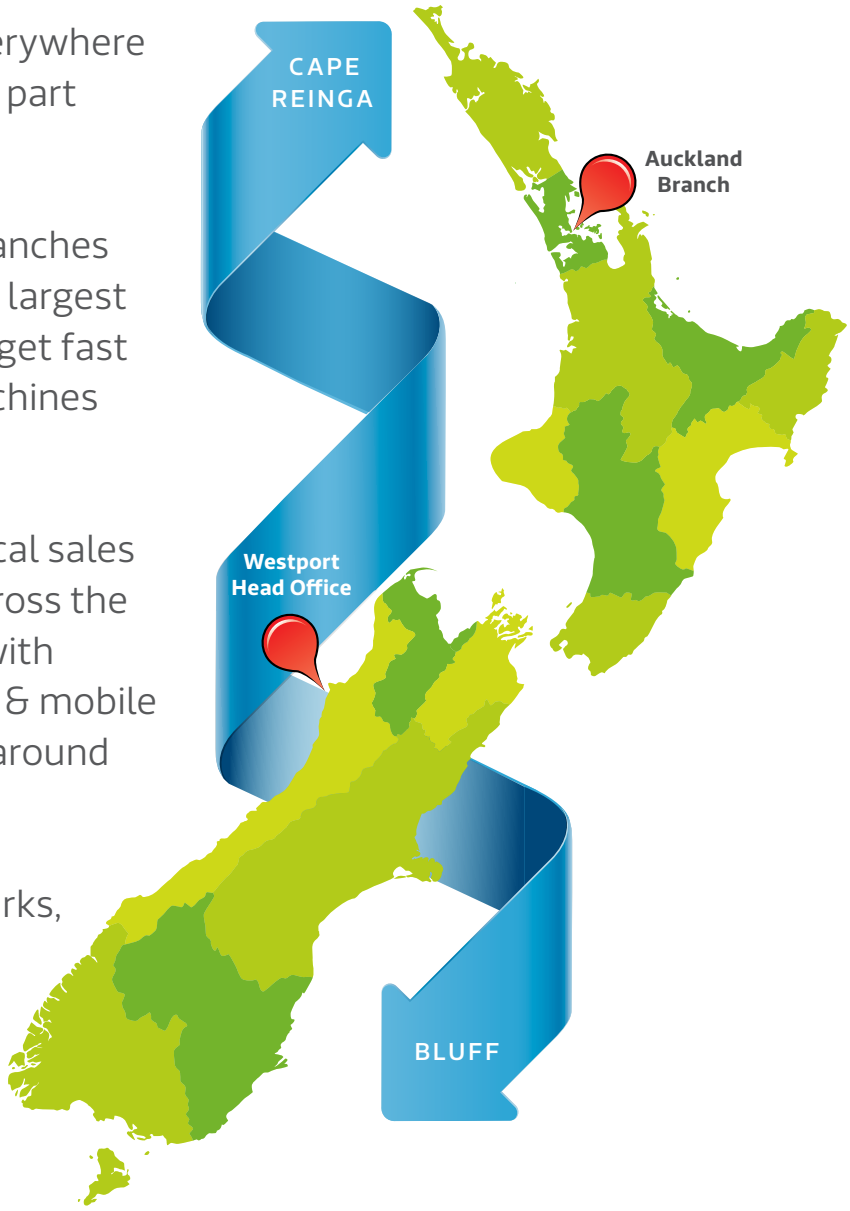
From Cape Reinga to Bluff & everywhere in between, we've got your wear part needs covered!

With nationwide distribution, branches in Auckland & Westport, and the largest range of wear parts in NZ, you'll get fast reliable service to keep your machines moving.

We come to you with our techincal sales & support staff working right across the country. All staff are equipped with tools for measuring parts onsite & mobile technology to aid with fast turnaround of parts.

You'll get trusted advice that works, backed by our expert engineers, helpful customer service & logistics teams who deliver unrivalled service & support.

Branches open 7am - 5pm, Monday - Friday



FREE DELIVERY

anywhere in New Zealand

PLUS you'll get a **FREE** bag of Partymix with every order!

95% of road freight items are dispatched within 24 hours!

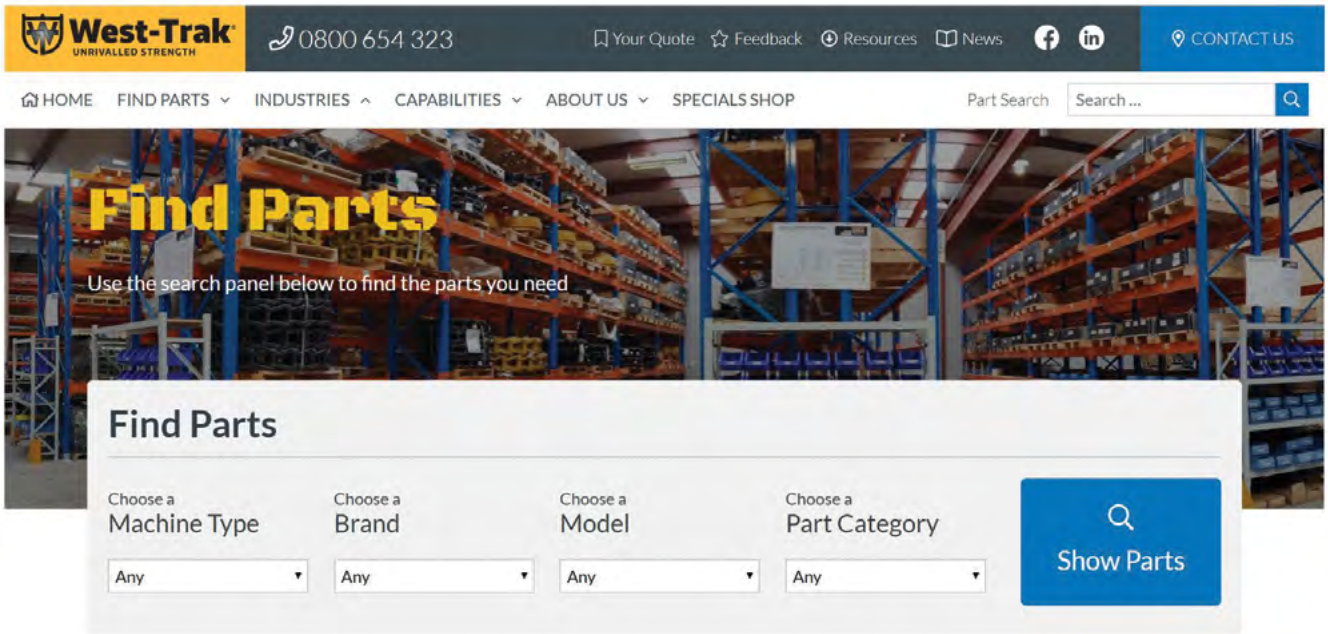
Order before 3 pm weekdays for overnight delivery to main centres!

ONLINE PARTS FINDER

You can browse our full range of parts on our website, with everything at your fingertips! Visit **www.west-trak.co.nz** to find what you need.

Our search & filtering functions make it super quick & easy to find what you're looking for, with a huge range of part numbers, images, measurements and technical information available to help you find the right part.

You can find parts by Machine Type, Machine Brand, Machine Model or Part Category. Plus you can build your own Quick Quote request and submit to us for pricing & availability.



Check out West-Trak online today! You'll learn more about us, find lots of helpful information, special deals, news & more.

SPECIALS SHOP

Grab a bargain from our online Specials Shop & save up to 70% off surplus & obsolete clearance stock at crazy prices.

RESOURCES

Check out our Resources section to find helpful product information, PDF downloads, videos and more.

NEWS

Keep an eye on the News page & stay up to date with our company news, the latest projects & promotions.

FEEDBACK

Help us to help you! Visit our feedback page and tell us how we could improve things to make it easier for you.

OUR PRODUCT RANGE

Buckets

Boost productivity with a stronger, more durable Bucket on your machine. Designed & built to suit your needs

"Guaranteed quality & full backup support"

Page **11**

Bucket & Blade Protection

Armour up your gear, to protect from wear & tear with our large range of wear protection products

"Pin-on and weld-on options"

Page **25**

Bucket Teeth & Adapters

Get the worlds most trusted, Hammerless Bucket Tooth system on your Excavator & Loader Buckets - MTG Starmet

"Never lose a bucket tooth again"

Page **57**

Cutting Edges & End Bits

Sharpen your performance with harder & tougher Cutting Edges on your Loaders, Excavators, Dozers, Scrapers & Graders

"Custom designs for all makes & models"

Page **115**

Forestry Tyre Tracks

Get a grip & pull more wood with CLARK Tyre Tracks on your Fowarders and Skidders

"Increase traction, maximise productivity"

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Ripper Products

Rip into it with tougher & stronger ripping components for Excavators and Dozers

"Tough ripping solutions that work"

Page **191**

Rubber Tracks & Pads

Large range of Rubber Tracks & Pads for mini Excavators, Compact Track Loaders & other rubber tracked machines

"Guaranteed quality, fitment & performance"

Page **231**

Steel Plate Processing

Expert processors & fabricators of the heaviest, hardest & toughest wear steels

"Largest range of wear steel in NZ"

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Undercarriage

Stay on track with our huge range of Undercarriage for all makes & models of Excavators, Dozers & Crawler Cranes

"12 month/2000 hr warranty on all parts"

Page **287**


ZAXIS
670

BUCKETS

Boost productivity with a stronger, more durable Bucket on your machine. Designed & built to suit your needs.

"Guaranteed quality & full backup support"

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VOLVO

Digging for a new Rock Bucket?

YOU'LL NEED A TOUGH, RELIABLE WEST-TRAK BUCKET TO GET THE JOB DONE

We're experts at designing & building high quality, heavy-duty Rock & Bulk Buckets that survive the toughest quarry & mining environments in the world.

Our Buckets are manufactured from the highest quality structural & abrasion resistant wear steels, providing unrivalled strength & durability.

Productivity & performance is a key part of our design process to ensure you get the best Bucket for your needs, with good penetration & fill factor, structural integrity, safe & reliable G.E.T systems and a solid wear protection package.

Our expertise in big Bucket engineering for more than 20 years, gives you the confidence we know what works best. You'll get proven, tried and trusted Bucket advice you can rely on.

On-going back-up support is part of the West-Trak Bucket solution. All replacement wear parts are readily available ex-stock, for fast delivery to keep your machine in action. Regular bucket assessments can be carried out onsite to ensure optimum performance and customer satisfaction.

Maximise your productivity today with a West-Trak Bucket on your Excavators and Loaders. Available for 30 - 200 tonne size machines.

DESIGN FEATURES & BENEFITS

Get more bang for your buck

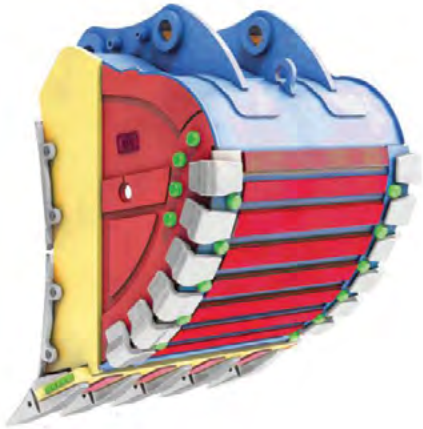
BOOST PRODUCTIVITY WITH A STRONGER, MORE DURABLE ROCK BUCKET ON THE BUSINESS END OF YOUR MACHINE

- **Built from High Tensile & Abrasion Resistant steels for maximum strength and wear life**
- **Improved design and performance benefits to enhance your machines productivity**
- **Fully Hammerless G.E.T wear protection system for ultimate safety and reliability**
- **Guaranteed quality and full back up support with replacement wear parts in stock**
- **Buckets are available to suit any brand of Excavator or Loader from 30-200 tonne size**

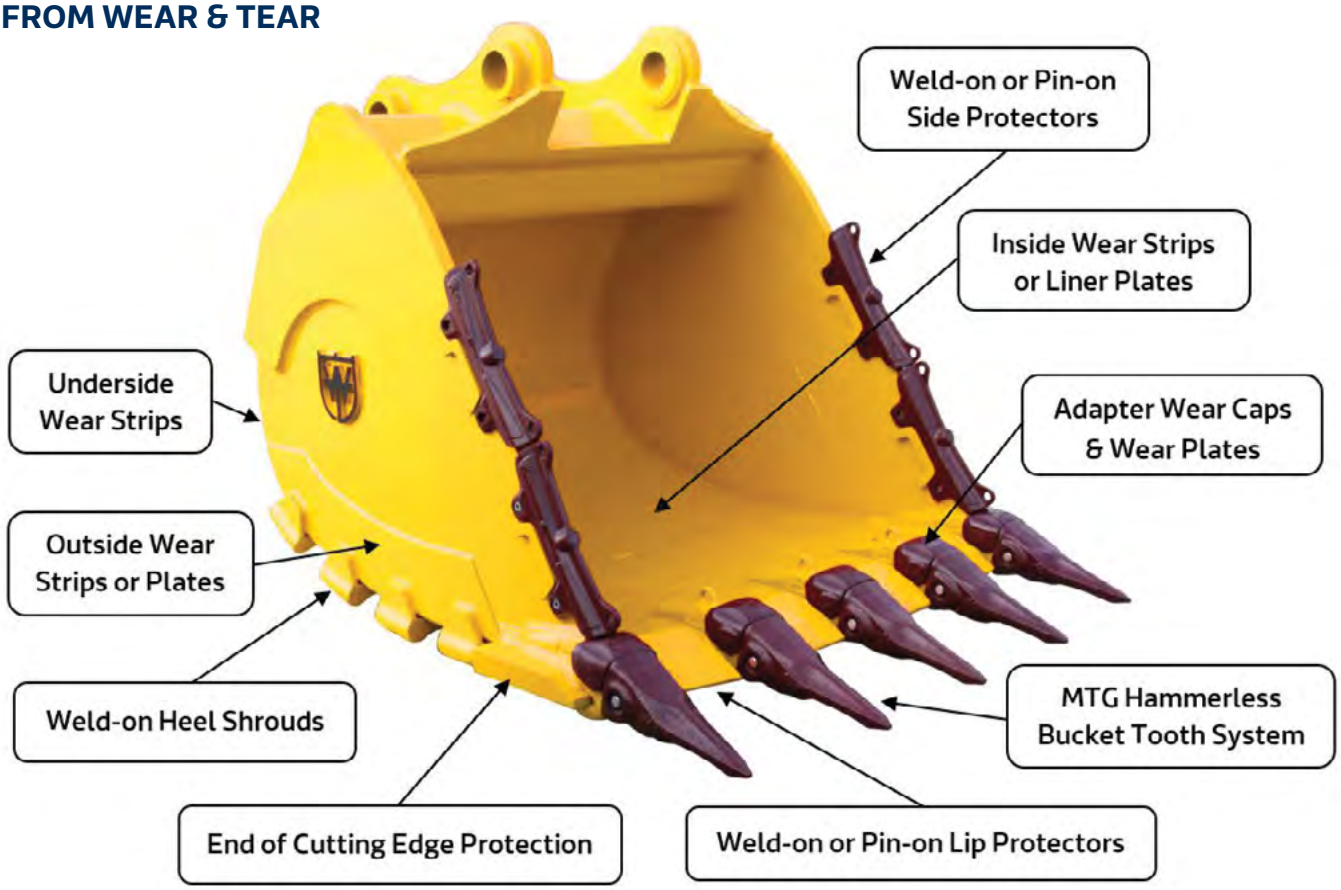
Medium or High Tensile, high strength steel is used on the top bridge, skin & lip areas

G360-G450 Abrasion Resistant wear steel is used on the bucket sides, lip & wear strips

G500 Abrasion Resistant wear steel is used for wear strips & wear protection plates



THE BUCKET WEAR PROTECTION PACKAGE IS FUNDAMENTAL FOR ACHIEVING LONG SERVICE LIFE & PROTECTING THE STRUCTURAL AREAS OF THE BUCKET FROM WEAR & TEAR



DESIGN FEATURES & BENEFITS

What makes a good Bucket?

ITS IMPORTANT TO KNOW THE KEY FEATURES & BENEFITS OF A GOOD BUCKET TO MAXIMISE YOUR MACHINE PRODUCTIVITY & BUCKET SERVICE LIFE

CAPACITY: Choose a bucket with the most capacity possible to suit your Truck size and digging application. You'll increase your extraction capacity with more material in every scoop, also reducing cycle times & fuel burn.

A stepped spade edge and using Lip & Side Protectors will also help to add extra capacity to your Bucket.

PENETRATION: You need the right shape cutting edge & correct tooth configuration, size & style to maximise your Buckets penetration.

A spade shape Cutting Edge with the centre teeth set forward, combined with the MTG hammerless & self-sharpening tooth system, will enhance your digging power significantly. A narrow bucket will also improve penetration.

DESIGN FEATURES & BENEFITS

DESIGN & QUALITY: A good bucket design has the right steel grades and thicknesses in the right areas for structural toughness & wear resistance.

All Bucket designs are FEA stress tested to eliminate any weak areas prior to production & ensure reliable performance. Weld preps, welding procedures & heat treatment are also important quality factors for achieving good structural strength and durability.

G.E.T & WEAR PACKAGE: Get a safe & reliable tooth system on your Bucket. The MTG Hammerless StarMet system guarantees no loss of teeth, fast & safe change overs and the longest wear rates.

A good Rock Bucket needs a full wear package inside & outside to protect it from wear & tear. Wear is the main cause of cracks and failure of the Bucket parts & structure, so it's important to keep your asset armoured up.

BACK UP & SUPPORT: You'll need a fast, reliable supplier for your replacement wear parts, who can supply from stock & provide trusted advice when things go wrong. West-Trak stand by what we sell & provide exceptional service & support to keep your machines moving.

All West-Trak Buckets have a 12 month/2000-hour structural warranty cover for your peace of mind. See our terms & conditions for more details.

Choose a West-Trak Bucket today & get these benefits!
Call 0800 654 323 to discuss your needs now

EXCAVATOR ROCK BUCKET GALLERY

A range of heavy-duty Rock Buckets are available for all makes & models of Excavators from 30-200 tonne size. (Note: images shown may not represent the final product design)

ZX490 Rock Bucket

PC850 Rock Bucket

ZX890 Rock Bucket

EC460 Rock Bucket

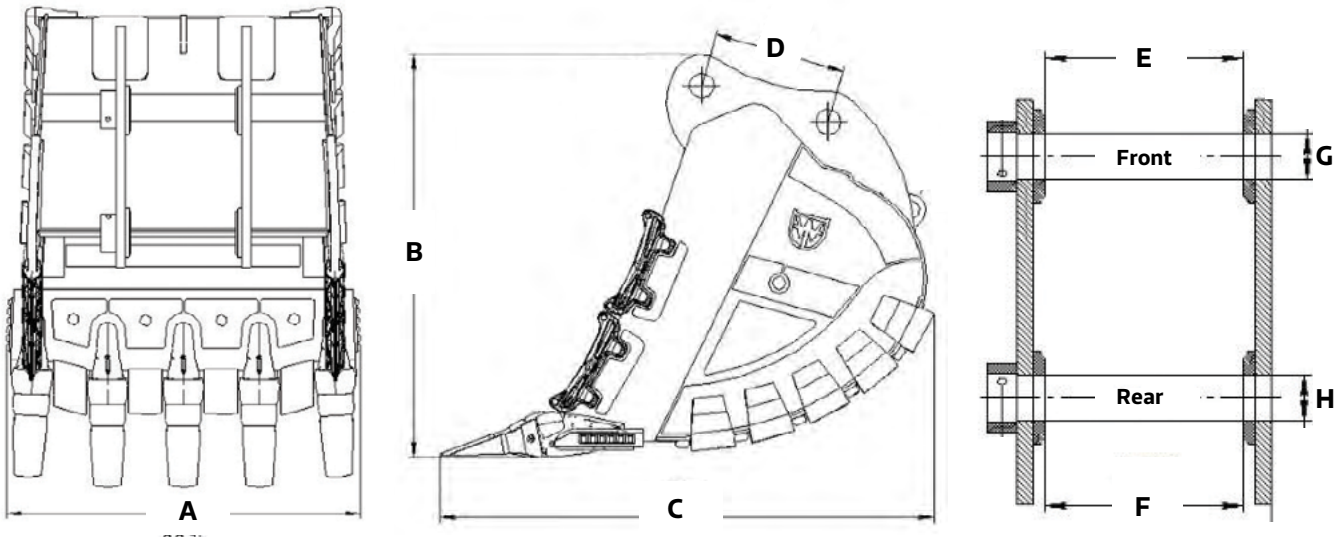
SK500 Rock Bucket

PC350 Rock Bucket

EXCAVATOR ROCK BUCKET SIZES

Excavator Size		24-30 tonne	33-40 tonne	45-55 tonne	60-75 tonne	80-90 tonne
Bucket Capacity (heaped)		1.4m3	1.7m3	2.1m3	3.5m3	4.3m3
Bucket Width	A	1310mm	1470mm	1590mm	2050mm	2150mm
Bucket Height	B	1533mm	1637mm	1755mm	2059mm	2223mm
Bucket Depth	C	1580mm	1958mm	2156mm	2471mm	2600mm
Pin Centres	D	475mm	585mm	575mm	700mm	700mm
Dipper Width (Front)	E	410mm	418mm	472mm	525mm	555mm
Power Link Width (Rear)	F	410mm	418mm	472mm	525mm	555mm
Front Pin Diameter	G	90mm	100mm	110mm	130mm	140mm
Rear Pin Diameter	H	90mm	100mm	110mm	120mm	130mm
Cutting Edge Thickness		45mm	50mm	60mm	80mm	80mm
Cutting Edge Shape		Straight	Single Step	Single Step	Single Step	Single Step
Bushes Fitted?		No	Yes	Yes	Yes	Yes
Mounting Pins Fitted?		Yes (2x Mild Steel)	Yes (2x Mild Steel)	Yes (2x Mild Steel)	No	No
Heel Shrouds Fitted?		Yes	Yes	Yes	Yes	Yes
Wear Strips Inside?		Yes	Yes	Yes	Yes	Yes
Wear Strips Outside?		Yes	Yes	Yes	Yes	Yes
Bucket Teeth (MTG Starmet)		MA40 (5x)	MA50 (5x)	MA60 (5x)	MA120 (5x)	MA120 (5x)
Side Protectors (MTG Pin on)		4MY30U480 (1x per side)	4MY40U480 (1x per side)	4MY40U480 (2x per side)	4MY50U600 (2x per side)	4MY50U600 (2x per side)
Lip Protectors		Weld on	Weld on	Weld on	MTG Pin on or Weld on	MTG Pin on or Weld on
Bucket Weight (With G.E.T on)		1600kgs	2200kgs	2800kgs	4600kgs	5400kgs

Buckets can be modified to fit any machine, make or model. Larger Bucket sizes are available on request.



EXCAVATOR BULK BUCKET GALLERY

A range of Bulk Handling Buckets are available for all makes & models of excavators from 30-90 tonne size. Options with Teeth or Bolt-on Cutting edges fitted.
(Note: images shown may not represent the final product design)

ZX490 Bulk Bucket

SH350 Bulk Bucket

PC450 Bulk Bucket

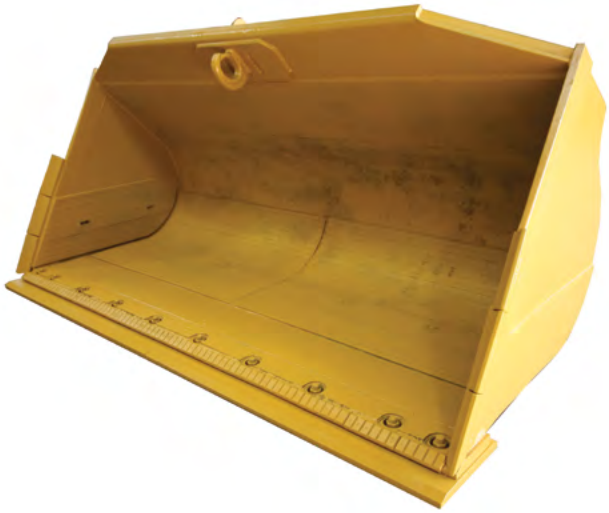
ZX520 Bulk Bucket

ZX870 Bulk Bucket

EC380 Bulk Bucket

WHEEL LOADER BUCKET GALLERY

A range of Standard & heavy duty Rock Buckets are available for all makes & models of Wheel Loaders. Options with Teeth or Bolt-on Cutting Edges fitted.
(Note: images shown may not represent the final product design)



WA470 Standard Bucket

WA600 Rock Bucket

WA500 Rock Bucket

ZW550 Rock Bucket

992 Rock Bucket

QUALITY ASSURANCE

Bucket quality & structural strength depends not only on the materials and components used, but also on the correct bucket manufacturing processes. The through hardened & high tensile steels used for bucket manufacturing are very sensitive to the welding process. The key points of a proper welding process includes:

- **Proper preheating & welding temperature controls**
- **Correct post heating to relieve residual stresses in the steel & welds**
- **Slow, controlled cooling techniques**
- **Proper weld preps on the joining areas**
- **Correct welding wire & weld application techniques**
- **Correct weld finishing in high stress areas**

Proper welding temperature control is very important for retention of wear-resisting properties of the steel and strength of the welds. The main reasons that cause loss of wear-resistant properties in the steel & cracks in the weld joints, propagating into the welded material include;

- **Welding of cold, not pre-heated steel**
- **Fast cooling of the steel in the weld joint area**
- **Violation of recommended welding procedures**
- **Incorrect weld preps on the joining areas**
- **Incorrect or no weld toe finishing**

To avoid such situations when welding high tensile, wear-resistant steels, it is necessary to observe the following rules:

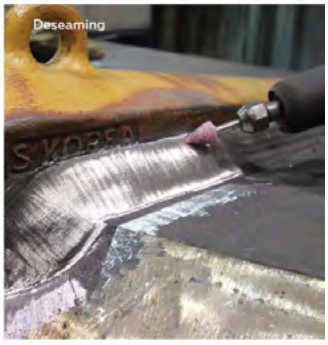
- **Pre-heat welding area to optimal work temperatures, considering the steel grade and thickness (check the temperature with a tempilstik or pyrometer)**
- **Maintain the recommended optimum temperature in the weld pool when welding different material integrated in the bucket**
- **Arrange enclosed warm zone in the welding space to avoid draughts and low ambient air temperatures causing shock cooling of metal in the weld joint area**
- **Use of thick welding blankets to allow slow cooling after welding**

The steel welding process is very arduous, because it is difficult to control the welding temperature. It is necessary to heat the steel, to control the process, and to check the result practically at the same time. All welders should be qualified and have proper certificates permitting them to work with the different steel grades.


Temperature control with a pyrometer


Temperature control with a tempilstiks


Stress relieving in weld joints with a pneumatic gun


Deseaming

Relieving residual stresses in the metal
The bucket is a complex welded structure made from materials having different thickness, different chemical composition, and physical properties. The more welding operations that are performed, the more stressed the finished product is and the higher probability of cracking in the metal and weld joints. Below are some important tips to ensure.

- **Correct welding sequence, direction and termination of weld joints to minimize residual stresses**
- **Mandatory relieving of residual stresses in the weld joints and in the weld adjacent zones through heat treatment after welding, machining of the weld toe, peening with a pneumatic needle gun, and shot blasting**

Welding materials and equipment
The quality of weld joints depends largely on advanced equipment and welding materials used. Welding shall be performed with a high quality wire (e.g. ESAB) in an atmosphere of shielding gas (argon 82% and carbon dioxide 18%). Welding performed with such equipment and using properly selected welding materials and conditions will significantly improve the weld joint quality and benefits as below;

- **Better filling of the weld**
- **Lower porosity and non-metallic inclusions**
- **Provision of high surface tension and minimum stresses in the weld**
- **Higher stability of the welding process**
- **No crater forming on completion of the weld**
- **Smaller heat-affected zone so there is little workpiece deformation, if any at all**

Warranty
All buckets are covered by a 12 month/2000 hour structural warranty - refer to our manufactured product terms and conditions for more details.


CHEM
2S

BUCKET & BLADE PROTECTION

Armour up your gear, to protect from wear & tear with our large range of wear protection products.

“Pin-on and weld-on options”

- WEAR PROTECTION RANGE 26
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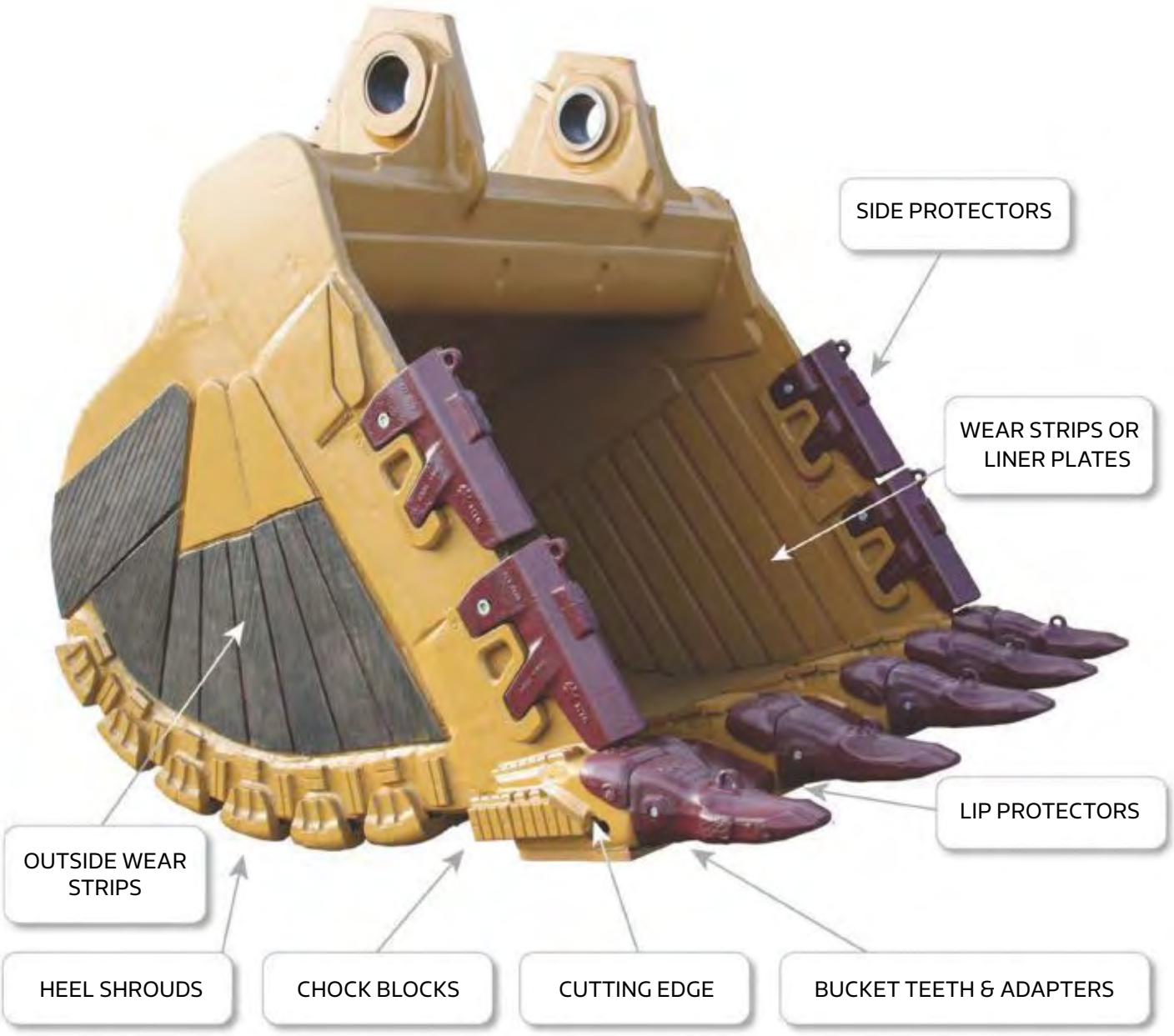
G.E.T better Bucket wear performance



WEAR PROTECTION RANGE

A LARGE RANGE OF HIGH QUALITY, WEAR PROTECTION PRODUCTS ARE AVAILABLE TO PROTECT YOUR BUCKETS & BLADES FROM WEARING AWAY

HEEL SHROUDS

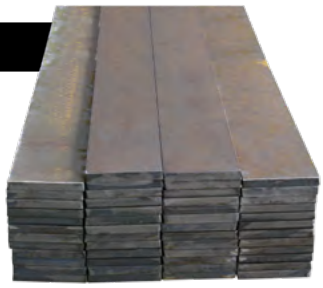
A range of weld-on and bolt-on Heel Shrouds available for 10-400 tonne size Buckets

LIP PROTECTORS

Weld-on and pin-on Lip Protectors available for 10-400 tonne size Buckets

WEAR STRIPS

Profile cut wear strips and wear plates available for Bucket and Blade protection



CHOCK BLOCKS

Hardened Chock Block wear strips available in Rectangle and Knife edge shapes

SIDE PROTECTORS

Weld-on and pin-on Side Protectors available for 10-400 tonne size Buckets

BUCKET & BLADE LINERS

Rolled G450 or chromium carbide liner plates available to suit any size Bucket or Blade

HEEL SHROUDS

WELD-ON HEEL SHROUDS

PROTECT YOUR BUCKETS WITH THESE WELD-ON HEEL SHROUDS. AVAILABLE FOR ALL TYPES OF EXCAVATOR BUCKETS, UP TO 100 TONNE SIZE

Fig.1

Fig.2

Fig.3

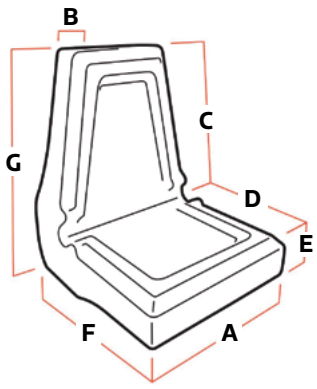
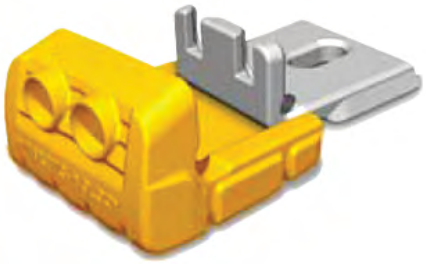


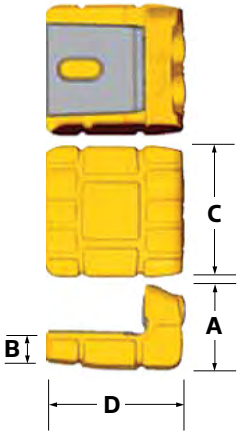
Fig	Part No	A	B	C	D	E	F	G	Machine Size	Kg
1	ES6697-4	190	18	65	140	30	178	102	10-20 Tonne	10
2	MM170BHS	165	25	77	145	43	185	143	25-60 Tonne	12
3	BHS150	150	40	150	125	40	185	210	60-120 Tonne	16

All measurements in millimetres

BOLT-ON HEEL SHROUDS

GET FASTER CHANGE-OVER TIMES AND REDUCE DOWNTIME WITH THESE BOLT-ON HEEL SHROUDS. AVAILABLE FOR LARGE EXCAVATOR BUCKETS UP TO 400 TONNE SIZE





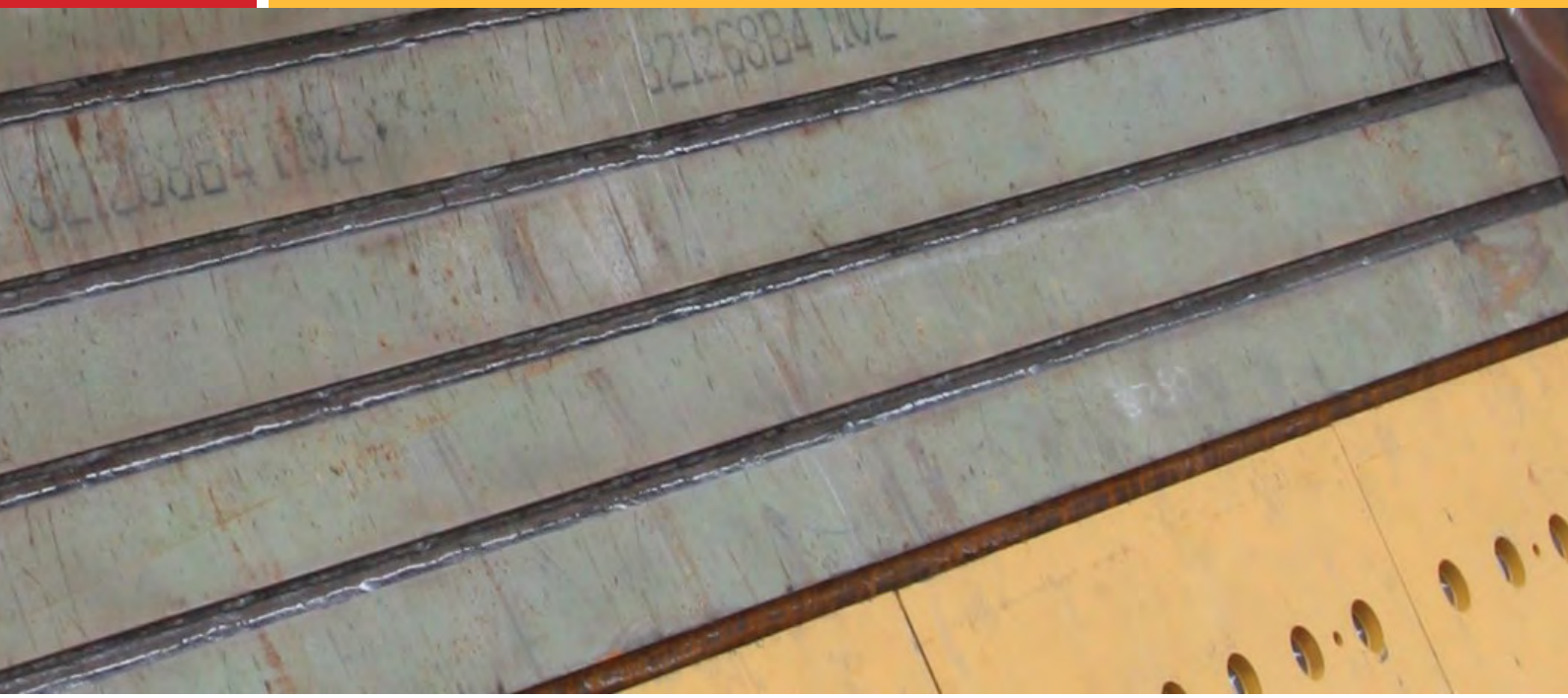
Part No	A	B	C	D	Machine Size	Kg
F89 HSQR	233	89	260	325	200-400 Tonne	62

All measurements in millimetres

ASSEMBLY INSTRUCTIONS

1. Tack the base plates onto the bucket at even spaces
2. Pre heat and fully weld base plates. Only weld the areas indicated
3. Insert the bolts and slide the heel shrouds on
4. Insert washers and tighten nuts to correct torque setting
5. Insert rubber caps
6. Ready to go

WEAR STRIPS



Less wear & tear

ARMOUR-UP YOUR BUCKETS & BLADES WITH PROFILE CUT WEAR STRIPS

- Wear Strips can be used inside and outside of Excavator & Loader buckets and on Dozer Blades
- Available in 450HB abrasion resistant steel or chromium carbide overlay plate. Profile cut to any length or width
- Thickness range available from 6mm - 50mm

MTG PROMET SIDE PROTECTORS

MTG PROMET SIDE PROTECTORS

Protect your Buckets
& increase capacity

GET THESE HEAVY DUTY, MTG HAMMERLESS SIDE PROTECTORS ON YOUR BUCKETS TO INCREASE CAPACITY, WEAR LIFE AND PRODUCTIVITY

- **GUARANTEED SAFETY**
  No more bang in pins with the MTG hammerless twist pin system
- **LONGER WEAR LIFE**
  Reversible fitment for the longest possible wear life
- **NO MORE BROKEN PROTECTORS**
  Heavy duty design for extra strength and impact resistance
- **REDUCED DOWNTIME**
  Faster on site change-overs with the pin-on design
- **INCREASED CAPACITY**
  Get more material in your bucket and maximise production

MTG is the world's most trusted G.E.T system

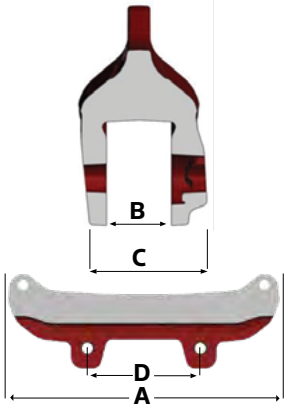
Get a fully hammerless wear package on your bucket today!

MTG SYSTEMS PROMET

MTG PROMET SIDE PROTECTORS

A RANGE OF MTG PROMET PROTECTORS ARE AVAILABLE TO SUIT CONSTRUCTION SIZE EXCAVATOR AND LOADER BUCKETS WITH 30-50MM SIDE WALL THICKNESS

Side Protector



Weld on Base

Pin

Retainer

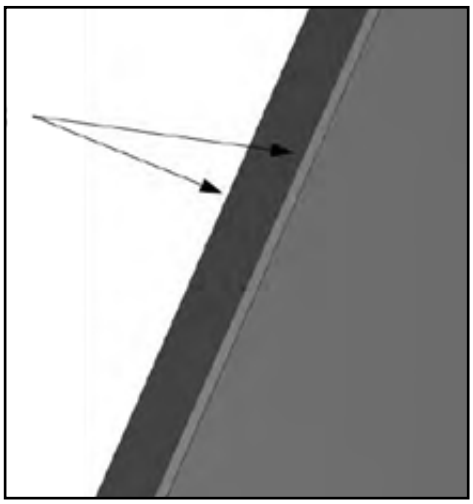
Tool

Part No	Item	A	B	C	D	E	F	G	Kg
4MY30U480	Side Protector	480	34	85	250	-	-	-	15
4MY40U480	Side Protector	480	42	85	250	-	-	-	15
4MY50U600	Side Protector	600	53	112	250	-	-	-	30
2MY30/40UP	Pin	-	-	-	-	78	24	-	-
2MY50/60UP	Pin	-	-	-	-	103	24	-	-
2MY30/60UR	Retainer	-	-	-	-	-	-	46	-
1MY30/60UWB	Weld on Base	-	-	-	-	-	-	-	-
3MTWISTM2	Twist Tool	-	-	-	-	-	-	-	-

All measurements in millimetres

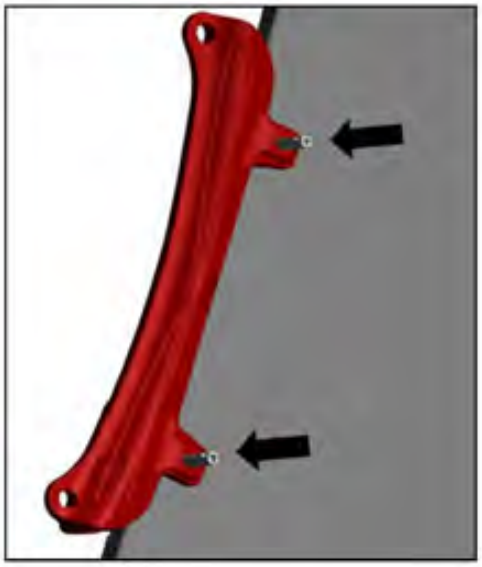
MTG PROMET SIDE PROTECTORS

FITTING INSTRUCTIONS FOR CONSTRUCTION SIZE MTG PROMET PROTECTORS



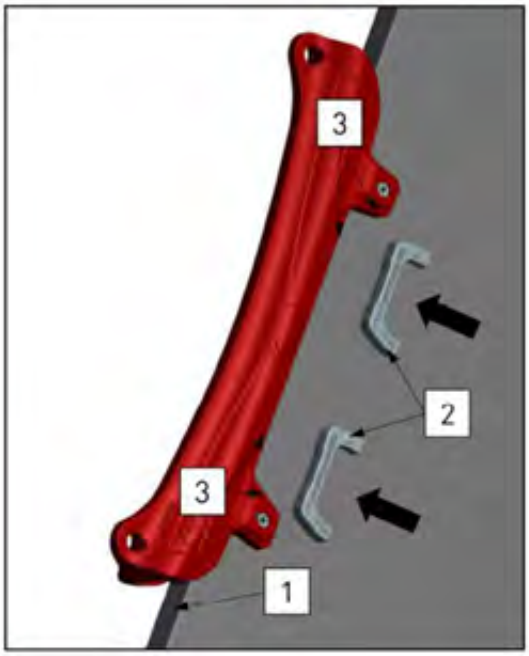
1.) Grind a 3mm x 3mm chamfer on both corners of the Bucket side, along the whole length of Protector

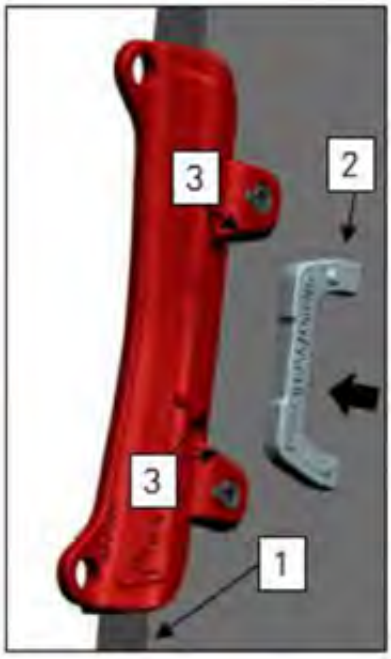
2.) Place Protector on the Bucket side wall, 5-10mm above the adapter wear cap. Ensure Protector is hard against the front of Bucket side (1) and mark the hole centers. Drill holes at 28mm diameter +/- 1mm



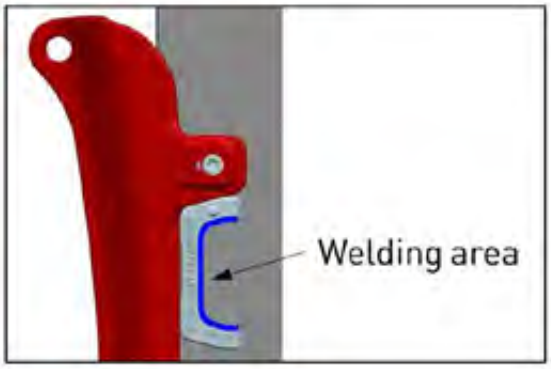
3.) After drilling the holes, insert both pins and turn clockwise until they stop

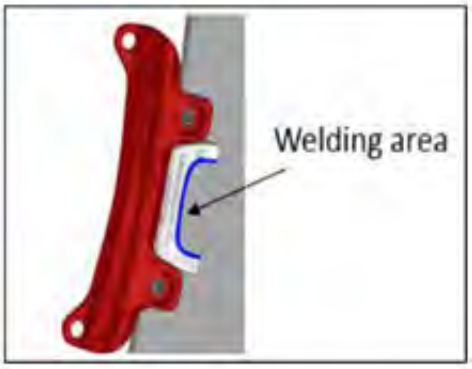
FITTING INSTRUCTIONS FOR CONSTRUCTION SIZE MTG PROMET PROTECTORS CONT...





4.) Pre-heat the Bucket side to the recommended temperatures and position the weld-on bases (2), until they come into contact with the legs of the Protector (3). Make several tack welds on the back of each base





5.) Proceed with the welding of each weld-on base at the designated welding area

6.) After completing the welding process, remove the Protector and place the sponge retainers into the internal recess. The hard side of the retainer must be facing the outside edge of Protector

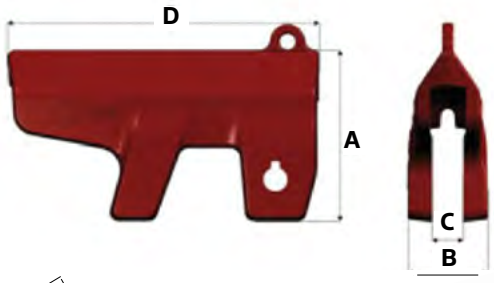
7.) Fit Protector onto the Bucket side, insert both pins and turn clockwise until they stop

Ready to go!

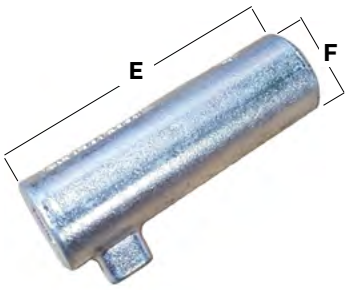
MTG PROMET SIDE PROTECTORS - MINING

HEAVY DUTY, MTG PIN-ON SIDE PROTECTORS FOR LARGE MINING BUCKETS, WITH MAXIMUM WEAR PROTECTION AND SAFETY WITH HAMMERLESS PIN TECHNOLOGY

Side Protector



Weld on Base



Pin

Retainer

Tool

Part No	Item	A	B	C	D	E	F	G	Kg
4MXB60X626	Side Protector	340	159	61	626	-	-	-	100
4MY90U626X	Side Protector	340	189	91	626	-	-	-	130
2MXB60/70PLX	Pin	-	-	-	-	147	44	-	-
2MY90UPX	Pin	-	-	-	-	177	44	-	-
2MY90/140URX	Retainer	-	-	-	-	-	-	80	-
1MX90WBL	Weld on Base	-	-	-	-	-	-	-	-
3MTWISTX2	Twist Tool								

All measurements in millimetres

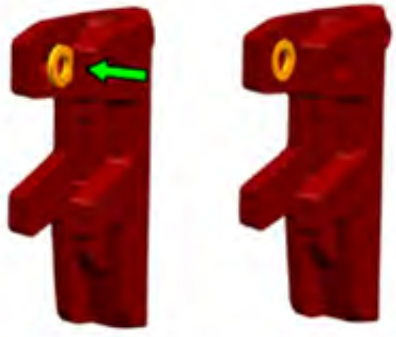
FITTING INSTRUCTIONS FOR MINING TYPE MTG PROMET PROTECTORS

1.) Place the Protector on the Bucket side wall, 5-10 mm above the adapter wear cap. Ensure Protector is hard against the front of Bucket side and mark the hole center

2.) Remove Protector and drill the hole at 50mm diameter +/- 1mm. Fit Protector, insert the pin and turn clockwise

3.) Place the weld-on base into position, ensuring contact at the areas shown. Pre heat Bucket side and tack base plate in place. Repeat on other side.

4.) Remove Protector and fully weld the base plates on both sides, only welding at the areas shown



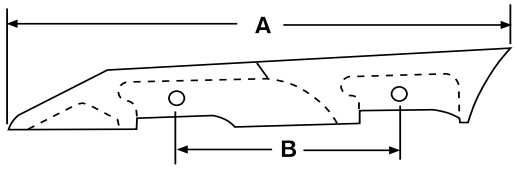
5.) Fit the sponge retainers inside the Protectors. The hard side of the retainer must be facing the outside edge of Protector. Fit onto Bucket, insert pin and turn clockwise until it stops. Ready to go!

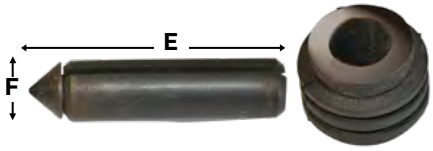
HENSLEY STYLE SIDE PROTECTORS

INCREASE YOUR BUCKET CAPACITY AND REDUCE WEAR WITH THESE PIN-ON SIDE PROTECTORS. AVAILABLE TO SUIT CONSTRUCTION SIZE EXCAVATOR & LOADER BUCKETS

Protector

Weld-on Mount





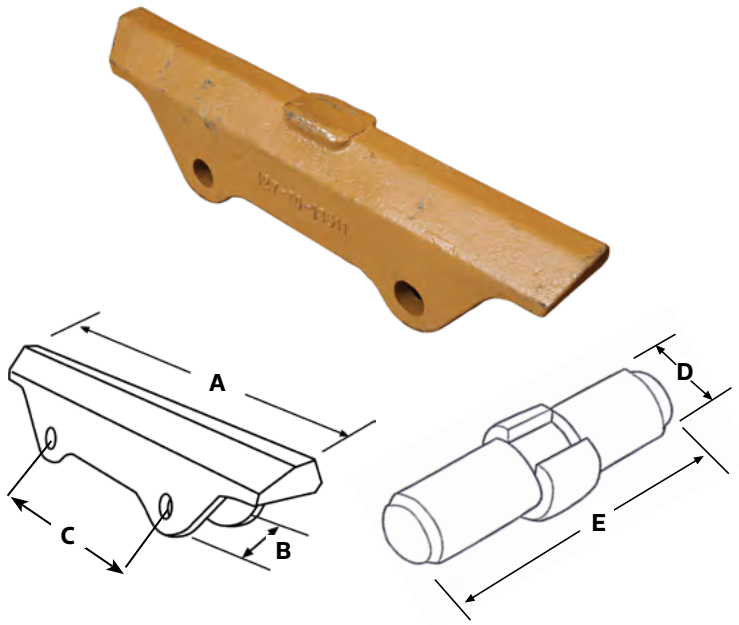
Pin & Retainer

Part No	Item	A	B	C	D	E	F	Kg
HENVS450	Protector	765	345	-	-	-	-	20
HENVS500	Protector	840	410	-	-	-	-	32
HENVSM150WN	Mount	-	-	87	44	-	-	6
HENVSM200WN	Mount	-	-	87	54	-	-	6
HENVSP2-SL	Pin	-	-	-	-	78	20	-
HENVSP3-SL	Pin	-	-	-	-	103	20	-
HENVSR3-SL	Retainer	-	-	-	-	-	-	-

All measurements in millimetres

KOMATSU STYLE SIDE PROTECTORS

PIN-ON KOMATSU STYLE SIDE PROTECTORS FOR LARGER EXCAVATOR BUCKETS & CAN ALSO BE USED ON DOZER BLADE SIDES AS WEAR PROTECTION

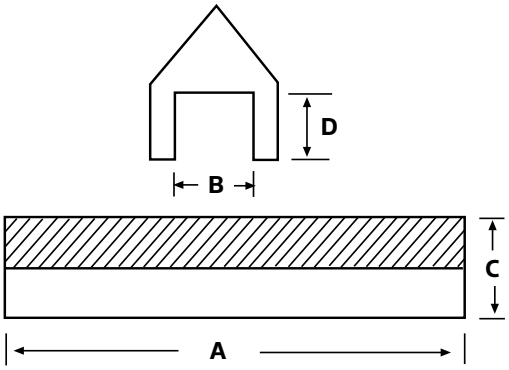


Part No	Item	A	B	C	D	E	Kg
427-70-13611	Protector	655	50	300	-	-	30
195-78-71360	Pin Assembly	-	-	-	30	112	-

All measurements in millimetres

SLS SIDE PROTECTORS

A LIGHT-WEIGHT, WELD-ON SIDE PROTECTOR FOR LOW WEAR APPLICATIONS. MULTIPLE PROTECTORS CAN BE USED UP THE BUCKET SIDE. HALF ARROW SHAPED FOR GOOD PENETRATION



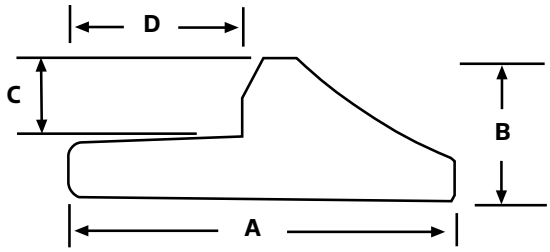
Part No	A	B	C	D	Kg
SLS20	300	21	47	25	2.1
SLS25	300	26	52	27	2.7
SLS32	300	33	70	37	4
SLS40	300	41	80	42	5.5

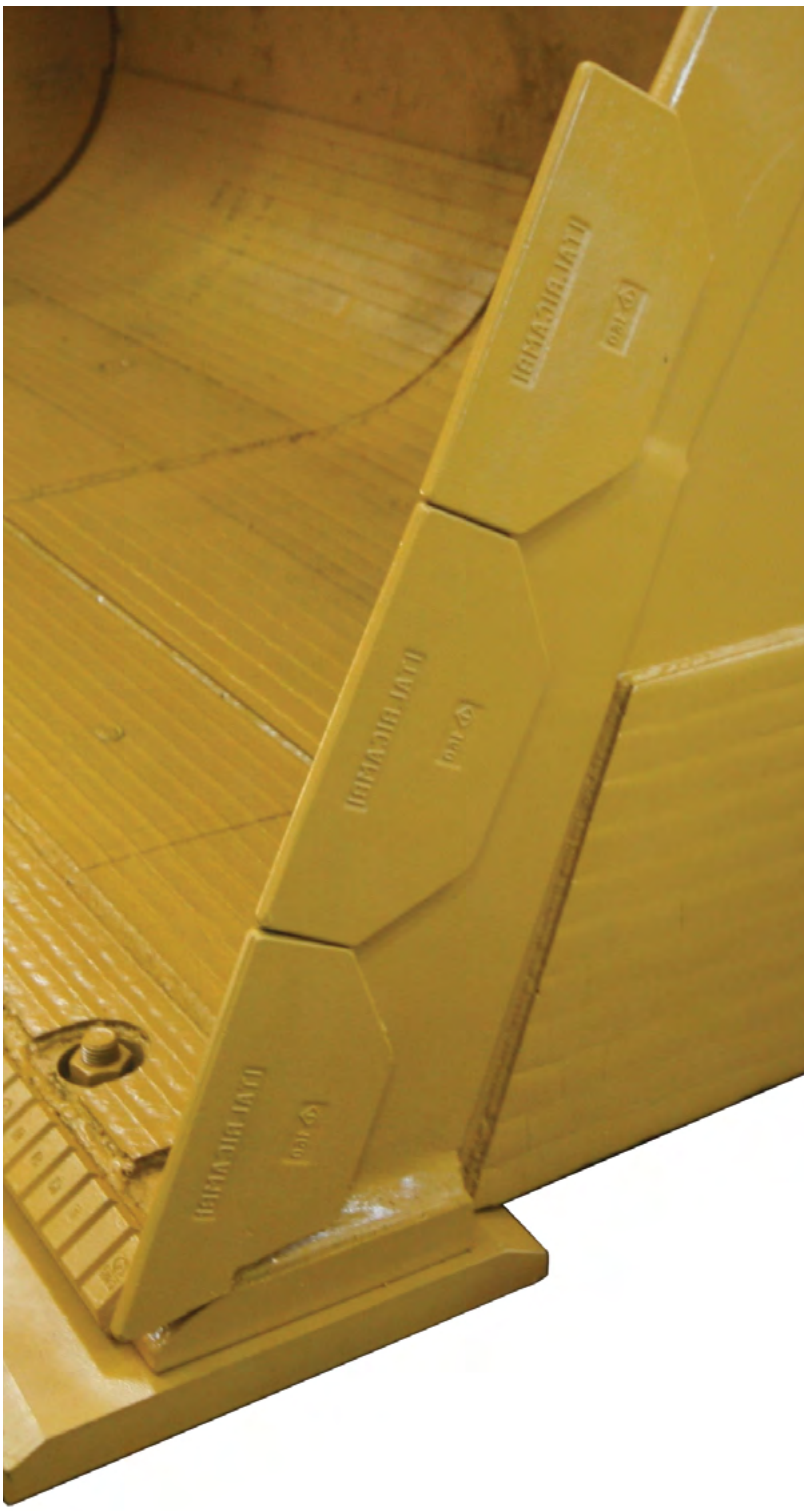
All measurements in millimetres

HALF ARROW SIDE PROTECTORS

HALF ARROW SHAPE, WELD-ON SIDE PROTECTORS FOR EXCAVATOR & LOADER BUCKETS

- Multiple Protectors can be used up the Bucket sides
- Half arrow shaped for good penetration
- Increased Bucket capacity
- Can also be used for lip protectors between bucket teeth



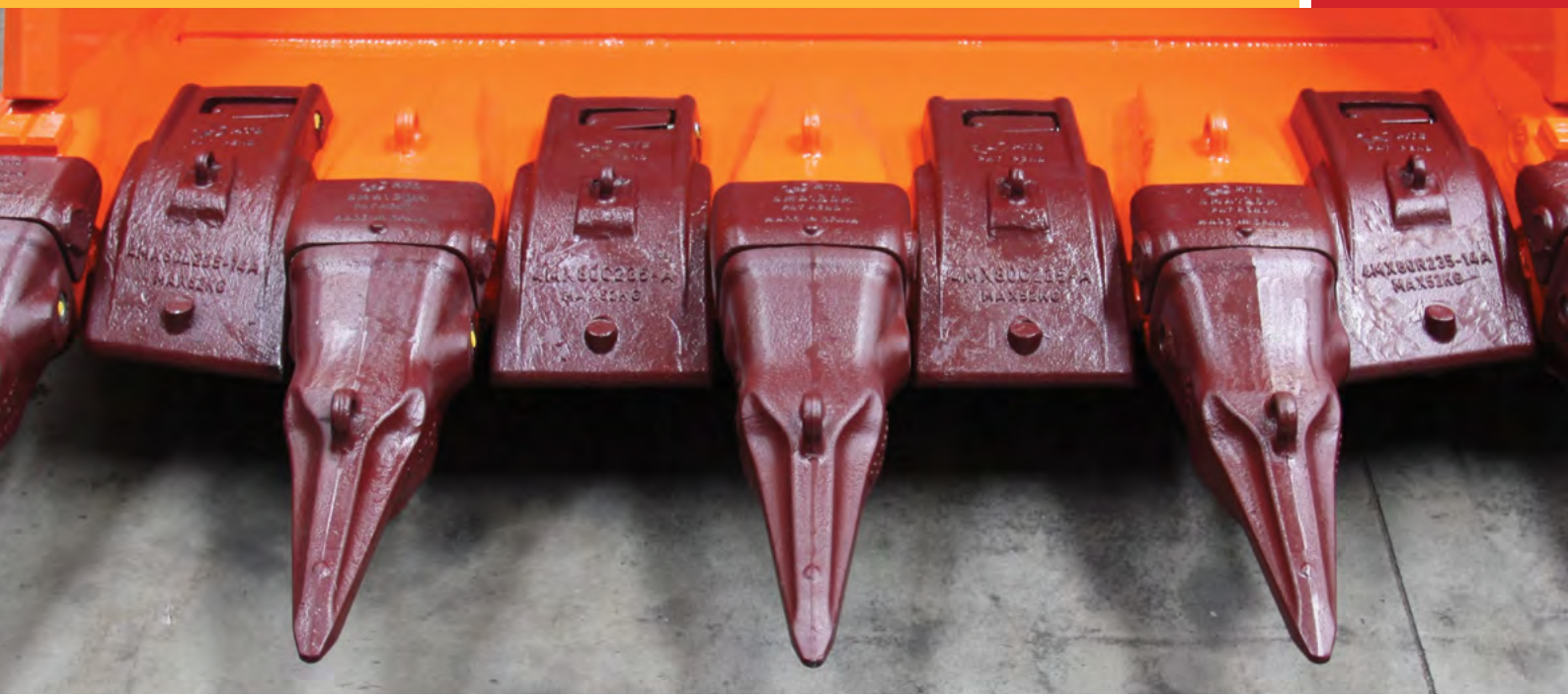


Part No	A	B	C	D	Length	Kg
6530103	85	28	15	35	150	1.4
6530153	130	44	25	60	265	6
6530173	160	54	30	75	300	10

All measurements in millimetres

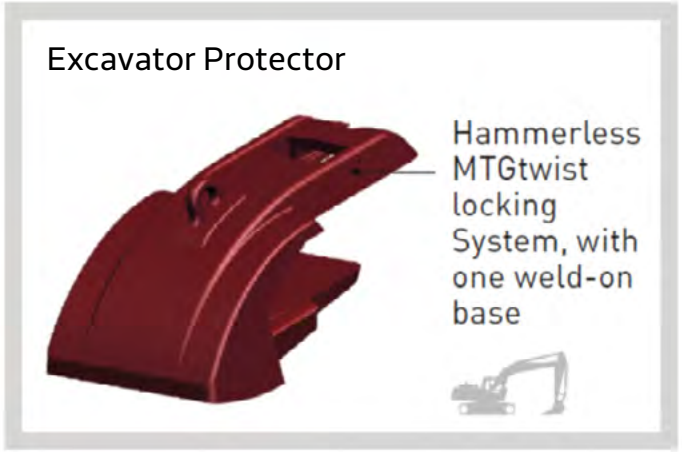
MTG PROMET2 LIP PROTECTORS

MTG PROMET2 LIP PROTECTORS



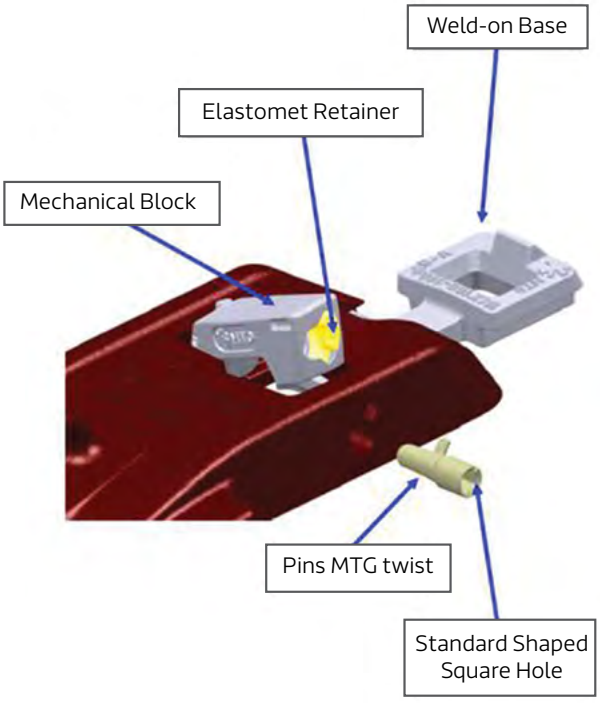
MAXIMISE YOUR BUCKET EDGE PROTECTION WITH THE MOST RELIABLE AND LONGEST LASTING PIN-ON MTG LIP PROTECTORS. AVAILABLE FOR LARGE EXCAVATOR & LOADER BUCKETS UP TO 400 TONNE SIZE

- **Hammerless pin technology for the best retention and faster, safer change-overs**
- **The design of ProMet Lip Protectors have been optimized for use on Excavators or Loaders and offer up to 30% more wear material compared to the equivalent model of our competitors**
- **Lip Protectors reduce the exposure of the bucket edge to impacts and abrasions, increasing the useful life of the bucket**
- **The locking system only requires one weld-on base for each Protector, making installation quick and easy**



MTG SYSTEMS PROMET

MGT PROMET2 LIP PROTECTORS



FEATURES & BENEFITS

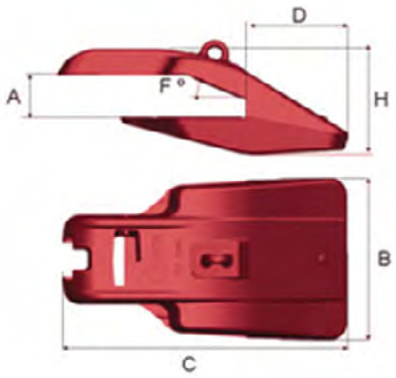
- Easy installation
- Faster and safer change-overs
- Reduced machine downtime
- Extended Bucket life
- Increased Bucket capacity
- Hammerless twist pin technology

Lip Size	70-90mm	100-140mm
Item	**Part No**	**Part No**
Weld on Base	1MX70/90WB-A	1MX100/140WB-A
Mechanical Block	1MX70/90MB-A	1MX100/140MB-A
Pin & Retainer	2MX70/90PR-A	2MX100/140PR-A
Twist Tool	3MTWISTM2	3MTWISTX2

All measurements in millimetres

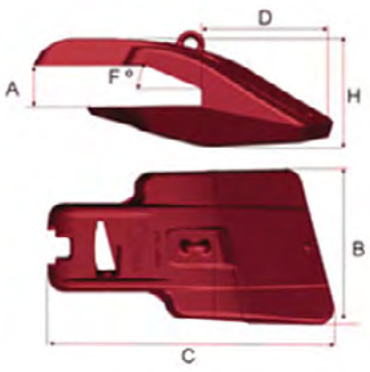
MTG PROMET2 LIP PROTECTORS

CENTRE (CTR)



LEFT HAND (LH)

RIGHT HAND (RH)

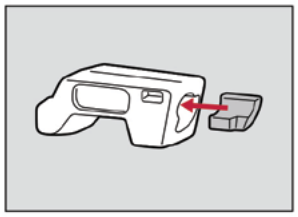


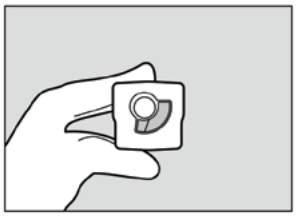
Lip Size	Part No.	Type	A	B	C	D	H	F	KG
70mm	4MXL70C450-A	CTR	72	450	498	151	198	30	99
	4MXL70L450-10A	LH	72	450	498	151	198	30	99
	4MXL70R450-10A	RH	72	450	498	151	198	30	99
80mm	4MX80C235-A	CTR	82	235	484	120	177	30	46
	4MX80L235-14A	LH	82	235	484	120	177	30	46
	4MX80R235-14A	RH	82	235	484	120	177	30	46
	4MX80C300-A	CTR	82	300	484	120	177	30	53
	4MX80L300-14A	LH	82	300	484	120	177	30	53
	4MX80R300-14A	RH	82	300	484	120	177	30	53
90mm	4MX90C320-A	CTR	92	320	494	125	188	30	58
	4MX90L320-14A	LH	92	320	494	125	188	30	58
	4MX90R320-14A	RH	92	320	494	125	188	30	58
	4MX90L240-14A	LH	92	240	494	125	188	30	49
	4MX90R240-14A	RH	92	240	494	125	188	30	49
100mm	4MX100C290-A	CTR	102	290	568	135	222	30	85
	4MX100L290-15A	LH	102	290	568	135	222	30	85
	4MX100R290-15A	RH	102	290	568	135	222	30	85
	4MX100C410-A	CTR	102	410	568	135	222	30	104
	4MX100L410-15A	LH	102	410	568	135	222	30	104
	4MX100R410-15A	RH	102	410	568	135	222	30	104
120mm	4MX120C440-A	CTR	122	440	618	157	251	30	133
	4MX120L410-15A	LH	122	410	618	157	251	30	128
	4MX120R410-15A	RH	122	410	618	157	251	30	128
	4MX120L440-11A	LH	122	440	618	157	251	30	133
	4MX120R440-11A	RH	122	440	618	157	251	30	133
140mm	4MX140C465-A	CTR	142	465	701	175	270	30	181
	4MX140L465-11A	LH	142	465	701	175	270	30	181
	4MX140R465-11A	RH	142	465	701	175	270	30	181

All measurements in millimetres

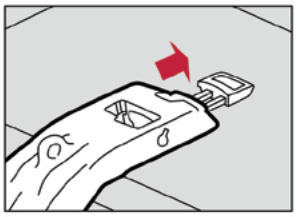
MTG PROMET2 LIP PROTECTORS

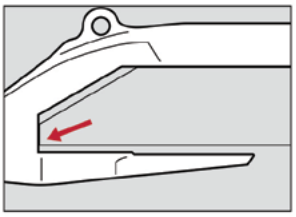
FITTING INSTRUCTIONS FOR MTG PROMET2 LIP PROTECTORS



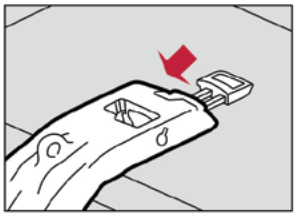


1.) Place the retainer into block.

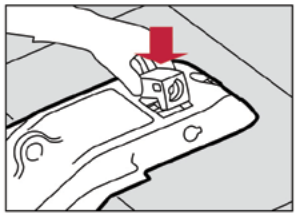




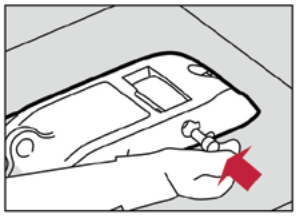
2.) Place the protector on the edge in the desired position. The protector must be in contact with the front of the edge.



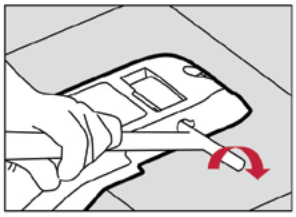
3.) Place the weld on base on top of the edge and push it into the protector.



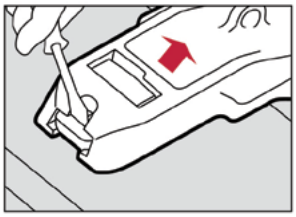
4.) Place the block with retainer into the recess of the lip protector

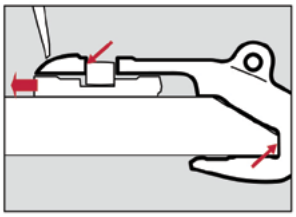


5.) Insert the pin by hand until it stops.

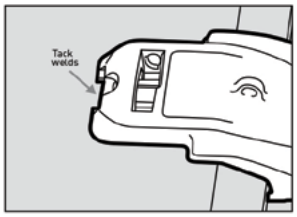


6.) Turn the pin clockwise using the installation tool.

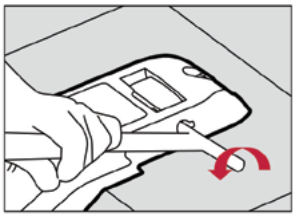




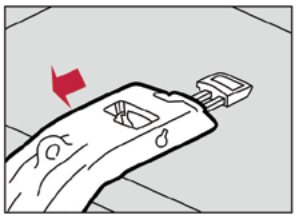
7.) Keeping the frontal contact all the time. Push the base towards the back of the bucket using a screwdriver. Pre heat the base material to recommended temperatures and follow the requirements of General Welding Instructions.



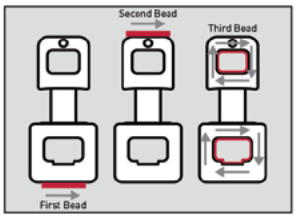
8.) Make several tack welds on the back of the base.



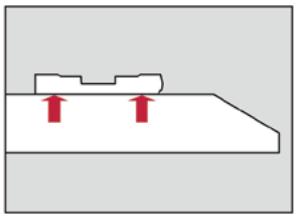
9.) Turn the pin anti-clockwise, remove the pin and the block from the protector.



10.) Remove the protector and re-establish the recommended preheat temperatures if necessary.

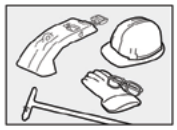


11.) Start with the welding sequence of the protector weld base. The size of the fillet must be flush and less than 3.2mm/0,13" above the edge of the cast weld groove.

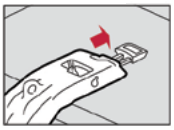


12.) Be sure that the entire bottom of the weld base maintains contact with the edge during the entire weld process.

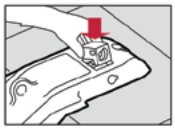
Assembly Instructions



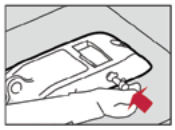
Recommended equipment.



Place the protector on the edge.



Insert retainer into mechanical block and place in position.

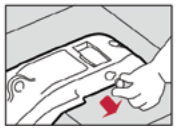


Insert the pin.

Turn the pin clockwise.

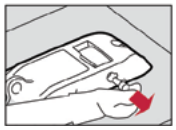
Fit the plug in end of pin.

Disassembly Instructions

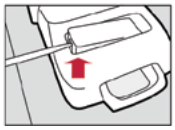


Remove the plug..

Turn the pin anticlockwise.

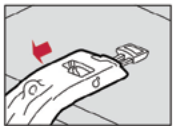


Remove the pin.



Remove the mechanical block.

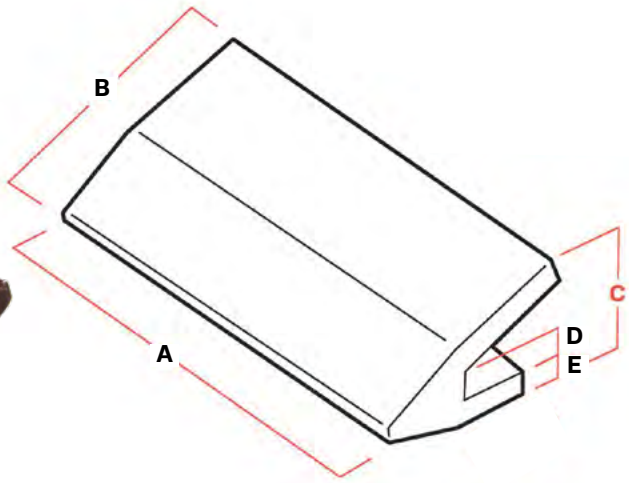
Push protector away from the mount.



Remove protec-tor.

WELD-ON LIP PROTECTORS

PROTECT YOUR BUCKET EDGE FROM WEAR AND TEAR WITH THESE WELD-ON LIP PROTECTORS. AVAILABLE TO SUIT MOST EDGE THICKNESSES AND CAN BE CUT TO ANY WIDTH



Part No	A	B	C	D	E	Edge Thickness	Kg
WS45	115	182	87	10	20	30-50	3
WE5966	800	180	130	25	25	50-80	60
WE6027	800	250	190	40	30	100-120	103

All measurements in millimetres

CHOCK BLOCK WEAR STRIPS

Chock up your wear protection

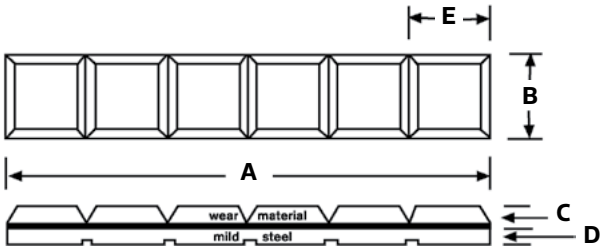
CHOCK BLOCK IS A QUICK AND EASY WAY TO ARMOR-UP YOUR BUCKETS & IS AVAILABLE IN VARIOUS SHAPES & SIZES TO SUIT DIFFERENT APPLICATIONS

- Chock Block is a combination of extremely hard alloy casting, bonded to a mild steel backing in the form of laminate
- This has an extreme hardness of 700HB which is a perfect solution for high wear areas where there are continuous abrasive effects from material flow and impact
- Chock Blocks are suitable for all types of bucket protection and applications including side styles, side cutters, lip protectors, adapter caps, cutting edge ends, bucket sides and on the leading edge of ripper shanks
- Easy to weld with its mild steel backing plate

CHOCK BLOCK WEAR STRIPS

OUR RANGE OF CHOCK BLOCK TYPES & SIZES

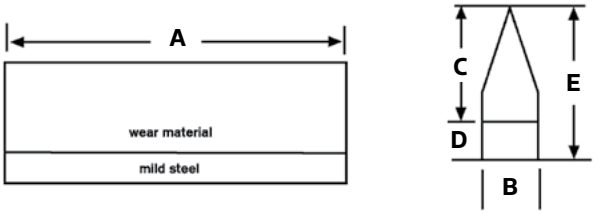
WEAR STRIP



Part No	A	B	C	D	E	Kg
CB25B	240	25	15	8	40	1
CB40B	240	40	15	8	40	1.5
CB50B	240	50	15	8	40	2
CB65B	240	60	15	8	40	2.5
CB100B	240	100	15	8	40	4

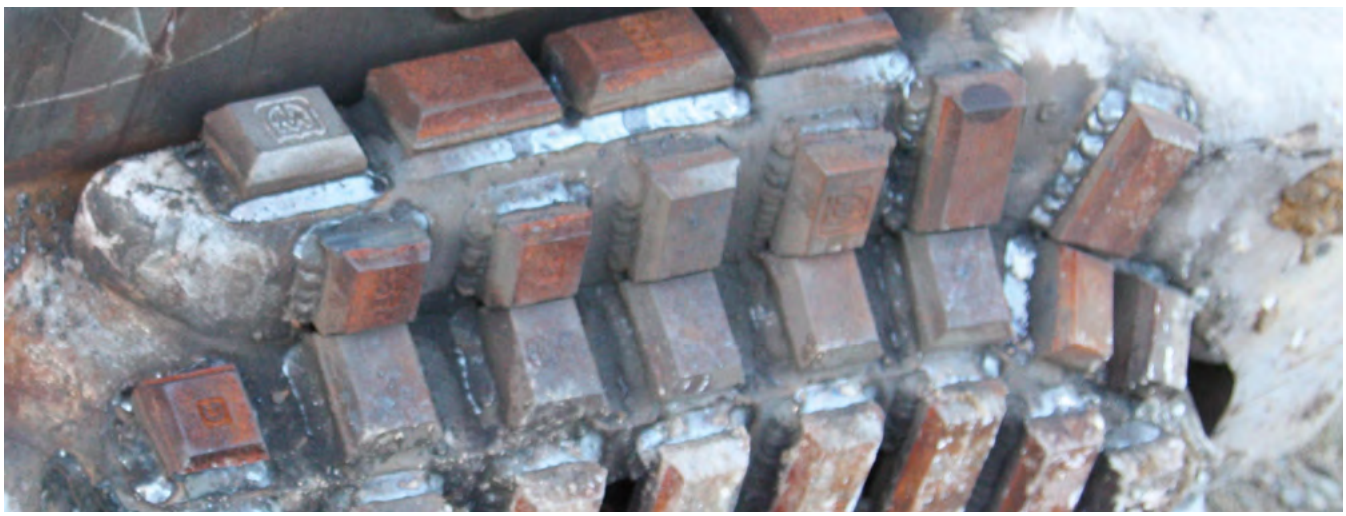
All measurements in millimetres

KNIFE EDGE

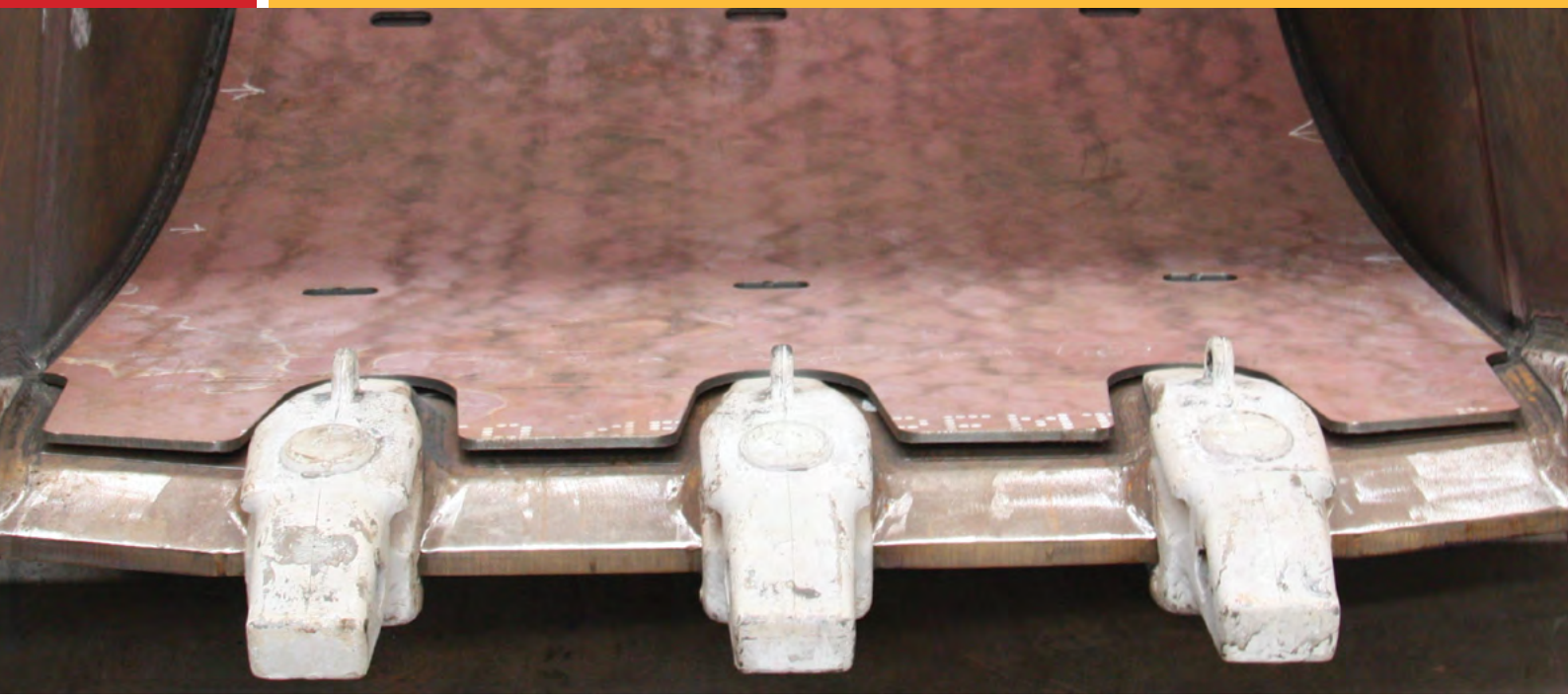


Part No	A	B	C	D	E	Kg
E1301_QS	300	20	35	12	47	1.6
E1302_QS	300	25	35	12	47	2.2

All measurements in millimetres



BUCKET & BLADE LINERS



Long lasting liners

MAKE YOUR BUCKETS & BLADES LAST LONGER BY USING LINER PLATES TO PROTECT THEM FROM WEARING AWAY

- Available in G450 Abrasion Resistant steel or Chromium Carbide Overlay plate
- Chromium Carbide plate retains a highly polished surface which is important for avoiding cross contamination of gravels and reducing material hang up especially in Loader Buckets
- Liner plates can be profile cut and rolled to suit the curve of any size Excavator & Loader Bucket, Dozer Blade or Grader Moldboard
- Liner plates are available in 5 - 20mm thickness
- Free onsite measure ups & advice

We use the hardest & toughest wear plate that survives the most extreme wear conditions

Loader Bucket Liners

Excavator Bucket Liners

Dozer Blade Liners

BUCKET TEETH & ADAPTERS

Get the worlds most trusted, Hammerless Bucket Tooth system on your Excavator & Loader Buckets - MTG Starmet.

"Never lose a bucket tooth again"

- BUCKET TEETH RANGE 59
- MTG STARMET TOOTH SYSTEM 60
- MTG PREMIUM QUALITY STEELS 75
- CAT J-SERIES BUCKET TEETH 79
- DOOSAN STYLE BUCKET TEETH 89
- ESCO CONICAL STYLE BUCKET TEETH 92
- HYUNDAI STYLE BUCKET TEETH 98
- KOMATSU STYLE BUCKET TEETH 101
- PRE-FABRICATED BUCKET EDGES 105
- ADAPTER WELDING INSTRUCTIONS 106

BUCKET TEETH RANGE

WE STOCK THE LARGEST RANGE OF BUCKET TEETH IN NZ! AVAILABLE TO SUIT ALL MAKES AND MODELS OF EXCAVATORS AND LOADERS, WORKING IN CONSTRUCTION AND MINING APPLICATIONS

MTG STARMET TOOTH SYSTEM

The worlds most trusted hammerless tooth system for 20-400 tonne machines

ESCO CONICAL STYLE TEETH

A range of tooth styles for 1-40 tonne machines

CAT STYLE TEETH

A range of J-Series tooth styles for 5-50 tonne machines

HYUNDAI STYLE TEETH

A range of tooth styles for 10-30 tonne machines

DOOSAN STYLE TEETH

A range of tooth styles for 10-30 tonne machines

KOMATSU STYLE TEETH

A range of tooth styles for 10-70 tonne machines

MTG

No limits innovation

Our Premium range of high quality, self sharpening bucket teeth are made by MTG

MTG STARMET TOOTH SYSTEM

Got Bucket Teeth issues?

G.E.T THEM FIXED FOREVER WITH THE WORLDS MOST TRUSTED MTG STARMET TOOTH SYSTEM ON YOUR BUCKETS

FEATURES & BENEFITS

- Guaranteed no loss of Teeth
- Self Sharpening Teeth design
- Faster change over times
- Slide on adapter wear cap
- No need to weld up adapter noses
- Up to 30% increase in G.E.T wear life
- Increased safety with hammerless pin technology
- The most reliable Bucket Tooth System

Over 300 Excavators and Loaders are successfully using this MTG StarMet tooth system throughout NZ

Bucket Loads of benefits

ULTIMATE SAFETY
The hammerless twist pin mechanism requires no hammering action to install the pins, greatly reducing the risk of flying metal and accidents. The pins are simply pushed into place by hand and turned 90 degrees with a tool to securely fasten them.

NO LOSS OF TEETH
The hammerless locking system uses the twist pin and an elastomet retainer that has excellent retention. This ensures the teeth can never come loose or fall off.

LONGER SERVICE LIFE
All teeth styles are designed to self sharpen as they wear and do not need to be reversed, therefore reducing machine downtime. Adapter geometry is designed to help protect the welded area from washing wear.

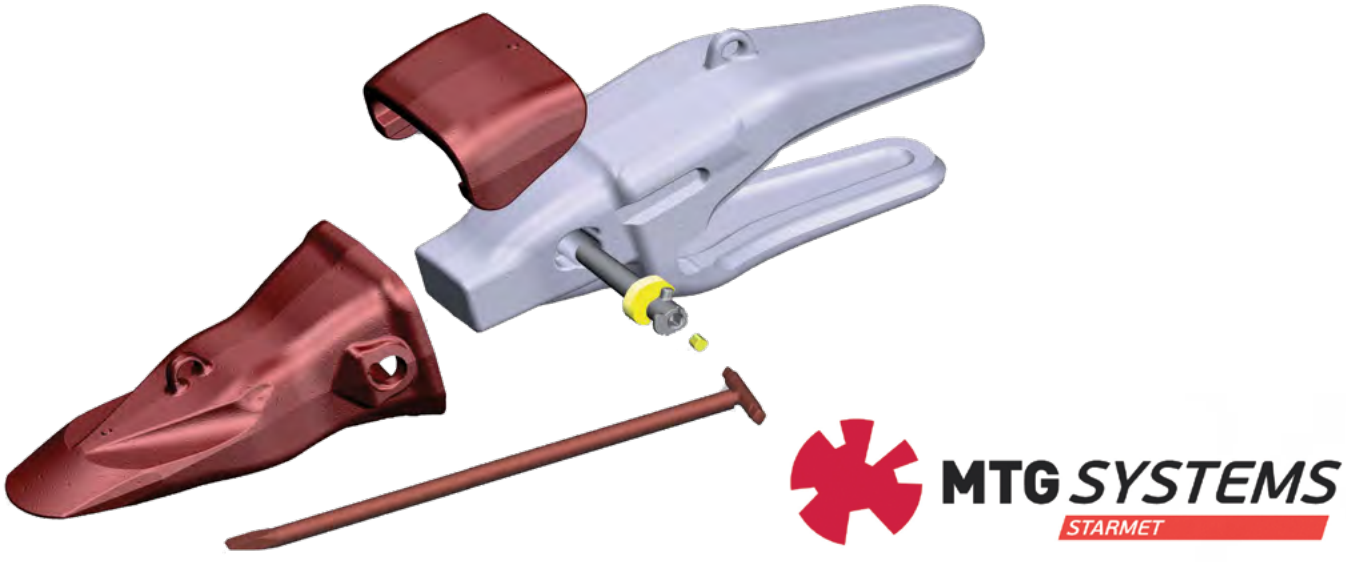
The teeth auto tighten onto the adapter under impact so there is no movement or wear on the adapter nose. Adapter noses do not need to be built up.

ADAPTER WEAR CAP
A slide-on mechanical wear cap is fitted to the top of each adapter to prevent wear and damage. These are held on by the tooth and can last up to 4 teeth changes before needing to be replaced, depending on the abrasiveness of the digging material.

FASTER TIP CHANGES
The teeth and wear caps are very quick and easy to replace on-site by only one person.

WELL PROVEN PRODUCT
This STARMET system has been very well proven, tried and tested in extreme mining applications all over the world. With most large excavators successfully using this system in New Zealand mines and quarries, its the only choice for maximum safety and productivity.

RELIABLE SUPPLY
West-Trak has large stocks of replacement parts on hand at all times to ensure exemplary service and reliability of supply.



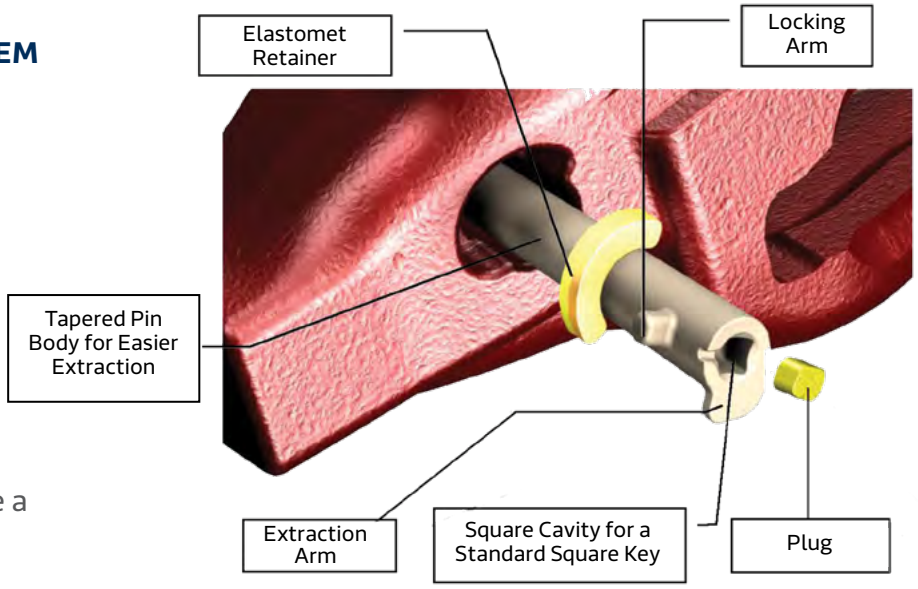
READ OUR CASE STUDIES ONLINE AT WWW.WEST-TRAK.CO.NZ

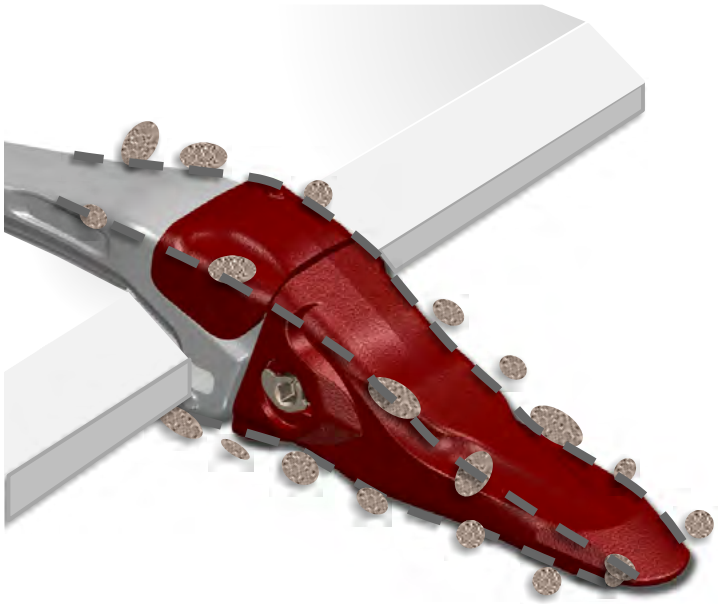
Performance & productivity like none other

MANY IMPORTANT FEATURES AND BENEFITS ARE BUILT INTO THE STARMET TOOTH AND ADAPTER SYSTEM TO INCREASE SAFETY, DURABILITY AND RELIABILITY

HAMMERLESS LOCKING SYSTEM

- The innovative twist pin solution ensures quick assembly and disassembly reducing your machine's downtime.
- Safer holding mechanism with excellent pin retention.
- The pin is tapered to ensure a tight fit in the adapter, preventing any movement.



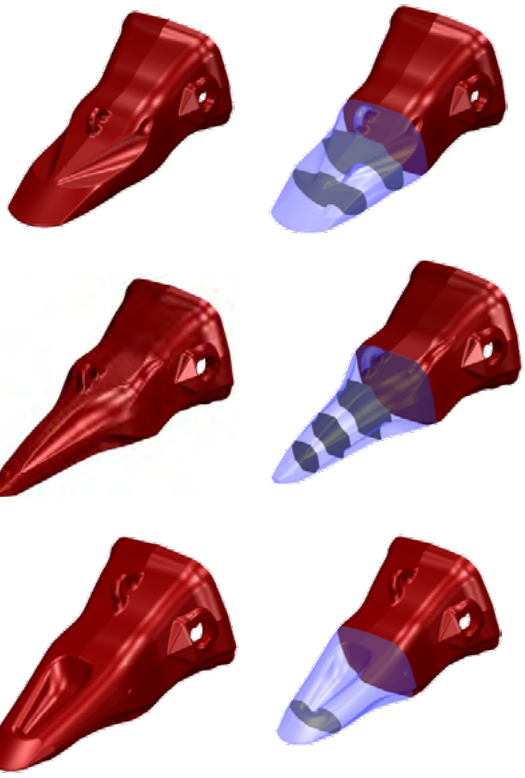


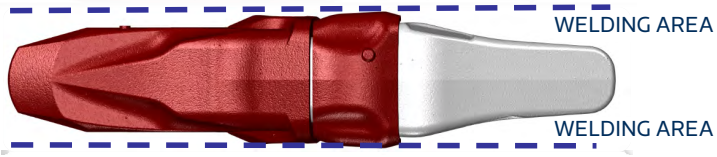
BETTER BUCKET PENETRATION

- The streamline integrated geometry of the Tooth, Wear cap, and Adapter allows for good flow of material and improved bucket penetration.
- The special tooth design ensures even wear throughout its entire life, eliminating the need to turn the teeth over

LONGER ADAPTER LIFE

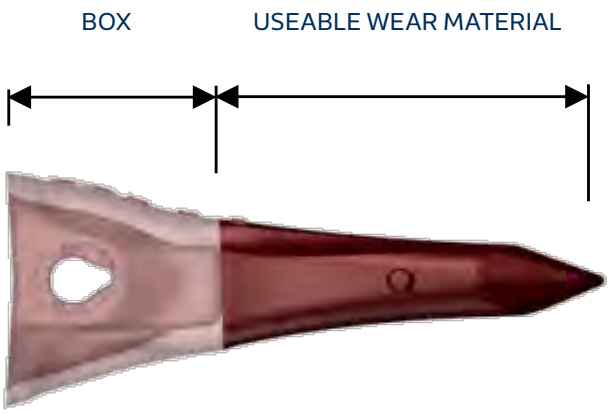
- The unique design of StarMet adapters mean they will last longer and stay stronger as they wear
- The top of the adapters are protected by a slide-on replaceable wear cap to protect it from wear and damage
- The adapter welding areas are protected from excessive wear (one of the primary reasons for adapter breakage)





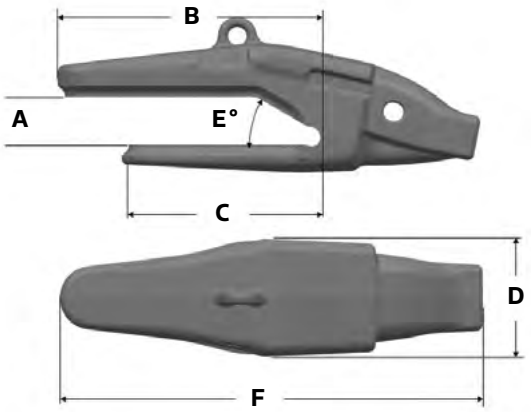
SELF SHARPENING TEETH

- All teeth styles are designed to self sharpen as they wear, providing excellent penetration, long service life and reducing fuel consumption
- Every StarMet tooth is designed to have the maximum amount of wear material possible
- Teeth are available in a range of different styles for all types of applications
- MTG Starmet teeth have more usable wear material than any other tooth system
- MTG teeth & adapters are made from the cleanest, most purified steels resulting in the toughest & hardest wearing components



MTG STARMET ADAPTERS

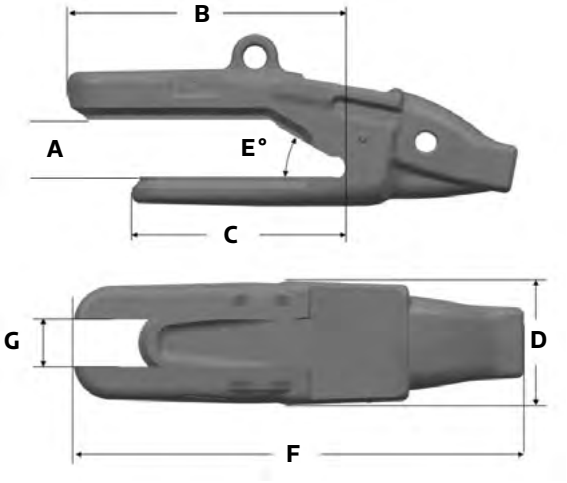
2-STRAP ADAPTERS



Part No	A	B	C	D	E	F	KG	Machine Size
1MA40WC45	45mm	266	198	114	30	409	14	20 - 30 Tonne
1MA50WC50	50mm	297	213	127	30	441	19	35 - 40 Tonne
1MA60WC60	60mm	314	206	145	30	486	29	45 - 55 Tonne
1MA120WC70	70mm	393	321	180	30	640	56	60 - 110 Tonne
1MA120WC80	80mm	433	326	180	30	678	56	60 - 110 Tonne
1MA180WC100	100mm	445	337	200	30	717	77	120 - 140 Tonne
1MA240WC100	100mm	566	421	218	30	877	125	140 - 220 Tonne
1MA240WC120	120mm	566	421	218	30	877	119	140 - 220 Tonne
1MA500WC120	120mm	582	508	246	30	903	177	240 - 400 Tonne
1MA500WC140	140mm	582	508	246	30	903	172	240 - 400 Tonne

All measurements in millimetres

2-STRAP STRADDLE ADAPTERS



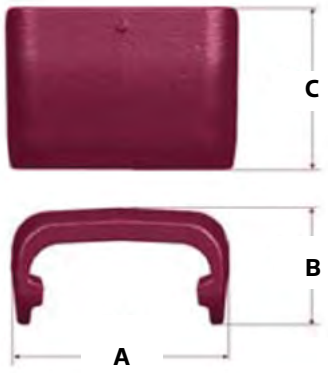
Part No	A	B	C	D	E	F	G	KG	Machine Size
1MA180WS90	90mm	444	341	198	30	720	75	78	120-140 Tonne
1MA240WS100	100mm	574	427	224	30	876	80	127	140 - 220 Tonne
1MA500WS120	120mm	576	506	245	30	920	95	166	240 - 400 Tonne
1MA500WS140	140mm	576	506	245	30	920	95	172	240 - 400 Tonne

All measurements in millimetres

MTG STARMET ADAPTER WEAR CAPS

CENTRE ADAPTER WEAR CAP

Fig.1



STRADDLE ADAPTER WEAR CAP

Fig.2

Fig	Part No	A	B	C	KG	Machine Size
1	4MA40M	135	68	95	2.1	20 - 30 Tonne
1	4MA50M	150	75	96	2.3	35 - 40 Tonne
1	4MA60M	178	112	102	4.2	45 - 55 Tonne
1	4MA120M	208	104	129	5.8	60 - 110 Tonne
1	4MA180M	231	148	117	8.5	120 - 140 Tonne
1	4MA240M	245	164	140	11.3	140 - 220 Tonne
1	4MA500M	289	157	203	18.0	240 - 400 Tonne
2	4MA500MS-A	289	157	203	19.0	240 - 400 Tonne

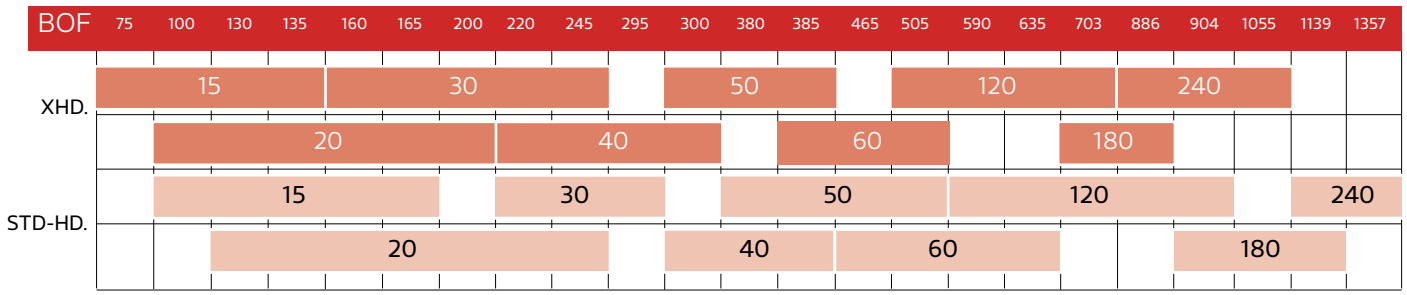
All measurements in millimetres

MTG STARMET TOOTH SYSTEM SIZES

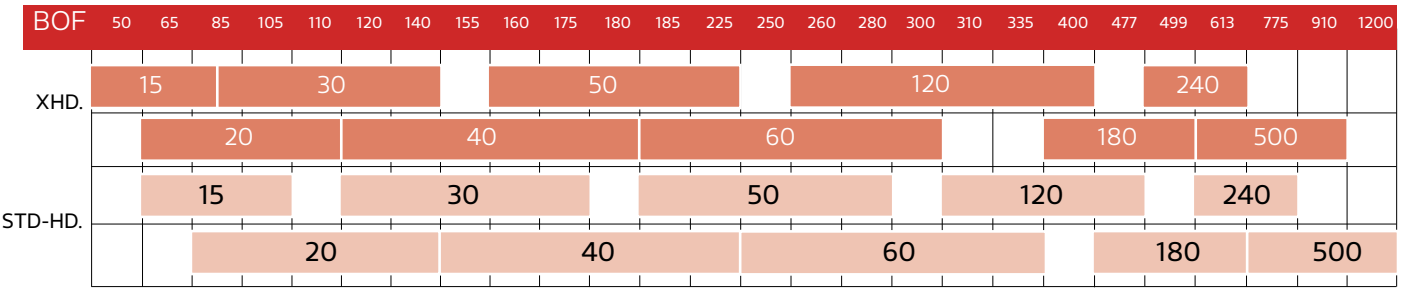
Starmet Tooth
size reference chart

THE CHARTS BELOW SHOW THE RECOMMENDED STARMET TOOTH SIZE FOR THE BREAK OUT FORCE LEVEL OF WHEEL LOADERS & BACKHOE EXCAVATORS.

WHEEL LOADER DIGGING FORCE (KN)



BACKHOE EXCAVATOR DIGGING FORCE (KN)



Get the right tool for the job

EXTRA (E1)

A general purpose design for medium abrasion applications, providing good penetration

VECTOR (V)

For high penetration, low abrasion applications. Ideal for clay and coal

EXTREME (EX)

For highly abrasive and low penetration applications. More wear material than the (E1) design

DOUBLE VECTOR (W)

For high penetration, low abrasion applications. Ideal for clay and coal. Often used on the outside adapters

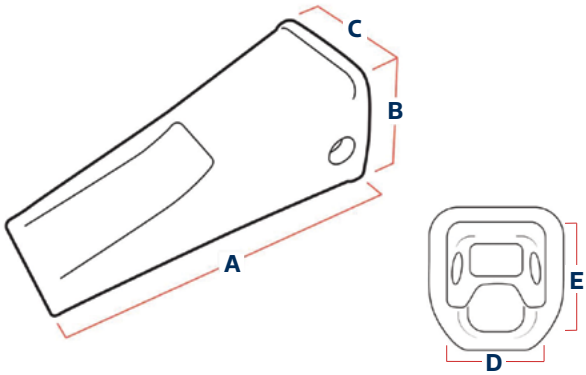
ABRASION (A)

For use on loaders, providing maximum wear material on the bottom side

Using the correct tooth style for the application will maximise your machines performance, productivity and fuel economy

MTG STARMET BUCKET TEETH

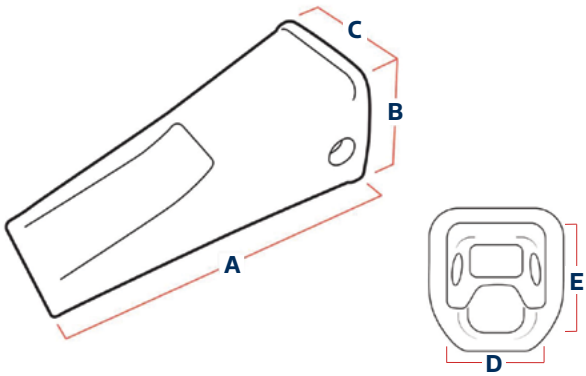
EXTRA TIP (E1) - *Premium quality, self sharpening design*



	External			Internal			
Part No	A	B	C	D	E	KG	Machine Size
MA40E	321	141	126	84	105	10	20 - 30 Tonne
MA50E1	347	153	139	95	115	12.5	35 - 40 Tonne
MA60E1	391	176	161	106	130	20	45 - 55 Tonne
MA120E1	441	202	191	140	155	30	60 - 110 Tonne
MA180E1	492	225	212	150	170	42	120 - 140 Tonne
MA500E1	588	294	277	200	220	78	240-400 Tonne

All measurements in millimetres

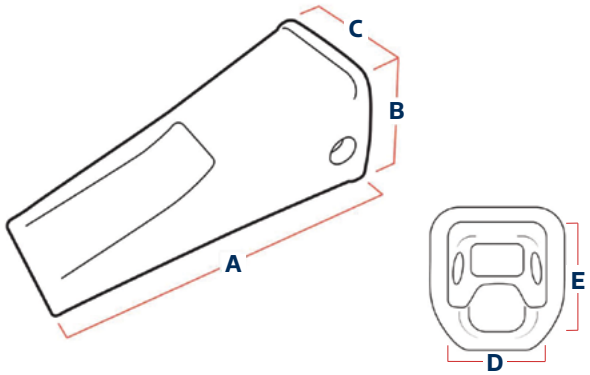
EXTREME TIP (EX) - *Premium quality, self sharpening design*



	External			Internal			
Part No	A	B	C	D	E	KG	Machine Size
MA50EX	367	153	139	95	115	17	35 - 40 Tonne
MA60EX	409	176	161	106	130	24.0	45 - 55 Tonne
MA120EX	443	202	191	140	155	34	60- 110 Tonne
MA180EX	492	225	212	150	170	52	120 - 140 Tonne
MA240EX	524	246	242	175	190	63	140 - 220 Tonne

All measurements in millimetres

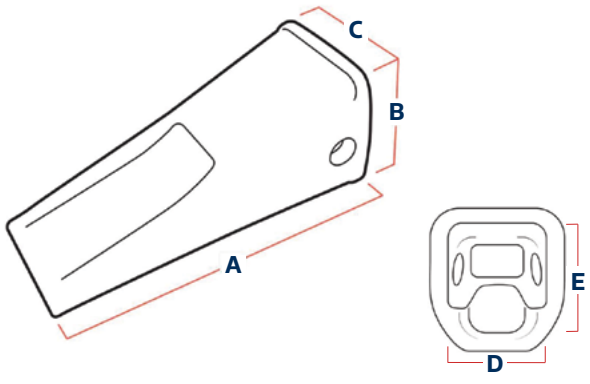
VECTOR TIP (V) - *Premium quality, self sharpening design*



	External			Internal			
Part No	**A**	**B**	**C**	**D**	**E**	**KG**	**Machine Size**
MA40V	332	141	126	84	105	8	20 - 30 Tonne
MA50V	359	153	139	95	115	10	35 - 40 Tonne
MA60V	407	176	161	106	130	16	45 - 55 Tonne
MA120V	475	202	191	140	155	24	60 - 110 Tonne
MA180V	516	225	212	150	170	33	120 - 140 Tonne
MA240V	567	246	242	175	190	45	140 - 220 Tonne
MA500V	595	294	277	200	220	65	240- 400 Tonne

All measurements in millimetres

DOUBLE VECTOR TIP (W) - *Premium quality, self sharpening design*

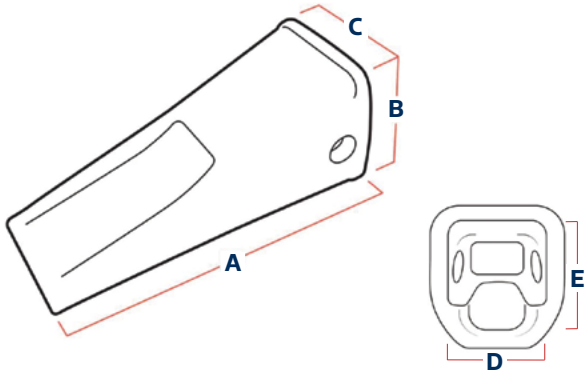


	External			Internal			
Part No	**A**	**B**	**C**	**D**	**E**	**KG**	**Machine Size**
MA40W	332	141	126	84	105	10.6	20 - 30 Tonne
MA50W	359	153	139	95	115	14	35 - 40 Tonne
MA120W	475	202	191	140	155	31	60 - 110 Tonne

All measurements in millimetres

MTG STARMET BUCKET TEETH

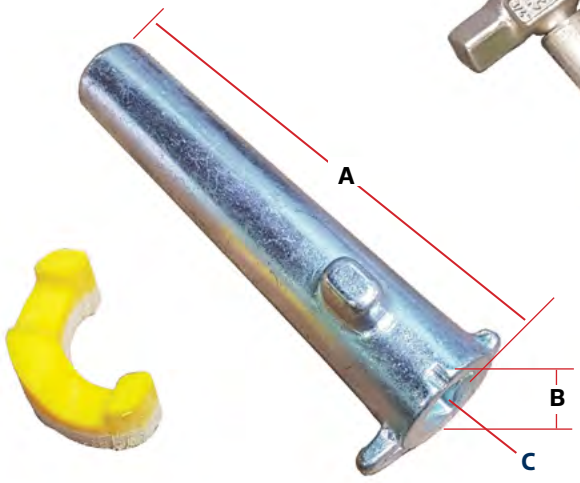
ABRASION TIP (A) - *Premium quality, self sharpening design*

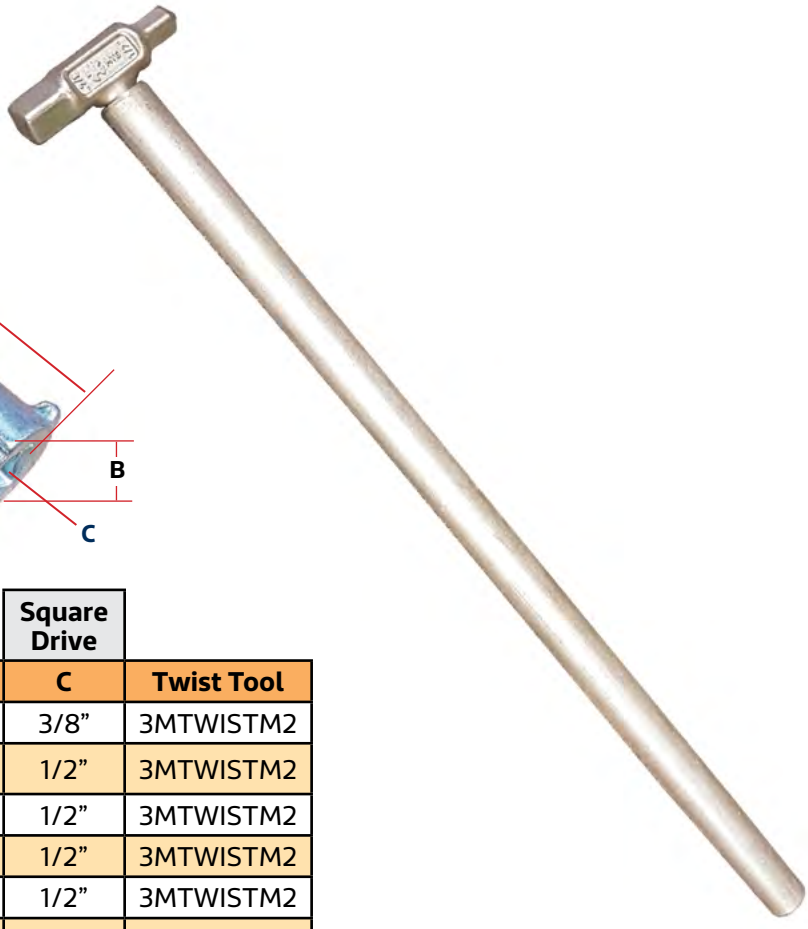


	External			Internal			
Part No	A	B	C	D	E	KG	Machine Size
MA60A	383	176	161	106	130	29	CAT988 / WA600
MA120A	463	202	191	140	155	48	CAT 992 / WA900

All measurements in millimetres

PIN AND RETAINER SET





			Square Drive	
Part No	A	B	C	Twist Tool
2MA40PR	112	25	3/8”	3MTWISTM2
2MA50PR	131	29	1/2”	3MTWISTM2
2MA60PR	152	33	1/2”	3MTWISTM2
2MA120PR	172	32	1/2”	3MTWISTM2
2MA180PR	197	34	1/2”	3MTWISTM2
2MA240PR	210	37	3/4”	3MTWISTX2
2MA500PR	243	42	3/4”	3MTWISTX2

All measurements in millimetres

MTG STARMET TOOTH FITMENT

STEP 1:
Insert the retainer into side of Adapter.

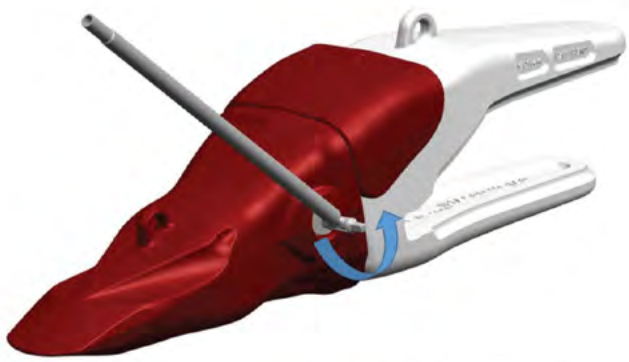
STEP 2:
Slide the Wear Cap on top of Adapter.

STEP 3:
Fit the tooth on the adapter.

STEP 4:
Insert the Pin into the Tooth hole until it stops.

STEP 5:
Using the Twist Tool, turn the pin 90 degrees clockwise to lock it in place. You are now ready to go.

MTG STARMET TOOTH REMOVAL



STEP 1:
Using the Twist Tool, turn the pin 90 degrees anti-clockwise to unlock the pin.

STEP 2:
Remove the Pin by gently tapping the other end.

STEP 3:
Remove the Tooth from the Adapter.

STEP 4:
Remove the Wear Cap by sliding it off.

STEP 5:
Remove the Retainer using a screwdriver or similar tool.

MTG STARMET TOOTH CONVERSIONS

EC290 Rock Bucket

PC600 Rock Bucket

5130 Rock Bucket

992 Loader Bucket

EX3600 Rock Bucket

5130 Rock Bucket

Case Study - OceanaGold

INCREASING G.E.T LIFE, SAFETY AND MACHINE PRODUCTIVITY

OceanaGold Corporation is a significant multinational gold producer with a portfolio of operating development and exploration assets.

They have built a strong business in New Zealand, operating the largest open pit gold mine at Macraes Flat, Otago, plus other underground operations.

Situation
The OceanaGold open pit gold mine at Macraes were having problems with their previous GET systems on the mass excavator and loader buckets. With the impacts of high wear rates, cumbersome installation and locking devices, interrupted supply and components coming loose and falling off, were costing OceanaGold unnessecary downtime and money.

Response
West-Trak worked closely with OceanaGold to improve the situation and to provide the ultimate GET solution that worked. By using the most advanced, highest performing and safest GET system in the world, good gains were made for OceanaGold.

Outcome
Significant increases in GET wear life, component fastening, safety of installation and machine productivity has been achieved by using West-Trak's MTG hammerless GET system. OceanaGold has proven the following benefits;

- **Up to 20% increase in GET life with better wear rates than previous systems**
- **Increased safety with the Hammerless pin technology**
- **No loss of GET components**
- **Reduced GET costs and reliable back-up support from West-Trak**
- **The improved safety of personnel during routine GET replacement**

MTG PREMIUM QUALITY STEELS

FIND OUT WHAT MAKES A BETTER QUALITY ADAPTER, TOOTH OR G.E.T SYSTEM & WHY MTG IS A PREMIUM QUALITY, HARDER, TOUGHER & LONGER LASTING PRODUCT

MTG's constant commitment to innovation, long tradition in the production of high quality steels, and the support of leading international experts, form the bedrock of MTG Steels.

Specifically designed to withstand the highest levels of mechanical stress when operated, these steels maximize the hardness/ toughness combination due to their low level of impurities and structure which is developed using specific heat treatments.

They are medium carbon and low-allow steels, made with the most advanced production techniques available for steel castings and the steel industry. We guarantee low levels of non-metallic inclusions and dissolved gases, thanks to exhaustive composition checks and comprehensive refining processes in electric arc furnaces and AOD converters. This significantly improves their quality, providing greater duration and fewer breakages.

MTG PREMIUM QUALITY STEELS

MTG STEEL PROPERTIES

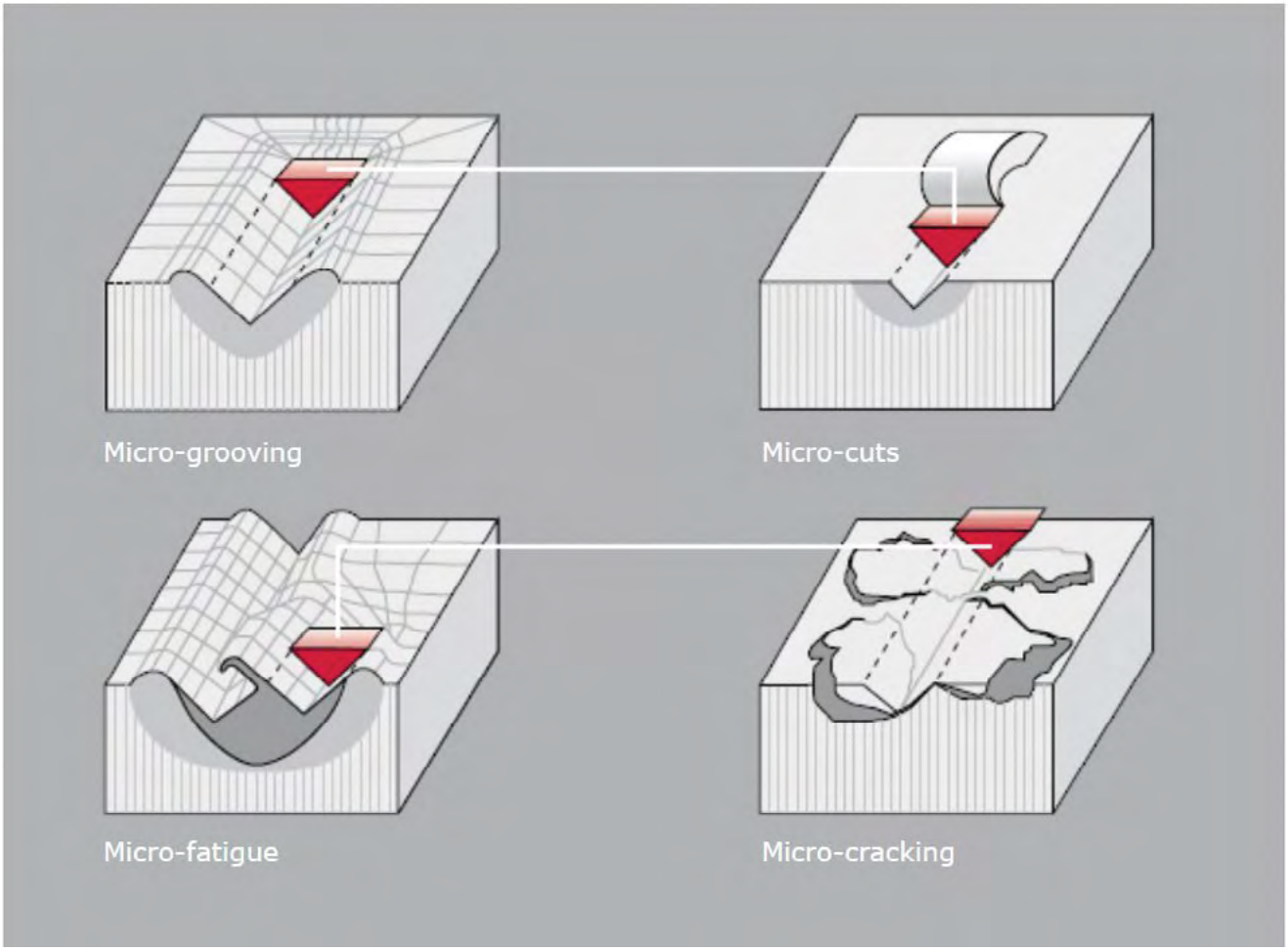
The most important characteristic of MTG Steels is their optimized capacity to withstand wear and impacts. Thanks to these steels, our wear parts last longer and reduce the risk of breakages.

During use, the steel of the teeth is subjected to high static loads and heavy impact at a macroscopic level that can result in breakages, and repetitive mechanical stress that can cause fatigue fracture.

At a microscopic level, and as a result of their interaction with the ground, the outer surface of the parts are subjected to high pressures and temperatures as well as repetitive deformations and impacts that cause their gradual wear.

This wear is a complex phenomenon affected by many variables that are difficult to measure. These variables depend on the type of ground (hardness, compaction, granulometry, angularity, etc....), the type of application or work (geometric shape of the part and the pressure it is subjected to, angle of attack, speed, etc...) and even climatic conditions (corrosion phenomena).

Among the different types of wear that are seen, our parts are mainly subjected to abrasive kinds of wear. When interacting with the ground, the steel of the outer surface of the teeth and adapters is severely deformed until it finally breaks.



Various abrasion mechanisms during interaction of MTG steels with the ground.

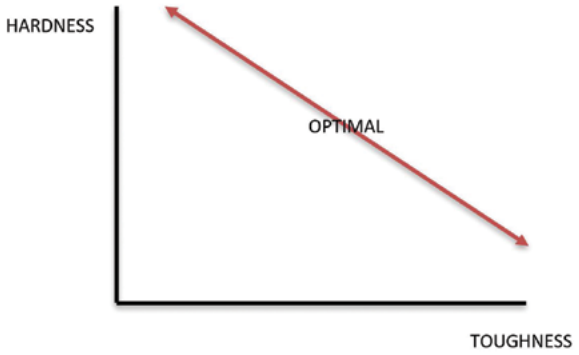
HOW DO MTG STEELS OBTAIN MAXIMUM WEAR RESISTANCE?

Through the optimal balance between its principal properties of hardness, toughness & degree of refinement

Traditionally, the hardness of the steel has been associated with its performance when used in wear parts. The greater the hardness of the steel, the greater the wear resistance and duration of the parts.

This traditional view is accurate in relation to conditions of use in which pressure between the parts and the ground is low and moderate however, numerous site tests and laboratory trials carried out at leading universities and institutions have shown that, in certain conditions of service, other features of the steel are as important as hardness to ensure maximum wear resistance.

In demanding applications in which conditions of use involve high levels of pressure between the parts and the ground, high toughness levels are required in addition to high levels of hardness to ensure maximum wear resistance.



In order to get the best possible characteristics or material composition for GET steels, manufacturing procedures need to incorporate the latest techniques.

This allows an optimal balance of hardness and toughness to be achieved in the manufacturing of GET to give you a product which is resilient to wear & impact.

HYDROGEN content in cast parts is the main reason of breakage of teeth & adapters because it creates cracks that propagate through the steel.

HARDNESS

The hardness of a steel is measured according to its capacity to resist permanent deformation. It is also defined as penetration and scratch resistance.

The maximum level of hardness a steel is capable of attaining is almost entirely determined by its carbon content. Effective heat treatment and sufficiently severe tempering enables the maximum hardness to be developed both on the surface and on the inside of the parts.

MTG Steels guarantee a high level of hardness resulting from a carefully studied composition and a specific treatment especially developed by MTG.

MTG PREMIUM QUALITY STEELS

TOUGHNESS

The toughness of a steel is measured according to its capacity to resist breakage when subjected to impact. In the broadest sense, this also indicates the steel's capactiy to endure plastic deformation without breaking.

The homogeneity of the structure of the steel, as well as the level of inclusions and their morphology, are factors that determine its toughness.

MTG Steels are rugged steels that guarantee that parts will not break and will wear longer in the most demanding situations.

DEGREE OF REFINEMENT

All non-metallic inclusions and dissolved gases that are not removed during production have a negative effect on the steel's toughness.

Thanks to the high quality standards applied in the production of MTG Steels, including extensive refining stages in electric arc furnaces as well as AOD converters, we can guarantee the lowest levels of impurities in our products and the highest levels of toughness.

1. Fragile, dirty, cheap steel due to the amount of long sharp non-metallic inclusions in the grain. This steel has low wear and impact resistance and will break easily.

2. Quality steel. The non-metallic inclusions are fewer and a more globular shape with some sharp edges. This steel does not break (it is tough) although the inclusions will affect the characteristics of the steel structure and toughness.

3. High-quality MTG Steel: The most cleanest, purified steel possible. The number and size of non-metallic inclusions are very small and round in shape. This steel is the toughest and hardest to break.

CAT J-SERIES BUCKET TEETH

CAT J-SERIES BUCKET TEETH RANGE

A LARGE RANGE OF AFTERMARKET J-SERIES BUCKET TEETH ARE AVAILABLE FOR ALL MODELS OF EXCAVATORS AND LOADERS UP TO 50 TONNE SIZE

STANDARD

A general purpose tooth with good penetration and wear material

HEAVY DUTY ABRASION

For high impact, high abrasion and low penetration applications. Ideal for loaders.

ROCK CHISEL

Good for high abrasion and high impact conditions with more wear material

TIGER

Provides maximum penetration for compact soil, clay and coal

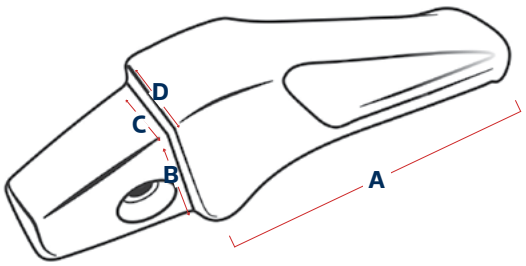
HEAVY DUTY

Maximum wear material for high abrasion and low penetration applications

TWIN TIGER

Provides maximum penetration and good ground fracture. Often used on the outer adapters

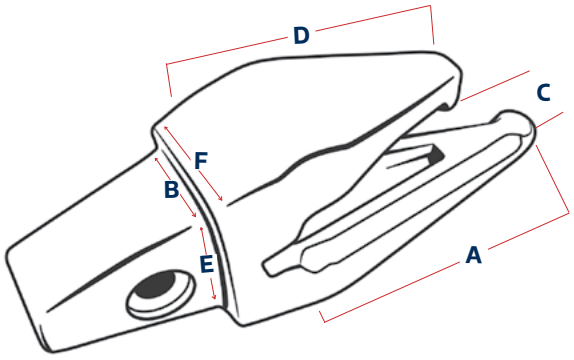
FLUSHMOUNT ADAPTERS



Part No	J-Series	A	B	C	D	KG	Machine Size
4T1204	J200	140	35	45	33	2	2-5 Tonne
IU1254	J250	220	48	65	52	5.5	10-12 Tonne
IU1304	J300	220	60	72	65	8	15-20 Tonne
IU1354	J350	250	67	82	85	14	20-25 Tonne

All measurements in millimetres

2-STRAP ADAPTERS



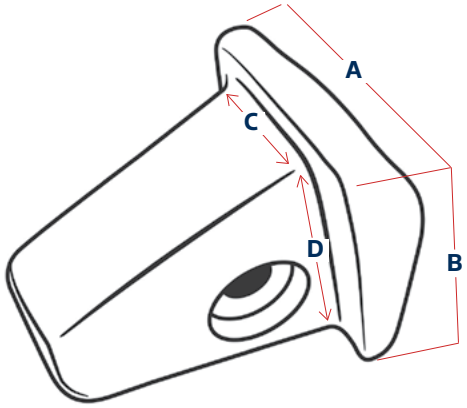
Part No	J-Series	A	B	C	D	E	F	KG	Machine Size
8J7525	J200	90	35	15	20	45	40	1.5	2-5 Tonne
6Y3224	J220	120	43	25	75	57	59	3	6-8 Tonne
6Y3254	J250	140	48	31	95	65	65	4	10-12 Tonne
3G6304	J300	200	60	35	115	72	84	7.5	15-20 Tonne
3G8354	J350	200	67	43	110	82	90	9.5	20-25 Tonne
7T3404	J400	220	90	48	160	77	120	16	25-30 Tonne
8E6464	J460	260	85	53	220	95	125	20	35-40 Tonne
IU1553	J550	300	105	67	250	105	150	34	45-50 Tonne

All measurements in millimetres

CAT J-SERIES ADAPTERS

ADAPTER REPAIR NOSE

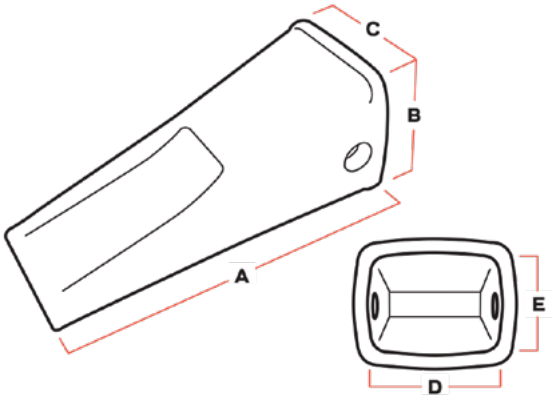
Used for replacing worn or broken adapter noses



Part No	A	B	C	D	KG	Machine Size
J250WN	70	80	48	65	2.3	10-12 Tonne
J300WN	85	88	60	72	3.4	15-20 Tonne
J350WN	100	110	67	82	4.6	20-25 Tonne

All measurements in millimetres

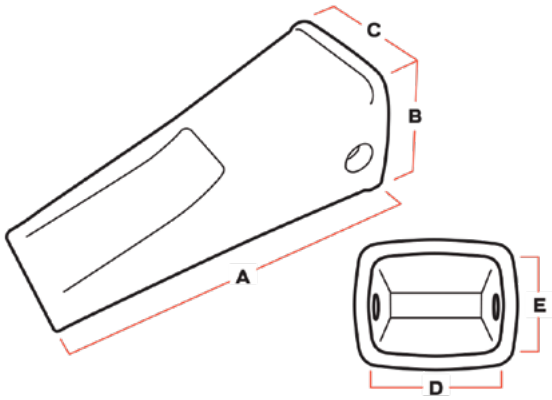
STANDARD TIP



		External			Internal			
Part No	J-Series	A	B	C	D	E	KG	Machine Size
IU3202	J200	145	63	55	44	44	1.4	4-6 Tonne
6Y3222	J220	165	73	63	44	60	2	6-8 Tonne
IU3252	J250	190	85	74	56	67	3.2	10-12 Tonne
IU3302	J300	215	96	89	67	76	4.4	15-20 Tonne
IU3352	J350	244	108	100	75	81	6.0	20-25 Tonne
7T3402	J400	268	127	116	88	89	9.4	25-30 Tonne
9W8452	J450	300	126	128	100	101	11.6	35-40 Tonne
9W8552	J550	330	140	154	119	113	18.5	45-50 Tonne

All measurements in millimetres

STANDARD TIP - *Premium quality, self sharpening design (MTG)*

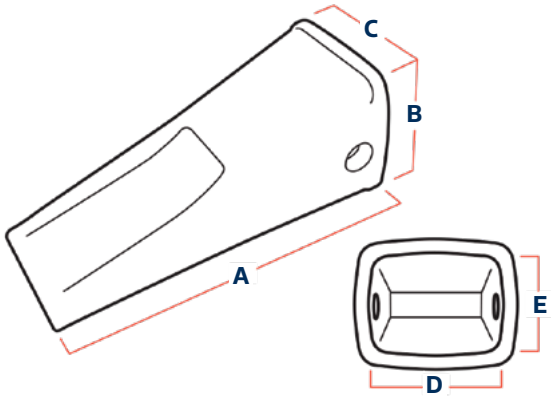


		External			Internal			
Part No	J-Series	A	B	C	D	E	KG	Machine Size
MC30S	J300	235	110	90	67	76	4	15-20 Tonne
MC35S1	J350	260	115	105	75	81	5.8	20-25 Tonne

All measurements in millimetres

CAT J-SERIES BUCKET TEETH

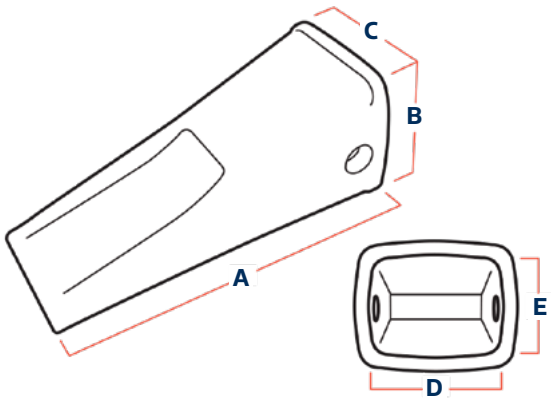
ROCK CHISEL TIP



		External			Internal			
Part No	J-Series	A	B	C	D	E	KG	Machine Size
J300RC	J300	250	100	85	67	76	4.2	15-20 Tonne
J350RC	J350	280	115	104	75	81	8	20-25 Tonne
J400RC	J400	315	130	120	88	89	11	25-30 Tonne
J450RC	J450	330	140	130	100	101	14.3	35-40 Tonne
J550RC	J550	385	157	160	119	113	23	44-50 Tonne

All measurements in millimetres

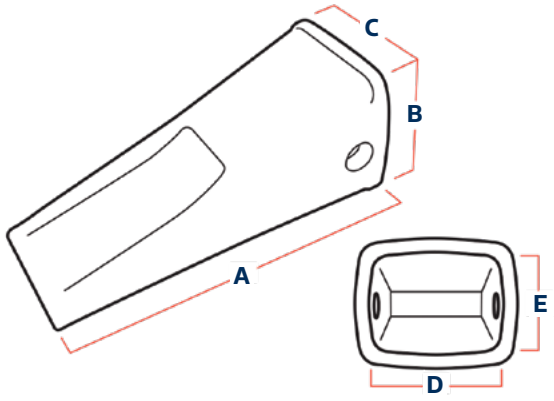
ROCK CHISEL TIP - *Premium quality, self sharpening design (MTG)*



		External			Internal			
Part No	J-Series	A	B	C	D	E	KG	Machine Size
MC35E1	J350	275	120	105	75	81	7.1	20-25 Tonne
MC40E1	J400	310	137	150	88	89	11.2	25-30 Tonne
MC45E1	J450	345	140	134	100	101	15.0	35-40 Tonne
MC55E1	J550	375	155	158	119	113	21	45-50 Tonne

All measurements in millimetres

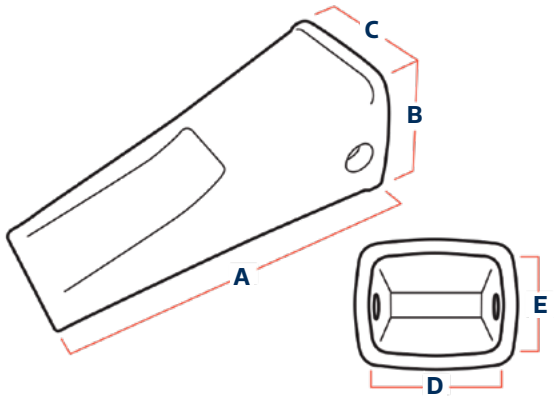
HEAVY DUTY TIP



		External			Internal			
Part No	J-Series	A	B	C	D	E	KG	Machine Size
9N4252	J250	200	94	78	56	67	3.5	10-12 Tonne
9N4302	J300	225	100	85	67	76	5.5	15-20 TONNE

All measurements in millimetres

HEAVY DUTY ABRASION TIP

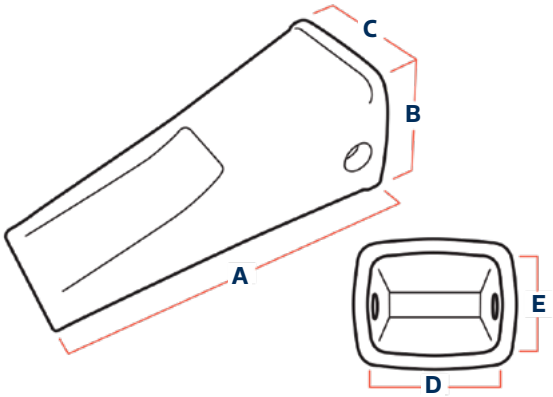


		External			Internal			
Part No	J-Series	A	B	C	D	E	KG	Machine Size
J300HDAL	J300	220	108	94	67	76	8	15-20 Tonne
J350HDAL	J350	240	118	104	75	81	10	20-25 Tonne

All measurements in millimetres

CAT J-SERIES BUCKET TEETH

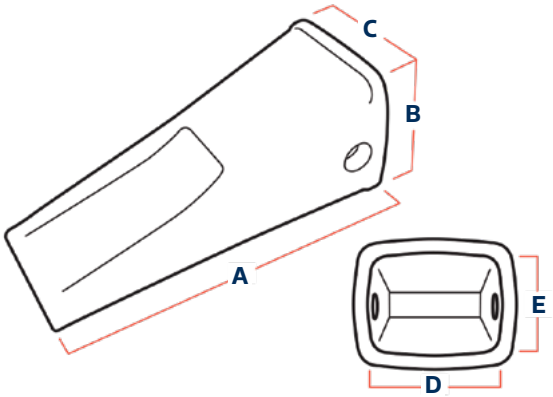
TIGER TIP



		External			Internal			
Part No	**J-Series**	**A**	**B**	**C**	**D**	**E**	**KG**	**Machine Size**
J250TIGER	J250	203	90	78	56	67	3.0	10-12 Tonne
J300TIGER	J300	240	105	86	67	76	4.4	15-20 Tonne
J350TIGER	J350	286	112	105	75	81	6.2	20-25 Tonne
J400TIGER	J400	320	130	120	88	89	10.5	25-30 Tonne
J450TIGER	J450	360	138	135	100	101	13.4	35-40 Tonne
J550TIGER	J550	380	145	158	119	113	16.0	45-50 Tonne
J600TIGER	J600	457	185	200	146	137	36.0	60-70 Tonne

All measurements in millimetres

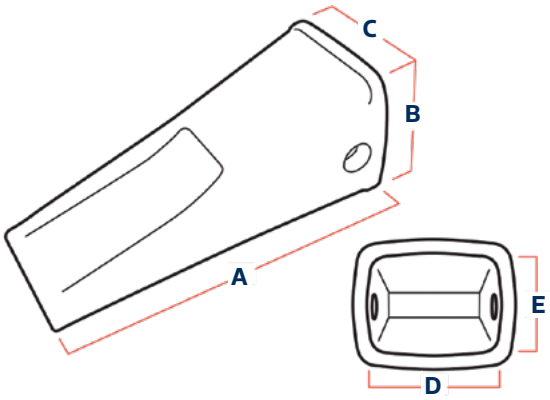
TIGER TIP - *Premium quality, self sharpening design (MTG)*



		External			Internal			
Part No	**J-Series**	**A**	**B**	**C**	**D**	**E**	**KG**	**Machine Size**
MC30V	J300	260	110	90	67	76	4.4	15-20 Tonne
MC35V1	J350	258	115	105	75	81	5.6	20-25 Tonne
MC40V1	J400	310	130	122	88	89	7.3	25-30 Tonne
MC45V1	J450	340	140	134	100	101	9.4	35-40 Tonne
MC55V1	J550	390	150	158	119	113	13.5	45-55 Tonne

All measurements in millimetres

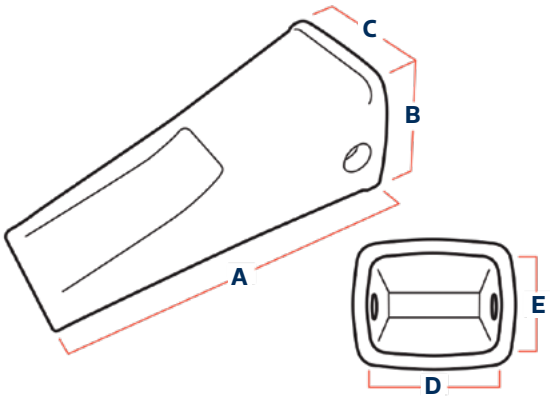
TWIN TIGER TIP



		External			Internal			
Part No	J-Series	A	B	C	D	E	KG	Machine Size
J250TWIN	J250	213	87	76	56	67	2.8	10-12 Tonne
J300TWIN	J300	242	104	85	67	76	5.6	15-20 Tonne
J350TWIN	J350	286	111	105	75	81	7.0	20-25 Tonne
J400TWIN	J400	320	130	120	88	89	11	25-30 Tonne
J450TWIN	J450	360	138	135	100	101	14.4	35-40 Tonne
J550TWIN	J550	400	150	160	119	113	19	45-50 TONNE

All measurements in millimetres

TWIN TIGER TIP - *Premium quality, self sharpening design (MTG)*

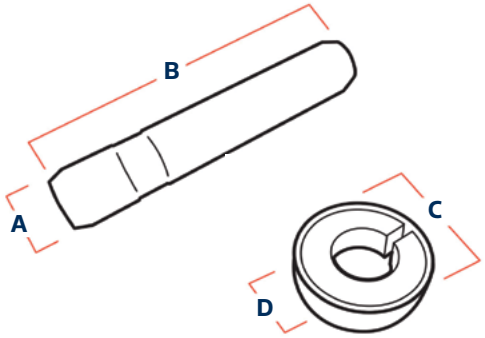


		External			Internal			
Part No	J-Series	A	B	C	D	E	KG	Machine Size
MC30W	J300	260	110	90	67	76	5	15-20 Tonne
MC35W1	J350	280	120	106	75	81	7	20-25 Tonne
MC40W1	J400	305	137	120	88	89	9.2	25-30 Tonne
MC45W1	J450	340	140	134	100	101	13	35-40 Tonne
MC55W1	J550	370	155	158	119	113	19	45-50 Tonne

All measurements in millimetres

CAT J-SERIES BUCKET TEETH

PINS AND RETAINERS



Pin No	Retainer No	A	B	C	D	J-Series
8E6208	8E6209	11	60	22	10.6	J200
6Y3228	8E6259	14	67	30	13.6	J220
9J2258	8E6259	14	77	30	13.6	J250
9J2308	8E6259	14	92	30	13.6	J300
9W2678	8E6359	19	106	40	18.5	J350
7T3408	7T3409	22	118	42	21.5	J400
8E0468	8E0469	24	134	44	23..3	J450/J460
1U1558	8E5559	25	162	53	24.5	J550
616608	616609	30	192	59	29	J600

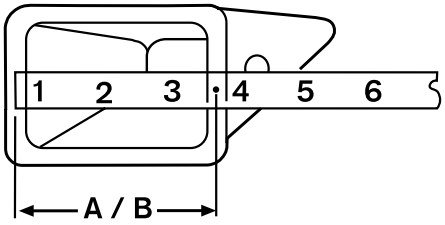
All measurements in millimetres

HOW TO IDENTIFY A CAT STYLE TIP

To determine the size or J-family of a CAT style tip. Take the dimensions shown below.

A(mm)	B(“)	J-Series
51mm	2.0”	J200
64mm	2.5”	J250
76mm	3.0”	J300
89mm	3.5”	J350
102mm	4.0”	J400
114mm	4.5”	J450
140mm	5.5”	J550
152mm	6.0”	J600

Place a tape measure across the back of the tip at the midpoint of the side walls.

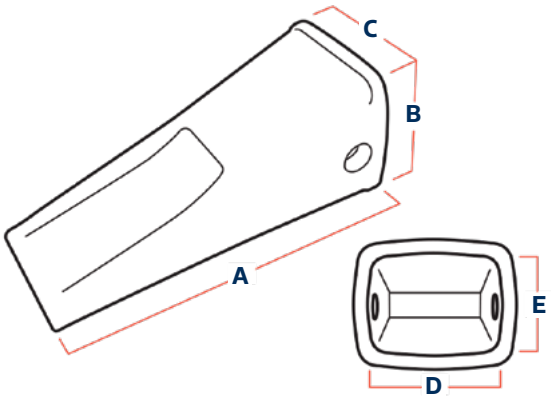


In addition, the second and third digits in the CAT part number often refer to the series.
Example: IU3352 = J350 series.

DOOSAN STYLE BUCKET TEETH

DOOSAN STYLE BUCKET TEETH

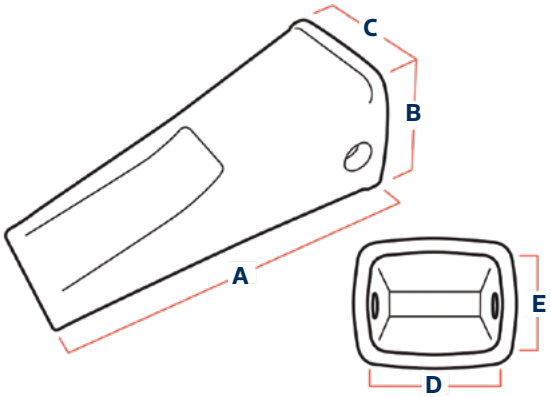
STANDARD TIP



	External			Internal			
Part No	A	B	C	D	E	KG	Machine Size
2713-1221	200	85	85	65	65	3.8	10-15 Tonne
K1005018	280	126	126	97	97	11	31-35 Tonne

All measurements in millimetres

ROCK CHISEL TIP

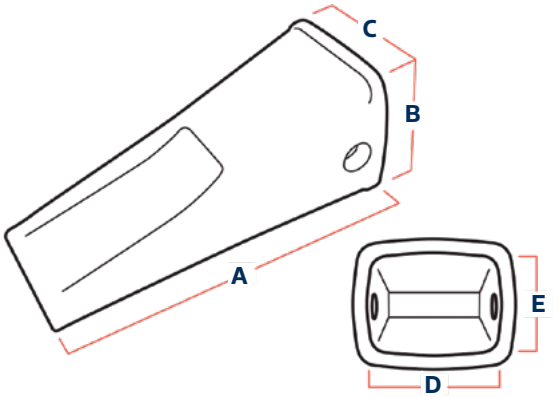


	External			Internal			
Part No	A	B	C	D	E	KG	Machine Size
K1000344RC	255	100	95	74	74	6	20-25 Tonne
71300054ARC	280	115	110	80	80	8.5	26-30 Tonne

All measurements in millimetres

DOOSAN STYLE BUCKET TEETH

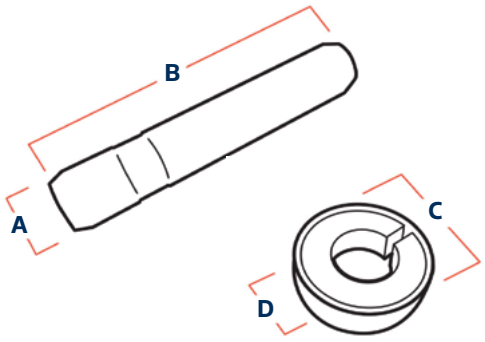
TIGER TIP



	External			Internal			
Part No	A	B	C	D	E	KG	Machine Size
71300054AT	295	116	110	80	80	7.3	26-30 Tonne

All measurements in millimetres

PINS AND RETAINERS



Machine	Pin No	Retainer No	A	B	C	D
DX140	2705-1022	2114-1859	18	85	31	17
DX225	2705-1020	2114-1848A	20	99	35	19
DX300	2705-1021	2114-1849A	22	110	37	21
DX340	8E0468	8E0469	24	134	44	23.3

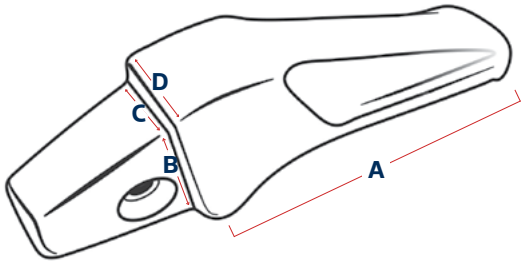
All measurements in millimetres

ESCO CONICAL STYLE BUCKET TEETH

ESCO CONICAL STYLE ADAPTERS

FLUSHMOUNT ADAPTERS

Fig



2-STRAP ADAPTERS

Fig.2

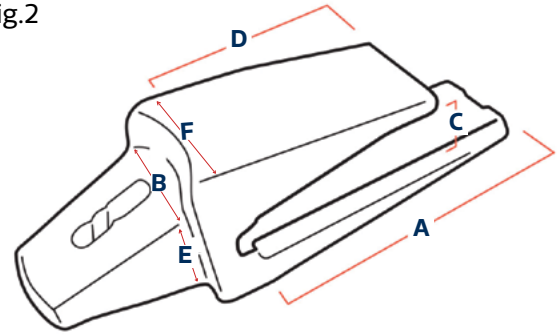


Fig.3

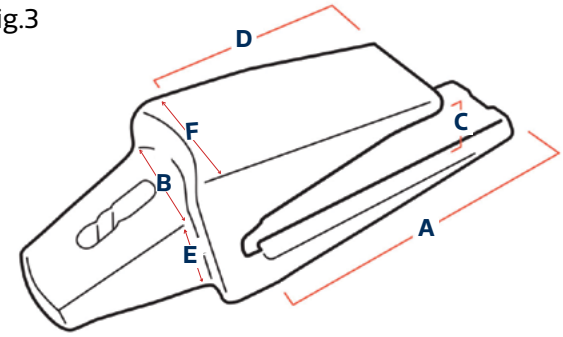
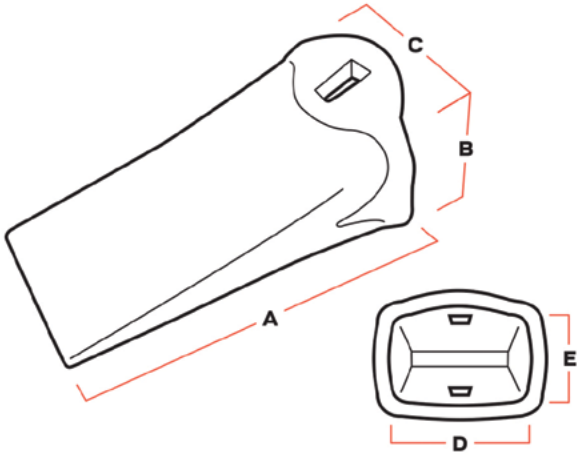


Fig	Part No	Series	A	B	C	D	E	F	KG	Machine Size
1	MB81	N/A	72	29	40	45	-	-	0.8	1-3 Tonne
2	833-18	18s	124	40	22	60	32	55	1.5	4-6 Tonne
3	23574-22	22s	120	42	26	65	42	56	3	7-8 Tonne
3	A1306-25	25s	160	60	27	110	45	72	4	8-10 Tonne
3	B3210T-30	30s	185	70	35	140	40	86	6	12-15 Tonne
3	B3210T-35	35s	220	85	33	160	45	102	10	15-25 Tonne

All measurements in millimetres

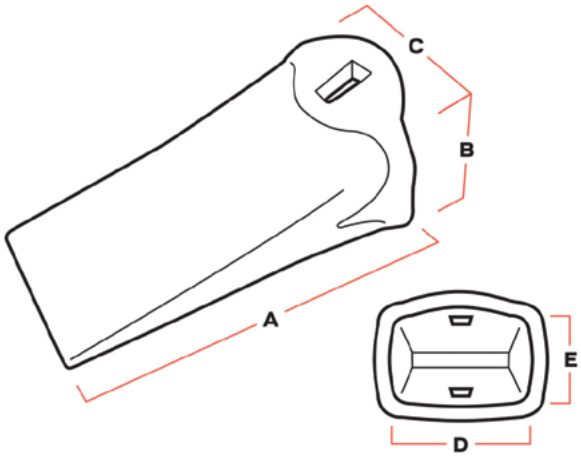
ESCO CONICAL STYLE BUCKET TEETH

MINI TIP RANGE



	External			Internal			
Part No	A	B	C	D	E	KG	Machine Size
MB4F	95	46	46	33	35	0.7	1-3 Tonne

All measurements in millimetres

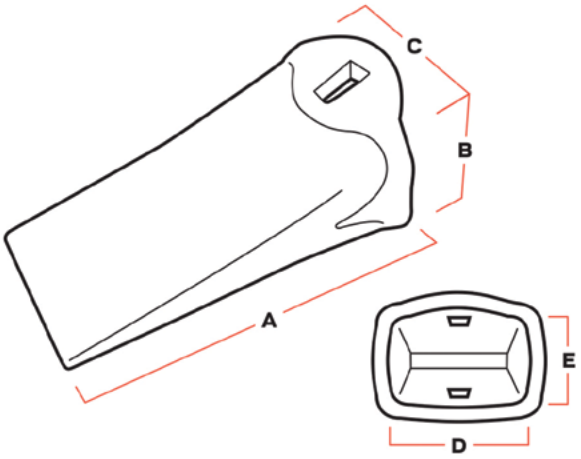


	External			Internal			
Part No	A	B	C	D	E	KG	Machine Size
MN18L	120	51	60	40	35	1	4-6 Tonne

All measurements in millimetres

ESCO CONICAL STYLE BUCKET TEETH

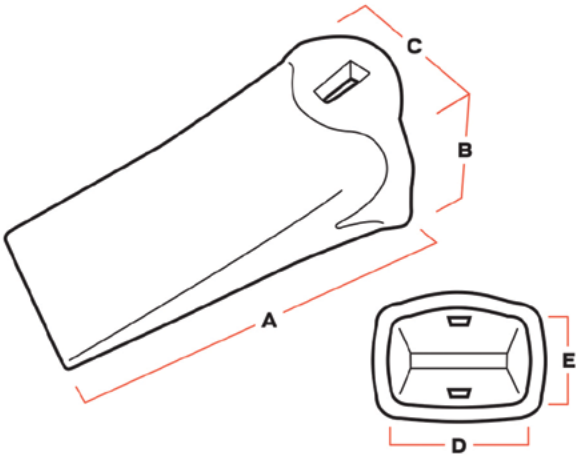
STANDARD TIP



		External			Internal			
Part No	**Series**	**A**	**B**	**C**	**D**	**E**	**KG**	**Machine Size**
BC18S	18S	140	52	62	40	35	1	4-6 Tonne
BC22S	22S	138	64	62	45	45	1.3	7 Tonne
BC25S	25S	178	75	85	62	55	1.7	8-10 Tonne
BC30S	30S	178	78	95	72	50	2.7	10-15 Tonne
BC35S	35S	215	95	112	82	65	4.5	15-25 Tonne
BC40S	40S	225	110	130	98	72	6.4	26-35 Tonne
BC45S	45S	230	120	140	112	75	9.2	36-40 Tonne

All measurements in millimetres

STANDARD TIP - *Premium quality, self sharpening design (MTG)*

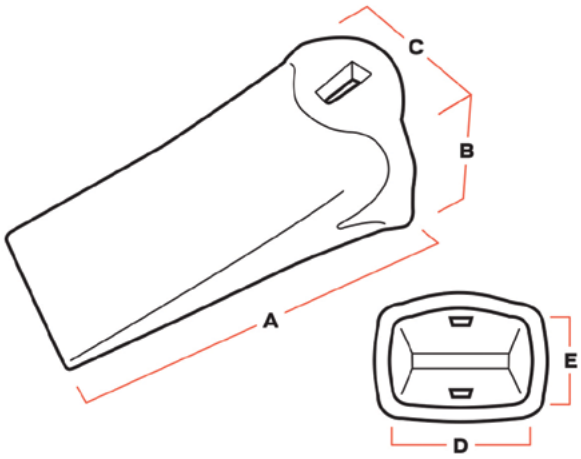


		External			Internal			
Part No	**Series**	**A**	**B**	**C**	**D**	**E**	**KG**	**Machine Size**
MN25S	25S	175	78	80	62	55	2	8-10 Tonne
MN30S	30S	180	80	95	72	50	2.5	10-15 Tonne
MN35S	35S	200	90	114	82	65	3.4	15-25 Tonne
MN40S	40S	240	105	125	98	72	5.5	26-35 Tonne

All measurements in millimetres

ESCO CONICAL STYLE BUCKET TEETH

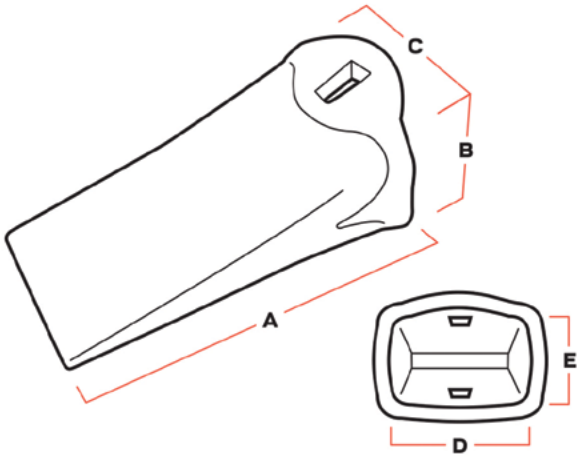
TIGER TIP



		External			Internal			
Part No	Series	A	B	C	D	E	KG	Machine Size
25VIP	25S	228	80	90	62	55	3	8-10 Tonne
30VIP	30S	215	78	100	72	50	3	10-15 Tonne
35VIP	35S	265	110	120	82	65	6.2	15-25 Tonne

All measurements in millimetres

TWIN TIGER TIP

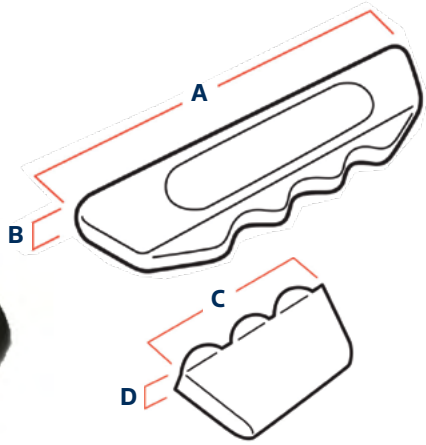


		External			Internal			
Part No	Series	A	B	C	D	E	KG	Machine Size
18TVIP	18S	150	50	60	40	35	1.1	4-6 Tonne
25TVIP	25S	228	80	89	62	55	3	8-10 Tonne
30TVIP	30S	215	78	100	72	50	3	10-15 Tonne
35TVIP	35S	265	110	120	82	65	6.2	15-25 Tonne

All measurements in millimetres

ESCO CONICAL STYLE PINS & LOCKS

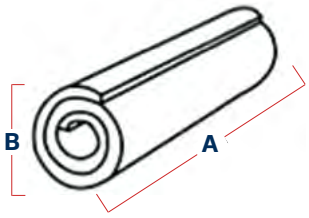
PINS AND LOCKS



Pin	Lock	A	B	C	D
18PN	18LK	55	7	35	13
22PN	22LK	68	7	44	13
25PN	25LK	72	10	37	11
30PN	30LK	72	10	37	11
35PN	35LK	84	10	47	14
40PN	40LK	100	13	47	14
45PN	45LK	104	13	59	16

All measurements in millimetres

ROLL PINS



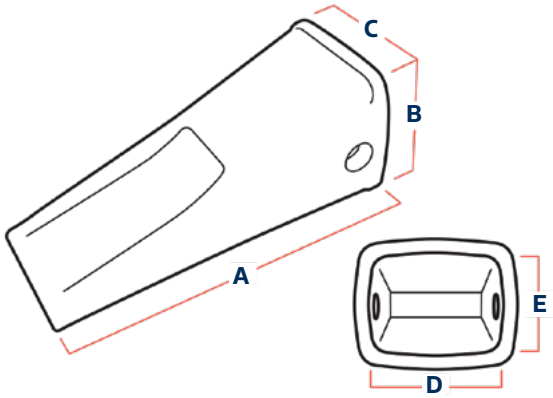
Pin	A	B
MB8	51	8

All measurements in millimetres

HYUNDAI STYLE BUCKET TEETH

HYUNDAI STYLE BUCKET TEETH

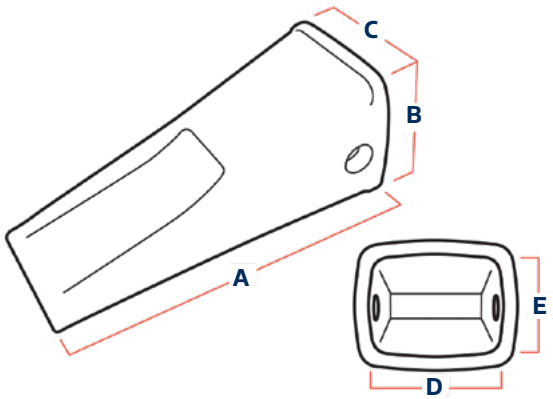
STANDARD TIP



	External			Internal			
Part No	A	B	C	D	E	KG	Machine Size
E161-3027	212	90	98	72	60	4	12-21 Tonne
61Q6-31310	107	106	225	72	72	6.5	R210-9
E262-3046	255	105	115	82	80	7.5	26-32 Tonne

All measurements in millimetres

ROCK CHISEL TIP

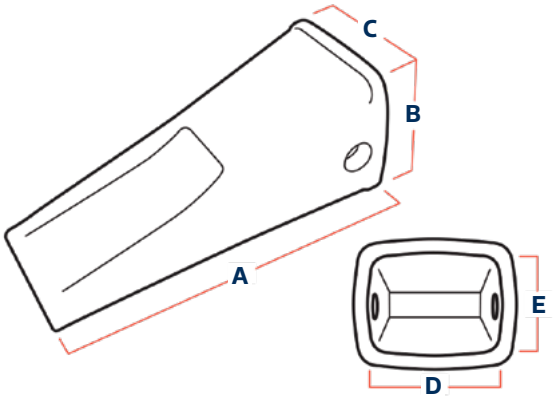


	External			Internal			
Part No	A	B	C	D	E	KG	Machine Size
E161-3027RC	255	90	98	72	60	6	12-21 Tonne
E262-3046RC	295	110	120	82	80	10	26-32 Tonne

All measurements in millimetres

HYUNDAI STYLE BUCKET TEETH

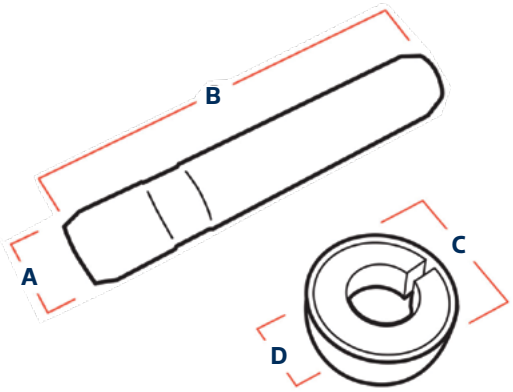
TIGER TIP



	External			Internal			
Part No	A	B	C	D	E	KG	Machine Size
E161-3027T	220	90	98	72	60	4.3	12-21 Tonne
E262-3046T	295	110	120	82	80	9.3	26-32 Tonne

All measurements in millimetres

PINS AND RETAINERS



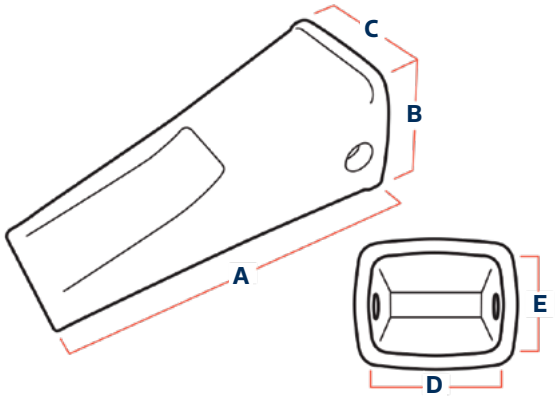
Pin No	Retainer No	A	B	C	D	Machine
SB80PN	SB80/235WS	19	101	32	18.6	12-21 Tonne
SB235PN	SB80/235WS	19	116	34	18.6	26-32 Tonne

All measurements in millimetres

KOMATSU STYLE BUCKET TEETH

KOMATSU STYLE BUCKET TEETH

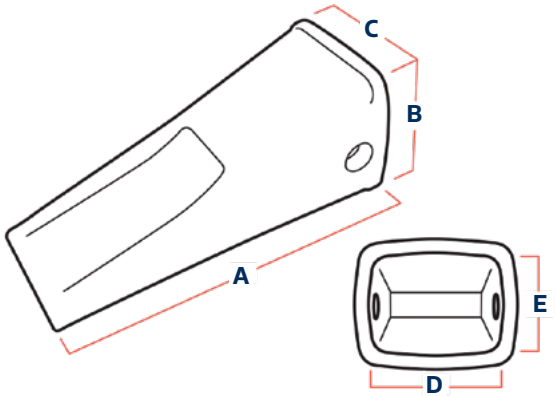
STANDARD TIP



		External			Internal			
Part No	Series	A	B	C	D	E	KG	Machine Size
205-70-19570	PC120/200	222	100	95	72	82	4.2	10-25 Tonne
207-70-14151	PC300	240	115	120	92	85	6.5	25-35 Tonne
208-70-14152	PC400	275	122	150	110	92	9.6	35-42 Tonne

All measurements in millimetres

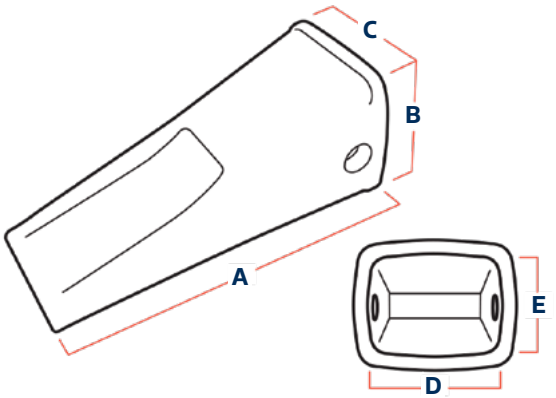
ROCK CHISEL TIP



		External			Internal			
Part No	Series	A	B	C	D	E	KG	Machine Size
PC650RC	PC650	430	200	185	133	136	47	60-70 Tonne

All measurements in millimetres

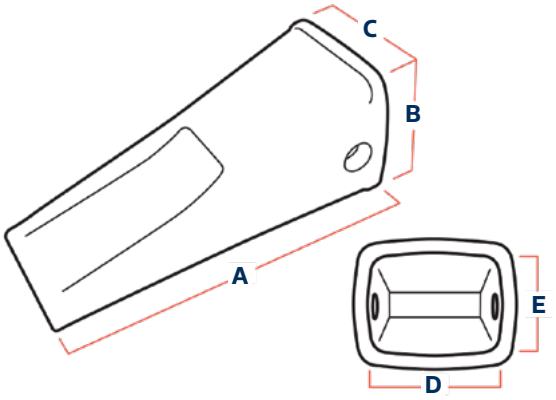
TIGER TIP



		External			Internal			
Part No	Series	A	B	C	D	E	KG	Machine Size
PC200TL	PC120/200	280	100	95	72	82	6	10-25 Tonne
PC300TL	PC300	330	118	126	92	85	9	25-35 Tonne
PC400TL	PC400	375	130	150	110	95	14	35-42 Tonne

All measurements in millimetres

TIGER TIP - *Premium quality, self sharpening design (MTG)*

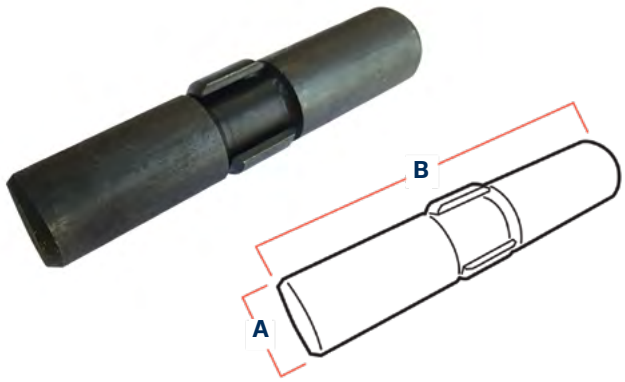


		External			Internal			
Part No	Series	A	B	C	D	E	KG	Machine Size
MK200V	PC120/200	270	114	98	72	82	4.7	15-25 Tonne
MK300V	PC300	300	122	122	92	85	6.5	25-35 Tonne
MK400V	PC400	340	135	148	110	92	9.4	35-42 Tonne

All measurements in millimetres

KOMATSU STYLE BUCKET TEETH

PIN ASSEMBLY



Pin No	A	B	Machine Size
09244-02496	25	97	PC200
175-78-21810	25	118	PC300
09244-03036	30	138	PC400
209-70-54240	36	168	PC650

All measurements in millimetres

PRE-FABRICATED BUCKET EDGES

SAVE YOURSELF THE HASSLE OF WELDING AND GET WEST-TRAK TO SUPPLY A PRE-FABRICATED CUTTING EDGE, WITH ADAPTERS FITTED, READY TO WELD IN YOUR BUCKET

You'll get 100% guaranteed quality with correct adapter fitment and welding procedures when fabricated by West-Trak!

ADAPTER WELDING INSTRUCTIONS

WELDING INSTRUCTIONS FOR MTG ADAPTERS

This "Welding Guide" is intended to assist customers with welding GET products. It is a general welding guide and is not all inclusive. Your specific application may require different welding practices. This welding guide is not intended to be used for joint design of buckets or other attachments. West-Trak accepts no responsibility for the misuse or misinterpretation of this information.

Welding Instructions

Processes - Welding may be done by any of the following processes:

- **Shielded metal arc welding (SMAW)**
- **Gas metal arc welding (GMAW)**
- **Flux-cored arc welding (FCAW)**

Consumable - Welding unalloyed and low alloyed consumables.

Unalloyed and low-alloyed consumables with tensile strength of up to 500 MPa should be used. Such welding consumables reduce the residual level in the joint and thus reduces the possibility of hydrogen cracking.

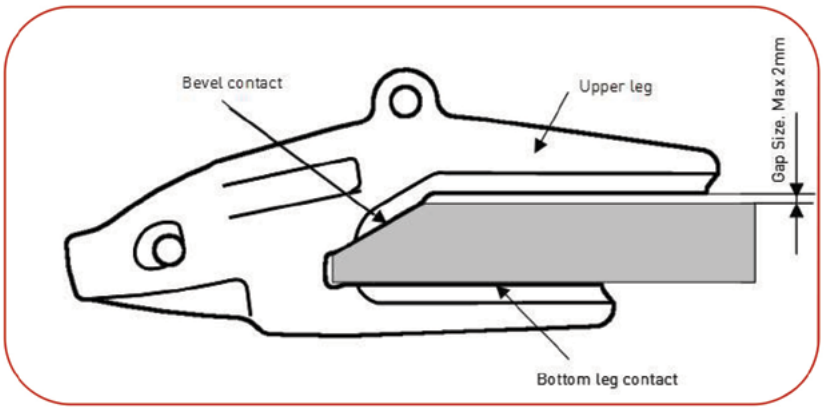
WELDING UNALLOYED & LOW ALLOYED FILLER CONSUMABLES		
PROCESS	**EN CLASS**	**AWS CLASS**
SMAW	EN ISO 2560-A E42X	E70X according to A5.1 or equivalent under A5.5
GMAW	EN ISO 14341-A G42X EN ISO 14341-A G46X	E70C-X according to A5.18 or equivalent under A5.28
		ER70S-X according to A5.18 or equivalent under A5.28
FCAW	EN ISO 16834-A T42X	E7XT-X according to A5.20 or equivalent under A5.29

Note that 'X' may stand for one or several characters

ADAPTER WELDING INSTRUCTIONS

STEP 1:
All mill scale, rust, paint, oil grease, arc air slag or moisture must be removed from the surfaces of any weld location. The surfaces must be sufficiently clean so that there is nothing that might contain moisture or hydrocarbons, which break down in the heat of the arc producing hydrogen, which can be absorbed in the weld and cause cracks. Removal may be accomplished by shot blasting, sand blasting, grinding or machining. Any porosity, burned-in sand or other defects visible on the weld prep surfaces must be removed by grinding or arc air gouging.

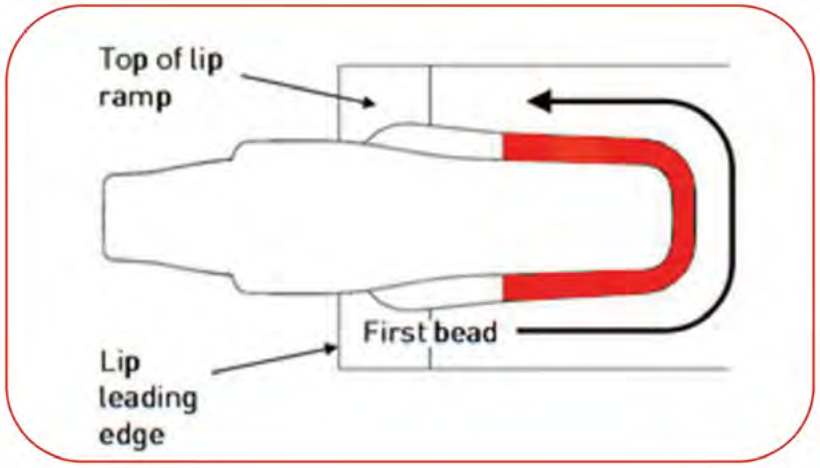
STEP 2:
Place adapter on the lip at the desired location from side to side. Bottom leg and bevel gle should be in full contact the lip; as shown in figure low. Pack out the top leg if gap is more than 2mm.



STEP 3:
Preheat the top and bottom of Adapter/Lip to a temperature between 150C and 180C degrees and maintain this temperature throughout the whole welding process..

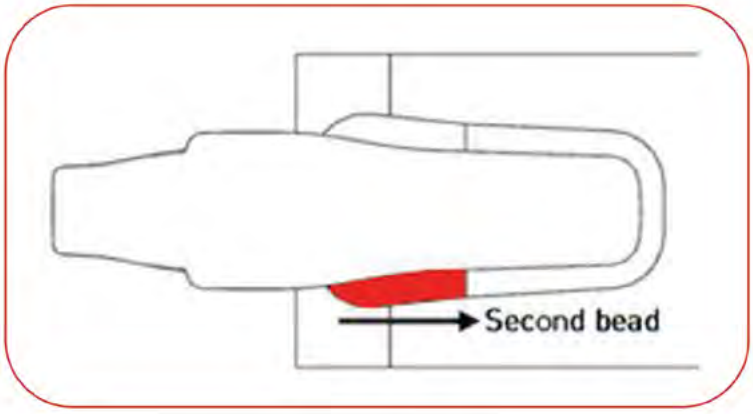
STEP 4:
Apply one 25mm long tack weld at the root of the weld groove on each side of the top leg, midway between the end of the leg and the trailing edge of the lip bevel.

STEP 5:
Begin welding at the center of top leg and weld one pass around the back of the leg to the centre of the opposite side.



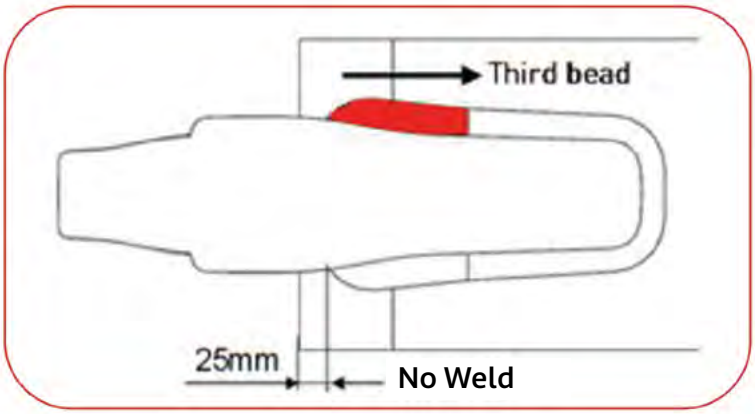
ADAPTER WELDING INSTRUCTIONS

STEP 6:
On the initially welded side, begin welding at the front of the weld groove and proceed to the starting point of the first bead. Do not weld within 25mm of the lip leading edge.



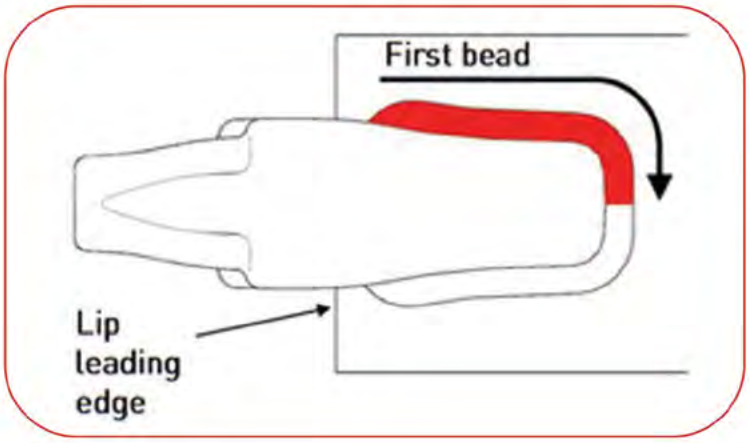
STEP 7:
Place a similar bead on the opposite side of the top leg.

STEP 8:
Repeat this sequence (steps 5, 6 and 7) three times. Vary the lengths of the weld beads slightly so that the start/stop positions are not at exactly the same location.

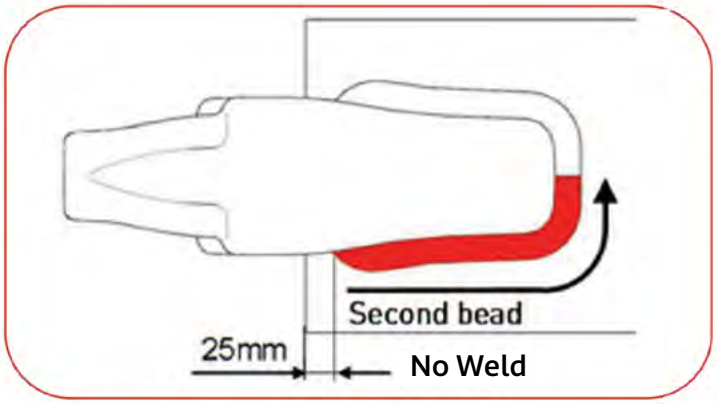


STEP 9:
Turn the lip over

STEP 10:
Begin welding at the front of the weld groove on the bottom leg and weld to the back of the leg. Do not weld within 25mm of the lip leading edge.



STEP 11:
Begin welding at the front of the weld groove on the opposite side of the leg, joining the initial bead at the back of the leg. Do not weld within 25mm of the lip leading edge.



STEP 12:
Repeat this sequence (steps 10 and 11) three times. Vary the lengths of the beads slightly so that the start/stop positions are not at exactly the same location.

STEP 13:
If the adapter size requires additional weld layers, turn the lip over and weld three layers according to the sequence for the top leg (steps 5, 6 and 7).

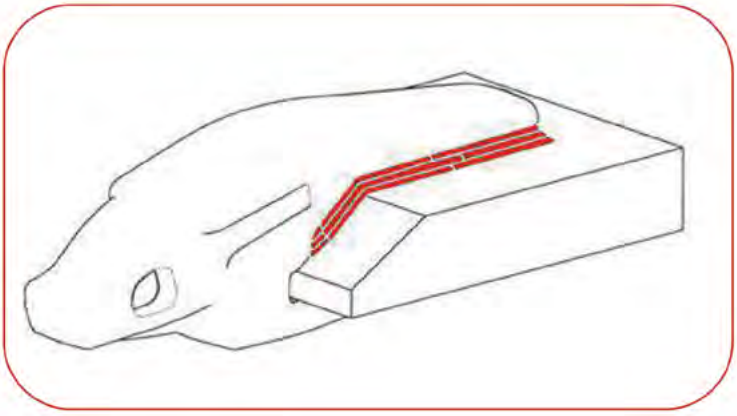
STEP 14:
Turn the lip over again and apply three layers according to the sequence for the bottom leg. (steps 10 and 11)

STEP 15:
The leg sizes of the weld fillet must be flush and less than 3mm above the edge of the cast weld groove. In some adapter patterns, the weld groove height decreases near the leading edge of the lip.

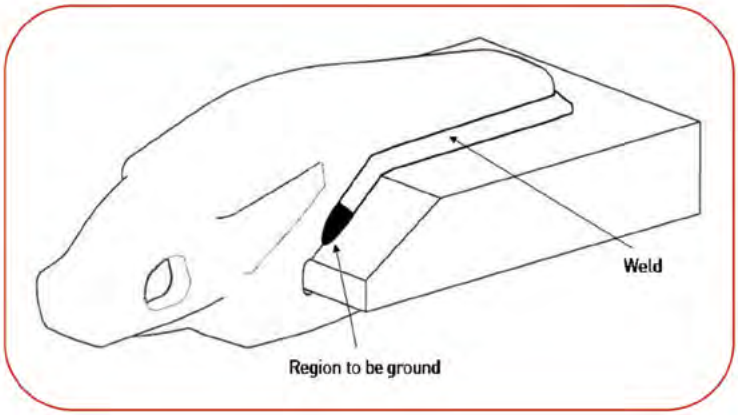
STEP 16:
Once welding is completed, cover all adapters with a thick welding blanket to allow slow cooling. Once adapters have cooled to below 50 degrees, post heat the lip and all adapters back up to 230-250 degrees to destress the welds. Cover adapters with welding blankets again to allow slow cooling.

ADAPTER WELDING INSTRUCTIONS

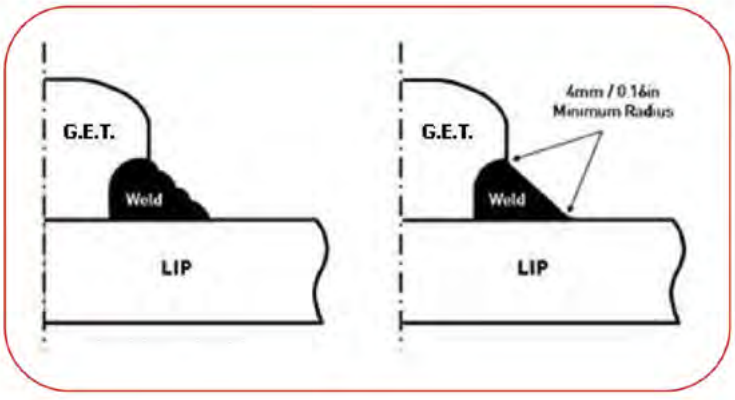
STEP 17:
When welding large adapters, considerable grinding effort can be saved by carefully positioning the starting points of the beads near the leading edge. Start each weld bead slightly behind those of the preceding layer so as to produce a "rounded" weld end.



STEP 18:
All adapter welds need to be ground smooth 65-75mm back from the front edge as indicated in the figure. All welds on both the top and bottom sides should be ground in this area to reduce fatigue cracking. (Air-arcing the weld toes off will also help reduce cracking)



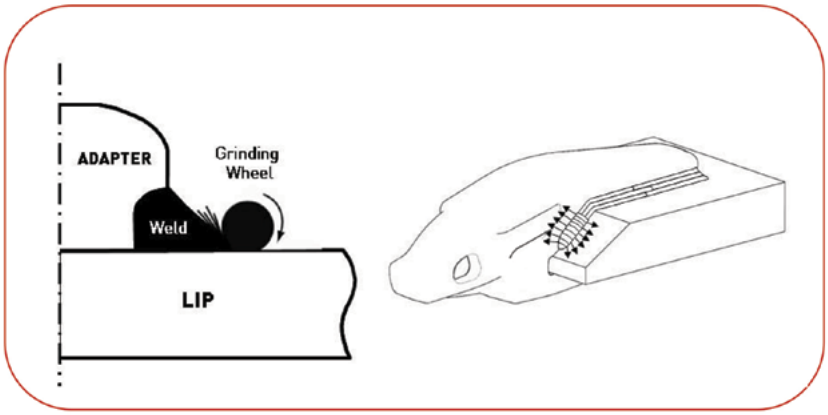
STEP 19:
Grinding shall produce a smooth surface free of roughness and uneveness associated with the weld beads. The toes of the welds shall merge smoothly with the lip and the adapter with a minimum radius of 45mm.



ADAPTER WELDING INSTRUCTIONS

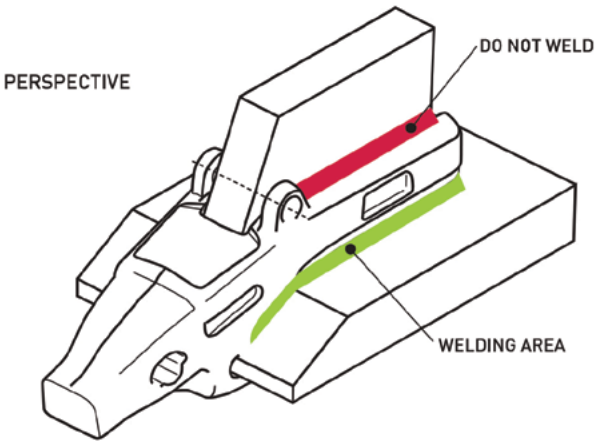
Grinding shall be done with the perimeter of the wheel and not the face. The grinding direction must be perpendicular to the toes of the welds as in the illustration.

Grinding at the toes of the welds can be done by the use of cone-shaped grinding wheels. For final grinding, the abrasive may be no coarser than 24 Grit.



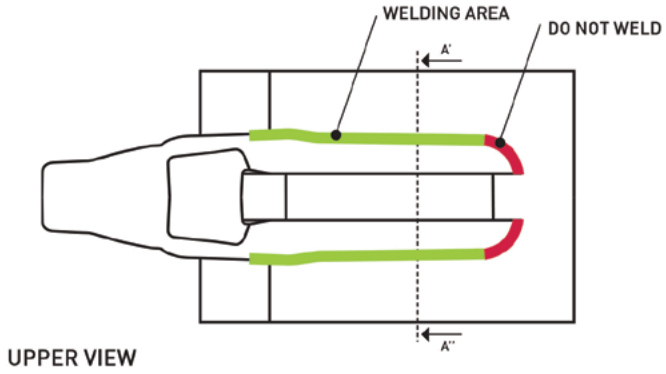
ADAPTER WELDING INSTRUCTIONS

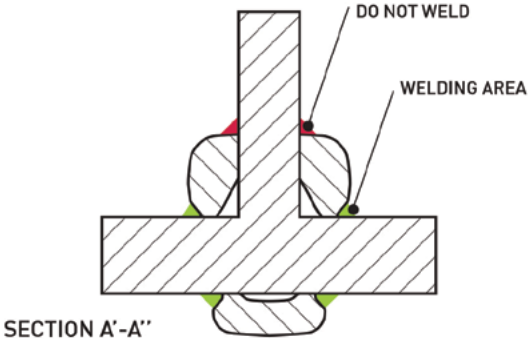
WELDING INSTRUCTIONS FOR STRADDLE LEG ADAPTERS



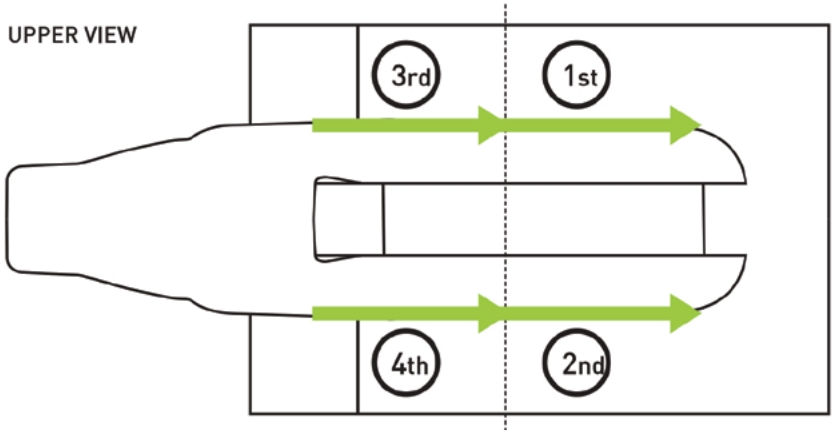
WELDING AREAS

1. Place the adapter on the lip and ensure a good fit with the lip bevel
2. Follow the Adapter Welding instructions as on previous pages
3. Weld the bottom leg in the same way as specified for two strap adapters
4. Weld the top leg as specified in the following figures

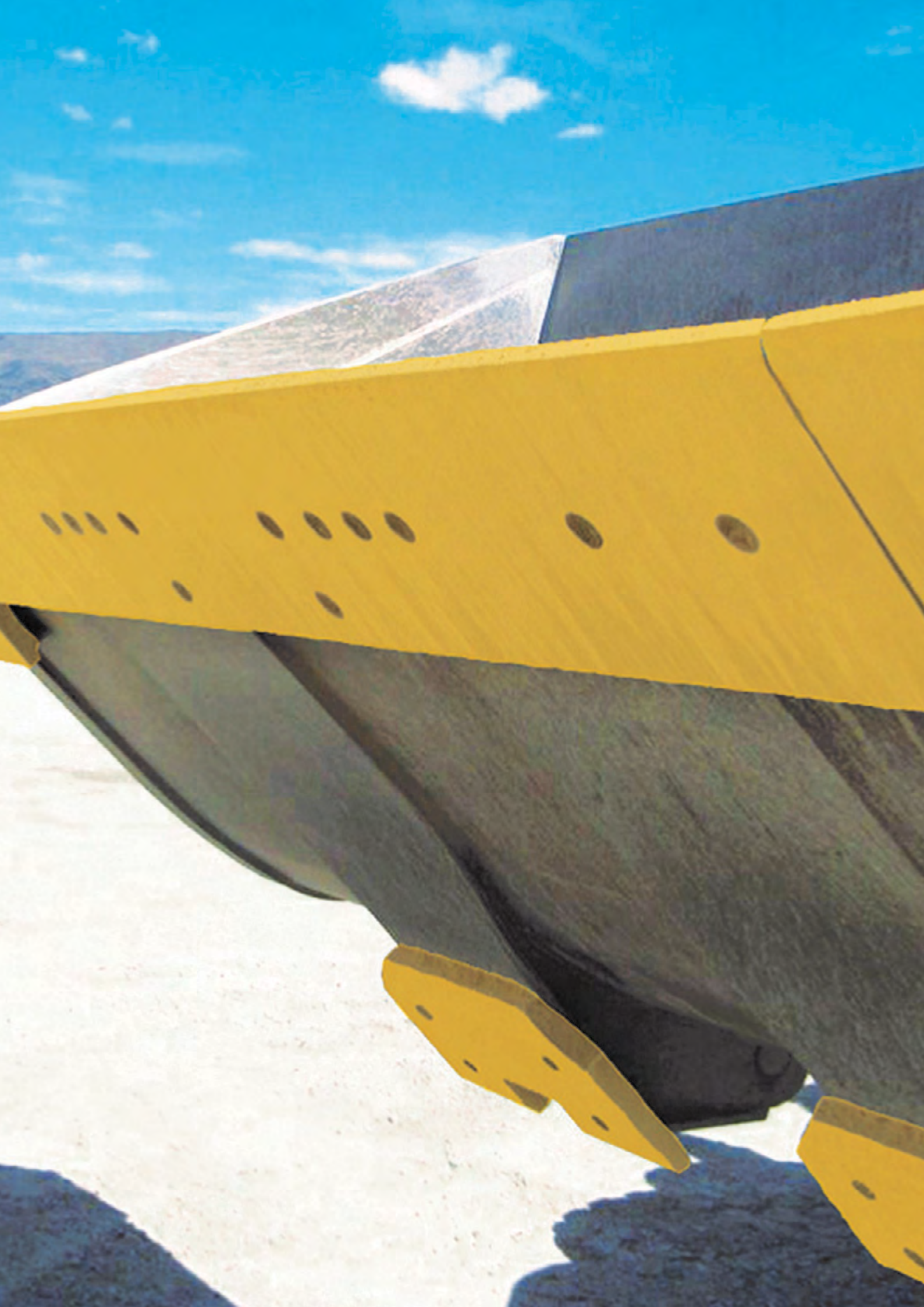




Welding process




MTG
MTG



CUTTING EDGES & END BITS

Sharpen your performance with harder & tougher Cutting Edges on your Loaders, Excavators, Dozers, Scrapers & Graders.

"Custom designs for all makes & models"

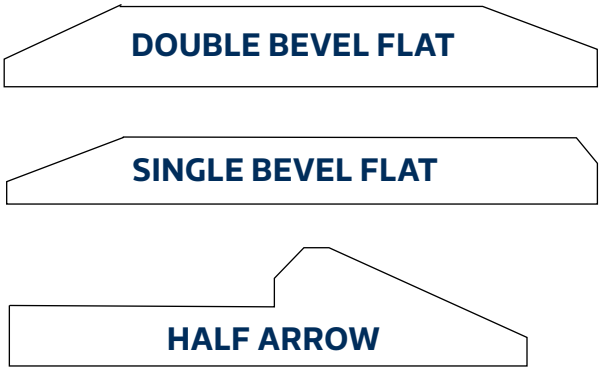
- CUTTING EDGE RANGE 116
- CUTTING EDGE PROFILES 118
- EXCAVATOR CUTTING EDGES 122
- LOADER CUTTING EDGES 126
- DOZER CUTTING EDGES 132
- SCRAPER CUTTING EDGES & WEAR PARTS 135
- COMPACTOR CUTTING EDGES & WEAR PARTS 140
- GRADER CUTTING EDGES 144
- PLOW BOLTS, NUTS & WASHERS 150

CUTTING EDGE RANGE

A FULL RANGE OF BOLT-ON AND WELD-IN CUTTING EDGES ARE AVAILABLE FOR ALL MAKES AND MODELS OF EXCAVATORS, LOADERS, DOZERS, SCRAPERS, GRADERS, COMPACTORS AND OTHER EARTHMOVING MACHINES

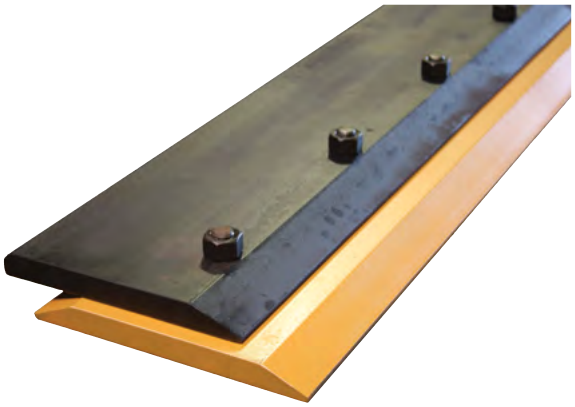
CUTTING EDGE PROFILES

400HB Single Bevel, 450HB Half Arrow and 500HB Double Bevel Cutting Edge profiles are available to suit all types of buckets and blades.



EXCAVATOR EDGES

Customised weld-in and bolt-on Cutting Edges are available to suit all makes and models of Excavator buckets.



LOADER EDGES

A full range of bolt on, reversible Cutting Edges, End Bits and Heel Plates are available to suit all makes and models of wheel Loaders.

DOZER EDGES

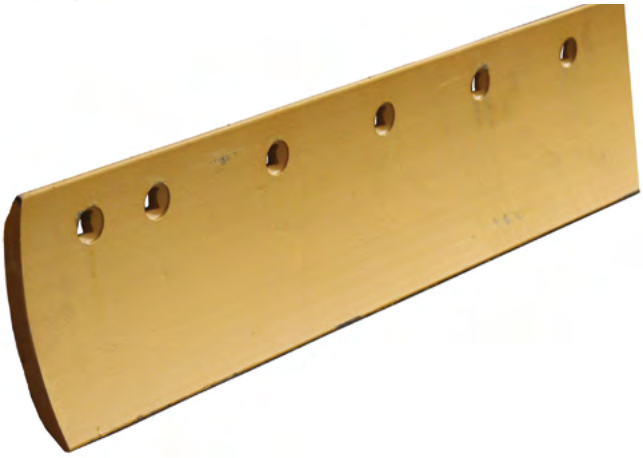
A full range of bolt-on reversible Cutting Edges and End Bits are available to suit all makes and models of Dozers.

SCRAPER EDGES

A full range of bolt-on, reversible Cutting Edges, Routers and other wear parts are available to suit all makes and models of Scrapers and Scoops.

GRADER EDGES

A full range of bolt-on Cutting Edges and End Bits are available to suit all makes and models of Graders and Snowplows.



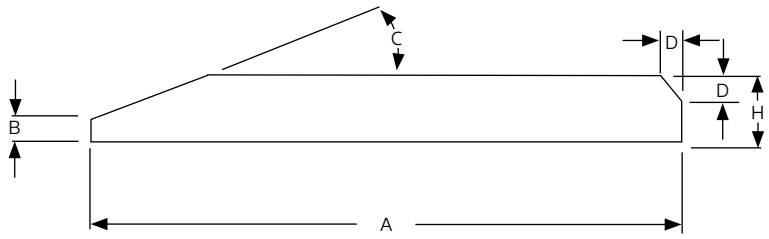
HARDWARE

A full range of hardened Plow Bolts, Nuts and Washers are available from 1/2" to 1.3/8" size

CUTTING EDGE PROFILES

SINGLE BEVEL PROFILE (SBF)

- **Weld-in cutting edge profile with a bevel along the front for good penetration and a weld bevel along the back edge**
- **Made from 400/450HB abrasion resistant steel for maximum strength and wear life**
- **Available in 6200mm long or can be cut to any length and drilled to suit bolt on edges**
- **Custom made edges for large buckets are available in 780 High Tensile steel, up to 140mm thickness**



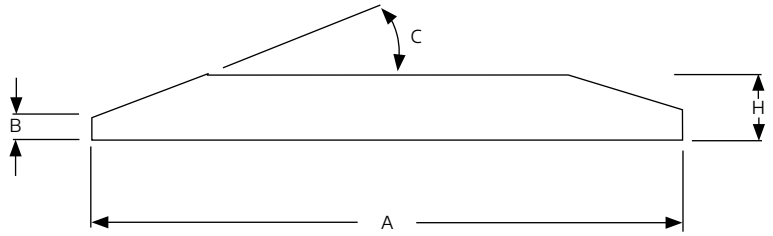
Standard Single Bevel Profile Sizes							
Part No	**A**	**H**	**B**	**D**	**C**	**Length**	**Kg/Mtr**
110x12_SBF	110	12	3	2	24°	6200	10
110x16_SBF	110	16	7	2	24°	6200	14
150x16_SBF	150	16	6	5	24°	6200	19
150x20_SBF	150	20	5	5	23°	6200	23
200x20_SBF	200	20	6	8	23°	6200	31
200x25_SBF	200	25	11	8	23°	6200	39
250x25_SBF	250	25	6	10	23°	6200	49
250x30_SBF	250	30	11	10	23°	6200	59
300x30_SBF	300	30	8	8	23°	6200	71
300x35_SBF	300	35	13	8	23°	6200	82
300x40_SBF	300	40	18	8	23°	6200	94
400x50_SBF	400	50	20	12	25°	6200	157

All measurements in millimetres

CUTTING EDGE PROFILES

DOUBLE BEVEL PROFILE (DBF)

- **Bolt-on reversible cutting edge profile with a bevel on both sides. Used for all types of Excavator, Loader, Dozer, Scraper and Tractor bucket edges**
- **Made from 500HB abrasion resistant steel, for the longest possible wear life**
- **Available in 6200mm long or can be cut to any length and drilled to suit Plow Bolts**

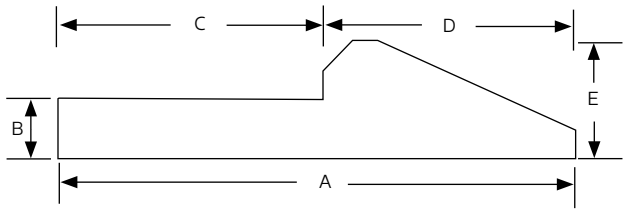


Standard Double Bevel Profile Sizes						
Part No	**A**	**H**	**B**	**C**	**Length**	**Kg/Mtr**
152x16_DBF	152	16	5	25	6200	19
203x16_DBF	203	16	5	25	6200	25
203x19_DBF	203	20	8	25	6200	31
203x25_DBF	203	25	14	25	6200	40
254x20_DBF	254	20	8	25	6200	40
254x25_DBF	254	25	14	25	6200	50
280x25_DBF	280	25	8	22.5	6200	55
330x25_DBF	330	25	8	22.5	6200	64
330x32_DBF	330	32	18	22.5	6200	83
330x41_DBF	330	41	27	22.5	6200	106
360x30_DBF	360	30	8	22.5	6200	85
406x25_DBF	406	25	14	22.5	6200	80
406x35_DBF	406	35	19	22.5	6200	111
406x41_DBF	406	41	25	22.5	6200	130
406x50_DBF	406	50	34	22.5	6200	160

All measurements in millimetres

HALF ARROW PROFILE (HA)

- **Weld-in or bolt-on cutting edge profile for Loader and Excavator cutting edges, providing more wear material along the front edge than the DBF profile**
- **Made from 450HB abrasion resistant steel for maximum strength and wear life**
- **This can also be used on bucket sides for wear protection or to increase capacity**



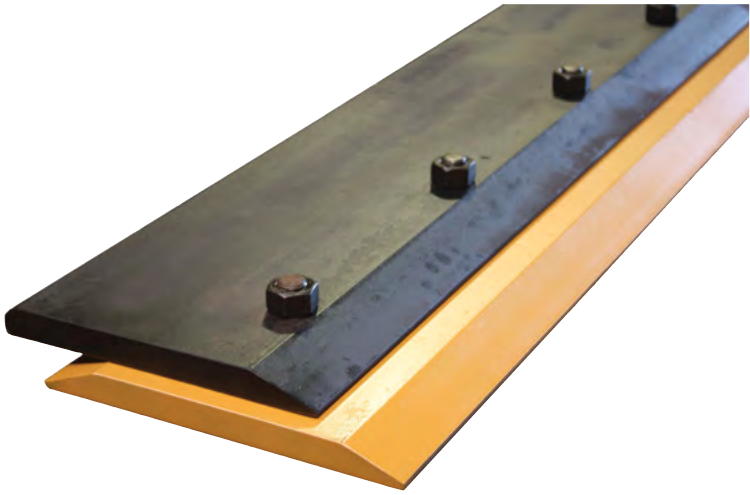
Standard Half Arrow Profile Sizes							
Part No	**A**	**B**	**C**	**D**	**E**	**Length**	**Kg/Mtr**
HA28254	254	28	132	122	57	3600	65
HA40254	254	40	132	122	70	3600	90

All measurements in millimetres

EXCAVATOR CUTTING EDGES

Cut through the clutter

MAKE YOUR BUCKET DIG EASIER, HOLD MORE MATERIAL AND LAST LONGER WITH A BOLT-ON REVERSIBLE CUTTING EDGE



- Customised cutting edges to suit any size, type and brand of Bucket
- Edges are made from 500HB abrasion resistant material for maximum wear life and strength
- Double bevel reversible design for longer wear life
- Thickness range from 16mm-60mm
- FREE onsite measureups and advice
- Huge database of drawings for all models

WELD-IN EXCAVATOR EDGES

Stronger, harder, tougher

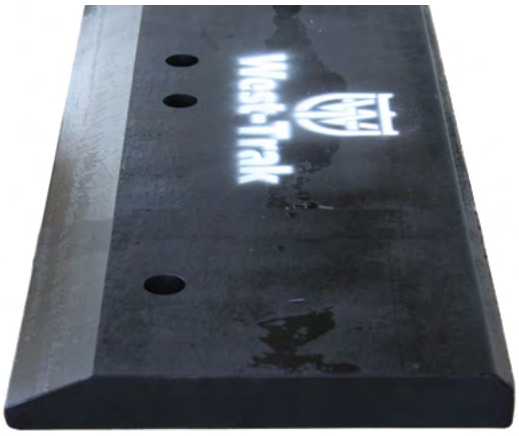
GET A NEW WELD IN CUTTING EDGE IN YOUR BUCKET & INCREASE STRENGTH, PENETRATION AND DIGGING POWER

- Customised Cutting Edges for all bucket types. Any size and shape of edge to suit your needs
- Made from 400/450HB abrasion resistant steel for good weld-ability and toughness.
- Thickness range from 10mm-140mm
- Single bevel design for good penetration
- Can be bevelled to suit weld-on adapters or drilled to suit bolt-on edges
- FREE onsite measureups and advice

The strength of your bucket is the weld-in cutting edge. We can help you choose the best size and type to suit your application

Call 0800 654 323 now

SBF Cutting Edge



SBF Drilled Base Edge

SBF Bevelled Spade Edge to suit Adapters

PRE-FABRICATED EXCAVATOR EDGES

SAVE YOURSELF THE HASSLE OF WELDING AND GET WEST-TRAK TO SUPPLY A PRE-FABRICATED CUTTING EDGE, WITH ADAPTERS FITTED, READY TO WELD INTO YOUR BUCKET

- Guaranteed high quality workmanship from our certified welders
- Fully Hammerless G.E.T system for ultimate safety and reliability
- Correct adapter fitment and welding procedure when done by West-Trak
- Complete with weld-in or pin-on Lip Protectors fitted
- FREE onsite measureups and advice

Talk to the Cutting Edge experts today for the best solution to your needs

Call 0800 654 323 now

LOADER CUTTING EDGES

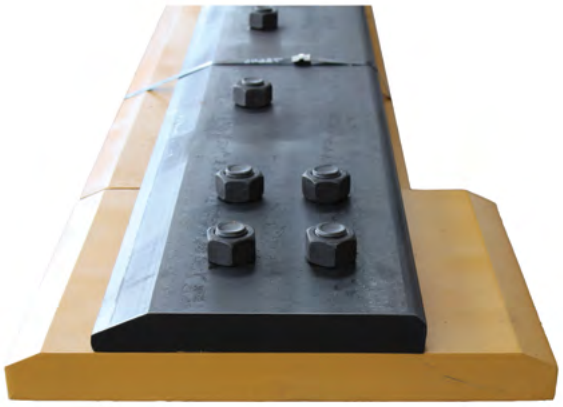
Sharpen up your leading edge

WE'RE THE LARGEST SUPPLIERS OF LOADER EDGES IN NZ, SUPPORTING THE MINES, QUARRIES AND CIVIL CONTRACTORS WITH THE MOST RELIABLE AND LONGEST LASTING, LOADER EDGE SOLUTIONS

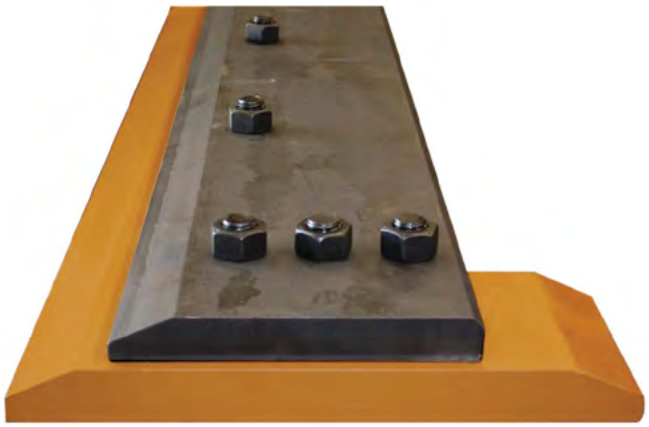
- High quality cutting edges to suit all makes and models of Wheel Loaders including Caterpillar, Komatsu, Volvo, Hitachi, Hyundai, John Deere, Leibherr and Doosan
- Custom made weld-in and bolt-on cutting edge designs can be fabricated to suit all types of buckets and applications
- 500HB abrasion resistant steel is used for all bolt-on edges to ensure maximum strength and wear life
- Thickness range from 10mm-60mm
- FREE onsite measureups and advice
- Huge database of drawings for all models

LOADER EDGE DESIGNS

Komatsu/Hitachi/Doosan/Case style Base & Bolt-on Edge set



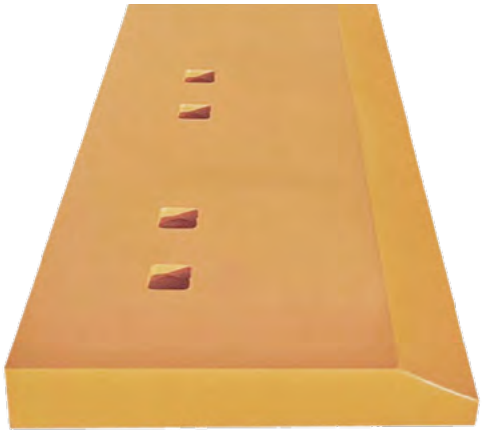
Volvo style Base & Bolt-on Edge set



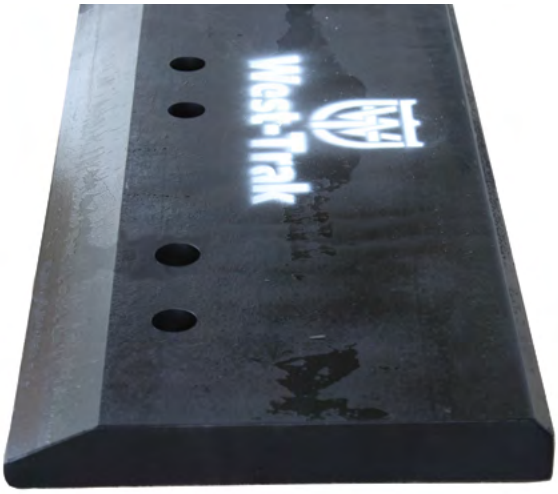
Cat/Hyundai/John Deere style Base & Bolt-on Edge set

Double Bevel Bolt-on Edge

Spade edge design for extra penetration and capacity



Single bevel bolt-on Edge for high abrasion applications

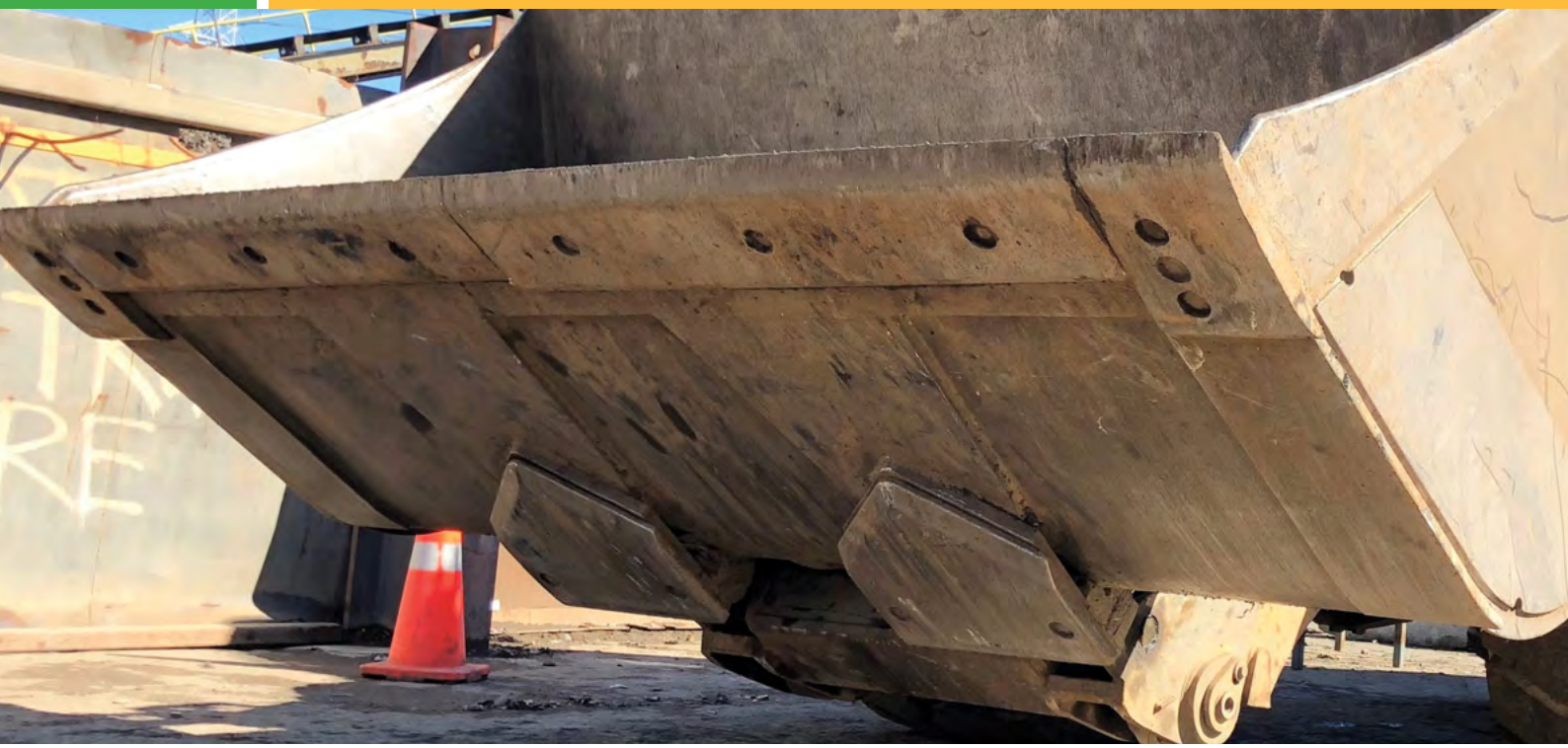


Single Bevel Drilled Base Edge

Single Bevel Drilled & Counterbored Stepped Spade Edge

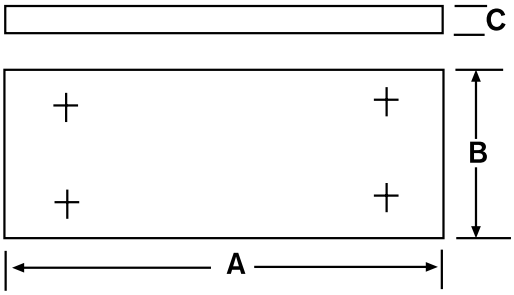
SPADE EDGE DESIGN WITH TEETH

LOADER HEEL PLATES



LOADER HEEL PLATES

- **Used to protect the underside of loader buckets from excessive wear**
- **Available to suit all make and models of loaders**
- **Weld-on or bolt-on types can be custom made to any size, shape and thickness**



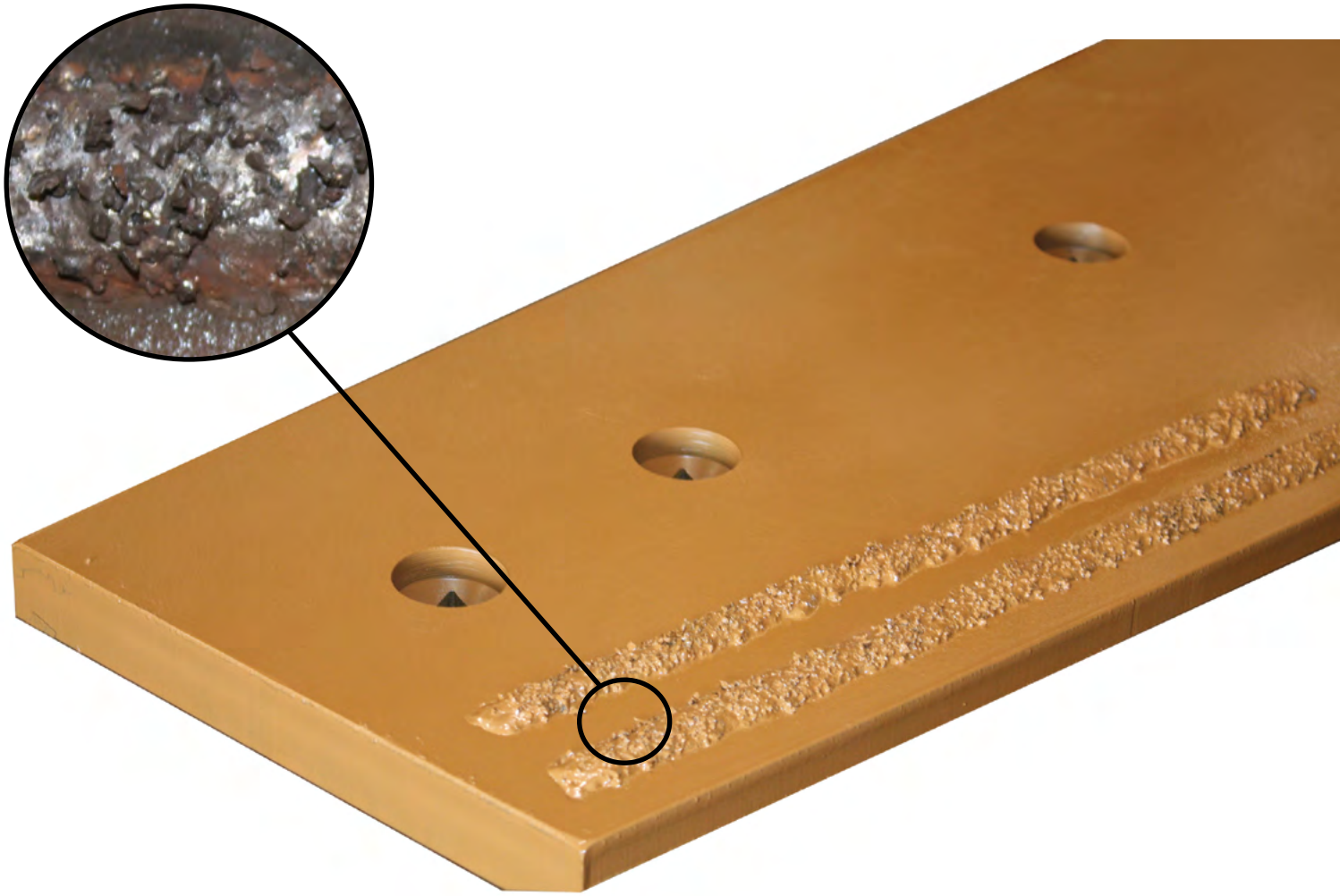
Standard CAT Style Heel Plates				
Part No	**A**	**B**	**C**	**Machine Size**
9W6747	525	250	25	Cat 950-960G/G/H
9W6749	565	250	35	Cat 966-970G/F/H
161-8573	565	250	35	Cat 972G
9W6750	600	250	35	Cat 980

All measurements in millimetres

A.R.M TUNGSTEN HARDFACING

MAKE YOUR CUTTING EDGES LAST UP TO 5 TIMES LONGER WITH A.R.M TUNGSTEN CARBIDE HARDFACING

- Abrasion Resistant Material (ARM) is a matrix of extremely hard Tungsten carbide particles and is applied using a hard facing mig wire.
- ARM provides a protective coating over critical wear surfaces on any steel component to extend its service life. Approximately 50% of the ARM dispersion is embedded below the surface resulting in a weld bead about 6-8mm high above the surface.
- This material enhances the wear pattern of parts to improve penetration and prolong wear life. It is especially suited for high wear, low impact applications and can be applied to cutting edges, skid plates, crusher plates, bucket teeth, ripper teeth, side cutters, agricultural tynes, flails, bark hammers and more.
- The life expectancy can be up to 5 times greater than standard wear parts without ARM, depending on how much product is applied and the type of application.

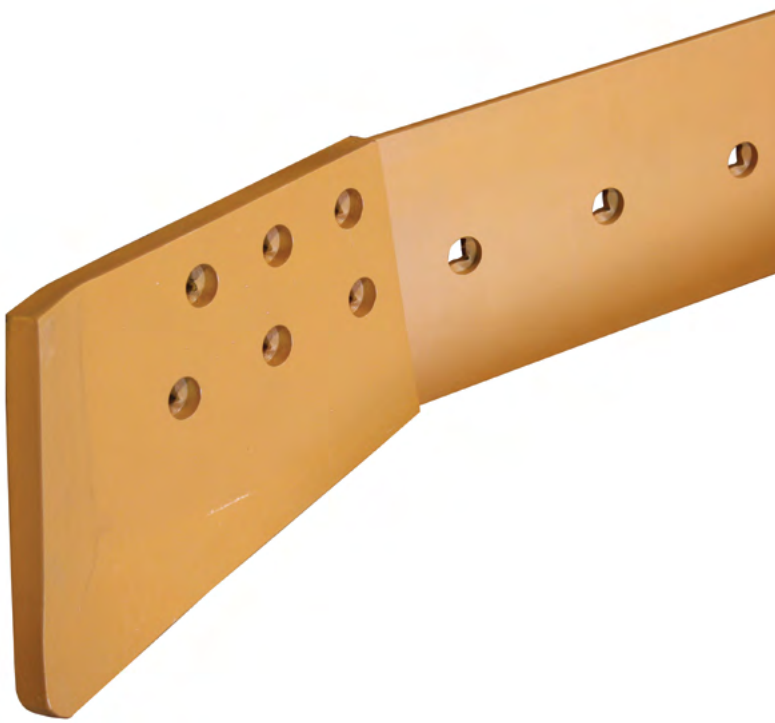


DOZER CUTTING EDGES

Get more pushing power

YOU NEED HIGH QUALITY CUTTING EDGES THAT ARE STRONGER, TOUGHER AND LAST LONGER. WE'VE GOT THEM!

- High quality Cutting Edges to suit all makes and models of Bulldozers including Caterpillar, Komatsu, John Deere, Case, Leibherr, Fiat, Terex and more
- Custom made Cutting Edge designs can be fabricated to suit all types of blades and applications
- 500HB abrasion resistant steel is used to ensure the longest possible service life
- Thickness range from 16mm-75mm
- FREE onsite measureups and advice
- Huge database of drawings for all models



DOZER END BITS

A LARGE RANGE OF BOLT-ON DOZER END BITS ARE AVAILABLE TO SUIT ALL MAKES AND MODELS OF BULLDOZERS AND COMPACTORS

- End bits are made from 500HB abrasion resistant steel for maximum strength and wear life
- Available from 16-75mm thickness
- Custom End Bit designs can be made to suit various blade types and requirements

Flat Square Cut End Bit

Flat Angled End Bit

Hot Cupped End Bit

Hot Cupped EWL End Bit

Ripper End Bit


623G

SCRAPER CUTTING EDGES

HIGH QUALITY CUTTING EDGES ARE AVAILABLE FOR ALL MAKES AND MODELS OF SCOOPS AND SCRAPERS INCLUDING CATERPILLAR, KOMATSU, WABCO, TEREX AND JOHN DEERE

- Custom made Molboards and Cutting Edge designs can be fabricated to suit all types of bowls and applications
- 500HB abrasion resistant steel is used for all Cutting Edges to ensure the longest possible wear life
- Multiple rows of holes can be added for edge height adjustment up & down
- Adapters & Teeth can be fitted for extra penetration
- FREE onsite measureups and advice

SCRAPER ROUTER BITS

LARGE RANGE OF BOLT-ON ROUTER BITS ARE AVAILABLE FOR ALL MAKES AND MODELS OF SCRAPERS AND SCOOPS

- Made from 500HB abrasion resistant steel for maximum strength and wear life
- Custom designs can be made with pin-on replaceable teeth for extra bowl penetration

Terex TS14 style Router

Cat style 615-637 Standard Router

Terex TS18/24 style Router

Cat style 615-637 Heavy Duty Router

ELEVATING SCRAPER PARTS

A RANGE OF ELEVATING SCRAPER PARTS ARE AVAILABLE TO SUIT CAT 613, 615, 623 & OTHER SCRAPER MAKES & MODELS

Scraper Chain

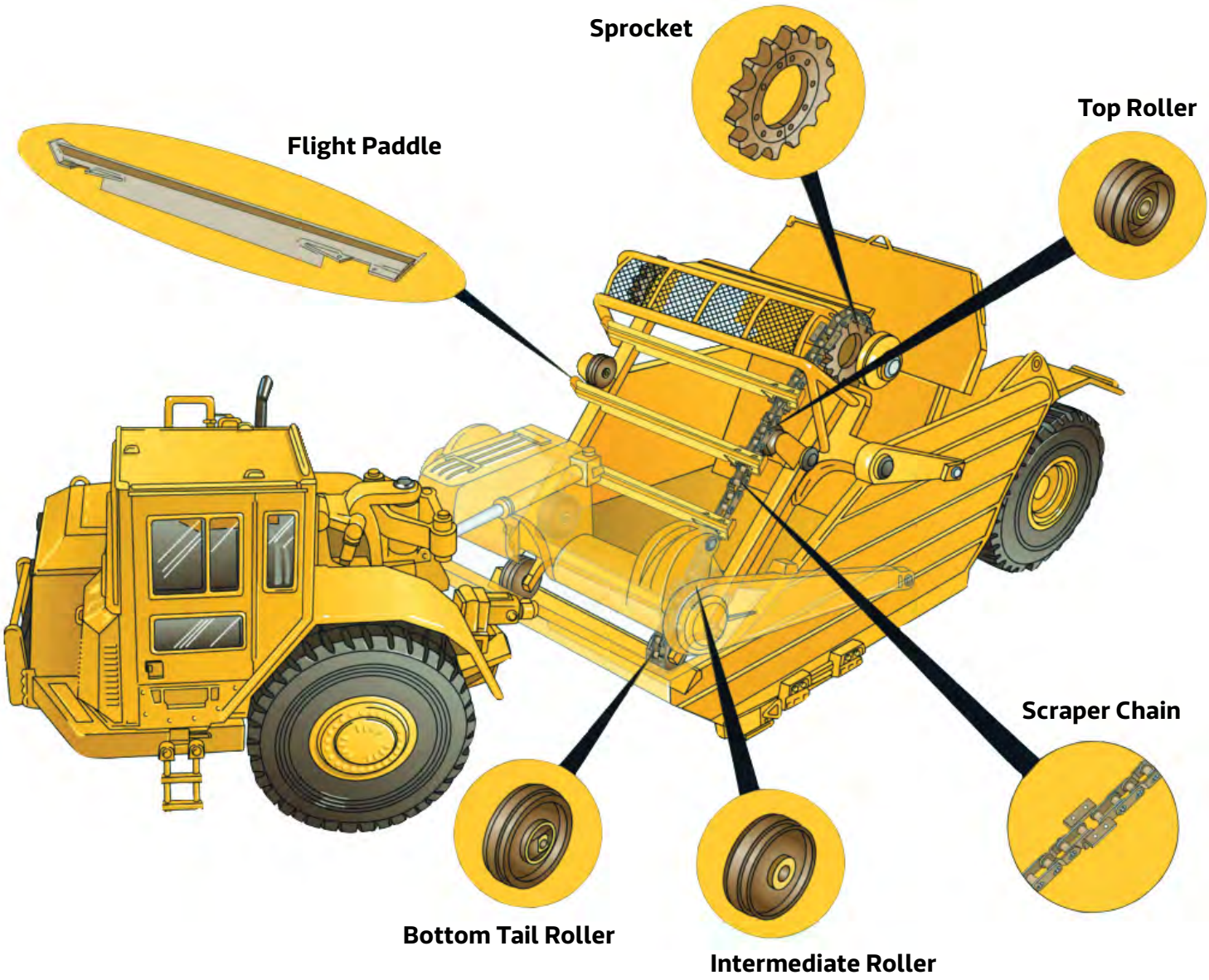
Flight Paddle

Sprockets

Top Roller

Bottom & Intermediate Rollers

ELEVATING SCRAPER PARTS



COMPACTOR CUTTING EDGES & WEAR PARTS

Cut & compact

- A large range of high quality Bolt-on Cutting Edges and End Bits are available for all makes and models of Wheel Compactors and wheeled Dozers
- Made from 500HB Abrasion Resistant wear steel for maximum wear life and performance
- A range of flat, angled and hot cupped Endbits are available to suit any application
- FREE onsite measureups and advice
- Huge database of drawings for all models

Bolt-on Cutting Edge

Flat Square Cut End Bit

Flat Angled End Bit

Hot Cupped End Bit

COMPACTOR FEET

Get more packing power

- A range of Weld-on and Bolt-on Compactor Feet are available for all models of Wheel Compactors
- Compactor Feet are shaped to deliver maximum capaction and are through hardened to 450HB for long wear life

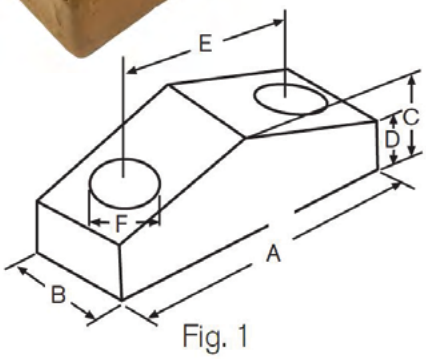


Fig. 1

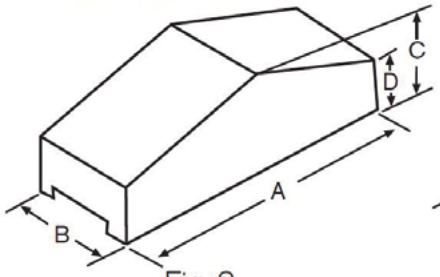


Fig. 2

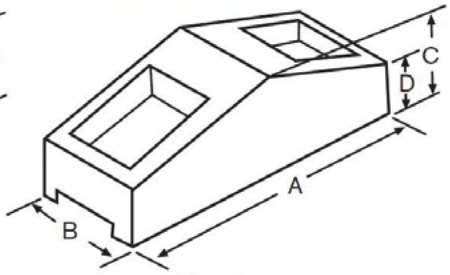
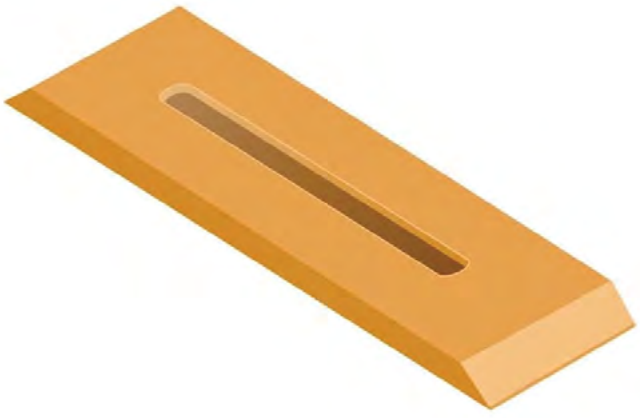


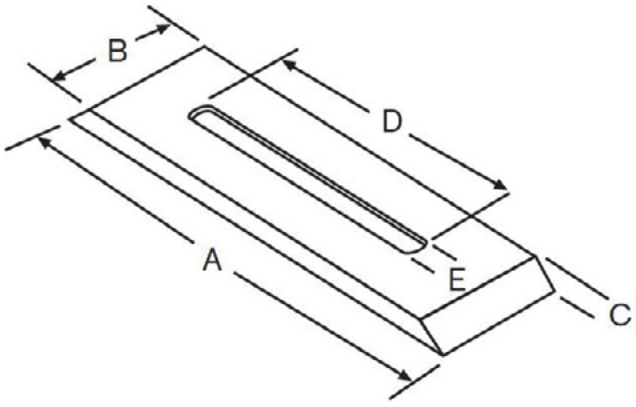
Fig. 3

Fig	Part No	Type	A	B	C	D	E	F	Machine Size	Kg
1	8K9171	Bolt on	227	75	80	40	146	24	Cat 813/815	6
1	8K9189	Bolt on	174	70	67	33	114	17	Cat 813/815	3.5
2	4V0668	Weld on	224	85	91	53	-	-	Cat 825	6.8
3	2V7053	Weld on	168	80	71	41	-	-	Cat 825	3.8
3	2V6628	Weld on	222	85	88	50	-	-	Cat 825	5.5

Maximise your compaction

- Cleaner Bars are used for clearing out the dirt that gets stuck between the compactor feet rows. This helps to improve the compaction effectiveness
- Cleaner Bars have a centre slot for adjusting the length as they wear.
- Available in customised designs for all models of Wheel Compactors





Part No	A	B	C	D	E	Kg	Machine Size	Plow Bolt Size
4S7928	406	102	25	200	21	8	Cat 815	3/4" x 5"
3S3228	350	150	25	240	25	10	Cat 825	3/4" x 5"
9V5074	530	130	25	250	23	13	Cat 825	3/4" x 5"

GRADER CUTTING EDGES

Get the edge on your machine

- High quality Grader Cutting Edges are available to suit all makes and models of Graders including Caterpillar, Komatsu, Volvo, John Deere and Mitsubishi
- Grader and Snowplow edges come in a range of single and double bevel profiles, curved or flat and in various lengths and widths to suit all types of moldboards and applications
- Edges are made from high carbon or heat treated steel and available with tungsten inserts for greater wear life
- A range of thickness options available from 16-32mm and lengths from 5ft - 8ft to fit all moldboard sizes

GRADER CUTTING EDGES

A LARGE RANGE OF CURVED AND FLAT, HIGH CARBON AND HEAT TREATED GRADER BLADES AVAILABLE FROM 5FT TO 8FT LONG

HIGH CARBON EDGES - (HARDNESS: 250-320 BRINELL, 25-34 HRC)

Part No	Profile	Length	Width	Thickness	Bolt Size	No. of Holes
7D4508	DBC	5ft	6”	5/8”	5/8” x 2.1/4”	11
7T1641	DBC	5ft	8”	5/8”	5/8” x 2.1/4”	7
7T1636	DBC	6ft	8”	5/8”	5/8” x 2.1/ 4”	13
7T1639	DBC	6ft	8”	5/8”	3/4” x 2.1/4”	10
7T1643	DBC	7ft	8”	5/8”	5/8” x 2.1/4”	15
7T1645CD	DBC	7ft	6”	5/8”	5/8” x 2.1/4”	9 (centre drilled)
7T1632CD	DBC	8ft	6”	5/8”	5/8” x 2.1/4”	10 (centre drilled)

HEAT TREATED EDGES - (HARDNESS: 421-512 BRINELL, 45-52 HRC)

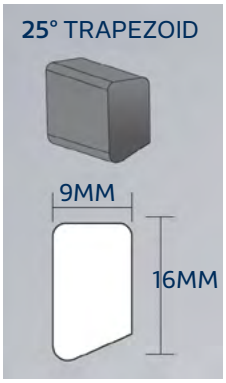
Part No	Profile	Length	Width	Thickness	Bolt Size	No. of Holes
5D9558	DBC	6ft	8”	3/4”	5/8” x 2.1/4”	13
5D9559	DBC	7ft	8”	3/4”	5/8” x 2.1/4”	15
7D1577	DBC	7ft	8”	3/4”	3/4” x 2.1/2”	15
4T2233	DBC	7ft	8”	1”	3/4” x 2.1/2”	15
4T6508	DBF	7ft	10”	1”	3/4” x 2.1/2”	15
4T2236	DBC	8ft	8”	1”	3/4” x 3.1/4”	17
4T6511	DBF	8ft	10”	1”	3/4” x 2.1/2”	17
4T8317	DBF	8ft	10”	1.25”	3/4” x 2.1/2”	17

Hole Spacing Note: For all grader edges, the 2 holes at each end have 3” centres and all other holes are either 6” or 12” centres.

TUNGSTEN INSERTED BLADES

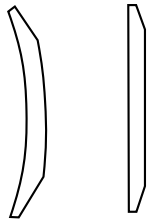
GET UP TO 10 TIMES THE WEAR LIFE WITH THESE TUNGSTEN INSERTED BLADES. AVAILABLE IN CURVED AND FLAT TO SUIT ALL TYPES OF GRADERS AND SNOWPLOWS

TUNGSTEN INSERT



- **Tungsten Carbide blades are a superior choice for any low impact, high abrasion application. The Inserted Carbide along the bottom edge significantly extends the life of the blade, gaining up to 10 times that of standard high carbon edges**
- **Available to fit all types of Snowplows and Graders**

Edge Profiles



Part No	Profile	Length	Width	Thickness	Bolt Size	No. of holes
CIJT654875-A	DBC	4ft	5”	3/4”	3/4” x 2.1/4”	9
CIAT664844-A	Flat	4ft	6”	3/4”	5/8” x 2.1/4”	9
CIA666044-A	Flat	5ft	6”	3/4”	5/8” x 2.1/4”	11

Hole Spacing Note: For all grader edges the 2 holes at each end have 3” centres and all other holes are either 6” or 12” centres .

GRADER END BITS

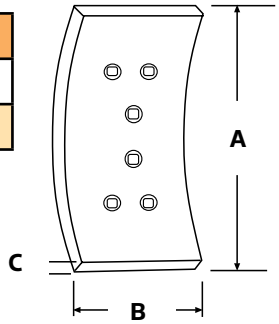
Narrow End Bit

Overlay End Bit

OVERLAY END BIT

Part No	A	B	C	Bolt Size	No. Holes	Machine Model
7D9999	555	230	16	3/4"	8	Cat 14G, 16G
6Y2805	520	230	16	3/4"	8	Cat 14H

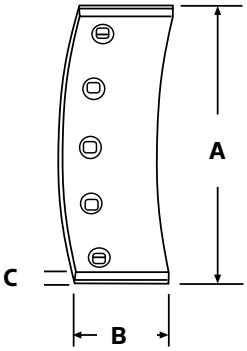
Bolt hole patterns may vary from sample shown. Dimensions in mm.



NARROW END BIT

Part No	A	B	C	Bolt Size	No. Holes	Machine Model
8E5531	445	154	16	5/8"	5	Cat 12G, 130G
8E5529	445	154	16	3/4"	5	Cat 12G, 130G
8E5530	445	158	19	3/4"	5	Cat 14G/H

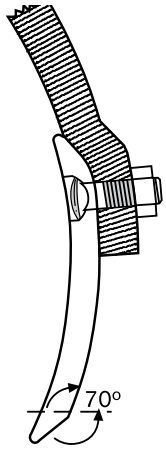
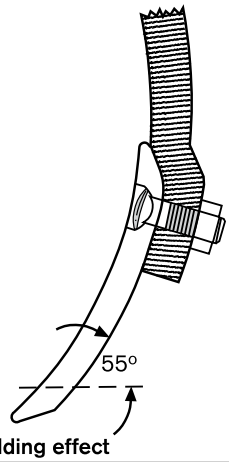
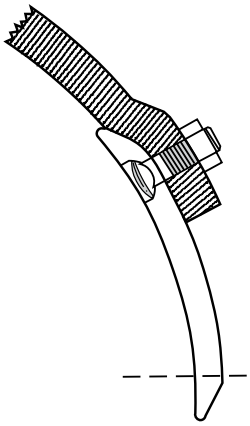
Bolt hole patterns may vary from sample shown. Dimensions in mm.



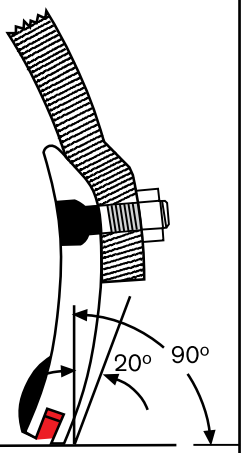
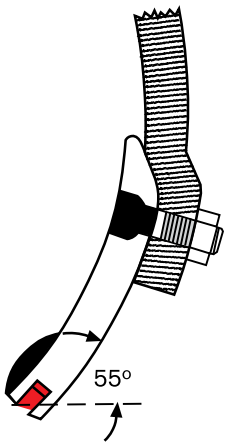
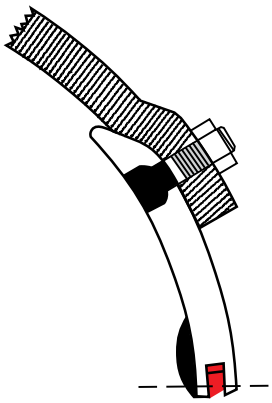
GRADER BLADE OPERATION

Correct Grader edge operation is critical for getting the most from your edges.
Check the tightness of bolts often as vibration can loosen them, causing the edges to break.
The correct position of the edge should be as vertical as possible, as the diagrams indicate below.

STANDARD GRADER EDGE OPERATING POSITIONS

RECOMMENDED	NOT RECOMMENDED	
		
Cutting action	Skidding effect	Back dragging effect
Blade self sharpens as it wears	Blade will roll up on leading edge and break off (not good for tyres)	Blade will roll up on back side leaving slivers of steel on road

TUNGSTEN CARBIDE EDGE OPERATING POSITIONS

RECOMMENDED	NOT RECOMMENDED	
		
Cutting action	Skidding effect	Back dragging effect

PLOW BOLTS, NUTS & WASHERS

Fasten up

A FULL RANGE OF PLOW BOLTS, NUTS AND WASHERS ARE AVAILABLE FROM 1/2” TO 1.3/8” DIAMETERS, TO SUIT ALL MAKES AND MODELS OF MACHINES

Plow Bolts & Nuts are made from grade 8.8 alloy steel for added toughness and heat treated to a minimum tensile strength of 170,000 PSI, with a core hardness of Rockwell RC36-42. Plow Bolts & Nuts are UNC thread

5/8” Size Range

Size	Part Type
5/8”x1.3/4”	Plow Bolt
5/8”x2”	Plow Bolt
5/8”x2.1/4”	Plow Bolt
5/8”x2.1/2”	Plow Bolt
5/8”x3”	Plow Bolt
5/8”x3.1/2”	Plow Bolt
5/8”x4”	Plow Bolt
5/8”	Plow Nut Hex
5/8”	Flat Washer

3/4” Size Range

Size	Part Type
3/4”-5/8”x2.1/4”	Reducing Plow Bolt
3/4”x2.1/4”	Plow Bolt
3/4”x2.1/2”	Plow Bolt
3/4”x2.3/4”	Plow Bolt
3/4”x3”	Plow Bolt
3/4”x3.1/2”	Plow Bolt
3/4”x3.3/4”	Plow Bolt
3/4”x4”	Plow Bolt
3/4”x4.1/4”	Plow Bolt
3/4”x4.1/2”	Plow Bolt
3/4”x5”	Plow Bolt
3/4”	Plow Nut Hex
3/4”	Flat Washer

PLOW BOLTS, NUTS & WASHERS

7/8” Size Range

Size	Part Type
7/8”x2.1/2”	Plow Bolt
7/8”x2.3/4”	Plow Bolt
7/8”x3”	Plow Bolt
7/8”x3.1/4”	Plow Bolt
7/8”x3.1/2”	Plow Bolt
7/8”x4”	Plow Bolt
7/8”x4.1/4”	Plow Bolt
7/8”	Plow Nut Hex
7/8”	Flat Washer

1” Size Range

Size	Part Type
1”x2.1/2”	Plow Bolt
1”x2.3/4”	Plow Bolt
1”x3”	Plow Bolt
1”x3.1/4”	Plow Bolt
1”x3.1/2”	Plow Bolt
1”x4”	Plow Bolt
1”x5”	Plow Bolt
1”x6”	Plow Bolt
1”	Plow Nut Hex
1”	Flat Washer

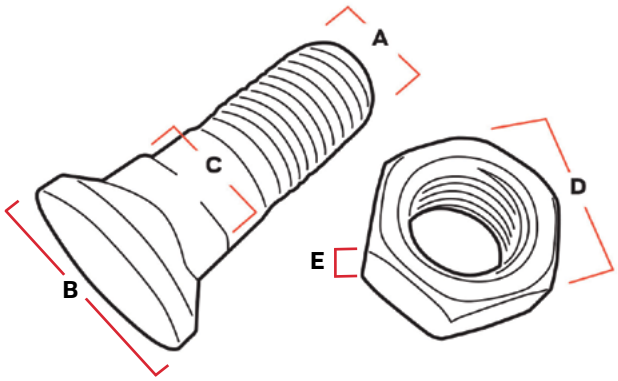
1.1/4” Size Range

Size	Part Type
1.1/4”x4”	Plow Bolt
1.1/4X4.1/2	Plow Bolt
1.1/4”x5”	Plow Bolt
1.1/4”x6.1/2”	Plow Bolt
1.1/4”	Plow Nut Hex
1.1/4”	Flat Washer

1.3/8” Size Range

Size	Part Type
1.3/8”x4.1/2”	Plow Bolt
1.3/8”x6”	Plow Bolt
1.3/8”	Plow Nut Hex

PLOW BOLTS, NUTS & WASHERS



PLOW BOLT & NUT DIMENSIONS

Plow Bolt Size	Bolt Head Diameter	Bolt Square Size	Nut Width	Nut Height
A	B	C	D	E
1/2”	24mm	13mm	19mm	12mm
5/8”	26mm	16mm	24mm	14mm
3/4”	30mm	19.3mm	28mm	16mm
7/8”	35mm	22.5mm	32mm	19mm
1”	40mm	25.6mm	37mm	22mm
1.1/4”	51mm	34mm	46mm	26mm
1.3/8	61mm	35.4mm	51mm	29mm

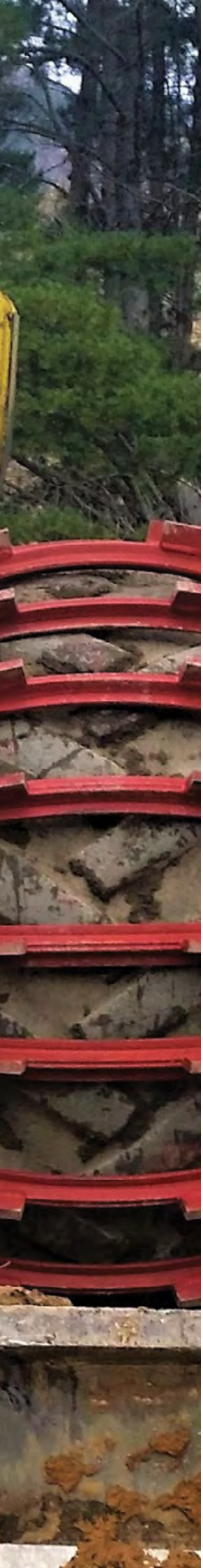
PLOW BOLT LENGTH GUIDE FOR BOLT-ON CUTTING EDGES

Edge Thickness	12mm	16mm	20mm	25mm	30mm	40mm	50mm	60mm
Bolt Size	Bolt Length (inches)							
5/8”	1.3/4”	2”	2.1/4”	2.1/2”	3”	3”	3.1/2”	
3/4”		2.1/4”	2.1/4”	2.1/2”	2.3/4”	3”	3.1/2”	
7/8”				2.1/2”	3”	3.1/2”	4”	
1”				2.1/2”	3”	3.1/2”	4”	5”
1.1/4”				4”	4”	4.1/2”	4.1/2”	5”
1.3/8”						4.1/2”	4.1/2”	6”

RECCOMENDED PLOW BOLT TORQUE SETTINGS (FT-LB)

Bolt Size	5/8”	3/4”	7/8”	1”	1.1/8”	1.1/4”	1.3/8”
Torque ft-lb	200 ± 30	350 ± 45	550 ± 65	850 ± 110	1050 ± 150	1700 ± 220	2250 ± 220

Torque settings given are indicative only and have been estimated for bolts with light oil lubricant mostly as supplied.



FORESTRY TYRE TRACKS

Get a grip & pull more wood with CLARK Tyre Tracks on your Fowarders and Skidders.

"Increase traction, maximise productivity"

- BENEFITS OF CLARK TRACKS 157
- TRACK IDENTIFICATION 159
- SINGLE WHEEL TYRE TRACKS 160
- SINGLE WHEEL TRACK FITTING GUIDE 163
- BOGIE WHEEL TYRE TRACKS 167
- BOGIE WHEEL TRACK FITTING GUIDE 181
- TYRE SUITABILITY & PRESSURES 185
- DRIVING WITH TRACKS 186
- TRACK TENSIONER TOOLS 188
- SPARE TRACK PARTS 189

Are your Skidders & Fowarders losing traction?

GET A GRIP & PULL MORE WOOD WITH A SET OF CLARK TYRE TRACKS ON YOUR MACHINES. A HUGE RANGE OF HEAVY DUTY, SINGLE WHEEL & BOGIE WHEEL TRACKS ARE AVAILABLE FOR ALL MACHINE BRANDS & TYRE SIZES

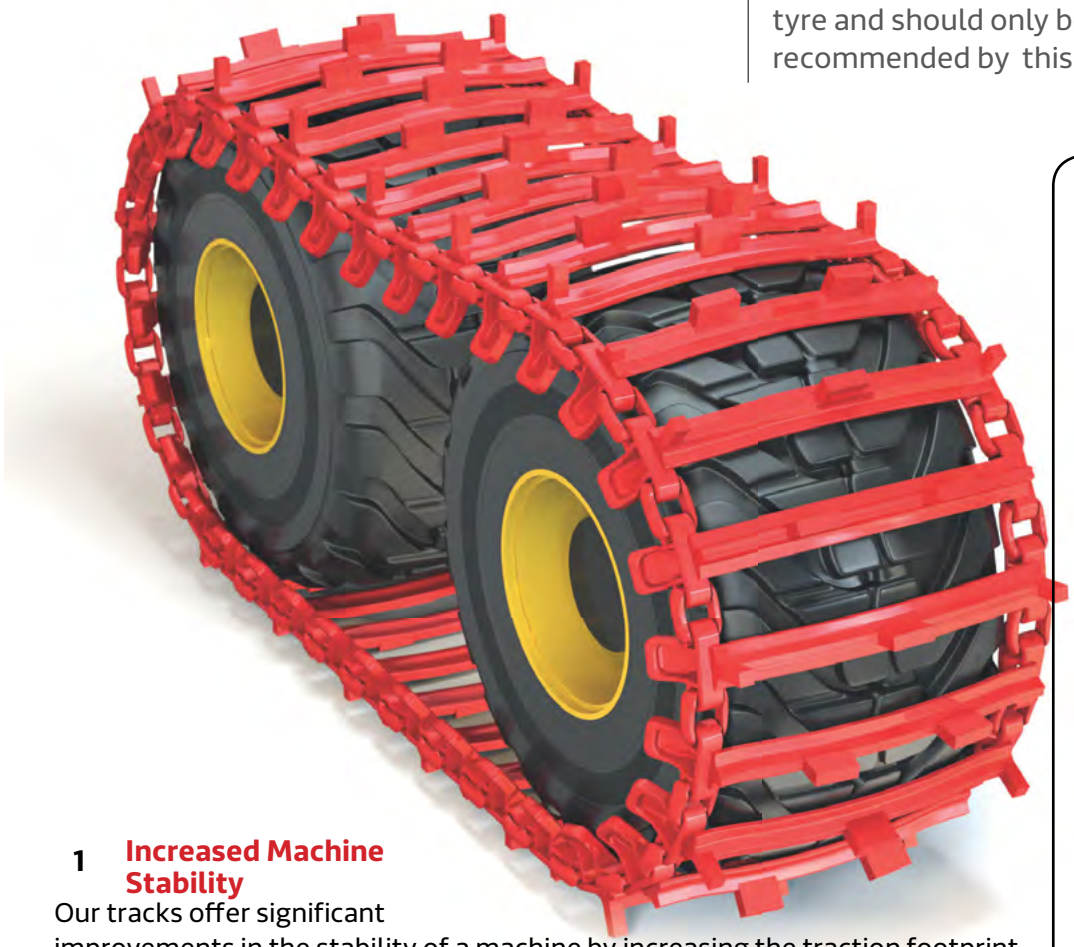
Single Wheel Tyre Tracks

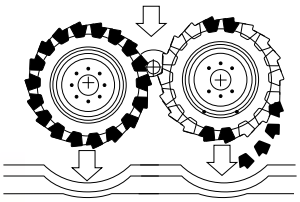
Bogie Wheel Tyre Tracks

BENEFITS OF CLARK TRACKS

All Clark Foresty Tyre Tracks are manufactured from special boron alloy steel. The durability and toughness of the steel is maximised using specialised induction heating processes.

Specifically designed and manufactured steel sections and forgings are used to give high performance combined with the longest possible working life. Each set of tracks has been manufactured for use with a particular tyre and should only be used as recommended by this handbook.

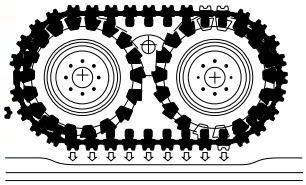




Before

Bare Tyres:

- Increased Ground Pressure
- Less flotation
- Deep ruts
- Soil Disturbance and compaction



After

With Clark Tracks:

- Increases Contact Area
- Lower Ground Pressure
- Increased Flotation
- Greater Machine Stability
- Increased Traction
- Reduced Ground Disturbance

1 Increased Machine Stability

Our tracks offer significant improvements in the stability of a machine by increasing the traction footprint and lowering the machines center of gravity. This is particularly advantageous on steep slopes with loader crane movements.

2 Reduce Fuel Consumption

Putting the link system close to the effective rolling radius of the tyre reduces the drag the track adds to the machine / transmission.

3 Reduced Ground Damage

Clark Tracks Lite-Link System combined with our advanced flotation profiles have been specifically designed to minimise ground disturbance by reducing pressure on sensitive soils and ensuring constant levels of grip and traction.

4 Increased Traction

Using our tracks will significantly increase traction over normal tyres. This allows forest machines to climb slopes and negotiate obstacles that would otherwise have been impossible.

5 Reduced Ground Pressure

Using our tracks will increase the overall footprint of the machine and spread its weight over a much bigger ground contact area. This reduces ground pressure by as much as 50% or more over normal tyres and allows machines to be driven in conditions often impassable without tracks.

6 Tyre Protection

Clark Tracks are compatible with a wide range of tyres, offering protection from punctures and other damage, and in many cases, increasing the overall lifetime of the tyre.

TRACK IDENTIFICATION

Each Tyre Track has the exact tyre size and/or tread pattern stamped into it for easy reference. This tells you what Tyre type and size each Track is designed for. The Tracks also have the date of manufacture and serial number engraved in them as shown below.

Single Wheel Tyre Track Identification

Date of Manufacture & Serial No.

Tyre Size

Bogie Wheel Tyre Track Identification

Date of Manufacture & Serial No.

Tyre Size

Tyre Tread Pattern

SINGLE WHEEL TYRE TRACKS

Get a grip & get more done

INCREASE YOUR TRACTION & PULLING POWER WITH A SET OF CLARK TYRE TRACKS ON YOUR SKIDDERS

Grouser Super Grip (GSG) is the single wheel track that delivers maximum climbing capability for 6-wheeled machines. GSG's give exceptional traction and requires less maintenance than tyre chains. These Tracks have heavy duty 28mm diameter links and reinforced Cleats with 2 lugs on each for maximum traction.

GSG

ULTIMATE CLIMBING

BENEFITS OF CLARK TYRE TRACKS

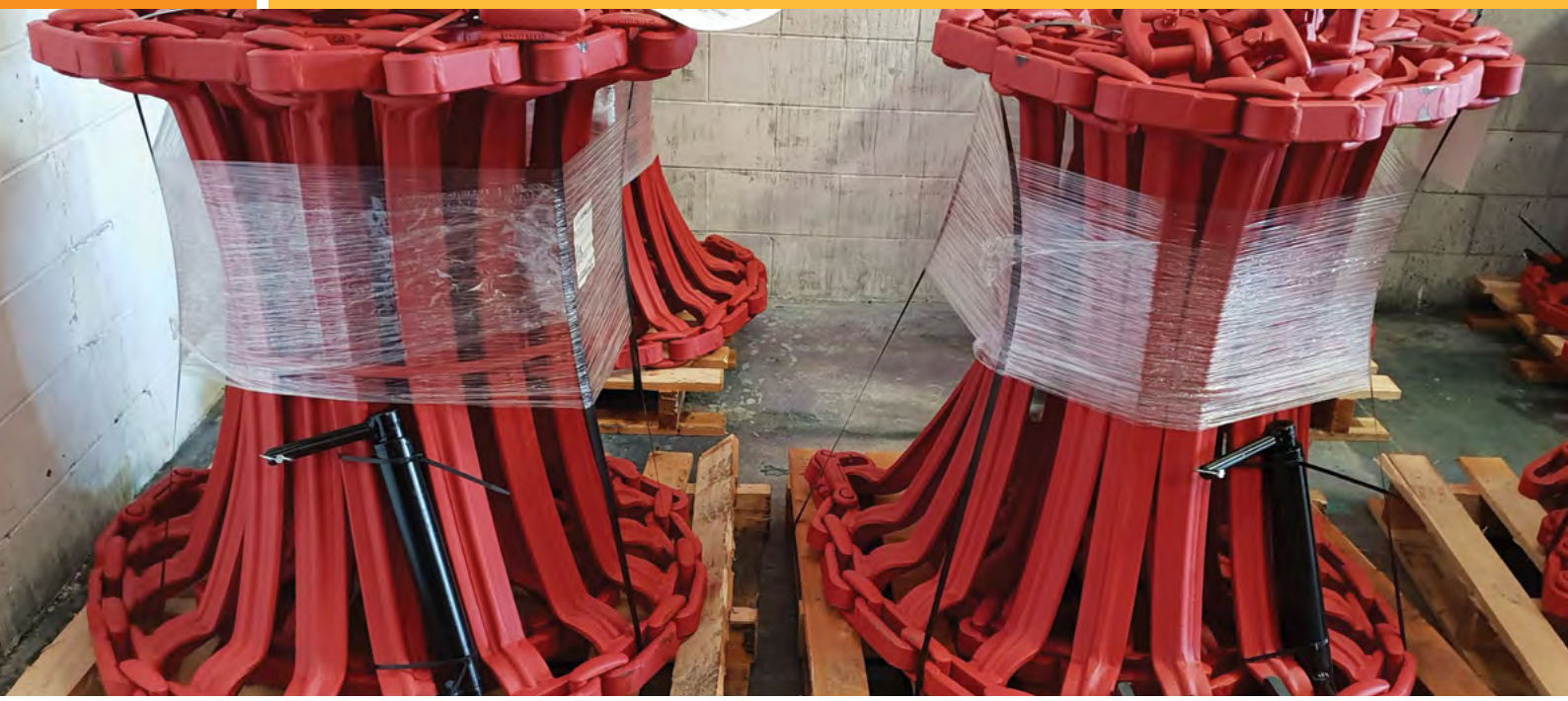
- **Increased traction & pulling power**
- **Protection for your tyres**
- **Less wheel spinning, less fuel burn**
- **Safer on the slopes**
- **Better steering ability**
- **Less ground disturbance**

Tyre Size	Part No	No. of Cleats	Kg/Pair
30.5" x 32"	GSG-650930/28	23 cleat track	1250
35.5" x 32"	GSG-650935/28	26 cleat track	1560

CLARK TRACKS

high performance for maximum work life

WHAT COMES WITH YOUR TYRE TRACKS



Single Wheel Tyre Tracks

- Your Tyre Track set comes on two pallets, with one Track on each
- 1x QTT402 Tensioner Tool is attached to EACH Track
- 2x Fitting Staples are attached to ONE of the Tracks
- 4x Long & 2x Short Joining Links are built-in to EACH Track
- 2x Long & 4x Short Joining Links are attached to the top of EACH Track as loose links, for joining and adjusting the Track

Tensioner Tool QTT402

Fitting Staple

Short Joining Link
JL-28-105

Long Joining Link
JL-28-160

SINGLE WHEEL TRACK FITTING GUIDE

This task should only be carried out by a trained operative.
Please carry out a risk assessment to ensure safety for yourself and others.

Each track will be supplied on 2 pallets. Check the serial number, tyre size and tread pattern found on the identification badges. It is essential for the correct tracks to be used with your tyre type.

STAGE 1

Lay out the Track

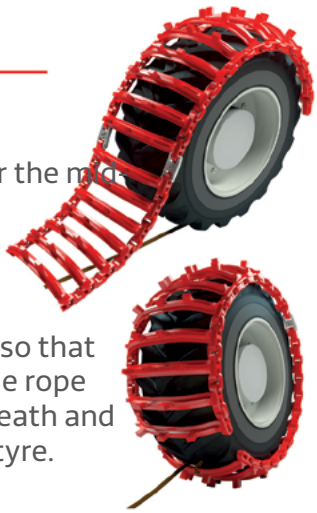
Lay out the track with the cleats facing upwards. Use a good quality strong rope or strap and attach it to the centre of the first track cleat.

STAGE 2

Drive the machine foward

Place the rope or strap over the middle of tyre; place the excess rope under the tyre jamming it tightly in place.

Drive the machine forward so that the wheel bites down on the rope or strap, trapping it underneath and hauling the track onto the tyre.



TRACK TENSION: The removal of one full track plate may be required to obtain the correct tension. This may be dependent upon whether the track is fitted to new or worn tyre.

CHOOSE YOUR TENSIONER

QTT401

For TXSG tracks that has extended legs and can fit over the track extensions fitting on the link system between the track plates.

TXSG SUPER GRIP FLOTATION

Machine
Climate
Terrain
Grip
Flotation
Link 24mm

QTT402

For Grouzer Super Grip tracks which has pins to fit into the link system.

At this point the rope or strap can be removed.

GROUZER DEMANDING TERRAIN

Machine
Climate
Terrain
Grip
Flotation
Link 28mm 24mm

SINGLE WHEEL TRACK FITTING GUIDE

STAGE 3

Insert The Fitting Staples

When the track is on the tyre add the staples in as shown below to hold the tracks in place

TXSG SUPER GRIP FLOTATION

GROUZER DEMANDING TERRAIN

STAGE 4

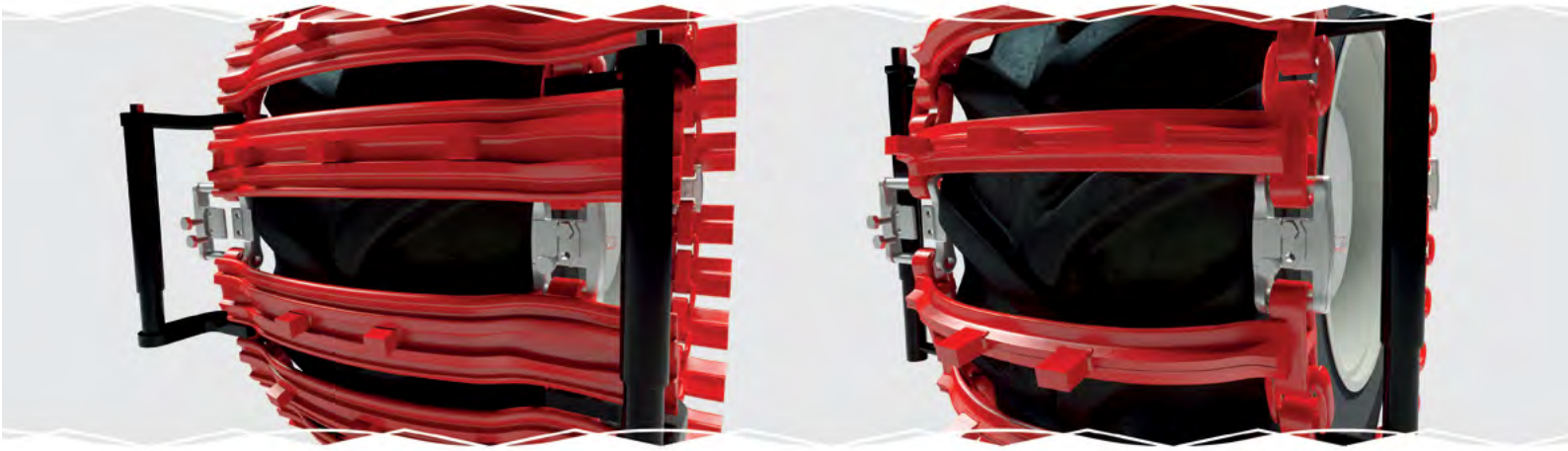
Insert the two track tensioner tools provided, one on each side of the track and ratchet the end links together

NOTE: A 3/4" drive ratchet spanner and 38mm socket are required to operate the Tensioner. Ensure the tensioner is correctly and safely fitted to the tracks prior to use.

STAGE 5

Fitting Of Track Joining Links

The joining links must be fitted the right way, with the Male Part fitting from the outside and the nuts on the inside (a 22mm Socket is required to tighten the nuts). Spare Short (105mm) & Long (160mm) Joining Links come with the tracks for adjustment.



Correct Tension & Tyre Pressure

Keep the tracks as tight as possible on the tyres. After the first few days of use the tracks will need re tightening again as they will have settled into place. Keep the tyres inflated to maximum allowance pressure as reccomended by the manufacturer

NOTE: Fitting these links the wrong way round can result in tyre damage.
Tyres MUST be run at correct pressure, check manufactures recommendations.

SINGLE WHEEL TRACK FITTING GUIDE

TYRE TRACKS CAN ALSO BE FITTED BY USING A EXCAVATOR, HIAB OR SIMILAR LIFITNG MACHINE

Layout the Tracks with cleats facing down as shown above

Drive the machine onto the Tracks

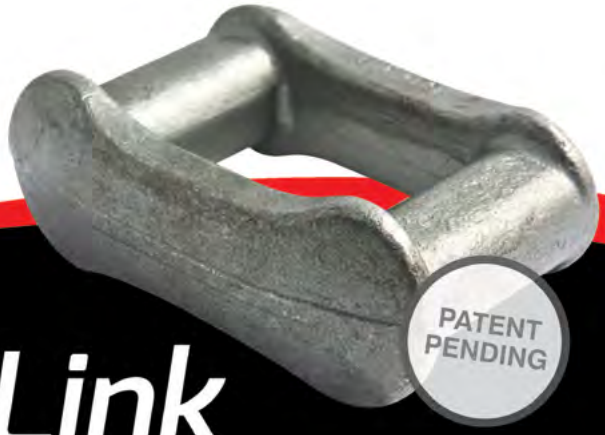
Lift one end of the Track over the tyre

Lift the other end of the Track up

Hold in place & fit the joining links

CLARK TRACKS™

high performance for maximum work life

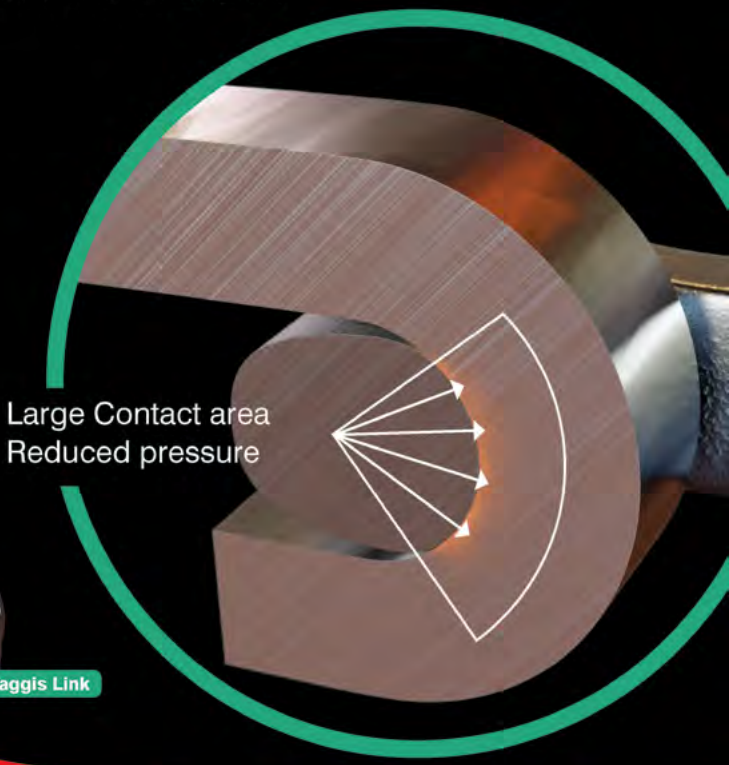


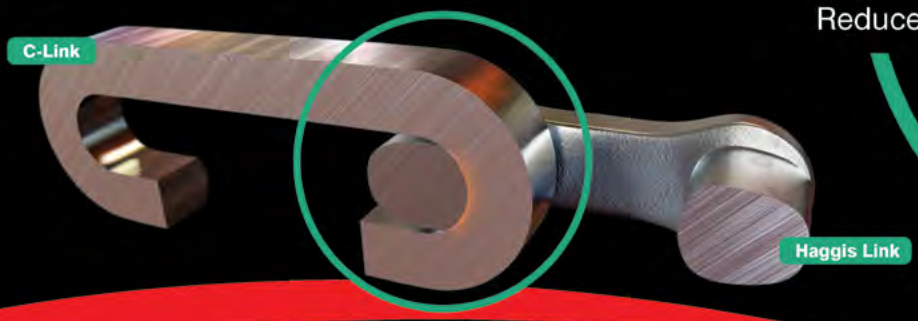
Haggis Ultra Link

TRACK LIFE EXTENDER

HAGGIS LINK INSTALLED

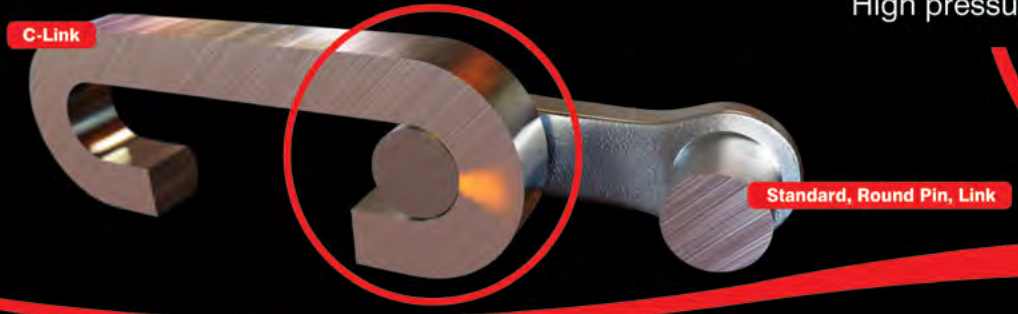
- Bearing surfaces matched
- Maximum contact area
- Reduced contact pressure
- Reduced wear
- Protects C-Link from premature wear
- Less maintenance and downtime as less re-tensioning and adjustments are required
- Specially designed side flanges inhibit link twisting.





STANDARD TRACK LINK

- Contact surfaces mismatched
- Smaller contact area
- High pressure on contact surface
- High initial wear rate to C-Link & solid link
- Re-tensioning and adjustment frequently required during bedding in period.



Designed and printed by: hoggettcreative.co.uk Dimensions 17° and 90° are approximate
CT113_LEAFLET_ENG_HAGGIS_GEN

www.clarktracks.com

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CLARK TRACKS™

high performance for maximum work life

More traction, more wood

GET MORE GRIP & PULL MORE WOOD, WITH A SET OF CLARK TYRE TRACKS ON YOUR SKIDDERS & FOWARDERS

- A range of Bogie Wheel Tracks are available for all makes & models of 6-wheel drive skidders & 8-wheel drive Forwarders. These Tracks come in a wide range of designs to suit any working conditions & improve your machines traction, flotation & productivity.
- Our Clark Bogie Tracks have a heavy duty 28mm Haggis UltraLink design which provides a stronger, longer lasting link performance

BENEFITS OF CLARK TYRE TRACKS

- **Increased stability & traction**
- **Extra load capacity**
- **Protection for your tyres**
- **Less wheel spinning, less fuel burn**
- **Safer on the slopes**
- **Better Steering ability**
- **Less ground disturbance**

CLARK TRACKS
high performance for maximum work life

BOGIE WHEEL TYRE TRACK RANGE

Tyre Size	Tyre Tread Type	Part No	Tyre Track Type	No. of Cleats per Track	KG/ Pair
710x45-26.5	FKF2	FX-9511871/28H	FX	34 cleats	2360
750x55-26.5	FKF2	FL-1511875/28	FL15	37 cleats	1950
750x55-26.5	FKF	FX-951175/28H	FX	37 cleats	2600
750x55-26.5	TRS2	FX-9511775/28H	FX	37 cleats	2600
750x55-26.5	FKF2	FX-9511875/28H	FX	37 cleats	2600
750x55-26.5	FKF	TXGL-8641875/28H	TXGL	38 cleats	2200
780x50-28.5	TRS2	FX-9511781/28H	FX	38 cleats	2750
780x50-28.5	FKF2	FX-9511881/28H/EB	FX	41 cleats	3050
780x50-28.5	FKF2	TL-9501881/28TC	Terra95	41 cleats	2400

Other Track styles and sizes are available on request

Bogie Wheel Tyre Tracks

- Your Tyre Track set comes on two pallets, with one Track on each
- 1x QTT401 Tensioner Tool is attached to ONE of the Tracks
- 2x Fitting Staples are attached to ONE of the Tracks
- 4x Long & 2x Short Joining Links are built-in to EACH Track
- 2x Short Joining Links are attached to the top of EACH Track as loose links, for joining the Track together

Tensioner Tool QTT401

Fitting Staple

Short Joining Link
JL-28-105

Long Joining Link
JL-28-160

BOGIE WHEEL TRACK EXTENSIONS

- Some models of Forwarders and Skidders have longer bogie wheel centres & require additional track extensions to make up the correct track length
- Track Extensions come as a set of 2x, 4 Cleat sections with 2x Short Joining Links on each section
- The cleats can be cut off to make the extension section shorter if needed, or more Single Cleats can be added by using Short Joining Links

Track Extension Set

Tyre Size	Tyre Tread Type	Part No	Tyre Track Type	No. of Cleats per Track
710x45-26.5	FKF2	EXTFX-1871/28H	FKF2	4 cleats
750x55-26.5	TRS2	EXTFX-1375/28H/TC	TRS2	4 cleats
750x55-26.5	FKF	EXTFX-175/28H	FKF	4 cleats
750x55-26.5	FKF	EXTFX-175/28H/TC	FKF	4 cleats
750x55-26.5	TRS2	EXTFX-1775/28/TC	TRS2	4 cleats
750x55-26.5	FKF2	EXTFX-1875/28H/TC	FKF2	4 cleats
780x50-28.5	TRS2	EXTFX-1781/28H/TC	TRS2	4 cleats
780x50-28.5	FKF2	EXTFX-1881/28H/TC	FKF2	4 cleats

TERRA85 STYLE BOGIE TRACK

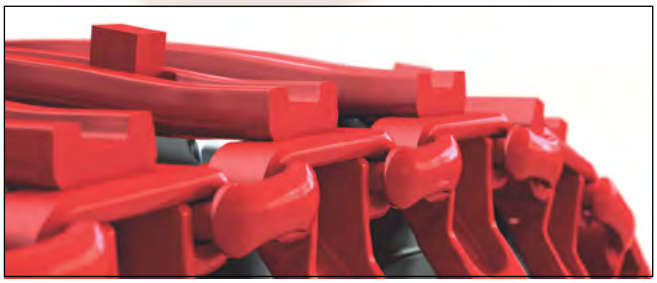
TERRA85

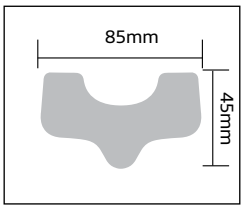
MULTI-TERRAIN

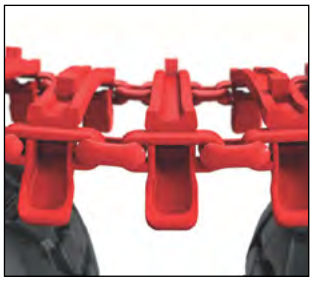
Terra85 is the ultimate all-terrain, all-season track. Featuring a double grouser track plate, grip and flotation are assured. The low profile also means less vibration and a smoother ride.

- **Low profile design reduces vibration and results in less operation fatigue**
- **Arguably the best multi-terrain tracks on the market**
- **Use all year round**
- **Special heat treatment for cold weather durability**

Machine Climate Ground Cond Grip Flotation Link 28mm 24mm







Terra 85 Gripping Properties

SUIT YOURSELF!
DESIGN YOUR PERFECT TRACK WITH OUR CUSTOMISED OPTIONS
CUSTOMISATION

The vertical edge of the Terra 85 design provides excellent forward drive and control when braking or working on slopes while its wide plate gives great flotation qualities.

Terra 85 Flotation Properties

TERRA95 STYLE BOGIE TRACK

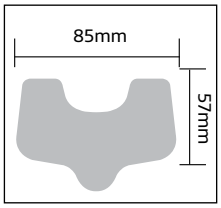
TERRA95

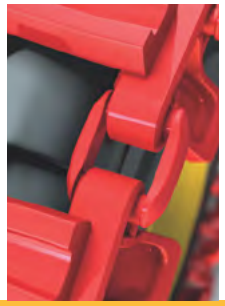
MULTI-TERRAIN

Terra95 is the undisputed class leading heavy duty, all-terrain all-season track. Heavy plate section and our 28mm durable links ensure long service life when fitted to the latest high horsepower, heavy Forwarders and Harvesters.

- **Arguably the best multi-terrain tracks on the market**
- **Particularly suited to medium and large harvesters and forwarders, 14t payload upwards**
- **Low profile design reduces vibration resulting in less operator fatigue**
- **All-season use; assured Winter and Summer performance**
- **Durable and hard wearing, even on rocky terrain**
- **Suitable for scarifying and Skidder operations**

Machine Climate Ground Cond Grip Flotation Link 28mm





FX STYLE BOGIE TRACK

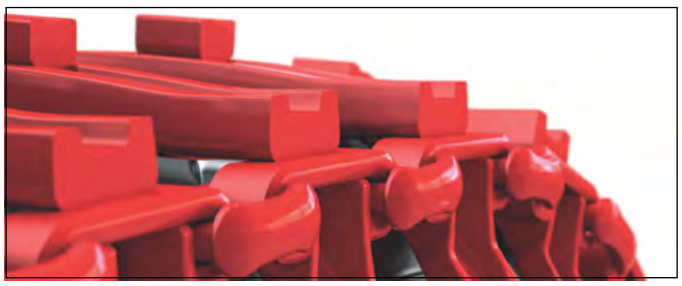
FX

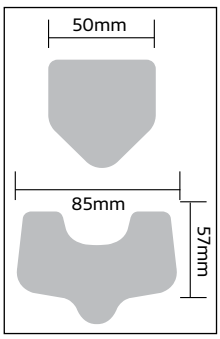
HEAVY DUTY MULTI-TERRAIN

FX is a development of the heavy duty Terra95. These tracks are built for endurance and are suited to the heaviest Forwarders working on the toughest terrain. Double Rocky spikes on each track pad are secure and extremely long lasting compared to standard spikes, even on stoney ground. FX tracks are the best choice for the professional forester looking for maximum productivity from their heavy weight forwarder

- **Durable design and components for the most arduous terrain**
- **Confidence with supreme grip and flotation**
- **Good design for all round conditions**

Machine Climate Ground Cond Grip Flotation Link 28mm





TXL STYLE BOGIE TRACK

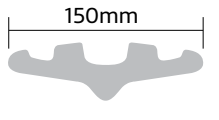
TXL

ULTIMATE FLOTATION

TXL Tracks are in a class all of their own when it comes to ULTRA FLOTATION. Numerous studies have proven that TXL offers the best traction and lowest ground pressure of any track. This places them in a whole new class of flotation tracks. The flexibility of our production enables many options. Typically Asymmetric and Symmetrical extensions are available in any width required by our customer thus enabling operations on the softest and most sensitive soils with minimal ground disturbance. TXL is offered as standard width, 930mm and 1000mm from our regular track range. Both 930mm and 1000mm from our regular track range.

- **Advanced floation track that offers excellent traction**
- **Close spaced, extra wide tracks for maximum flotation**
- **Suitable for all weights of machines**
- **Suitable for forest roads (without side slip spikes) and sensitive soils**
- **Available with extra width where machine design permits**
- **Clark Tracks lowest ground pressure track**

Machine Climate Ground Cond Grip EXTRA Flotation Link 28mm 24mm



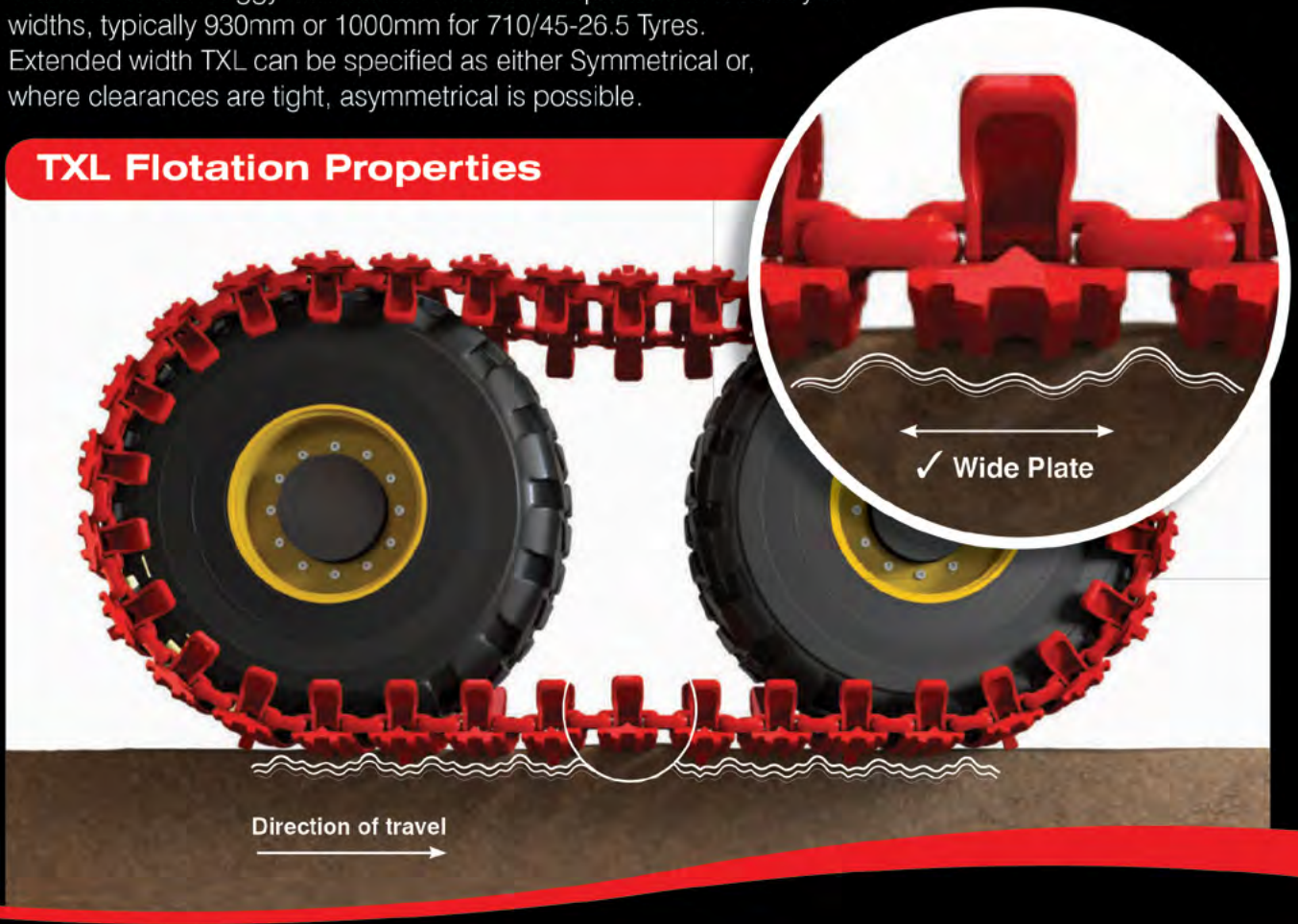
TXL Gripping Properties

SUIT YOURSELF! DESIGN YOUR PERFECT TRACK WITH OUR CUSTOMISED OPTIONS — CUSTOMISATION

TXL is the Ultra-Flotation track designed for the forest.

The 4 grouzers provide better traction than any other professional use flotation track ensuring you can keep moving forwards. Inside, a high single Grouzer provides good grip between the track and tyre, even in wet and boggy conditions. TXL can be specified in a variety of widths, typically 930mm or 1000mm for 710/45-26.5 Tyres. Extended width TXL can be specified as either Symmetrical or, where clearances are tight, asymmetrical is possible.

TXL Flotation Properties



TXGL STYLE BOGIE TRACK

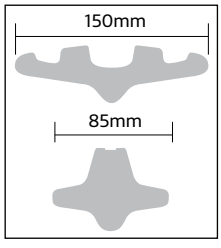
TXGL

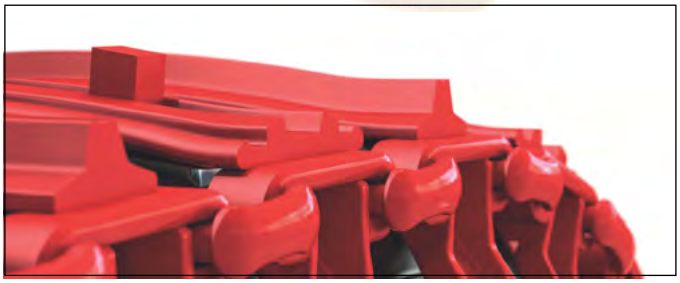
DEMANDING FLOTATION

TXGL is the best of TXL and Grouzer combined to get forest machines through the wettest and marshiest ground and then climb demanding slopes with ease.

- **Maximised traction and climbing compared to TXL alone**
- **Better cleaning when used in some mud and snow conditions**

Machine Climate Ground Cond Grip Flotation Link 28mm 24mm





FL15 & FL16 STYLE BOGIE TRACK

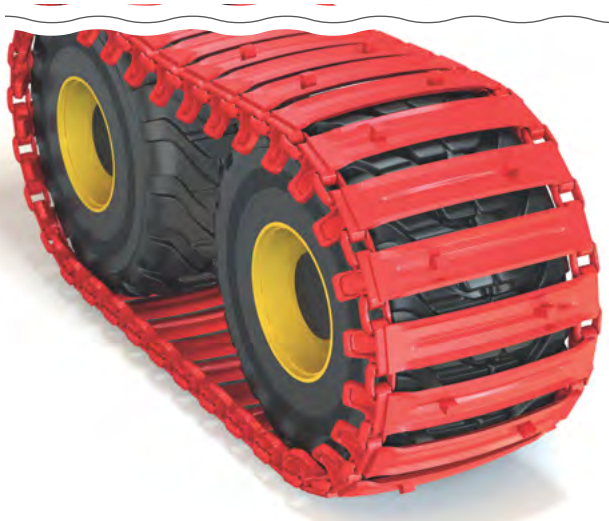
FL15

ADVANCED FLOTATION

Flotation, FL15 is a high-flotation track suited to Harvesters and light to medium Forwarders. The low ground pressure and good grip help maintain productivity in wet and marshy conditions.

- **Wide, close spaced flotation plate design offers low ground pressure**
- **Tried and proven 'U' shape plate ensures excellent traction**

Machine | Climate | Ground Cond | Grip | Flotation | Link 28mm 24mm



FL16

ADVANCED FLOTATION

Flotation, FL16 is the high flotation track suited to larger harvesters and medium to heavy forwarders. Strong, tough and durable, the FL16 is the clear choice for heavier machines in wet and marshy conditions.

- **Wide, close spaced flotation plate design offers low ground pressure**
- **Tried and proven 'U' shape plate ensures excellent traction**

Machine | Climate | Ground Cond | Grip | Flotation | Link 28mm 24mm

BOGIE WHEEL TRACK FITTING GUIDE

A RECOMMENDED STEP BY STEP GUIDE BELOW FOR FITTING YOUR BOGIE WHEEL TYRE TRACKS

The tracks are supplied in four sections, with two joined sections required for each side of the machine. Tracks are manufactured in standard lengths for each tyre size and may be too long, requiring the removal of one full track cleat prior to fitting in order to obtain the correct tension. This is dependent upon whether the track is fitted to new or worn tyres and can also vary due to machine type and bogie wheel design

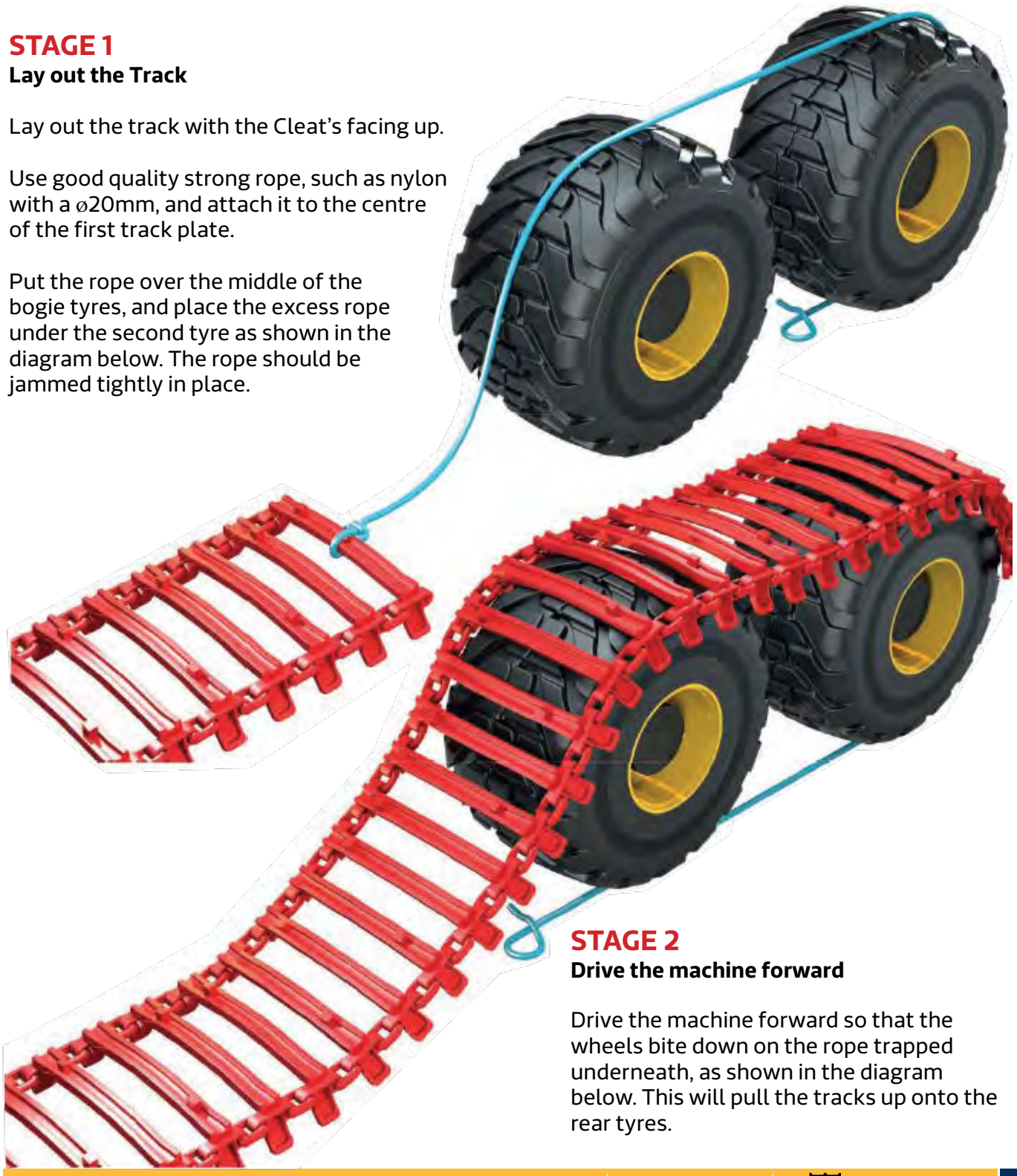
STAGE 1

Lay out the Track

Lay out the track with the Cleat's facing up.

Use good quality strong rope, such as nylon with a ø20mm, and attach it to the centre of the first track plate.

Put the rope over the middle of the bogie tyres, and place the excess rope under the second tyre as shown in the diagram below. The rope should be jammed tightly in place.



STAGE 2

Drive the machine forward

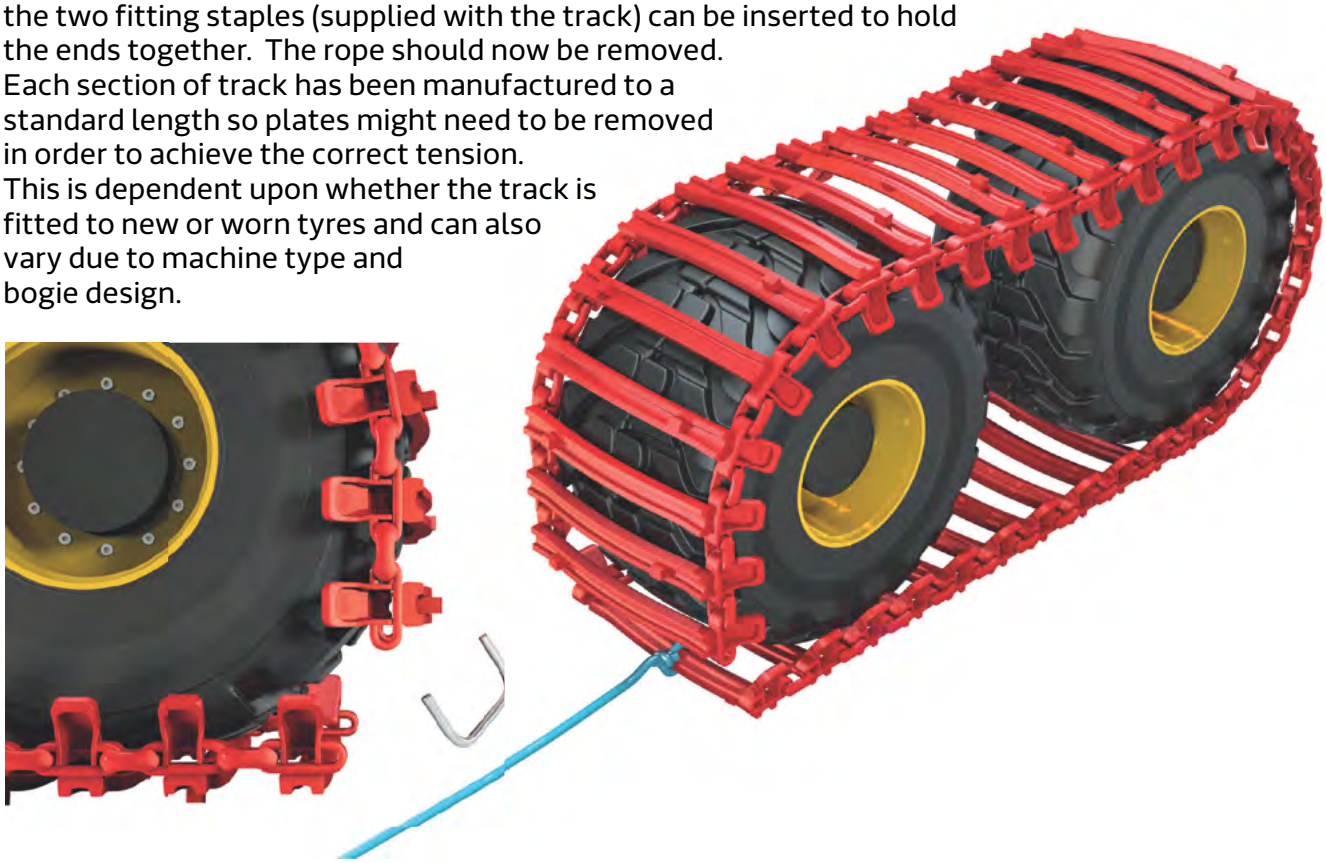
Drive the machine forward so that the wheels bite down on the rope trapped underneath, as shown in the diagram below. This will pull the tracks up onto the rear tyres.

BOGIE WHEEL TRACK FITTING GUIDE

STAGE 3

Insert the two fitting staples

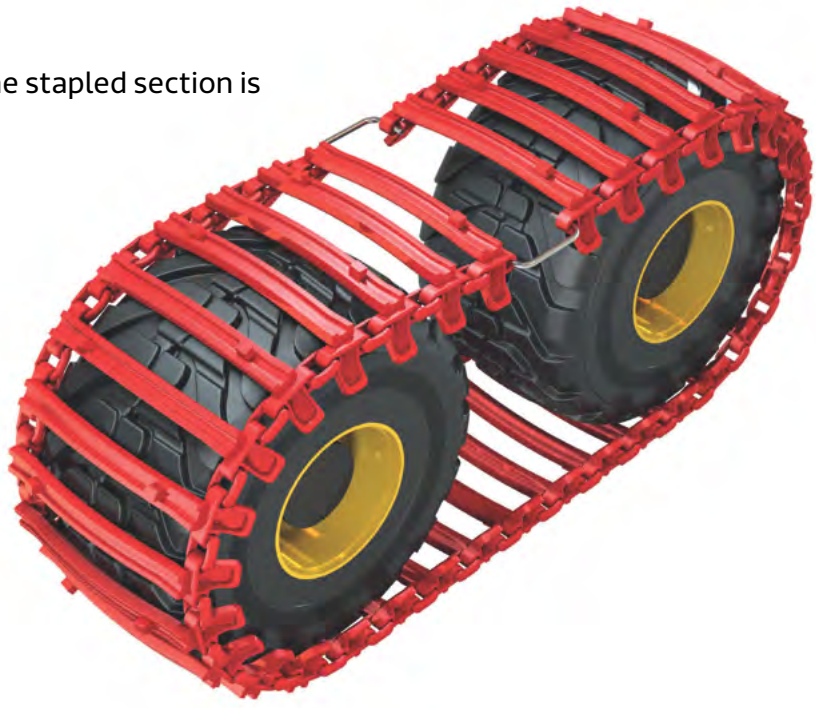
When the track is sitting fully on the machine as shown in the diagram, the two fitting staples (supplied with the track) can be inserted to hold the ends together. The rope should now be removed.
Each section of track has been manufactured to a standard length so plates might need to be removed in order to achieve the correct tension.
This is dependent upon whether the track is fitted to new or worn tyres and can also vary due to machine type and bogie design.



STAGE 4

Drive the machine foward again

Drive the machine forward so that the stapled section is in the center of the bogie



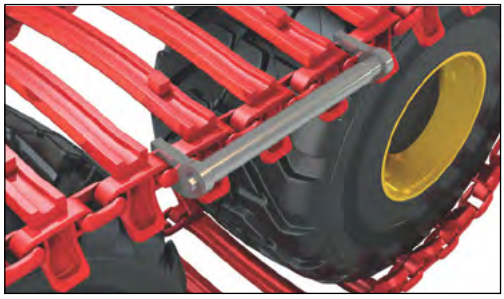
PLEASE NOTE...

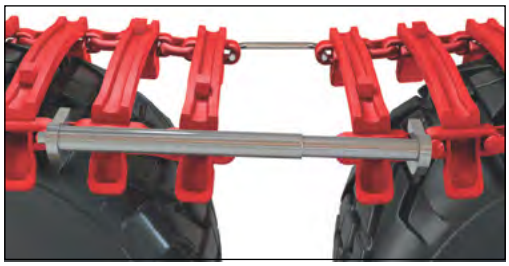
A 3/4" drive ratchet spanner and 38mm socket are required to operate the Tensioner.
Ensure the Tensioner is correctly and safely fitted to the tracks prior to use.

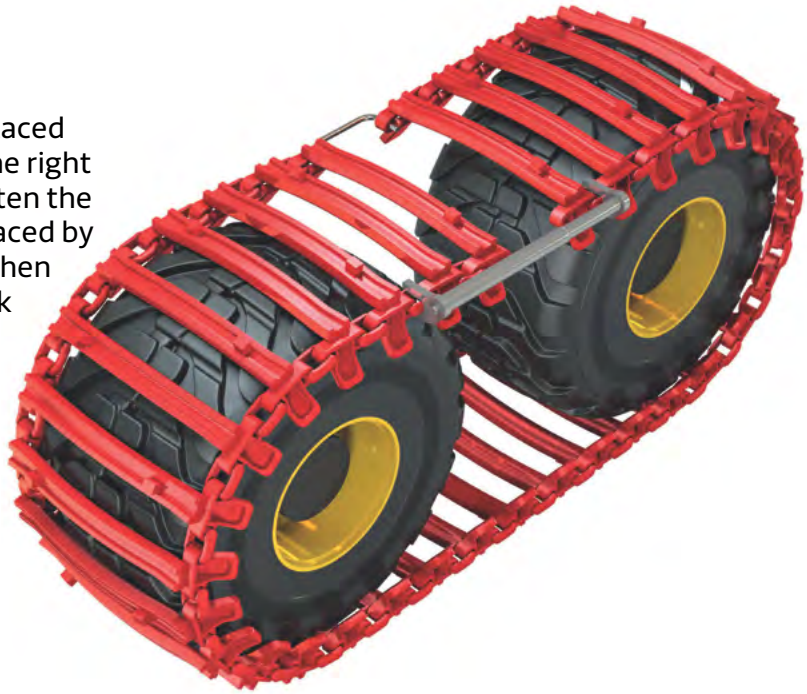
STAGE 5

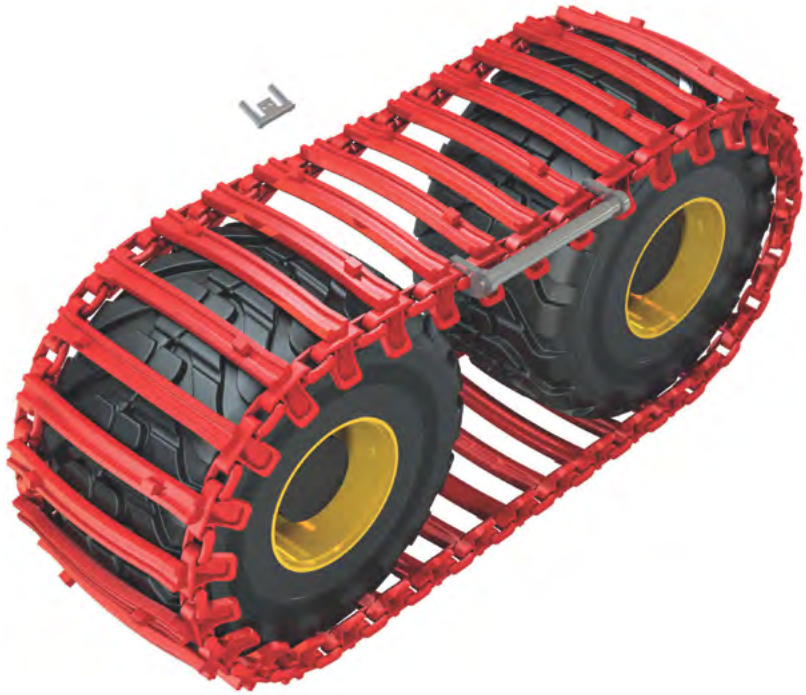
Place the Track Tensioner

The track Tensioner should then be placed on either end of the track, on either the right or left side, and a ratchet used to tighten the track. The staple should then be replaced by the track joining link. This process is then repeated on the other side of the track









STAGE 6

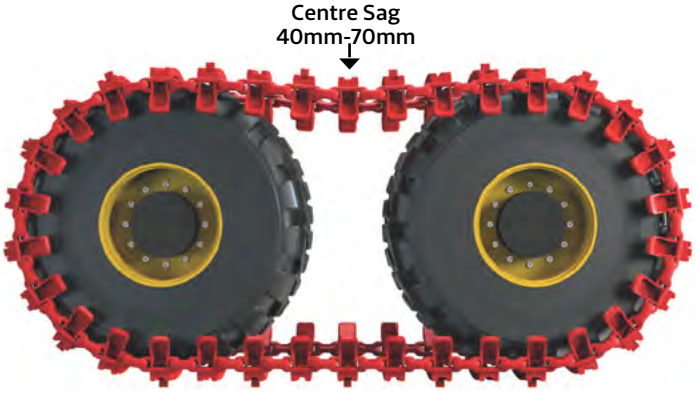
Fitting of track joining links

These links must be fitted with the smooth surface of the link facing towards the tyre, with the end plate fitted to the outside. Fitting these links the wrong way round can result in tyre damage with the link pins contacting the tyre side wall.

STAGE 7

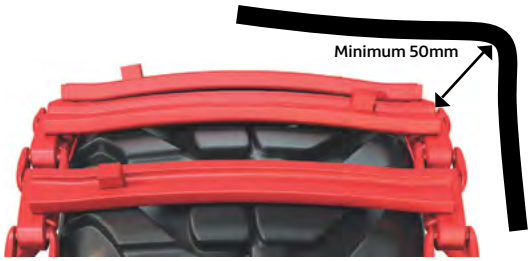
Ensure correct track tension

Ensure correct track tension. Where tracks are run too slack, with excessive amount of centre sag, there are potential problems with tracks falling off. There is also a danger of tracks hitting and rubbing on bogie drive boxes and in extremely neglected cases, wearing grooves and holes in the drive box.



TRACK & MACHINE CLEARANCE

In order to avoid tracks hitting or fouling the machine bunk or bodywork (which can in extreme cases cause transmission problems), a minimum clearance gap of 50mm between track and machine should exist. The tracks should be properly tensioned at all times.



This clearance gap should be measured with:

- **The track pushed on the tyres towards the machine**
- **The bogey at maximum tilt angle - the worst possible scenario**

Without this clearance there is a possibility of track/machine fouling when tracks wear, become slack or are run at faster than normal speeds

PLEASE NOTE...

Many 8 wheel drive machines have less clearance at the front of the machine for tracks than at the back. When tracks are fitted to the front of the machine, ensure there is adequate clearance between tracks and machine bodywork such as:

- Clearance from doors
- Air intakes
- Front blades
- Cab ladders

This should be tested at all bogey tilt angles with tracks pushed towards the machine on the tyres. When tracks are fitted to the rear of the machine, clearance is required between the tracks and the bunk frame. When bunk frames are repositioned, e.g. for different timber lengths, this can change track to frame clearances and must also be checked. Some machines are fitted with hydarulic bogey lifting rams and may be unsuitable for use with tracks due to inadequate clearances.
Checks must be made prior to fitting tracks.

When space is restricted using the QTT400 tensioner, the QTT401 may provide a safe alternative

Re-tensioning of tracks

When tracks are new, they will quickly slacken off over the first few days of use and will require re-tensioning. Re-tensioning involves the replacement of long track links with short track links and then the removal of one full track plate in order to maintain correct tension. This process should be done using the Clark Track “Quickie Tensioner” as shown in the Spare Parts section of this hand book and described in our fitting instructions.

This slackening of new tracks is not any form of material stretching, but simply a “bedding in” process due to the numerous components in the track link system.

It can be expected that the track will require re-tensioning frequently during the first week of work, with this task becoming less frequent as the tracks bed in. It can also be expected to have to remove one complete track plate within the first three or four weeks of work and perhaps a second track plate after three to six months of work. The amount of wear experienced by the track link system over its working life is dependent upon the abrasiveness of the terrain together with the load and tension experienced by the tracks. Over-tensioned tracks will wear more quickly.

Tracks should be run with as low a tension possible providing that:

- **The tyres are not slipping and spinning inside the track**
- **The track is not falling off the tyres**
- **The track is not hitting the bodywork or any part of the machine**
- **The track is not causing any damage to the tyres**

Tracks which are over-tensioned unnecessarily will stress axles and hub bearings as well as increase tyre and track wear.

TYRE SUITABILITY & PRESSURES

Tyre Suitability

Almost every tyre can be fitted with tracks, some are more suitable than others.

- **Tyres should be designed for use with tracks**
- **The ideal tyre has a smooth, less aggressive tread pattern, with slightly rounded shoulders**
- **The tyre should have steel reinforcement within the carcass and be of heavy ply rating**
- **The tyre must be fitted to the correct steel reinforced wheel rim for forestry use**
- **The tyre must be fitted with the correct recommended inner tube, where applicable**
- **Tracks can only be fitted to machines with fixed wheel centre bogies**


Forest Rider


TRS LS-2


Twin 422


Twin 428


Forest King F


Forest King F2


T440


T480

Tyre Pressure (NOKIAN)

CROSS PLY			
Dimension	**Ply Rating**	**kPa**	**PSI**
600/50-22.5	16	430	62
600/50-22.5	20	550	80
700/45-22.5	16	390	57
710/40-22.5	16	430	62
710/40-24.5	20	550	80
600/55-26.5	16	460	67
600/55-26.5	20	550	80
650/60-26.5	12	280	41
650/60-26.5	20	550	80
650/65-26.5	20	550	80
700/50-26.5	20	550	80
710/45-26.5	16	460	67
710/45-26.5	20	550	80

Dimension	Ply Rating	kPa	PSI
750/55-26.5	20	550	80
780/55-26.5	20	550	80
800/40-26.5	20	500	73
600/65-34	14	290	42
700/55-34	14	280	41
700/70-34	16	280	41
RADIAL			
Dimension	**Ply Rating**	**kPa**	**PSI**
650/45R24.5		550	80
600/55R26.5		550	80
710/45R26.5		550	80
800/50R26.5		550	80
600/65R34		400	58
710/55R34		400	58

DRIVING WITH CLARK TRACKS

Driving with Tracks

Tracks increase machine stability, offer increased traction and flotation. However, in order to obtain maximum advantages from using tracks, the following points should be duly observed.

- **The correct track must be selected for each task, considering terrain, machine size, tyre type and size to which the tracks will be fitted, driver experience and working practices**
- **Tracks must be correctly fitted and tensioned**
- **Tyres must be inflated to correct working pressure - usually maximum permitted tyre pressure**
- **Tracks should not hit or foul the machine bodywork**
- **Special note should be made of tracks which have worn anti-skid spikes. These spikes prevent lateral sliding of tracks, particularly on side clopes and should be replaced when worn**

Driving Speeds

The maximum driving speed with tracks should never exceed 12km/hr. This applies even on flat smooth surfaces or forest roads. Speeds should be considerably reduced in the forest and reduced further with a loaded forwarder and when operating on extreme terrain.

Track Interaction with Tyre

Through in depth research and development, Clark Tracks have designed tracks which achieve a fine balance - reduced track on tyre slippage while preventing severe tyre damage.

Every track plate has been manufactured to have an underside grouser bar, used to grip the tyre surface. Where this grouser bar is lubricated - as when driving in wet peat or clay conditions - or worn due to old age, slippage between track and tyre can occur. Tyre slippage can also be a problem on very large, high horsepower machines which are heavily loaded and working on steep, wet ground. Where the bar is too sharp or aggressive, tyre damage may occur.

As standard there is a 5-10mm gap between the paw and tyre (design range is between 2 and 20mm depending upon track design and tyre condition).


KOMATSU
951

TRACK TENSIONER TOOLS

Clark Tracks Ltd - Hydraulic Tensioner – QTT500

Hydraulic Tensioner - QTT500

The ultimate tool for fitting your Clark Tracks, our new QTT500 contains a rechargeable battery and hydraulic power to simplify the process. The hydraulics are incredibly powerful, exerting nearly 3t of closing force to enable effortless tensioning.

Quickie Track Tensioner Tool QTT400

For fast, easy tensioning this tool fits most types of forest tracks. Adjustment is via a 3/4" drive ratchet and 38mm socket onto the end but (not supplied).

Track Tensioner Tool QTT401

The QTT401 is a specially extended variant of the robust QTT400. The extended fork legs allow the tensioner to be engaged on the inside of the track links. This is beneficial where a QTT400 is not able to be used due to space constraints or where the track plates have been extended (e.g. TXL).

Track Tensioner Tool QTT402

For single wheel tracks (GSG tracks) the QTT402 features high strength pin to engage the tracks and tension with ease.

SPARE TRACK PARTS

A RANGE OF SPARE TRACK PARTS ARE AVAILABLE FOR REPAIRS, MODIFICATIONS AND MAINTENANCE OF YOUR CLARK TRACKS

Track End Plate Links

Available to suit Clark 28mm track repair links, end links can be welded onto the tracks of any make or model during refurbishment.

Track Joining Links

28mm diameter Joining Links are available in Short (105mm) and Long (160mm) sizes for adjusting Track length or repairing broken links. Forged from heat treated boron alloy steel for maximum hardness & strength. These links are a smooth, tyre friendly design with bolt head locking for single spanner tightening

Fitting Staples (310mm)

Fitting staples make track fitting & tensioning easy. Used with the Track Tensioners, these devices hold the track in the correct position when fitting Tracks to the machine

Track Repair Links

Forged links and track plate end links are available in a range of sizes for the repair of all types and sizes of tracks. They are manufactured from heat treated boron aloy steel for strengh and hardness, resulting in a durable, hard wearing link.

RIPPER PRODUCTS

Rip into it with tougher & stronger ripping components for Excavators and Dozers.

"Tough ripping solutions that work"

- RIPPER PRODUCT RANGE 192
- DOZER RIPPER SHANKS 194
- EXCAVATOR RIPPERS 199
- GRADER RIPPER SHANKS 204
- WHEEL TRACTOR RIPPERS 206
- MTG RIPMET SYSTEM 207
- CAT STYLE RIPPER PRODUCTS 217
- ESCO STYLE RIPPER PRODUCTS 223
- KOMATSU STYLE RIPPER PRODUCTS 226

RIPPER PRODUCT RANGE

STRONGER AND TOUGHER, CUSTOM BUILT RIPPER SHANKS ARE AVAILABLE TO SUIT ANY MACHINE, ANY APPLICATION. SUPPORTED BY THE LARGEST RANGE OF RIPPER PRODUCTS IN NZ!

DOZER RIPPERS

Custom designed Ripper shanks for all makes and models of Dozers

EXCAVATOR RIPPERS

Custom designed, Ripper Assemblies for all makes and models of Excavators

GRADER RIPPERS

A range of large and small Ripper Shanks for all makes & models of Graders

WHEEL TRACTOR RIPPERS

Custom designed Aerator Rippers for Wheel tractors

RIPPER PRODUCT RANGE

A FULL RANGE OF RIPPER COMPONENTS ARE AVAILABLE TO FIT ALL MAKES & MODELS OF DOZER, EXCAVATOR, GRADER AND WHEEL TRACTOR RIPPERS

MTG RIPMET RIPPER SYSTEM

The worlds most trusted Ripper system with a hammerless pin mechanism. Available to suit Dozers and Excavators up to 200 Tonnes

CAT STYLE RIPPER PRODUCTS

A range of Noses, Teeth and Protectors available to suit all sizes and types of ripper shanks

ESCO STYLE RIPPER PRODUCTS

A range of Noses and Teeth available to suit all sizes and types of Ripper shanks

KOMATSU STYLE RIPPER PRODUCTS

A range of Noses, Teeth and Protectors available to suit all sizes and types of Ripper shanks

MTG

No limits innovation

OUR PREMIUM RANGE OF HIGH QUALITY RIPPER PRODUCTS ARE MADE BY MTG

ALL PARTS ARE AFTERMARKET BRANDS AND ARE NOT PRODUCED BY ORIGINAL EQUIPMENT MANUFACTURERS

DOZER RIPPER SHANKS

What a Ripper

YOU NEED TOUGH DOZER RIPPING SOLUTIONS, WE'VE GOT THEM!

- High quality, standard and custom designed ripper shanks to suit all makes & models of Bulldozers
- Made from G450 Abrasion Resistant steel for maximum strength & wear life
- Any size, shape and length for all ripping applications, with multiple height adjustment holes
- Correct ripping angle and shank curve for better penetration and improved ripping performance
- A full range of pin-on and weld-on wear components available in-stock

DOZER RIPPER SHANKS

THE TABLE AND DRAWINGS BELOW SHOW THE SIZE AND SHAPE OF COMMON DOZER RIPPER SHANKS

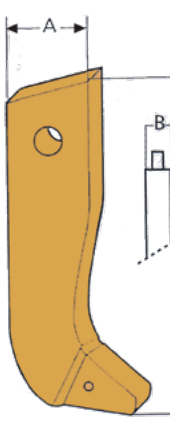


Fig. 1

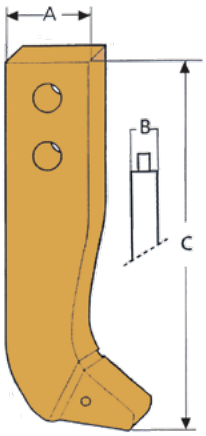


Fig. 2

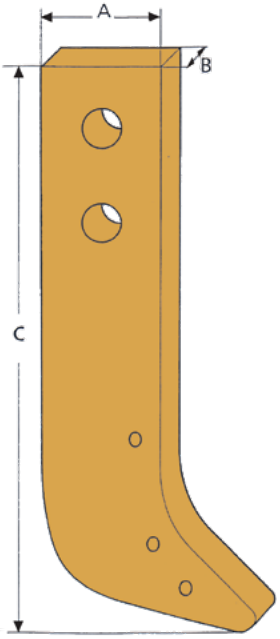


Fig. 3

Fig	Part No	A	B	C	Machine Size
1	9J6586	140	60	530	D4
2	8J3215	176	75	850	D6
2	9W7382	229	75	1240	D7
3	4T8989	330	75	2015	D8/D9
3	4T8990	330	75	1610	D8/D9

All measurements in millimetres

DOZER RIPPER DESIGNS

- Custom built rippers up to 90mm thickness
- Designed and engineered to suit your specific needs
- Guaranteed to be the strongest and longest lasting

DOZER RIPPER DESIGNS

EXCAVATOR RIPPERS

Rip into it

CUSTOM DESIGNED AND ENGINEERED RIPPER ASSEMBLIES TO SUIT 10-100 TONNE SIZE EXCAVATORS

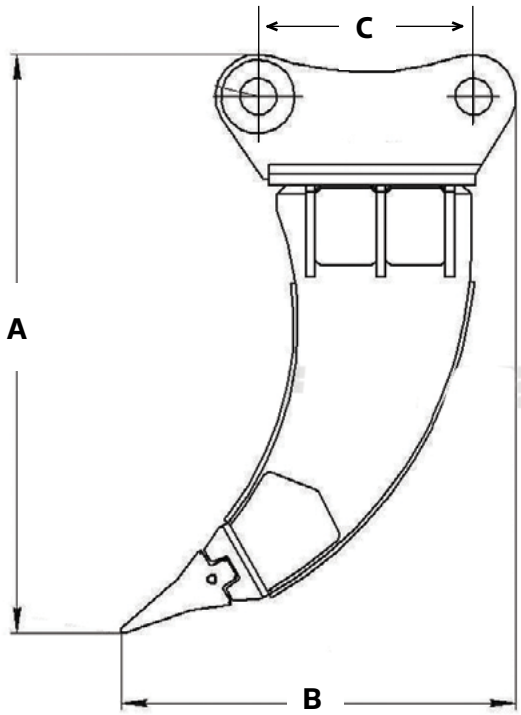
- Available for all makes and models of Excavators in rock, demolition and tree stump applications
- Made from G450 Abrasion Resistant & High Tensile steels for maximum strength and wear life
- Correct ripping angle and shank curve for increased penetration and effective ripping performance
- Pin-on or weld-on shank protectors can be fitted for extra wear protection
- Supplied as individual shanks or complete ripper and mount assemblies
- Options of fixed pins for quick-hitch mounting or removable pins for direct attachment to your dipper arm

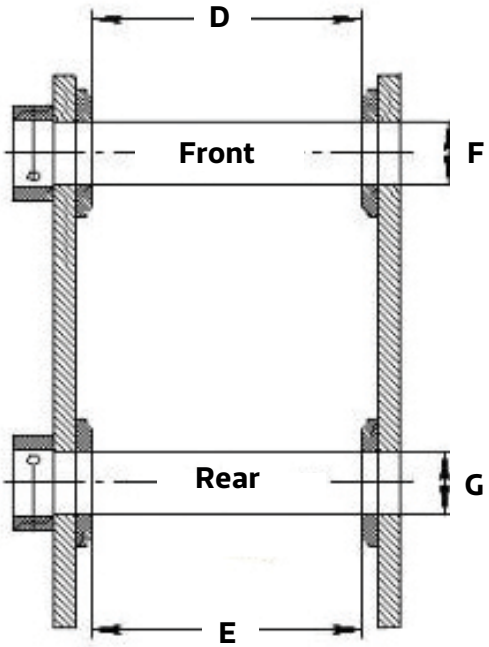
Guaranteed to be the strongest, longest lasting Rippers, supported by our huge range of replacement wear parts in-stock!

EXCAVATOR RIPPER SIZES

Excavator Size		10-14 tonne	16-23 tonne	24-30 tonne	33-40 tonne	45-60 tonne
Part No		R-118-2	R-135-2	R-150-2	R-171-2	R-180-2
Ripper Height	**A**	1280mm	1590mm	1595mm	1845mm	1876mm
Ripper Depth	**B**	908mm	943mm	984mm	1050mm	1160mm
Pin Centres	**C**	362mm	475mm	475mm	575mm	575mm
Dipper Width (Front)	**D**	255mm	307mm	410mm	418mm	472mm
Power Link Width (Rear)	**E**	255mm	307mm	410mm	418mm	472mm
Front Pin Diameter	**F**	65mm	80mm	90mm	100mm	110mm
Rear Pin Diameter	**G**	65mm	80mm	90mm	100mm	110mm
Shank Thickness		75mm	80mm	80mm	100mm	90mm
Ripper Tooth Type/Size		6Y0359 (D6)	6Y0359 (D6)	9W2452 (D8)	9W2452 (D8)	4T5502 (D10)
Pin on Protector fitted?		No	No	No	No	Yes (9W8365)
Bushes Fitted?		No	No	No	No	No
Mounting Pins Fitted?		Yes (2x Mild Steel)	Yes (2x Mild Steel)	Yes (2x Mild Steel)	Yes (2x Mild Steel)	Yes (2x Mild Steel)
Ripper Weight (with tip)		350kgs	500kgs	675kgs	1020kgs	1240kgs

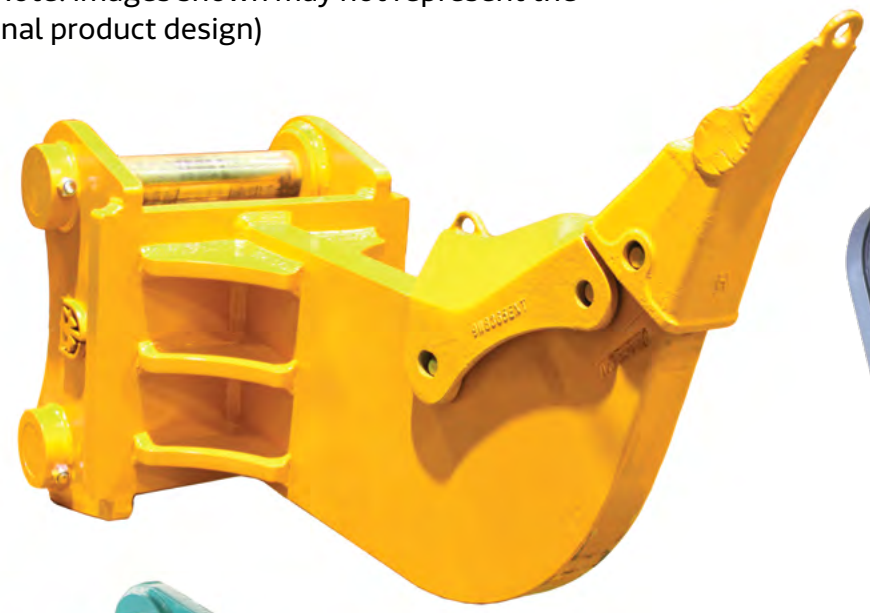
Rippers can be modified to fit any machine make or model. Larger Ripper sizes are available on request.





EXCAVATOR RIPPER DESIGNS

A range of Rippers are available for all makes & models of Excavators up to 80 tonne size.
Options with pin on or weld on Shank Protectors fitted.
(Note: images shown may not represent the
final product design)

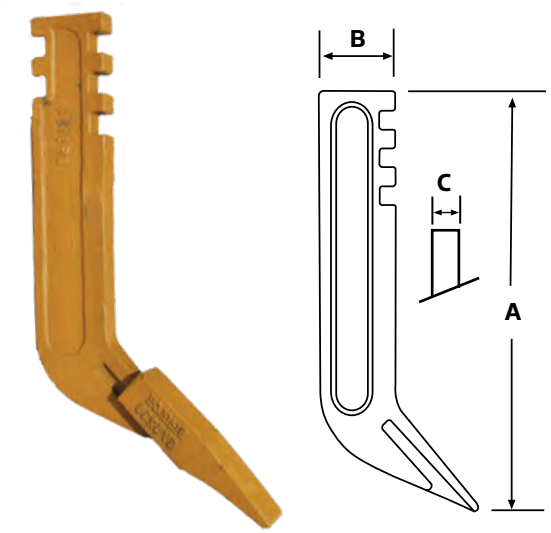


EXCAVATOR RIPPER DESIGNS

GRADER RIPPER SHANKS

A RANGE OF LARGE & SMALL RIPPER SHANKS ARE AVAILABLE TO SUIT ALL MAKES & MODELS OF MOTOR GRADERS. CUSTOM DESIGNS CAN BE BUILT FOR ANY APPLICATION

SCARIFIER RIPPER SHANKS (Fig. 1)



LARGE RIPPER SHANKS (Fig. 2)

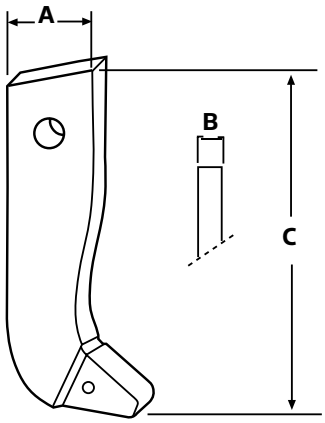


Fig	Shank No	A	B	C	Tip	Pin	Retainer
1	9F5124	420	76	25	6Y5230	-	-
2	9J6586	138	60	530	6Y0309	9W2668	8E6359

WHEEL TRACTOR RIPPERS

Any size, any shape

CUSTOM MADE AERATOR, PRE RIPPER, SUBSOLIER AND PIPE LAYING RIPPER SHANKS ARE AVAILABLE TO FIT ALL TYPES OF WHEEL TRACTOR ATTACHMENTS AND APPLICATIONS

- Made from G450 Abrasion Resistant steel for maximum strength & wear life
- Fitted with replaceable pin on teeth

MTG RIPMET SYSTEM

The Hammerless Generation

STRONGER, MORE RELIABLE, LONGER LASTING, HAMMERLESS PIN-ON RIPPER SYSTEM FOR THE BEST RIPPING PERFORMANCE

ULTIMATE SAFETY

This hammerless twist pin mechanism requires no hammering action to install the pins, greatly reducing the risk of flying metal and accidents. The pins are simply pushed into place by hand and turned 90 degrees with a tool to securely fasten them.

LONGER SERVICE LIFE

All teeth styles are designed to self sharpen as they wear and do not need to be reversed, therefore reducing machine downtime. The teeth auto tighten onto the adapter under impact so there is no wear on the adapter nose.

NO LOSS OF TEETH

The hammerless locking system uses the twist pin and elastomet retainer which has excellent retention. This ensures the teeth will never come loose or fall off.

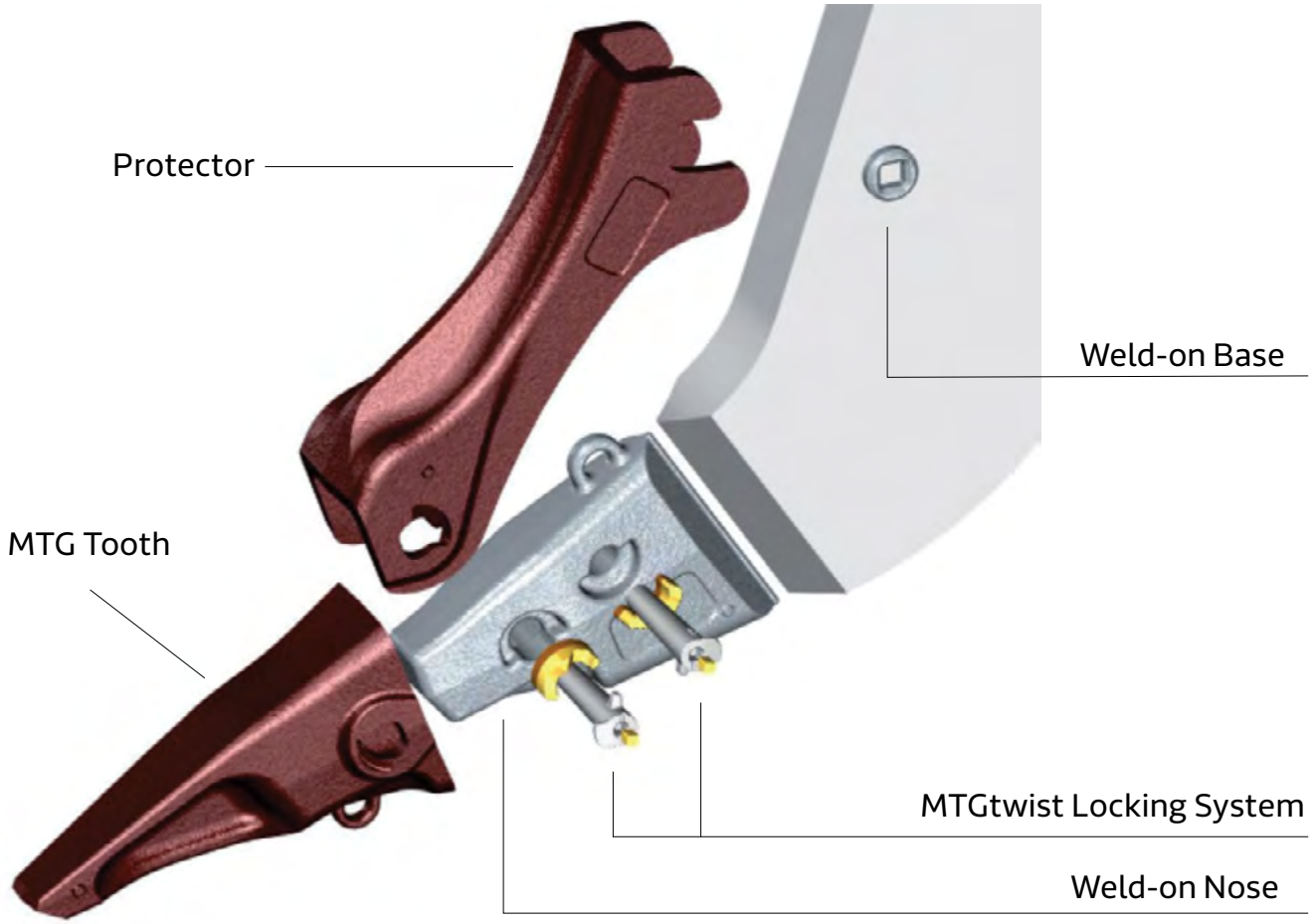
FASTER CHANGES

The teeth and protectors are very quick and easy to replace on-site by one person.

PREMIUM QUALITY

Ripment components are made from the highest quality, cleanest & toughest MTG steels and designed to self sharpen as they wear.

MTG RIPMET SYSTEM

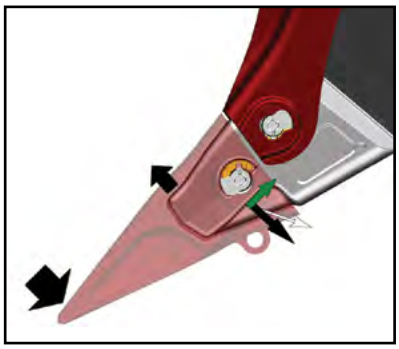


EXCELLENT RESISTANCE FOR THE TOUGHEST RIPPING APPLICATIONS

The stabilization surfaces of the RipMet Nose and Tooth, ensure even distribution of forces while working. The Teeth auto-tighten onto the Nose keeping it firmly in place.

- **Hammerless Pins**
- **Self-sharpening Teeth**
- **Guaranteed no loss of components**
- **Streamlined geometry for better penetration**

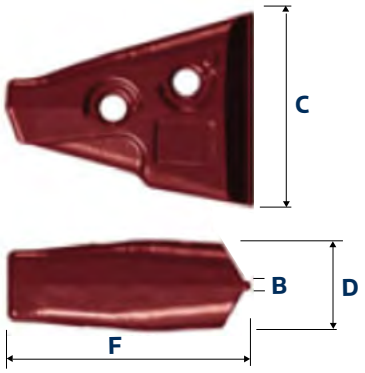
Available for all makes and models of Excavators up to 200 tonne size and Dozers up to D11/D475 size



RipMet Size	Shank Thickness	Machine Size
45	75mm	D8/D9/D155
50	90-100mm	D10/D375
55	110-115mm	D11/D475

MTG RIPMET SYSTEM

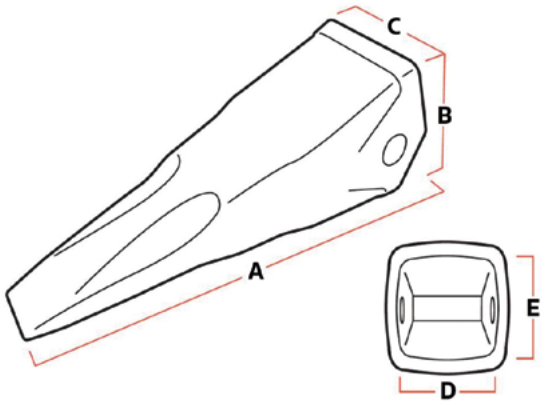
WELD-ON NOSE



Part No	B	C	D	F	Machine Size	Kg
1ME45WN	10	205	90	260	D8/D9/D155	18
1ME50WN	10	270	100	402	D10/D375	45
1ME55WN	10	323	110	443	D11/D475	63

All measurements in millimetres

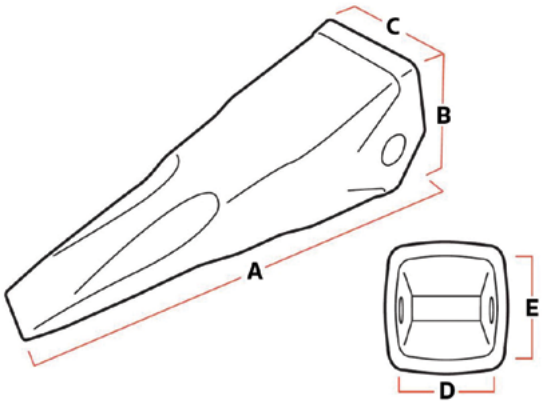
STANDARD TIP



	External			Internal			
Part No	A	B	C	D	E	Machine Size	Kg
ME45S	381	169	142	95	135	D8/D9/D155	18
ME50S	443	228	174	120	190	D10/D375	31

All measurements in millimetres

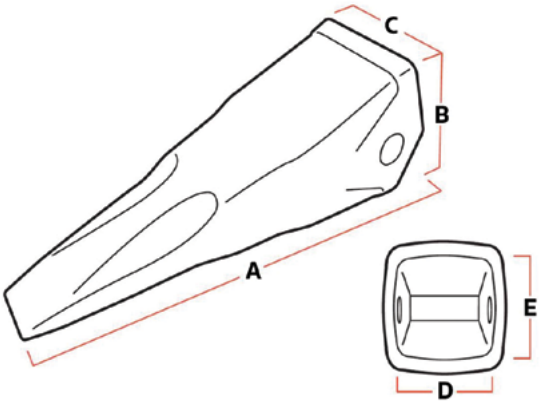
PENETRATION TIP



	External			Internal			
Part No	A	B	C	D	E	Machine Size	Kg
ME50PX	422	228	174	120	190	D10/D375	30

All measurements in millimetres

IMPACT TIP

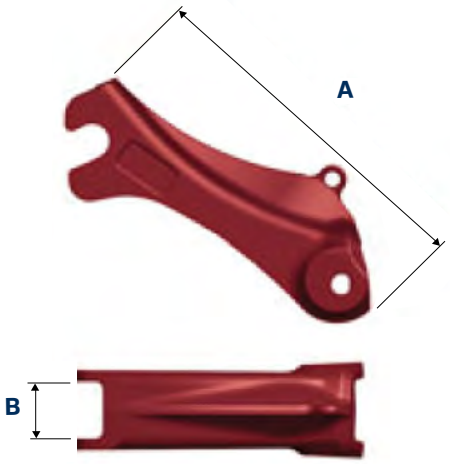


	External			Internal			
Part No	A	B	C	D	E	Machine Size	Kg
ME50I	407	228	174	120	190	D10/D375	28
ME55I	481	284	189	133	220	D11/D475	42

All measurements in millimetres

MTG RIPMET SYSTEM

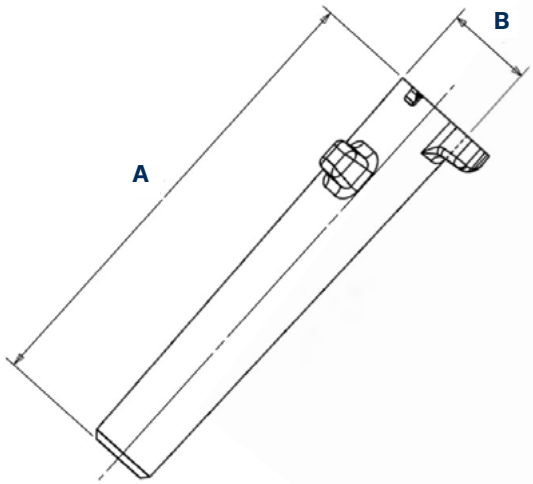
SHANK PROTECTOR



Part No	A	B	Machine Size	Kg
4ME45S2	471	79	D8/D9/D155	15
4ME50S2-A	640	105	D10/D375	38
4ME55S2	705	115	D11/D4755	57

All measurements in millimetres

PIN AND RETAINER

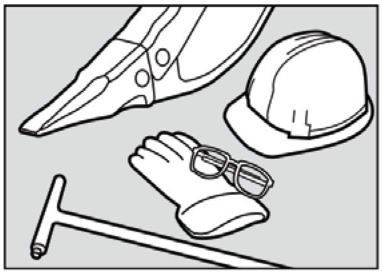


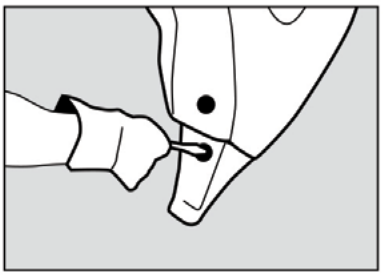
ITEM	Part No	A	B	Machine Size	Square Drive
Pin & Retainer Set	2ME45PR	132	28	D8/D9/D155	1/2”
Pin & Retainer Set	2ME50PR	162	37	D10/D375	1/2”
Pin & Retainer Set	2ME55PR	181	40	D11/D475	3/4”
Twist Tool	3MTWISTX2				1/2”- 3/4”

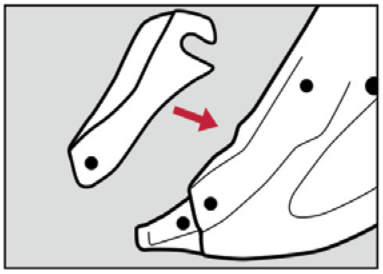
All measurements in millimetres

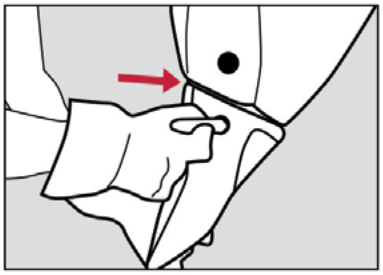
INSTRUCTIONS FOR ASSEMBLY AND DISASSEMBLY OF MTG RIPMET COMPONENTS

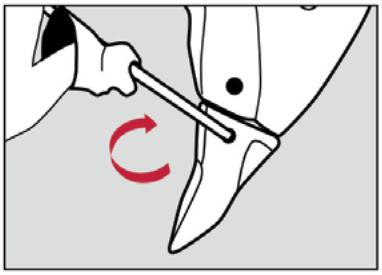
Assembly

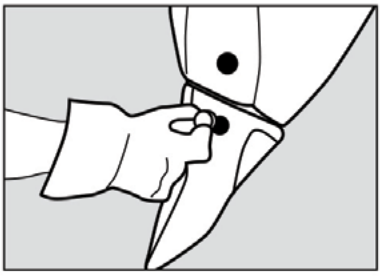

RECOMMENDED EQUIPMENT

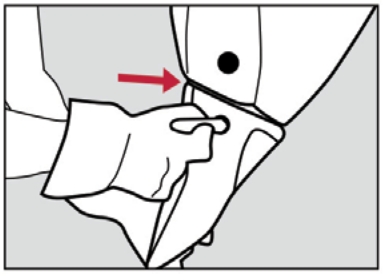

CLEAN THE ADAPTERS AND INSERT BOTH RETAINERS

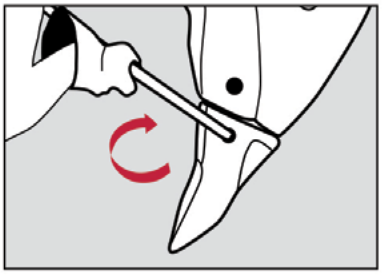

POSITION THE SHROUD

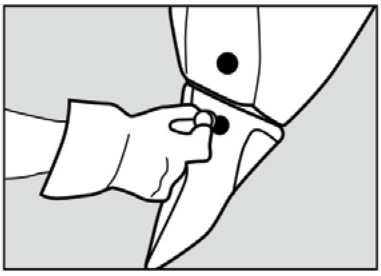

INSERT THE PIN


ROTATE THE PIN 90°

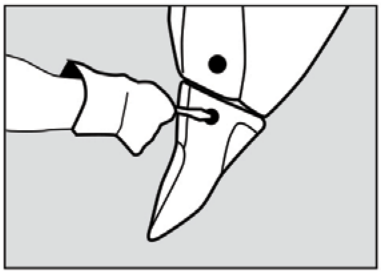

POSITION THE TOOTH

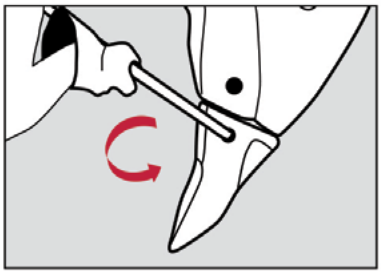

INSERT THE PIN

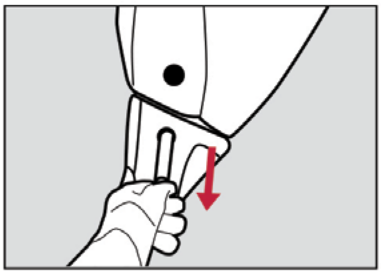

ROTATE THE PIN 90°


FIT THE PLUG

Disassembly


REMOVE THE PLUG


ROTATE THE PIN 90°


REMOVE THE PIN

RIPMET WELDING INSTRUCTIONS

Surface cleaning should be performed on parts to be welded, removing paint, grease, oxide or other elements. The presence of pollutants containing hydrogen (grease, paint or organic matter) could be the cause of delayed breakages. Cleaning can be performed mechanically using a wire brush, if this is not enough light grinding can be applied.

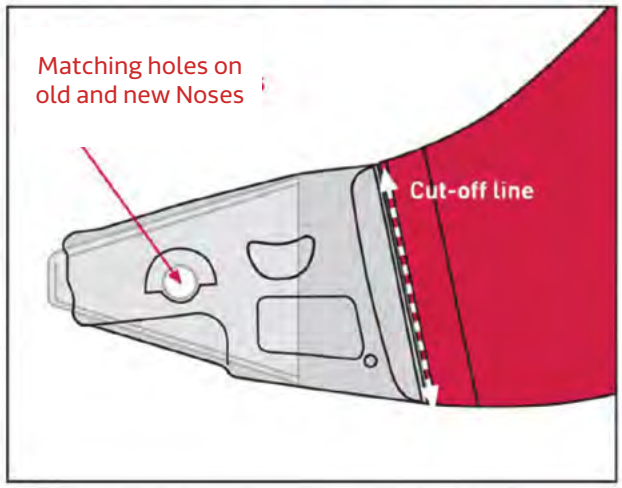
Preheat the welding area up to 140-180°C (280-456 F), without exceeding the limits indicated, until the welding area maintains the indicated temperature. If for any reason the welding process was stopped and it wasn't possible to maintain temperatures, preheating should be performed again before restarting the process.

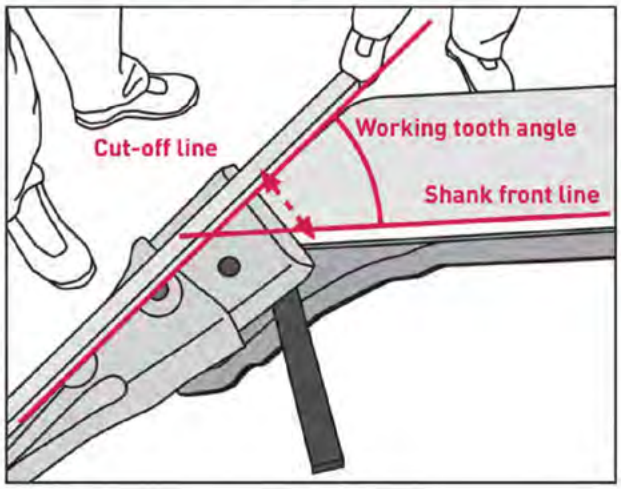
During the welding process, temperatures above 250°C (482 F) should not be exceeded outside the areas directly affected by welding. Passes should be spaced so as to maintain temperature within the preheating and the maximum temperature limits.

Tubular thread (Flux Core) should be used with certified low hydrogen content.

Tubular thread recommended:
ASME/AWS: E 70 T1 (Ruptile type tubular thread)
ASME/AWS: E 70 T5 (Basic tubular thread with high mechanical properties)
DIN: SG B1 5254 (DIN 85591 standard)

MTG RIPMET NOSE FITTING INSTRUCTIONS



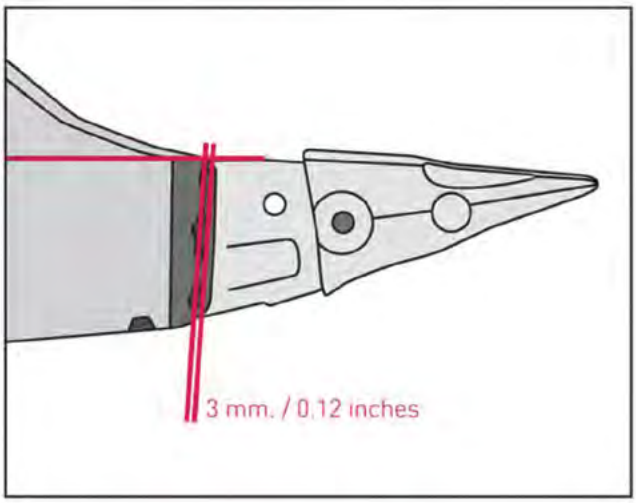


When the original nose is attached:

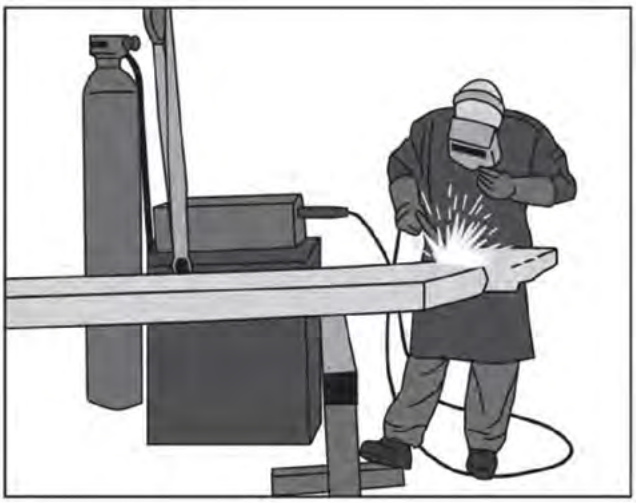
Place the MTG RipMet nose on the shank in the same original position and draw the resulting cut-off line on the shank. Preheat the area to be cut up to 180° and cut through the line. Without allowing cooling, perform the weld bevel similar to that of the MTG RipMet nose.

When the original nose is not attached:

Place the tooth/adapter set on the shank at the desired working angle for the tooth and mark the cutting line. MTG RipMet allows a working tooth angle of 30°.

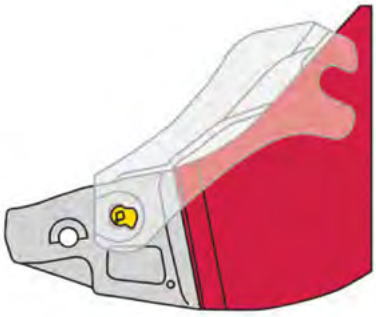


Position the nose with the shank and tack in place. There must be a 3mm gap between the nose and the shank. The front faces must be flush. Assemble the tooth and the shroud on the shank to make sure that the set can be correctly assembled.



Weld alternatively on both sides of the Nose to correct deformities (checking the Nose remains straight). When welding is complete, cover the welded area with welding blankets to allow slow cooling. Grind welds flush so the Shank Protector fits correctly.

ASSEMBLY INSTRUCTIONS FOR THE SHROUD BASE



A. Insert the retainer into the nose cavity. Place the shroud, insert the pin and turn clockwise.

B. Tack the shroud base in position. Pre heat to 180°C and weld in place.

C. Disassemble the shroud and finish welding, both on the outside and inside of the base.

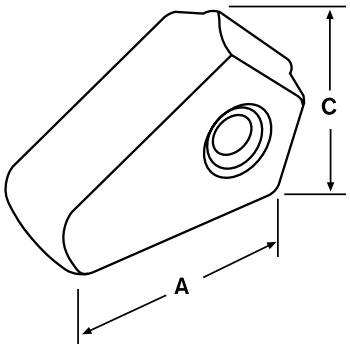

MAERSK
MAERSK

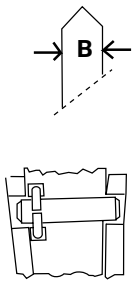

D10R

CAT STYLE REPAIR NOSES

SMALL REPAIR NOSE

Used for replacing worn or broken ripper noses





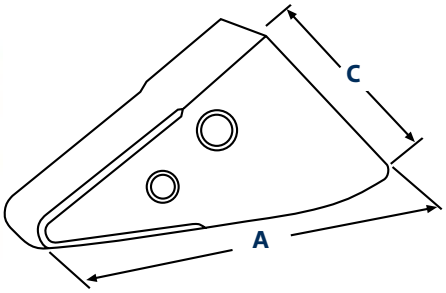
Tip Mounted with Pin and Washer

Part No	A	B	C	Machine Size	Kg	Pin	Retainer
8E7300	135	55	85	D4/D5	2.5	9W2668	8E6359
8E7350	170	73	110	D6/D7	5.5	9W2678	8E6359

All measurements in millimetres

LARGE REPAIR NOSE

Used for replacing worn or broken ripper noses

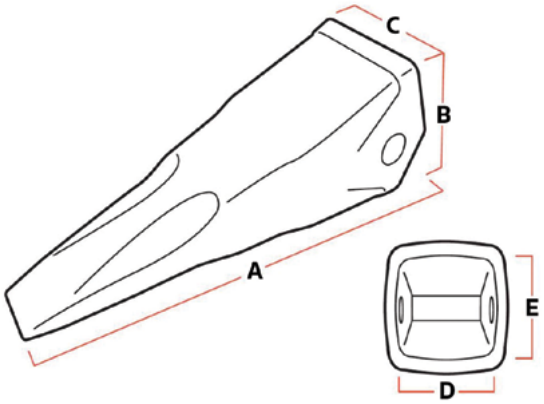


Tip Mounted with Pin and Washer

Part No	A	B	C	Machine Size	Kg	Pin	Retainer
9U9694	355	75	204	D8/D9	20	6Y3394	8E4743
107-3361	380	90	265	D10/D11	42	6Y3909	4T4707

All measurements in millimetres

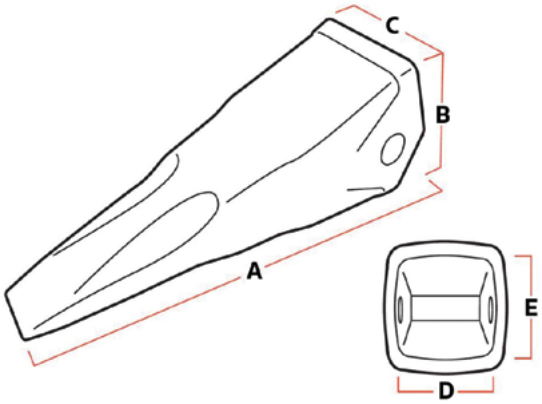
CENTRELINE TIP



	External			Internal			
Part No	A	B	C	D	E	Machine Size	Kg
6Y0352	350	145	118	77	115	D6/D7	12
9W2452	370	167	125	88	130	D8/D9	22
4T4502	440	220	150	105	180	D10/D11	30

All measurements in millimetres

PENETRATION TIP

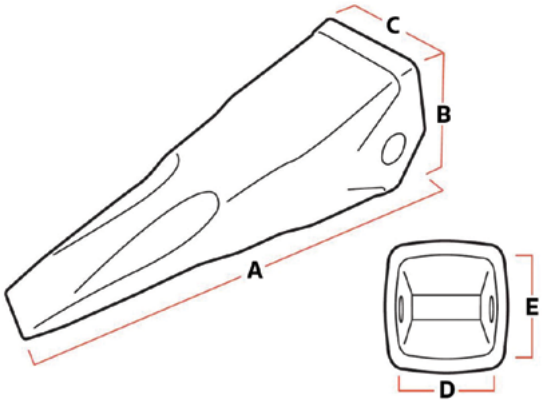


	External			Internal			
Part No	A	B	C	D	E	Machine Size	Kg
6Y0309	285	102	82	60	85	D4/D5	6
6Y0359	348	145	118	77	115	D6/D7	12
4T5452	390	172	140	88	130	D8/D9	20
4T5501	390	225	160	105	180	D10/D11	25
4T5502	430	233	164	105	180	D10/D11	33

All measurements in millimetres

CAT STYLE RIPPER TEETH

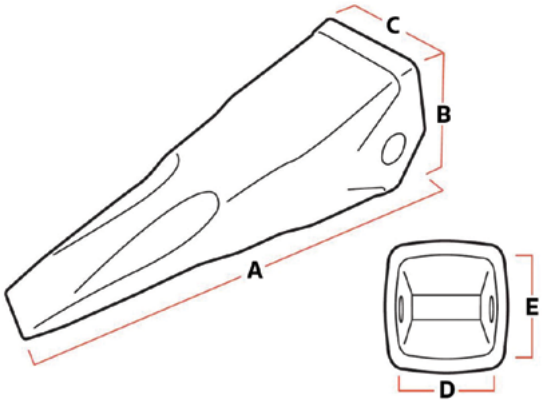
STANDARD TIP - *Premium quality self sharpening design (MTG)*



	External			Internal			
Part No	A	B	C	D	E	Machine Size	Kg
MR45S	375	180	120	88	130	D8/D9	16

All measurements in millimetres

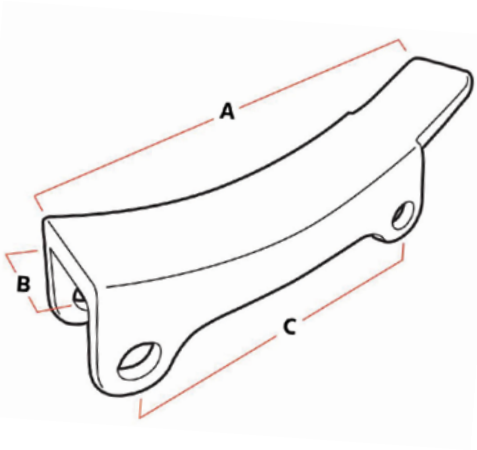
IMPACT TIP - *Premium quality, self sharpening design (MTG)*



	External			Internal			
Part No	A	B	C	D	E	Machine Size	Kg
MR50I	410	230	155	105	180	D10/D11	27

All measurements in millimetres

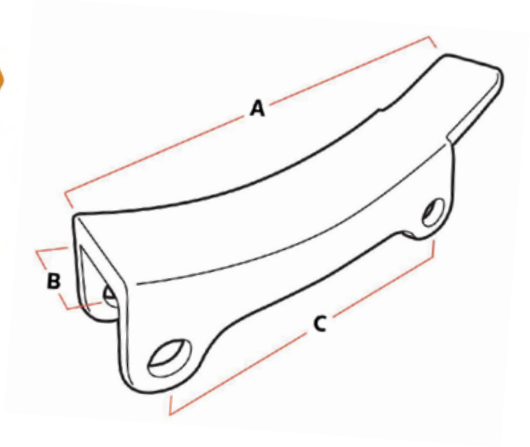
STANDARD PIN-ON PROTECTOR



Part No	A	B	C	Machine Size	Kg
6J8814	435	80	312	D8/D9	14

All measurements in millimetres

HEAVY DUTY PIN-ON PROTECTOR

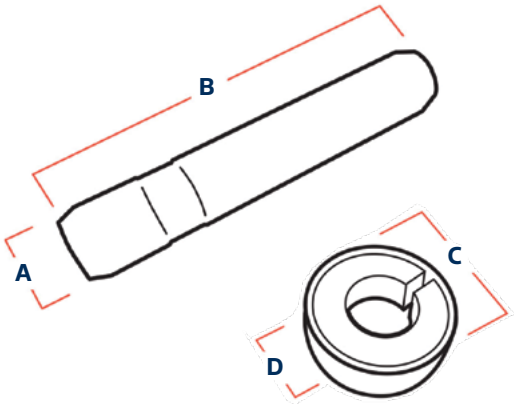


Part No	A	B	C	Machine Size	Kg
8E1848	450	83	312	D8/D9	25
9W8365	540	96	400	D10/D11	40

All measurements in millimetres

CAT STYLE PINS & RETAINERS

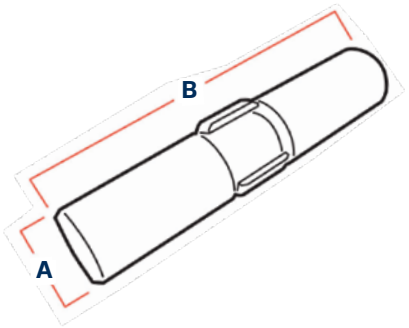
PIN AND RETAINER



Pin No	Retainer No	A	B	C	D	Machine Size	Notes
9W2668	8E6359	19	89	40	18.5	D4/D5	Tooth Pin/Retainer
9W2678	8E6359	19	106	40	18.5	D6/D7	Tooth Pin/Retainer
6Y3394	8E4743	25	128	48	24.5	D8/D9	Tooth & Protector Pin/Retainer
6Y3909	4T4707	32	143	63	31	D10/D11	Tooth & Protector Pin /Retainer

All measurements in millimetres

PIN ASSEMBLY



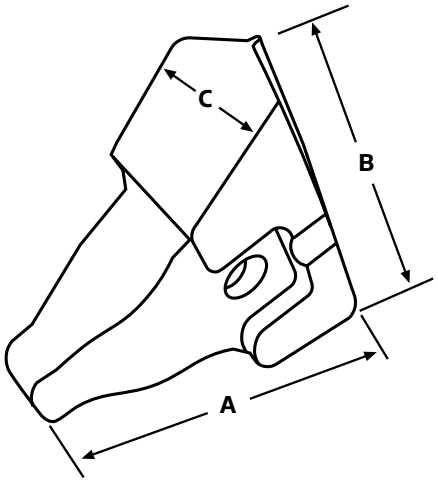
Part No	A	B	Machine Size	Notes
4T2479BC	25.4	128	D8/D9	Top Protector Pin
6J8811	32	115	D8/D9	Bottom Protector Pin
3G0500	32	152	D10/D11	Tooth & Protector Pins

All measurements in millimetres

ESCO STYLE RIPPER TEETH

WELD-ON REPAIR NOSE

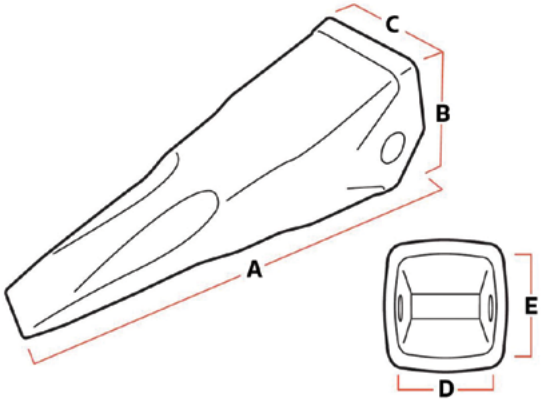
Used for replacing worn or broken ripper noses



Part No	A	B	C	Machine Size	Kg
25RN	190	170	88	D6/D65	9
35RN	250	225	110	D7/D85	20
39RN	330	243	128	D8/D155	28

All measurements in millimetres

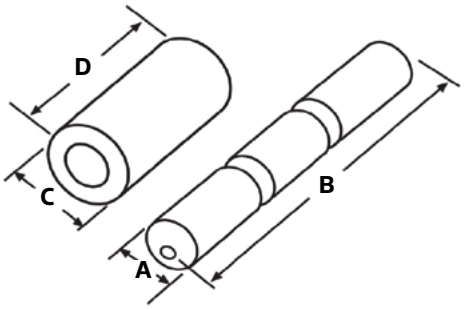
STANDARD TIP - *Premium quality, self sharpening design (MTG)*



	External			Internal			
Part No	A	B	C	D	E	Retainer	Kg
MNR25S	260	110	90	66	90	D5/D6/D65	6
MNR35S	310	165	120	90	120	D7/D85	12
MNR39SR	430	188	144	95	132	D8/D155	22

All measurements in millimetres

PIN AND BUSH

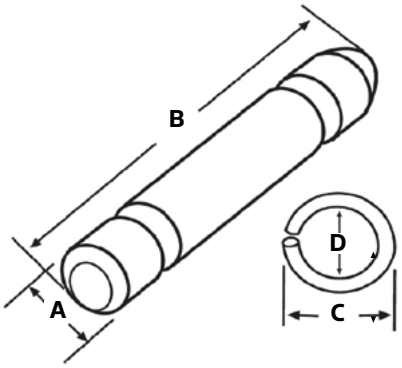


Pin No	Bush No	A	B	C	D
25RPG	25RBG	13	92	23	65
35RPG	35RBG	13	121	21	83

All measurements in millimetres

HEAVY DUTY PIN AND RINGS

These can only be used with MTG premium Ripper Teeth

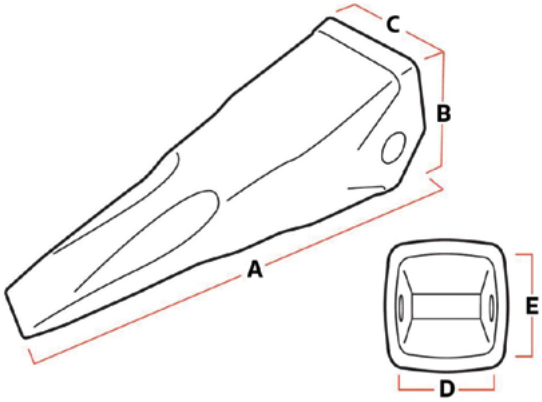


Pin No	Ring No	A	B	C	D
35RPH	39/49SR	22	127	33	21
39RPH	39/49SR	22	151	33	21

All measurements in millimetres

KOMATSU STYLE RIPPER PRODUCTS

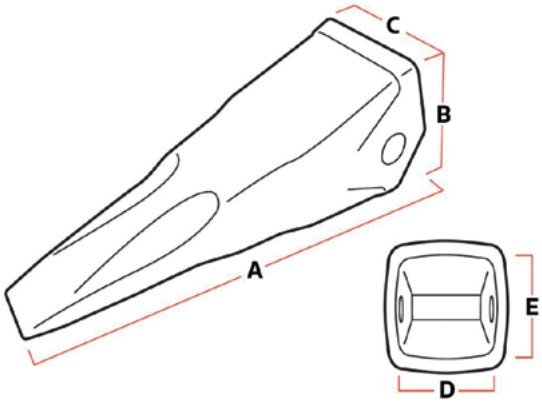
ECONOMY TIP



	External			Internal			
Part No	A	B	C	D	E	Machine Size	Kg
141-78-11253	263	155	120	80	110	D65/85	11.5

All measurements in millimetres

CENTRELINE TIP

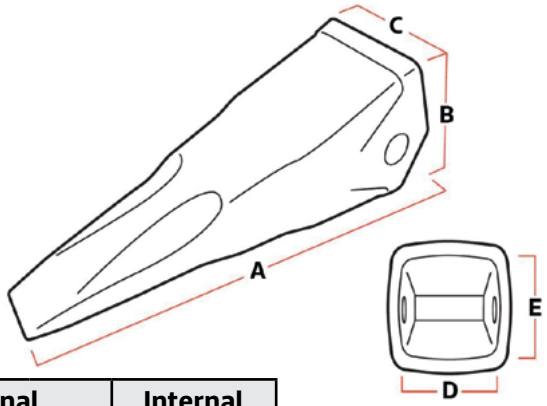


	External			Internal			
Part No	A	B	C	D	E	Machine Size	Kg
175-78-31230	365	165	110	85	125	D85/D155	16
195-78-21331	370	198	125	84	150	D275/D355	10

All measurements in millimetres

KOMATSU STYLE RIPPER TEETH

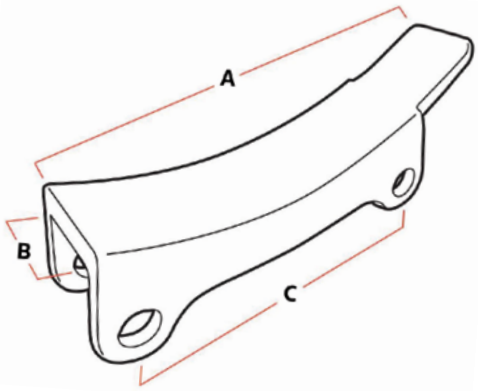
PENETRATION TIP



	External			Internal			
Part No	A	B	C	D	E	Machine Size	Kg
195-78-71320	445	214	125	77	160	D375	25
198-78-21340	495	255	150	105	190	D475	25

All measurements in millimetres

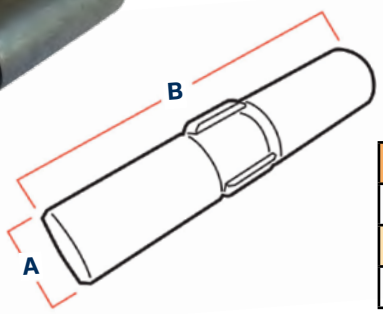
STANDARD PIN ON PROTECTOR



Part No	A	B	C	Machine Size	Kg	Pin Assembly
195-78-21320	410	80	345	D85/D155/D275	15	175-78-21810

All measurements in millimetres

PIN ASSEMBLY



Part No	A	B	Machine Size
175-78-21810	25	116	D65/D85/D155/D275
195-78-71360	30	112	D375
09244-03036	30	136	D475

All measurements in millimetres

RUBBER TRACKS & PADS

Large range of Rubber Tracks & Pads for mini Excavators, Compact Track Loaders and other rubber tracked machinery.

"Guaranteed quality, fitment & performance"

- WEST-TRAK RUBBER TRACKS 232
- RUBBER TRACK RANGE 234
- RUBBER TRACK SIZES 238
- HOW TO MEASURE A RUBBER TRACK 240
- HOW TO FIT YOUR RUBBER TRACKS 242
- MAINTAINING YOUR RUBBER TRACKS 243
- DE-TRACKING PROBLEMS & SOLUTIONS 245
- RUBBER PADS 248
- BOLT-ON RUBBER PADS 250
- CLIP-ON RUBBER PADS 252
- CHAIN-ON RUBBER PADS 254
- RUBBER PAD MEASURE UP FORM 256

Where the Rubber hits the road!

A LARGE RANGE OF RUBBER TRACKS & PADS ARE AVAILABLE FOR MINI EXCAVATORS, SKID STEER LOADERS AND TRACKED DUMPERS

- Huge stocks of Tracks & Pads to fit over 2000 models of mini tracked machines
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GET BETTER PERFORMANCE WITH WEST-TRAK RUBBER TRACKS! HEAVY DUTY & TOUGHER DESIGN, FOR LONGER WEAR LIFE

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West-Trak Rubber Tracks contain 75% natural rubber that is more flexible & longer lasting than other synthetic alternatives. They feature closely spaced short pitch core bars for smooth operation and reduced vibration.

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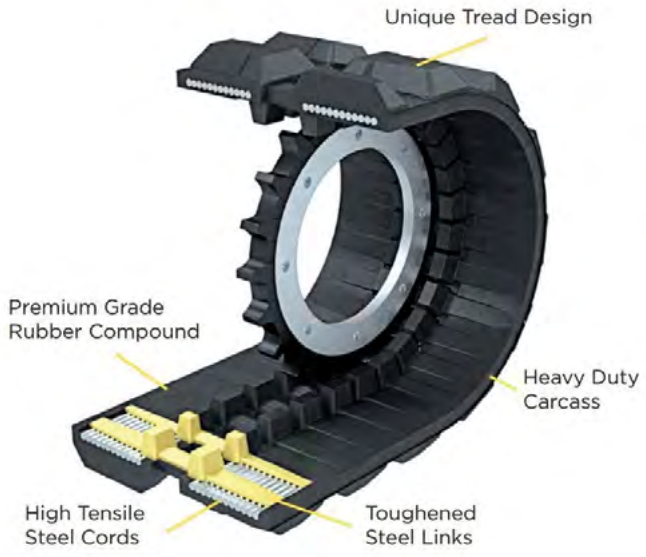
Available to fit most rubber tracked machines.



RUBBER TRACK RANGE

MACHINE TYPES

Mini Excavators

ASV Posi-Track Loaders

Horizontal Drills

Compact Track Loaders (CTL)

Track Dumper/Carriers

Toro Dingo Machines

TRACK TREAD PATTERNS

Straight Bar ASV
ASV Loader Track

'C' Block
CTL Loader Track

Multi Bar
CTL Loader Track

Big Block
CTL Loader Track

Zig Zag
CTL Loader Track

Directional Block
Excavator Track

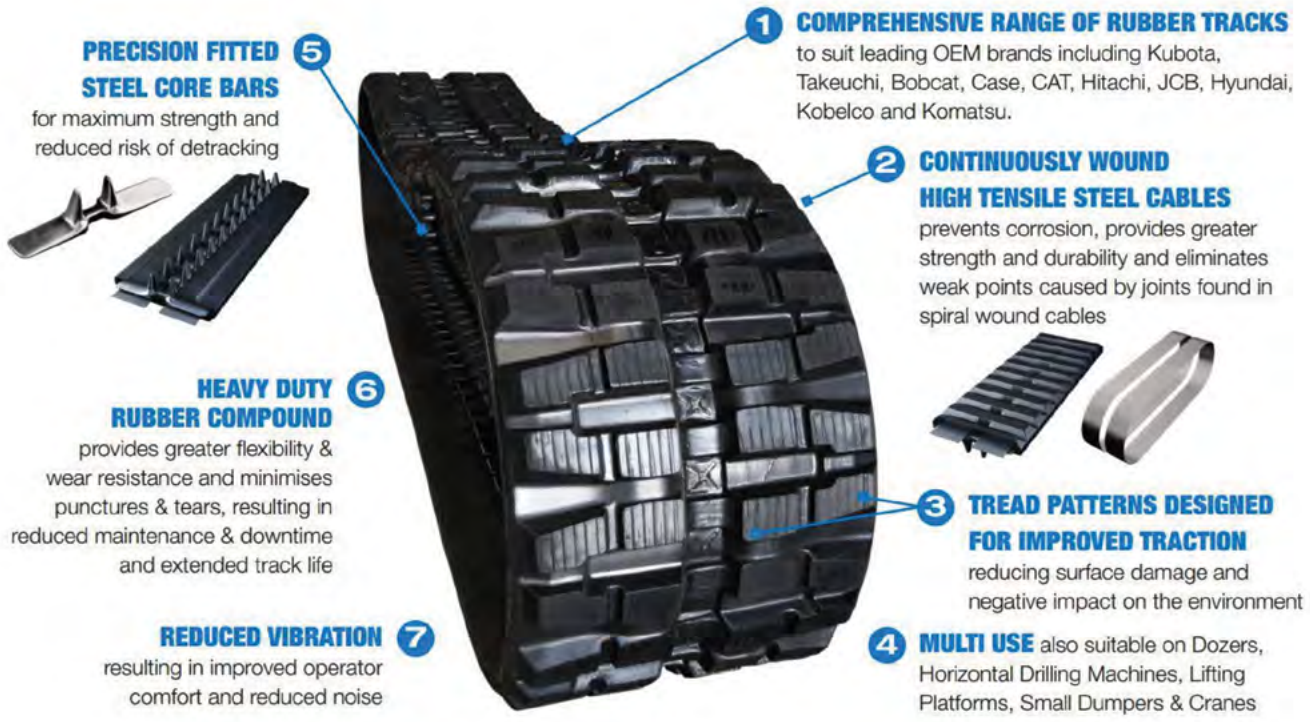
Directional L Block
Excavator Track

Traction Bar
Excavator Track

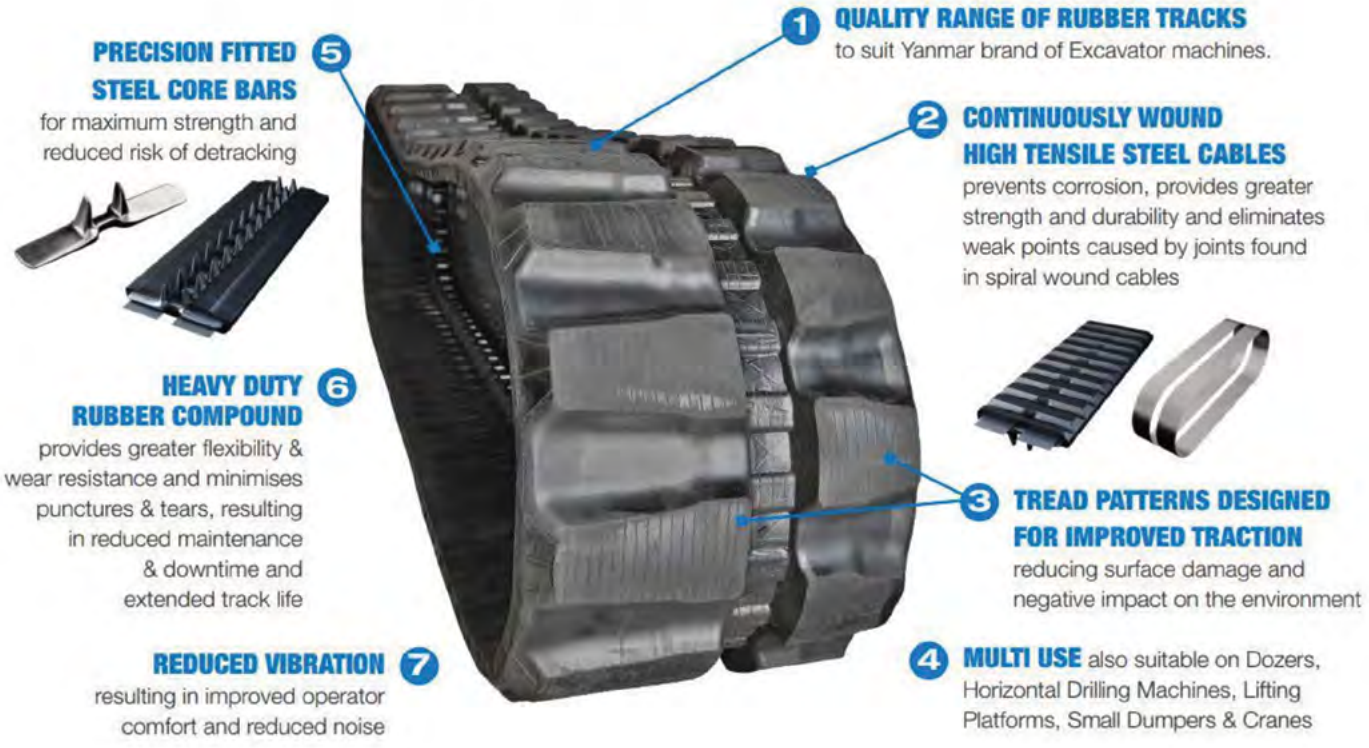
Multi Block
Toro Dingo Track

Straight Bar
Marooka Track

EXCAVATOR TRACK - STANDARD TYPE



EXCAVATOR TRACK - OFFSET TYPE



RUBBER TRACK RANGE

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eliminating breakage and providing maximum strength for superior performance and extended track life

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to suit leading OEM brands including ASV, Terex & CAT

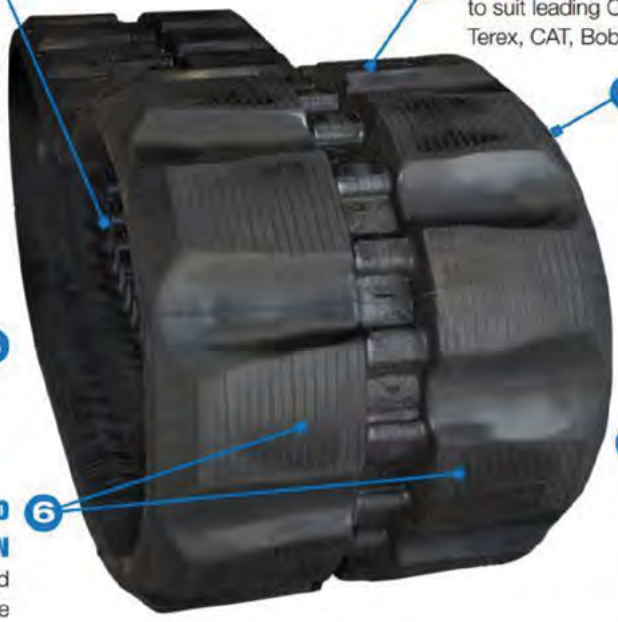
2 NON-STEEL KEVLAR BELT CORE
for greater durability and reduced stretching

5 HEAVY DUTY RUBBER COMPOUND
provides greater flexibility & wear resistance and minimises punctures & tears. Results in reduced maintenance & downtime and extended track life

3 TREAD PATTERNS DESIGNED FOR IMPROVED TRACTION
reducing surface damage and negative impact on the environment

6 REDUCED VIBRATION AND WEIGHT
resulting in improved operator comfort and reduced noise & fuel consumption

SKID STEER LOADER TRACK - BLOCK TYPE



4 PRECISION FITTED STEEL CORE BARS
for maximum strength and reduced risk of detracking

1 COMPREHENSIVE RANGE OF RUBBER TRACKS
to suit leading OEM brands including Kubota, Takeuchi, Terex, CAT, Bobcat, Case, Komatsu and others

2 CONTINUOUSLY WOUND HIGH TENSILE STEEL CABLES
prevents corrosion, provides greater strength and durability and eliminates weak points caused by joints found in spiral wound cables

5 REDUCED VIBRATION
resulting in improved operator comfort and reduced noise

3 HEAVY DUTY RUBBER COMPOUND
provides greater flexibility & wear resistance and minimises punctures & tears, resulting in reduced maintenance & downtime and extended track life

6 BLOCK PATTERN TREAD IDEAL FOR HARSH TERRAIN
Improves traction and extends track life

SKID STEER LOADER TRACK - MULTI BAR TYPE

TRACKED DUMPER/CARRIER TRACKS

RUBBER TRACK SIZES

EXCAVATOR TRACKS

Rubber Track Size	Part Number	Rubber Track Size	Part Number
Rubber Track 180x60x37	RT810617N	Rubber Track 250x96x40	RT526920N
Rubber Track 180x72Kx36	RT812716X	Rubber Track 300x52.5Kx78	RT032558X
Rubber Track 180x72Kx37	RT812717X	Rubber Track 300x52.5Kx80	RT032560X
Rubber Track 180x72Kx38	RT812718X	Rubber Track 300x52.5Kx88	RT032568X
Rubber Track 180x72Kx39	RT812719X	Rubber Track KB300x52.5Kx82	RT032562Z
Rubber Track 180x72Kx40	RT812720X	Rubber Track KB300x52.5Kx88	RT032568Z
Rubber Track 180x72Kx41	RT812721X	Rubber Track 300x52.5Nx72	RT032552S
Rubber Track 180x72Kx42	RT812722X	Rubber Track 300x52.5Nx74	RT032554S
Rubber Track 180x72x34	RT812741N	Rubber Track 300x52.5Nx76	RT032556S
Rubber Track 200x72x41	RT022721X	Rubber Track 300x52.5Nx78	RT032558S
Rubber Track 200x72x43	RT022723X	Rubber Track 300x52.5Nx80	RT032560S
Rubber Track 230x48Kx70	RT328450X	Rubber Track 300x52.5Nx82	RT032562S
Rubber Track 230x48x60	RT328440N	Rubber Track 300x52.5Nx84	RT032564S
Rubber Track 230x48x62	RT23C62	Rubber Track 300x52.5Nx86	RT032566S
Rubber Track 230x48x62	RT328442N	Rubber Track 300x52.5Nx88	RT032568S
Rubber Track 230x48x64	RT328444N	Rubber Track 300x52.5Wx72	RT032552F
Rubber Track 230x48x66	RT328446N	Rubber Track 300x52.5Wx76	RT032556F
Rubber Track 230x48x68	RT328448N	Rubber Track 300x52.5Wx78	RT032558F
Rubber Track 230x48x70	RT328450N	Rubber Track 300x52.5Wx80	RT032560F
Rubber Track 230x48x72	RT328452N	Rubber Track 300x52.5Wx82	RT032562F
Rubber Track 230x48x76	RT328456N	Rubber Track 300x52.5Wx84	RT032564F
Rubber Track 230x48x82	RT328462N	Rubber Track 300x52.5Wx90	RT032570F
Rubber Track 230x72Kx39	RT322719X	Rubber Track 300x52.5x82	RT30G82N
Rubber Track 230x72Kx41	RT322721X	Rubber Track 300x53Kx80	RT033560X
Rubber Track 230x72Kx42	RT322722X	Rubber Track 300x53Kx84	RT033564X
Rubber Track 230x72Kx45	RT322725X	Rubber Track 300x55.5Kx78	RT035558Y
Rubber Track 230x72Kx46	RT322726X	Rubber Track 300x55.5Kx82	RT035562Y
Rubber Track 230x72Kx47	RT322727X	Rubber Track 300x55.5x82	RT30182K
Rubber Track 230x72x39	RT322719N	Rubber Track 300x55x82	RT035562N
Rubber Track 230x72x42	RT322722N	Rubber Track 300x55x88	RT035568N
Rubber Track 230x72x43	RT322723N	Rubber Track 300x55x94	RT035574N
Rubber Track 230x72x49	RT322729N	Rubber Track 300x55YMx84	RT035564Y
Rubber Track 230x72x54	RT322734N	Rubber Track 350x52.5Wx90	RT532570N
Rubber Track 250x48.5Kx84	RT528464Y	Rubber Track 350x52.5x86	RT532566N
Rubber Track 250x52.5x72	RT522552X	Rubber Track 350x54.5Kx86	RT53466N
Rubber Track 250x52.5x74	RT522554X	Rubber Track 350x54.5x86	RT35N86K
Rubber Track 250x52.5x76	RT522556X	Rubber Track 350x56x84	RT536564N
Rubber Track 250x52.5x77	RT25G77	Rubber Track 350x73Yx76	RT533756Y
Rubber Track 250x52.5x78	RT522558X	Rubber Track 350x75.5Kx74	RT535754Y
Rubber Track 250x52.5x80	RT522560X	Rubber Track 400x72.5KBx70	RT042750X
Rubber Track 250x52.5x82	RT522562X	Rubber Track KB400x72.5Kx72	RT042752X
Rubber Track 250x72SWx52	RT522732SW	Rubber Track 400x72.5KWx74	RT042754Z
Rubber Track 250x72x50	RT522730N	Rubber Track KB400x72.5Kx74	RT042754X
Rubber Track 250x72x56	RT522736N	Rubber Track 400x72.5Nx70	RT042750S

RUBBER TRACK SIZES

EXCAVATOR TRACKS

Rubber Track Size	Part Number	Rubber Track Size	Part Number
Rubber Track 400x72.5Nx72	RT042752S	Rubber Track 450x81Wx78	RT541858F
Rubber Track 400x72.5Nx74	RT042754S	Rubber Track 450x81Wx74	RT541854F
Rubber Track 400x72.5Wx72	RT042752F	Rubber Track 450x81Wx76	RT54186F
Rubber Track 400x72.5Wx76	RT042756F	Rubber Track 450x8Wx76	RT541856S
Rubber Track 400x72.5x74	RT40P74N	Rubber Track KB450x81.5x76	RT541856N
Rubber Track 400x73x76	RT043756Y	Rubber Track K450x83.5x74	RT543854N
Rubber Track 400x74x68	RT044748N	Rubber Track Y450x83.5x74	RT543854Y
Rubber Track 400x74x72	RT044752N	Rubber Track K450x83.5x76	RT543856N
Rubber Track 400x75.5kx74	RT045754Y	Rubber Track 485x92x72	RT872952Y
Rubber Track 450x81Wx72	RT541852F		

SKID STEER LOADER TRACKS

Rubber Track Size	Part Number	Rubber Track Size	Part Number
CTL Rubber Track 320x86Tx46	RT236826T	CTL Rubber Track 400x86Wx56	RT046836B
CTL Rubber Track 320x86Tx48	RT236828T	CTL Rubber Track 400x86Wx60	RT046840B
CTL Rubber Track 320x86Wx45	RT236825B	CTL Rubber Track B400x86x52	RT046832B
CTL Rubber Track 320x86Wx48	RT236828B	CTL Rubber Track ZB400x86x50	RT046830B
CTL Rubber Track B320x86x53	RT236833B	CTL Rubber TrackB450x86x52	RT546832B
CTL Rubber Track 320x86Wx56	RT236836B	CTL Rubber TrackB450x86x55	RT546835B
CTL Rubber Track B320x86x49	RT236829B	CTL Rubber Track B450x86x56	RT546836B
CTL Rubber Track B320x86x50	RT236830B	CTL Rubber Track B450x86x60	RT546840B
CTL Rubber Track B320x86x52	RT236832B	CTL Rubber Track 450x86Wx50	RT546830B
CTL Rubber Track T320x86Kx52	RT236832T	CTL Rubber Track B450x86x58	RT546838B
CTL Rubber Track 400x86Wx49	RT046829B	CTL Rubber Track T450x100Kx48	RT540128T
CTL Rubber Track 400x86Wx53	RT046833B	CTL Rubber Track T450x100Kx50	RT540130T

ASV POSI-TRACKS

Rubber Track Size	Part Number	Rubber Track Size	Part Number
ASV Rubber Track 280x101.6x37	RTP018237	ASV Rubber Track 450x101.6x56	RTP015456
ASV Rubber Track 380x100Sx51	RTP018351	ASV Rubber Track 457x101.6Cx51	RTP0154C51
ASV Rubber Track 380x101.6x42	RTP018342	ASV Rubber Track 457x101.6x51	RTP015451

TORO DINGO TRACKS

Rubber Track Size	Part Number	Rubber Track Size	Part Number
Rubber Track 6x3.5x28	RTP886128	Rubber Track 10x3.5x28	RTP884228

DUMPER/CRAWLER TRACKS

Rubber Track Size	Part Number	Rubber Track Size	Part Number
Rubber Track 320x90x52	RT230932N	Rubber Track 500x90x82	RT050962N
Rubber Track 320x90x56	RT230936N		

HOW TO MEASURE A RUBBER TRACK

Measuring your Rubber Track is relatively straight foward if you know how. Below you will see our simple guide to help you identify the Rubber Track size that is on your machine.
All you need is a tape measure or ruler. For our example we have selected a 300x52.5x78 wide gauge rubber track.

STEP 1 - Measuring the width
Place the tape measure across the top of the rubber track (as in the photo) and note the size. This measurement is always given in mm (example shown is 300mm)

STEP 2 - Measuring the pitch
This is the measurement from the centre of one lug to the centre of the next lug. This measurement is always given in mm (example shown is 52.5mm)

STEP 3 - Counting the quantity of links
This is the quantity of pairs of links on the inside of the track. Mark one of the links off and then count each link around the total circumference of the track until returning back to the link which was marked. (example shown is 78 links with 6 links shown on the photo)

HOW TO MEASURE A RUBBER TRACK

STEP 4 - Measuring the gauge
Measure between the lugs from the inside of one lug to the inside of the lug opposite. This measurement is always given in mm. (example shown is 46mm which is a wide gauge track)

IMPORTANT - step 4 is only required on 300mm/350mm/400mm and 450mm wide tracks

STEP 5 - Checking the type of roller fitted
This step is only required on some of the 300mm and 400mm wide tracks which can have an outer rail type roller style fitted as per on the left picture or a inner rail roller style fitted on the right of the picture

STEP 6 - Look for any markings
If you are having difficulties measuring your track, it is worth looking for any markings that will help you identify the size. Many rubber tracks have the size stamped into the rubber. This is usually found on the inside edges of the track. The numbers represent the width (300) x the pitch (52.5) the gauge (W) x the number of links (78)

HOW TO FIT YOUR RUBBER TRACKS

After checking you have purchased the correct size Rubber Tracks, put the machine on a hard, flat surface and ensure all the necessary safety equipment, tools and help is at hand.

Step 1: Releasing the Track Tension
Remove the grease fitting using a wrench/adjustable spanner. Step down onto the bottom of the track to collapse the idler, releasing the track tension. Inspect the grease fitting and replace if required.

Step 2: Raising the Track
Push the blade of your machine down until the front of the rubber track moves upwards. Push the Bucket down on the other end to lift both tracks off the ground.

Step 3: Safety Precaution
For safety reasons place a heavy-duty jack or blocks underneath the track frame, to avoid the machine collapsing causing injury.

Step 4: Removing the Track
Manually remove one end of the track from the idler using a pry bar.

Step 5: Inspect the Parts
When the rubber track has been removed inspect the other undercarriage components for any signs of damage or wear. Replace them if required at this stage.

Step 6: Fitting the Track
Move the new rubber track into position beside the machine. Hook the track onto the sprocket teeth at the back of the machine. Have someone push the track forwards whilst you use the pry bar to align the front of the track into position on the front idler.

Step 7: Tensioning the Track
Once the track is fitted on and properly aligned, refit the grease fitting and tension the track. Below is a tension guide for the track sag (measured in the centre of the track frame)

Machine Size:	Track Sag Dimension:
0.75-1.5 tonne	8-10mm
1.5-3.0 tonne	10-15mm
3.0-6.0 tonne	12-20mm
6.0-8.0 tonne	15-25mm

Step 8: Checking Track Movement
While the track is still off the ground, drive the machine forwards and backwards a few times to ensure the track has been installed correctly and there are no obstructions or misalignments. (be sure to do full revolutions right around in both directions.

Step 9: Final Step
Your machine is now ready to operate. Ensure to check the track tension every few days during the first 4 weeks while the new track is bedding in, as the tension may reduce slightly.

MAINTAINING YOUR RUBBER TRACKS

Be proactive. Take steps to prepare the machine for adverse treatment ahead of time, and then educate workers about operating tracked machines. Check out the following tips to help keep your equipment running and your ROI rolling in the right direction.

Maintain the Undercarriage

If the undercarriage parts are starting to wear out, replace them promptly. Worn sprocket teeth can pull out the links from the tracks and worn rollers can cut the rolling area of the track, causing serious damage. Furthermore, it's important to use a pressure washer to clean the undercarriage. Neglecting to wash it can cause the recoil mechanisms to fail and, in turn, the track cables to break.

Avoid Too Much Tension

Always refer to the OEM manual for the proper tension, as different size machines require different tensions, and check the track tension each week. While some people believe that keeping track tension especially tight will make it last longer, that's not the case. Some flex is needed, or the track will react similarly to an over-inflated tire. Conversely, tracks that are too loose can eventually damage the cleats around the planetary drive wheel.

Stay on Track

De-tracking can cause catastrophic damage to rubber tracks, with the severity correlating with the length of time the operator continued to use the machine. While an experienced operator can recover a partially de-tracked machine with a series of manoeuvres, a completely de-tracked machine will need to be moved to a stable, level area for the tracks to be repositioned.

Don't Cruise Over Curbs

Driving over curbs puts excessive stress on tracks, which can cause de-tracking. If the tracks stay in place, the stress could cause the rubber to crack. It's a domino effect from there: Chunks of rubber fall off and expose the internal steel cords to moisture, which leads to corrosion and, ultimately, track failure.

Drive Carefully

Remember that while tracks will not puncture like pneumatic tires, sharp objects still should be avoided. Jagged debris can cause rubber pieces to slice off, reducing the track's effectiveness and eventually damaging the inner steel cords. When it comes to aggressive terrain, steel tracks may be a better option.

Avoid Contaminants

Chemicals, oil, salt and farmyard manure, as well as other abrasive environments, can wreak havoc on a set of tracks, causing the rubber to deteriorate. Avoid these elements if possible. Also, keep an eye out for hydraulic oil and grease that may drip from the machine onto the tracks. If the tracks do become exposed to any of these elements, rinse them immediately afterward.

MAINTAINING YOUR RUBBER TRACKS

Keep Looking Forward

Traveling in reverse, especially at high speeds, will unnecessarily stress the tracks which are designed for forward motion. Putting a notice on the dashboard may help remind operators of this.

Rotate Regularly

Rubber tracks should be rotated periodically to ensure even tread wear. When it's time to replace the tracks, do both at the same time. Replacing only one track at a time may cause alignment issues and damage the undercarriage.

Avoid Direct Sunlight

When the machine is parked for long periods of time, make sure it's in the shade or cover the tracks with a tarp or cloth. Sunlight is a natural enemy of any rubber product, including rubber tracks. This preventive action alone can double the track life.

Store Tracks Properly

When the tracks are not in use, store them in a cool dry environment, and allow them to rest on their sides in a relaxed position to prevent crimps and folds. If the tracks are left on the machine, operate the vehicle at least once every two weeks for about five minutes to help maintain track flexibility and prevent the tracks from becoming misshapen.

DE-TRACKING PROBLEMS & SOLUTIONS

Rubber tracks can de-track due to any, or mostly a combination of the following causes:

1. **Insufficient Track Tension (or broken track adjuster spring)**
2. **Leaking Track Adjusters**
3. **Worn Undercarriage**
4. **Incorrect Track Fitted**
5. **Operator Abuse**
6. **Operating Conditions**
7. **Faulty Tracks**
8. **Track Breakage**

These issues are explained in further detail below to help you determine the problem and find a solution.

1. Insufficient Track Tension (or broken track spring)

The first consideration when de-tracking problems happen is to check if the machine was converted from steel tracks to rubber tracks. Insufficient track tension is the most common cause of this problem.

Many manufacturers of mini-excavators including Komatsu, Hitachi, Kubota, Kobelco have track adjuster assemblies with two tension settings; tight for rubber tracks and loose for steel tracks. The reason for this is that there is no stretch in steel tracks, therefore the track adjuster needs to have enough give to relieve tension build up if any material is caught in the track.

Rubber tracks however, due to their design and construction have a certain amount of inherent flexibility and typically run a much tighter spring tension. Therefore, if a machine has been converted from steel to rubber tracks (without tightening the track adjuster), or if the track adjuster has broken; you are highly likely to experience de-tracking problems.

A simple but effective way to identify this as a problem is to perform the following test:
Lift the machine off the ground (using bucket and blade) and jump on the bottom edge of the track. While you are jumping, get someone to carefully watch the idler and measure the amount of retraction. If the idler is retracting more than 5mm under the weight of a person – imagine how much it will retract with the weight of the excavator. This retraction causes temporary track slackness which will often result in de-tracking. Particularly at the idler end.

2. Leaking Track Adjusters

Another common cause of de-tracking is leaking or bypassing track adjuster seals. This can be caused by a bent, scarred, rusted or contaminated (often by concrete set on the exposed rod) adjuster piston. This causes the track to slowly become loose over time, causing slackness and de-tracking.

The easiest way to check if this is the cause, is to tighten up the offending track first thing in the morning, then regularly monitor it during the day while working. If the tension has noticeably dropped off or the track has come off, then I would highly recommend pulling the track adjuster out for examination and repair.

DE-TRACKING PROBLEMS & SOLUTIONS

3. Worn Undercarriage

Probably the first and easiest problem to the determine cause of de-tracking.

- Check if all the top & bottom rollers rotate smoothly and are not loose and wobbly.
- Check if the roller flanges are still distinct and upright, not rounded off.
- Check if the idler still has a prominent and straight sided centre guide flange and tight bushings without excess slop.

Worn sprockets is also another possible cause of de-tracking and often harder to diagnose. The sprocket teeth will look very sharp and shiny. Fitting a new track on worn sprockets will result in a pitch mismatch that shortens the track life, because the pitch of a sprocket changes as it wears out.

All of these can cause issues with keeping tracks on and unless they are badly worn, are usually a contributing factor, rather than the sole cause of de-tracking.

4. Incorrect Track Fitted

Indicators for a poorly fitting or incorrect track size or type can include;

- Banging or clunking on the sprocket when tracking - this can be the wrong track pitch or the track is fitted around the wrong way (this could also be sprocket wear)
- Track rollers are cutting grooves in the sides of the track.
- Tracks are not seating on the rollers correctly.
- Too much space either side of the sprocket and/or idler flange.

Track frame misalignment can also be a factor for de-tracking. If the track frame or idler mount has become twisted or damaged it can cause the track to run off centre.

5. Operator Abuse

This is not usually the sole reason for de-tracking, but a rough operator coupled with worn undercarriage, can cause some damage. At the end of the day a few basic operating rules can save a lot of problems:

- Don't drive over it – move it. You have a bucket, shift rocks and rubble out of your way rather than tracking straight over it.
- Don't turn on side slopes or when tracking over a pile or curbs.
- Track turn – don't skid turn. Turn a wider radius ensuring both tracks are moving, rather than just using one track to turn. This causes less build-up of rubble in your tracks.

6. Operating Conditions

The worst operating conditions for rubber tracks is heavy mud, sand and gravel. These conditions cause a build-up of soil/rubble inside the track which is then compacted by the rollers and sprockets. If you are not careful, the tension builds up until 'bang', the track is off or broken.

A couple of tips to avoid this include regularly lifting your machine up off the ground and tracking at high speed. This helps clear the tracks. Please remember that this compacted material in the track can cause a massive increase in track tension, resulting eventually in reduced track life. It also pays to back the track tension off substantially by letting grease out when in these conditions to avoid this build-up of pressure.

Side slopes are another condition which can cause de-tracking. Especially if the spring tension is a bit soft and/or the undercarriage is worn. It is always best to work up and down a slope rather than side-to-side.

7. Faulty Tracks

De-tracking is rarely a track fault – but it can and does happen sometimes. If the steel cables inside the track are broken, worn or fractured, then the track will tend to flex excessively and ride off the sprocket or idler.

Check if both tracks are coming off or just one. If it's just one track, we recommend swapping them left to right side. If the problem continues on the same side, it is definitely not the track at fault. Whereas if the same track continues to come off on the opposite side, then we have most likely identified the problem and the track is likely at fault.

8. Track Breakage

The possible causes of track breakage can include;

- Track tension too tight.
- Excessive track wear or damage.
- Cuts or cracks that go through the steel cords.
- Track being damaged or stretched from de-tracking issues.
- Excessive material packing, causing the track to over stretch.
- Moisture or chemical contact causing the steel cords to corrode.

RUBBER PADS

A RANGE OF TOUGH RUBBER PADS ARE AVAILABLE FOR MOST MODELS OF EXCAVATORS & OTHER TRACKED MACHINES FROM 5-30 TONNE SIZE

Our Heavy Duty Rubber Pads are designed and engineered to fit most triple bar track shoes and consist of a thick, anti-wear rubber pad, bonded to a forged steel core.

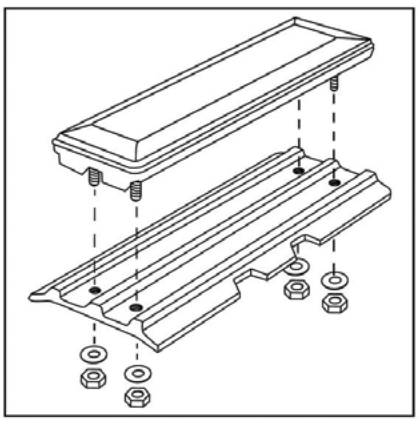
Track Pads are made to fit onto most 3 Bar steel Track Shoes and come in Bolt-on, Clip-on & Chain-on Types, depending if your existing steel shoes have pre-drilled bolt holes in them or not.

Rubber Pads are available to suit a wide range of machines including excavators, dozers, drilling machines, profiling and paving machines.

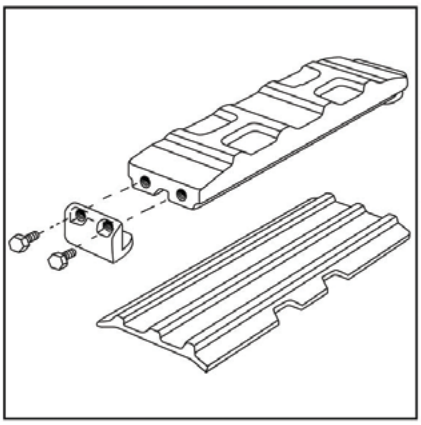
Our rubber pad technology pairs flexibility with genuine strength to reduce wear and tear and optimise long service life.

Advantages of using Rubber pads are;

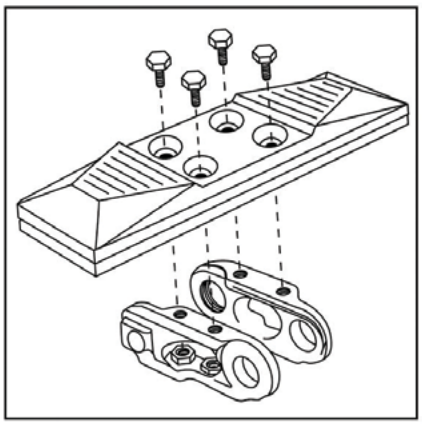
- **Protection of road/concrete surfaces**
- **Easily installed & removed onsite**
- **Increased traction on hard/wet surfaces**
- **Reduced noise & vibration**
- **Reduction in overall downtime**



Bolt-on Rubber Pads



Clip-on Rubber Pads



Chain-on Rubber Pads

BOLT-ON RUBBER PADS

- **Bolt-On Rubber Pads are designed and manufactured to fit to the existing steel track shoes on excavators, profilers and drill equipment to alleviate surface damage that is caused by steel tracks.**
- **Made from the highest quality Rubber compound for maximum wear life.**
- **Easily bolted on or off your machine as required.**

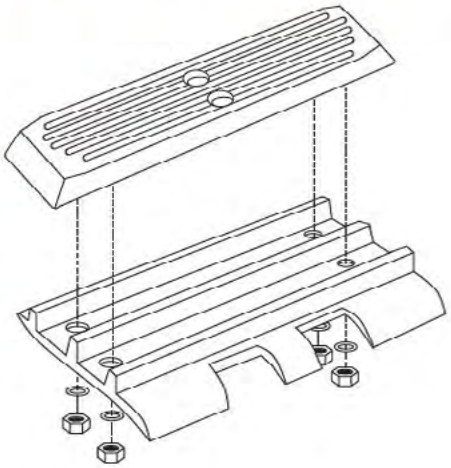
1 BOLT ON STYLE
Enables the Rubber Pad to be bolted directly onto existing steel grouser plates for quick and easy installation.

2 HEAVY DUTY RUBBER COMPOUND
Provides greater strength and wear resistance in all types of applications and conditions. Reduces vibration and noise.

3 PRESSURE RELIEF HOLES DESIGN (optional)
Unique new design with 2 pressure relief holes, to allow sand and other material to pass through the pads during operation, to eliminate pressure build which can cause damage or dislodgement of the pads from the machine.

4 SOLID STEEL CORE
A Heavy Duty 4mm steel core provides greater strength, minimal pad flex and delamination.

5 TREAD PATTERNS DESIGNED FOR IMPROVED TRACTION
Reduces surface damage and negative impact to the environment.

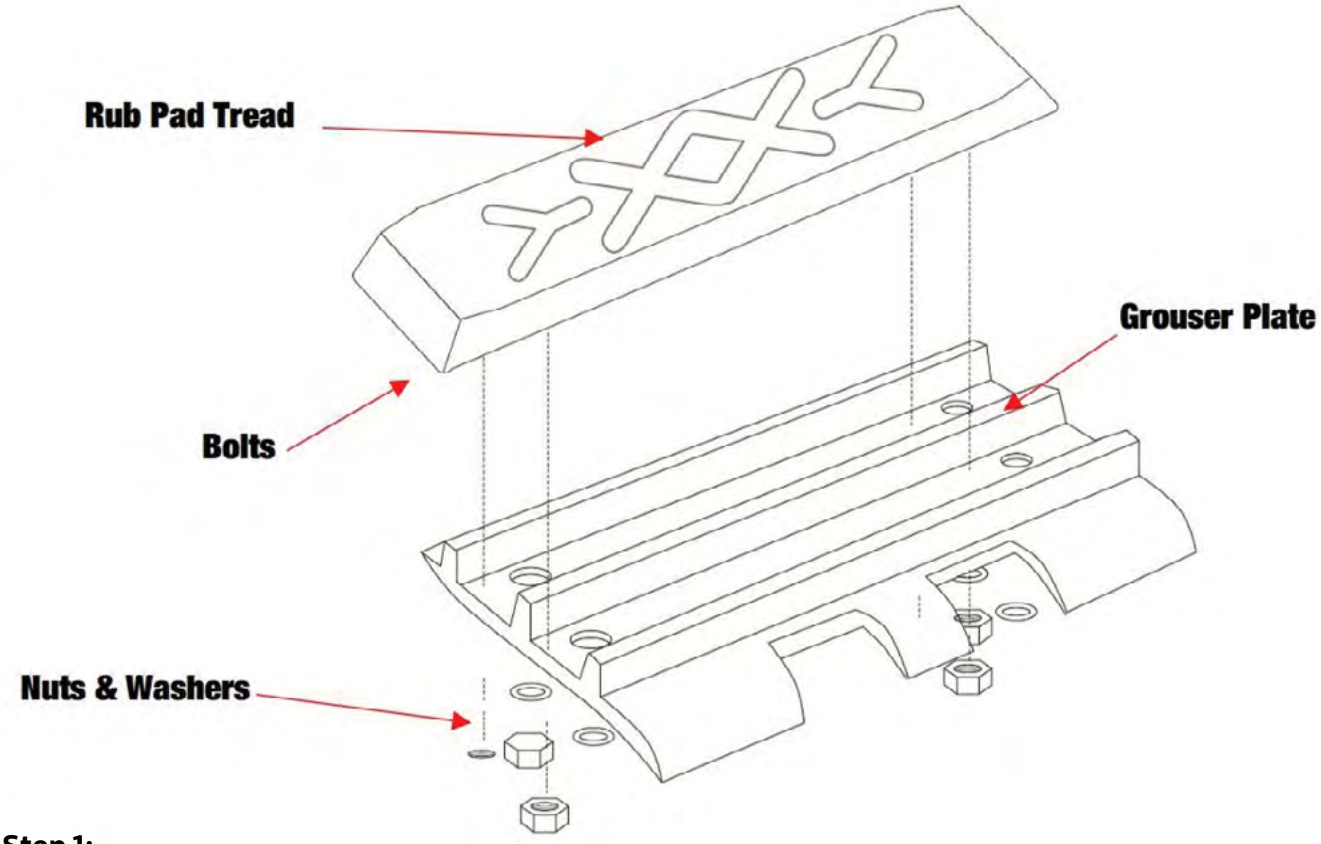


TECHNICAL SPECIFICATIONS

Pad Width	Style	Core Bar	Rubber Compound	Pad Life	Warranty
230mm to 800mm	Bolt On	4mm Steel	Heavy Duty Natural & Synthetic Fibre Virgin Rubber	3 to 5yrs*	12mths

* Based on normal operating conditions of the equipment.

HOW TO FIT BOLT-ON RUBBER PADS



Step 1:
If the Bolt-on Rubber Pads are being installed onto new machines skip to Step 2. If being fitted to used machines, ensure all mud and other debris have been removed from the surface of the grouser plates before fitting the new pads.

Step 2:
Position the Pad bolts (on the underside of the pad) in-line with the pre-drilled holes on the grouser plate.

Step 3:
Place the rubber pad firmly onto the grouser plate and fasten with spring washers and dome nuts from the underside of the grouser plate.

Step 4:
Use an impact wrench to fasten the bolts and nuts. Tighten further with an offset wrench.

Step 5:
Once all the rubber pads have been installed, move the machine foward slowly to check they have been fitted securely and adjust if necessary.

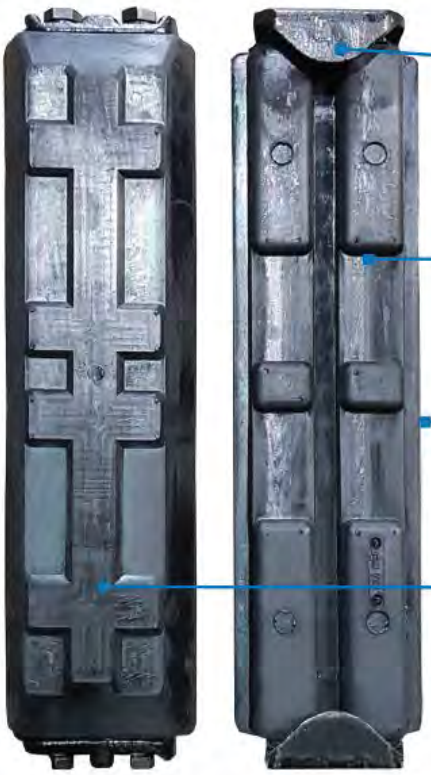
TORQUE SETTING FOR BOLT-ON RUBBER PADS

Bolt Size - Metric (mm)	Bolt Size - Imperial (Inches)	Torque (Nm)	Pad Size (varies)
M12	1/2	113Nm	200mm
M14	9/16	178Nm	450mm
M16	5/8	275Nm	500mm
M20	3/4	556Nm	600mm

These torque settings are a guide only, refer to your machines Operating and User Manual for the recommended torque settings.

CLIP-ON RUBBER PADS

- **Clip-On Rubber Pads are designed and manufactured to fit to the existing steel track shoes on excavators, profilers and drill equipment to alleviate surface damage that is caused by steel track shoes.**
- **Made from the highest quality Rubber compound for maximum wear life.**
- **Easily fitted on or off your machine as required.**



1 CLIP ON STYLE
Enables the Rubber Pad to clip onto the end of the existing steel grouser plate and then tightened to secure for quick and easy installation. Used when pre-drilled holes do not exist on the grouser plate.

2 HEAVY DUTY RUBBER COMPOUND
Provides greater strength and wear resistance in all types of applications and conditions. Reduces vibration and noise.

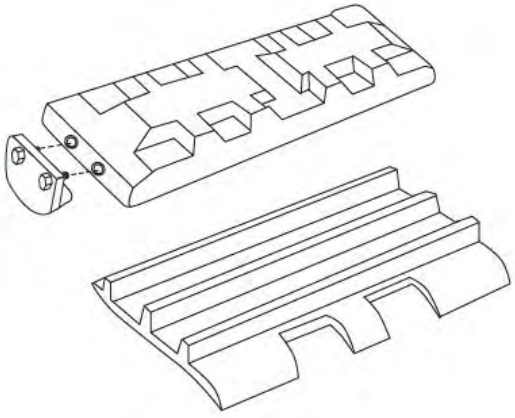
3 SOLID FORM STEEL CORE
A Heavy Duty 4mm steel core provides greater strength, minimal pad flex and delamination.

4 TREAD PATTERNS DESIGNED FOR IMPROVED TRACTION
Reduces surface damage and negative impact to the environment.

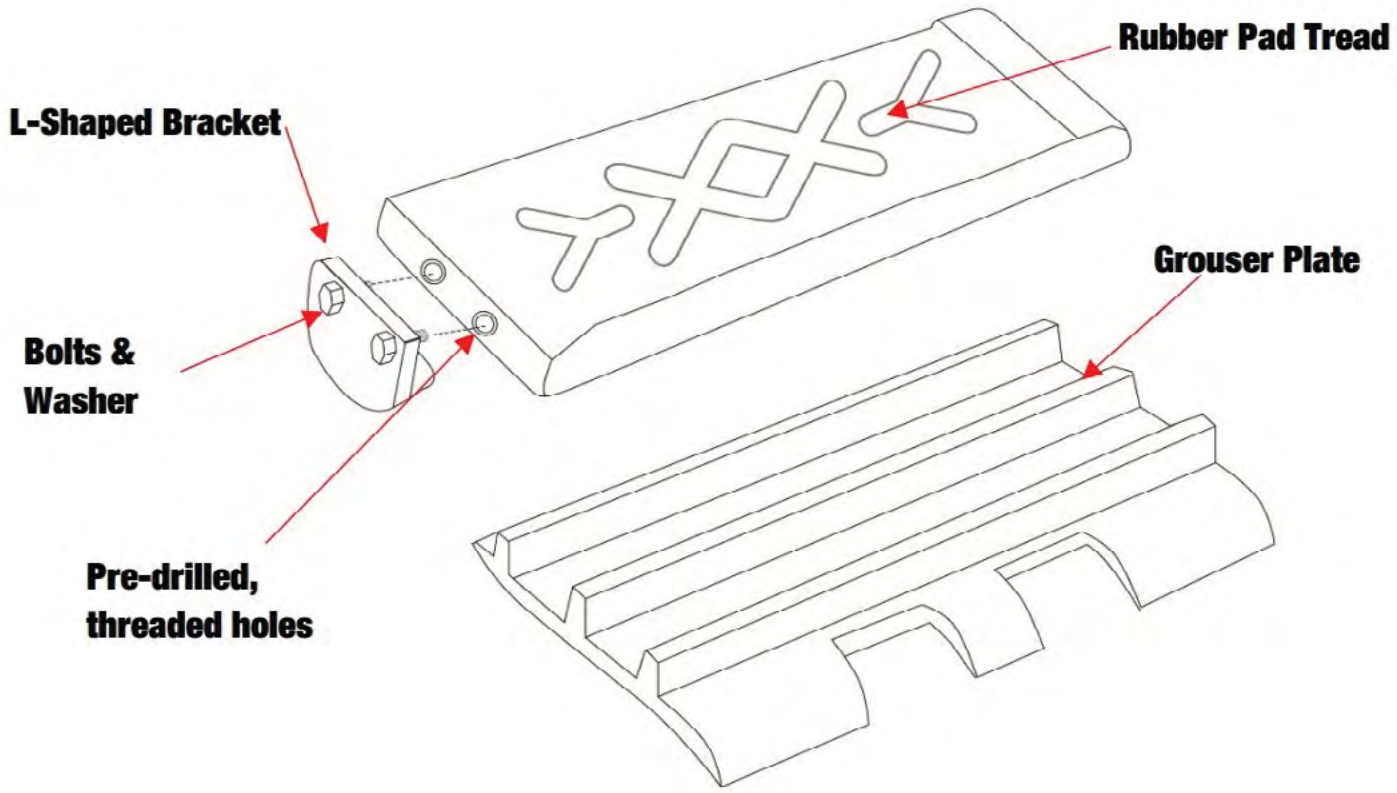
TECHNICAL SPECIFICATIONS

Pad Width	Style	Core Bar	Rubber Compound	Pad Life	Warranty
230mm to 800mm	Clip On	4mm Steel	Heavy Duty Natural & Synthetic Fibre Virgin Rubber	3 to 5yrs*	12mths

* Based on normal operating conditions of the equipment.



HOW TO FIT CLIP-ON RUBBER PADS



Step 1:
If the Clip-on Rubber Pads are being installed onto new machines skip to Step 2. If being fitted to used machines, ensure all mud and other debris have been removed form the surface of the grouser plates before fitting the new pads.

Step 2:
Hook the attached L-shaped bracket onto the inner end of the grouser plates and then close the opposite end with another L-shaped bracket and screw in the bolts.

Step 3:
Position the Rubber Pad onto the grouser plate, fitting the L shaped bracket into position to secure the rubber pad.

Step 4:
Use an impact wrench to fasten the bolts and nuts. Tighten further with an offset wrench.

Step 5:
Once all the rubber pads have been installed, move the machine forward slowly to check they have been fitted securely and adjust if necessary.

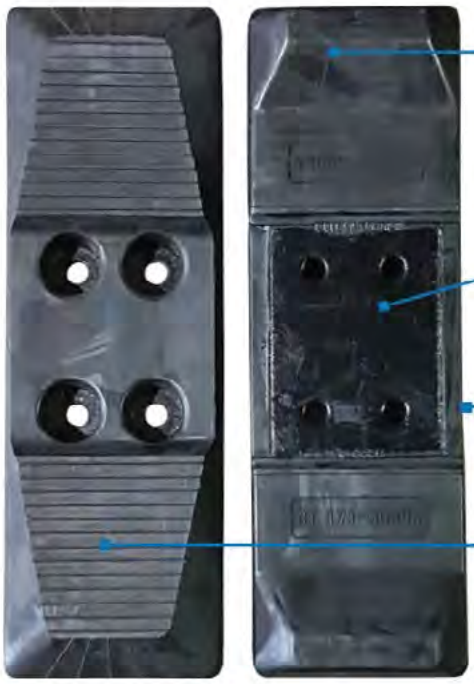
TORQUE SETTING FOR CLIP-ON RUBBER PADS

Bolt Size - Metric (mm)	Bolt Size - Imperial (Inches)	Torque (Nm)	Pad Size (varies)
M12	1/2	113Nm	200mm
M14	9/16	178Nm	450mm
M16	5/8	275Nm	500mm
M20	3/4	556Nm	600mm

These torque settings are a guide only, refer to your machines Operating and User Manual for the recommended torque settings.

CHAIN-ON RUBBER PADS

- **Chain-On Rubber Pads are designed and manufactured to fit to existing steel tracks on excavators, profilers and drill equipment to alleviate surface damage that is caused by steel track shoes.**
- **Ideal for use on earthmoving and construction equipment that is dedicated for sealed surface applications.**
- **Made from the highest quality Rubber compound for maximum wear life.**



1 HEAVY DUTY RUBBER COMPOUND
Provides greater strength, increased wear resistance and reduced vibration and noise. Ideal for use in rail work applications to prevent rail damage and on equipment dedicated to operating on sealed surfaces.

2 CHAIN ON STYLE
Enables the Rubber Pad to be chained directly onto the track chain using track bolts, rather than grouser plates, for quick and easy installation.

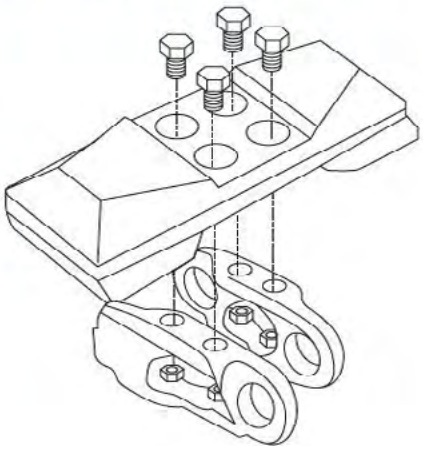
3 SOLID FORM STEEL CORE
A Heavy Duty 10mm steel core provides greater strength, minimal pad flex and delamination.

4 TREAD PATTERNS DESIGNED FOR IMPROVED TRACTION
Reduces surface damage and negative impact to the environment.

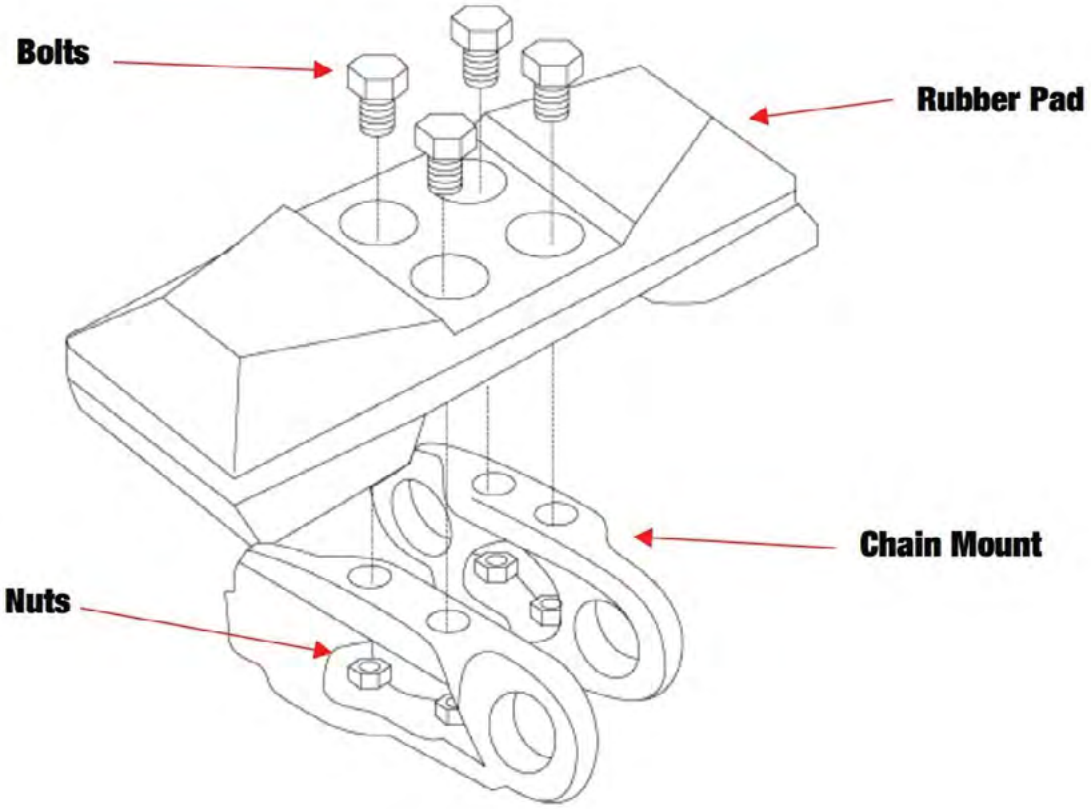
TECHNICAL SPECIFICATIONS

Pad Width	Style	Core Bar	Rubber Compound	Pad Life	Warranty
230mm to 800mm	Chain On	10mm Steel	Heavy Duty Natural & Synthetic Fibre Virgin Rubber	3 to 5yrs*	12mths

* Based on normal operating conditions of the equipment.



HOW TO FIT CHAIN-ON RUBBER PADS



Step 1:
If the Chain-on Rubber Pads are being installed onto new machines skip to Step 2. If being fitted to used machines, ensure all mud and other debris have been removed from the surface of the Chain Mount before fitting the new pads.

Step 2:
Position the Pad holes in-line with the holes on the chain and fit the bolts & nuts.

Step 3:
Use an impact wrench to fasten the bolts. Tighten further with an offset wrench.

Step 4:
It is recommended you install the rubber pads onto every chain link rather than every second to evenly distribute the weight of the machine.

Step 5:
Once all the rubber pads have been installed, move the machine forward slowly to check they have been fitted securely and adjust if necessary.

TORQUE SETTING FOR CHAIN-ON RUBBER PADS

Bolt Size - Metric (mm)	Bolt Size - Imperial (Inches)	Torque (Nm)	Pad Size (varies)
M12	1/2	113Nm	200mm
M14	9/16	178Nm	450mm
M16	5/8	275Nm	500mm
M20	3/4	556Nm	600mm

These torque settings are a guide only, refer to your machines Operating and User Manual for the recommended torque settings.

RUBBER PAD MEASURE UP FORM

You can use this form to help us find the right Rubber Pads to suit your Track shoes.
Fill out the details and email to sales@west-trak.co.nz

Company Name: _____ Address: _____

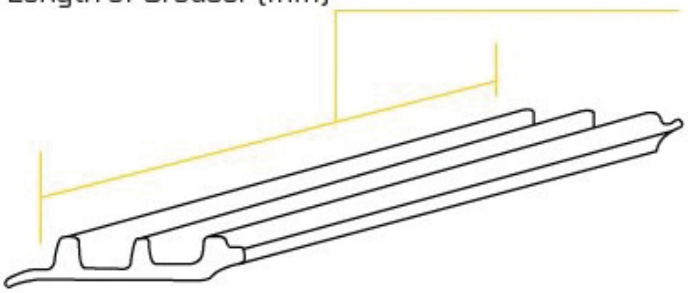
Phone: _____ City: _____

Email: _____ State: _____ Zip: _____

☐ Bolt-On Pads

☐ Clip-On Pads

Overall Length of Grouser (mm)

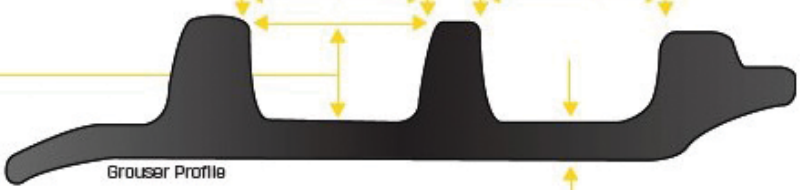


Valley Length (mm) _____

Valley Length (mm) _____

Valley Length (mm)

Valley Length (mm)



☐ Triple Grouser

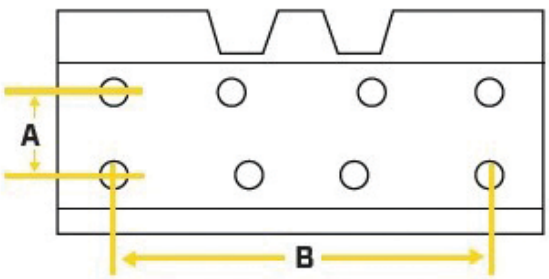
Shoe Thickness (mm) _____

Machine Make: _____

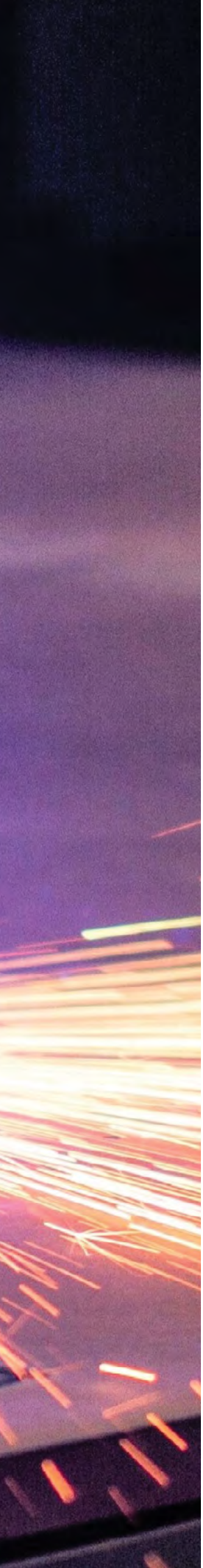
Model: _____

Total Tracks Links: _____

Pitch: _____



A _____ B _____



STEEL PLATE PROCESSING

Expert processors & fabricators of the heaviest, hardest & toughest wear steels

"Largest range of wear steel in NZ"

- SUPERIOR STEEL SOLUTIONS 260
- G350 MEDIUM TENSILE STEEL 263
- G780 HIGH TENSILE STEEL 264
- G400 ABRASION RESISTANCE STEEL 265
- G450 ABRASION RESISTANCE STEEL 266
- G500 ABRASION RESISTANCE STEEL 267
- CHROMIUM CARBIDE OVERLAY PLATE 269
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- CNC PROFILE CUTTING 277
- MACHINING & LINE BORING 280
- WELDING & FABRICATION 282
- ROLLING & PRESSING 284

SUPERIOR STEEL SOLUTIONS

Harder, tougher, stronger

GET QUALITY STEEL SOLUTIONS FAST, WITH OUR EXPERT PLATE PROCESSING & FABRICATION SERVICES

We're direct importers of steel plate from world leading steel mills and stock a huge range of steel grades and thicknesses, for all types of structural and wear applications.

We specialise in the highest quality, through hardened, quenched & tempered Wear Steels for high wear and high impact areas.

Extreme wear resistance, high toughness and long durability has always been key to the success of our steel quality & perfomance. Our steel is the preferred choice by the largest mines & quarries in NZ, well proven in the most abrasive conditions in the world.

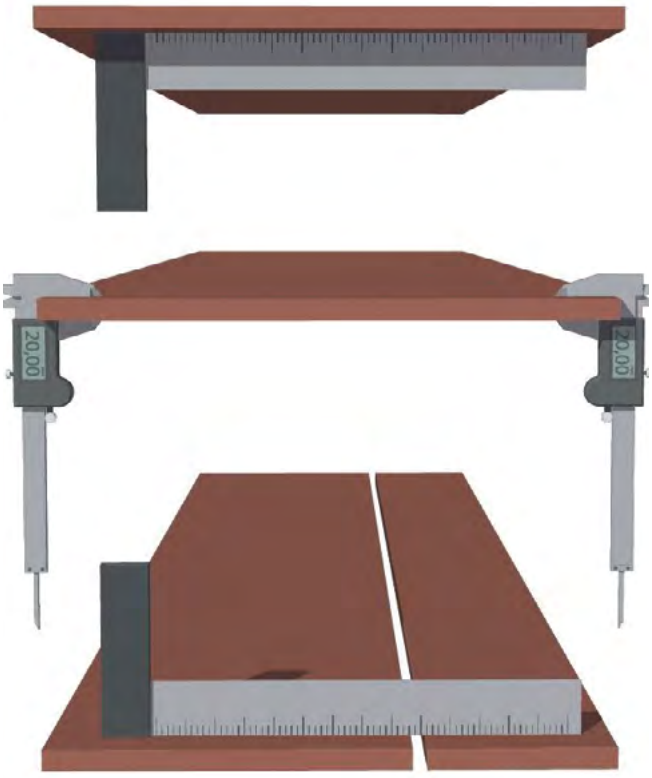
Our Abrason Resistant steel provides a unique combination of hardness and toughness so you can build structures that are wear resistant, strong and lightweight at the same time.

With over 300 tonnes of steel plate & profiles in stock, and a full range of steel processing and fabrication services, we've got your needs covered.

We guarantee to deliver the toughest, most durable steel solutions with the fastest lead times in the industry. 90% of orders are dispatched within 24hrs.

TOUGHNESS

Toughness is the strength of our wear steel, making it possible to be bent, formed and welded without cracking. If hardened wear steel is stressed or deformed beyond its yeild point it will resist cracking and if a localized crack should occur it will resist propagation.



HARDNESS

Hardness is what gives our wear steel its unique wear resistance and structural strength and delivers the same wear resistance throughout the steels entire life, because of its even through-hardness. Hardness also provides excellent yield and tensile strength to resist deformation.

FLATNESS

Good for production and appearance. Flat plates can easily be welded to each other without problems with the welding gap. And if you are producing equipment with large flat surfaces they look great when painted or used as 'billboards'.

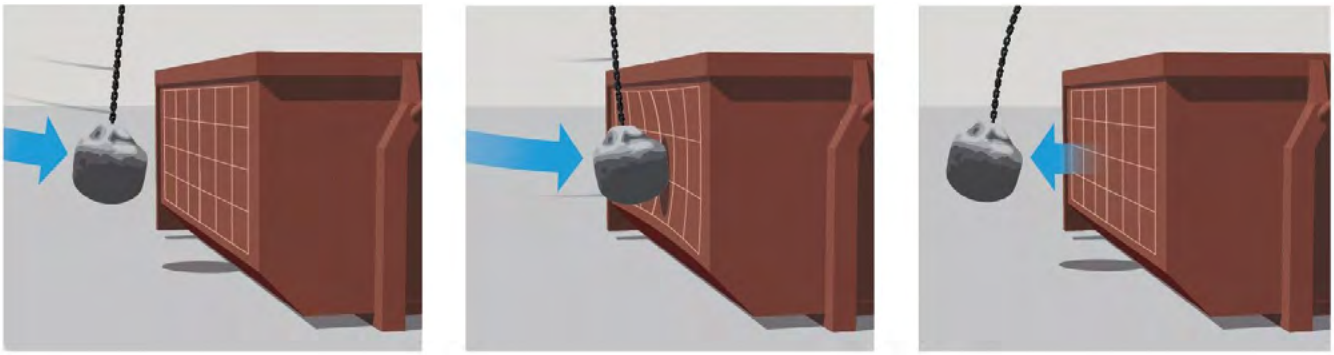
UNIFORM THICKNESS

Narrow tolerances guarantees your finished structure will be as light as you expect. And when processing the plate even a fraction of a millimeter counts, since bending force and springback are directly related to the thickness.

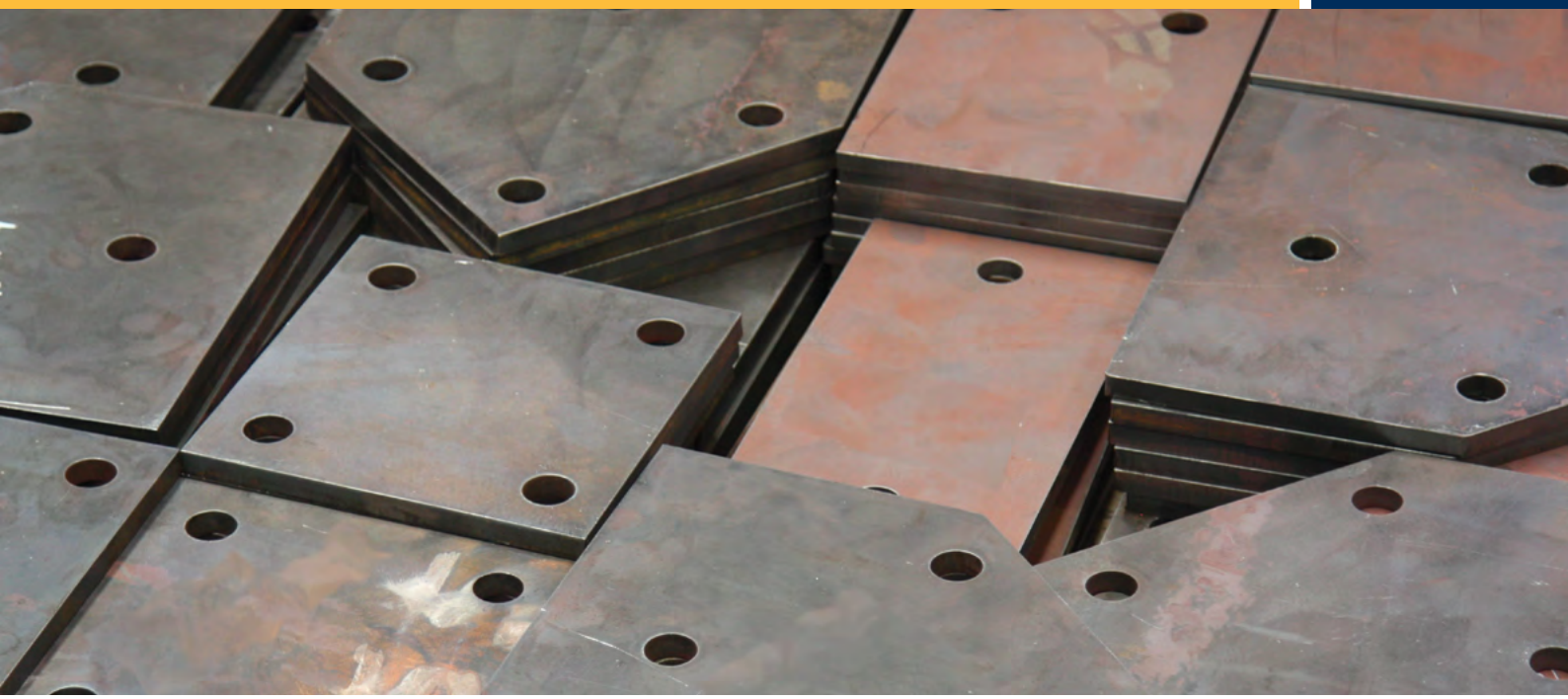
INTERNALLY RELAXED

Thanks to careful heat treatment during production, our wear plate has uniform internal properties. This means that a plate will stay flat when cut into smaller pieces, whether its cut cold or hot.

IMPACT RESISTANCE



The impact force from large and heavy objects is distributed over the plate, resisting dents and cracking. The metal absorbs the energy and returns to its orignial shape like a tennis racket hitting a ball.



G350 Medium Tensile Steel

G350 is a high strength steel, commonly used in the engineering and construction industries for structural and general fabrication. This steel has no wear properties, but is strong and is easy to cut, weld, form, drill, machine and tap.

Certified to AS/NZS 3678 structual steel standards.

MIN YIELD STRENGTH:	350 Mpa
MIN TENSILE STRENGTH:	450 Mpa
HARDNESS:	140-180 HBW
THICKNESS RANGE:	5-60mm

FULL SHEET SIZE: **6000 x 2400mm**
2400 x 1500mm
2400 x 1200mm
9000 x 2400mm

APPLICATIONS:

- **General fabrication**
- **Structural buildings**
- **Architectual structures**
- **Agricultural attachments**
- **Storage tanks**
- **Small Buckets**

G780 HIGH TENSILE STEEL

G780 High Tensile Steel

G780 steel is an extra high strength structural steel produced as quenced & tempered, with a minimum yeild strength of 700 Mpa and a minimum impact toughness of 27J is guaranteed at -40°C.

This steel is highly resistant to weld cracking, has good flexibility for high stress and impact applications and is easy to cut, weld, form, drill, machine and tap.

MIN YIELD STRENGTH:	700 Mpa
TENSILE STRENGTH:	780-930 Mpa
HARDNESS:	220-260 HBW
IMPACT TOUGHNESS:	27J (-40 deg C)
THICKNESS RANGE:	12-140mm

APPLICATIONS:

- **Excavator Bucket Edges**
- **Transport trailer chassis**
- **Bridge & Building structures**
- **Lifting & hoisting equipment**
- **Ripper Shanks**
- **Machinery attachments**

FULL SHEET SIZE: **6000 x 2400mm**

G400 Abrasion Resistant Steel

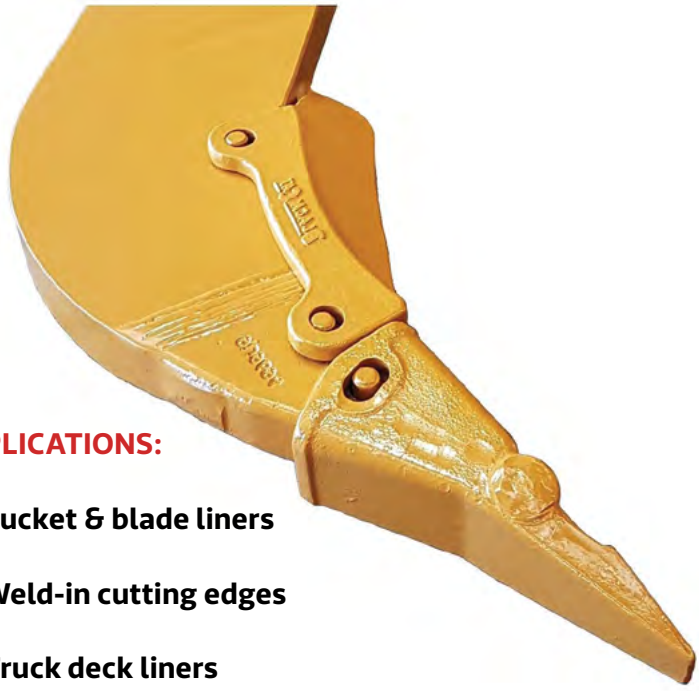
G400 is a through hardened, quenched and tempered, abrasion resistant steel used in high wear and impact applications.

This steel provides up to 4 times the wear life and strength of mild steel. It can be cut, welded, formed, drilled, machined and tapped with specialised tooling and processes.

Due to its versatility in terms of high toughness, good cold formability and excellent weldability, this steel combines outstanding workshop performance & long lasting wear resistance.

YIELD STRENGTH:	1160 Mpa
TENSILE STRENGTH:	1300 Mpa
HARDNESS:	370-430 HBW
IMPACT TOUGHNESS:	50J (-40 deg C)
THICKNESS RANGE:	40-90mm

FULL SHEET SIZE: **6000 x 2500mm**



APPLICATIONS:

- **Bucket & blade liners**
- **Weld-in cutting edges**
- **Truck deck liners**
- **Crusher plates**
- **Ripper shanks**
- **Conveyors**
- **Feeders**
- **Wear strips**

Guaranteed 90% through hardness!

G450 ABRASION RESISTANT STEEL

G450 Abrasion Resistant Steel

G450 is a through hardened, quenched and tempered, abrasion resistant steel used in high wear and impact applications.

This steel provides up to 6 times the wear life and strength of mild steel and can be cut, welded, formed, drilled, machined and tapped with specialised tooling and processes.

The combination of good cold forming properties and excellent weldability makes this grade the best choice for long lasting, weld on wear protection.

YIELD STRENGTH:	1250 Mpa
TENSILE STRENGTH:	1400 Mpa
HARDNESS:	420-480 HBW
IMPACT TOUGHNESS:	45J (-40 deg C)
THICKNESS RANGE:	5-60mm

FULL SHEET SIZE: **6000 x 2500mm**
8000 x 2500mm

APPLICATIONS:

- **Bucket & blade liners**
- **Weld-in cutting edges**
- **Truck deck liners**
- **Crusher plates**
- **Ripper shanks**
- **Conveyors**
- **Feeders**
- **Wear strips**

Guaranteed 90% through hardness!

G500 Abrasion Resistant Steel

G500 is through hardened, quenched and tempered, abrasion resistant steel, providing the ultimate wear resistance for severe, sliding abrasion.

This steel will last up to 10 times the wear life of mild steel due to its extra wear properties and heat treatment process. It can be cut, welded, formed, drilled, machined and tapped using specialised tooling and processes.

The combination of superior hardness and high tensile strength of this grade makes it more suitable for bolt-on wear plates rather than weld-on plates.

YIELD STRENGTH:	1500 Mpa
TENSILE STRENGTH:	1700 Mpa
HARDNESS:	470-530 HBW
IMPACT TOUGHNESS:	30J (-40 deg C)
THICKNESS RANGE:	10-50mm

FULL SHEET SIZE: **6000 x 2500mm**

APPLICATIONS:

- **Bolt-on cutting edges**
- **Gears/sprockets**
- **Crusher wear plates**
- **Conveyor liners**
- **Hammers**
- **Screen plates**
- **Wear strips**

Guaranteed 90% through hardness!

WEAR STEEL APPLICATIONS

Bucket Wear Protection

Bolt on Cutting Edges

Wear Strips

Bucket Liners

Truck Deck Liners

Ripper Shanks

Maximise your wear protection

PROTECT YOUR GEAR FROM WEAR AND REDUCE MAINTENANCE COSTS WITH THE HARDEST, TOUGHEST AND LONGEST LASTING OVERLAY PLATE AROUND.

This super hard wearing plate features a chromium carbide matrix that is welded onto a mild steel backing plate.

The large amount of hard chromium carbides allows this plate to thrive in extreme abrasion and impact applications, providing the longest possible wear protection.

The hardiness of this overlay plate is a composite of hard chromium carbides and tough, austenitic matrix. A variety of substrates such as stainless steel, nickel alloys and quenched and tempered steels, are used in the manufacturing process of this plate.

This plate can be easily formed to suit curves and contours. Welded studs or countersunk inserts can be fitted so plates become easily replaceable.

Made to the highest quality and performance standards, this plate is the only choice for maximising your wear protection.

Chromium
Mild Steel

APPLICATIONS:

- **Chute liners**
- **Bin & hopper liners**
- **Loader Bucket Liners**
- **Truck Deck Liners**
- **Dozer Blade Liners**
- **Crusher Plates**
- **Recycling Plants**
- **Wear Strips**

CHROMIUM CARBIDE OVERLAY PLATE

RANGE OF SIZES & TECHNICAL SPECIFICATIONS

Part No	Chromium Thickness	Mild Steel Thickness	Total Plate Thickness	Hardness (HRC)	Chemical Composition			
					C (%)	Si (%)	Mn (%)	Cr (%)
5_ON_6_VIBO	5mm	6mm	11mm	57-62	4.5	1.45	1.5	35
7_ON_6_VIBO	7mm	6mm	13mm	58-63	4.5	1.45	1.5	35
7_ON_8_VIBO	7mm	8mm	15mm	58-63	4.5	1.45	1.5	35
8_ON_10_VIBO	8mm	10mm	18mm	58-65	4.5	1.45	1.5	35
10_ON_10_VIBO	10mm	10mm	20mm	58-65	4.5	1.45	1.5	35
12_ON_12_VIBO	12mm	12mm	24mm	58-65	4.5	1.45	1.5	35

- **Abrasion Resistance:** The wear life of this plate is up to 30x longer than mild steel and up to 6x longer than G450 wear steel
- **Impact Resistance:** This plate can withstand a moderate level of continuous impact as long as it is fully supported underneath
- **Temperature Range:** This plate is designed to withstand heat up to 600 deg C
- **Characteristics:** The overlay surface of this plate consists of a series of weld beads with numerous hairline cracks. These cracks are a natural stress relief effect and are beneficial to the material. These cracks do not affect the performance of the plate.
- **Full sheet size:** Chromium Carbide plate is available in full sheets 3500mm x 2100mm or cut to any shape & size

CHROMIUM CARBIDE OVERLAY PLATE

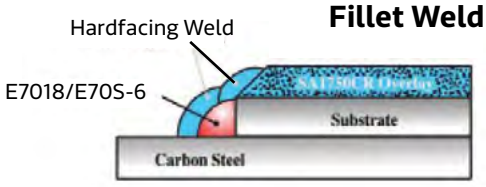
FABRICATION INFORMATION

- **Cutting:** Chromium Carbide plate can be cut by using plasma, air arc or abrasive disc. Cutting should be done on the mild steel side to avoid contaminating the mild steel with chromium particles which can cause a brittle weld.
- **Cold Bending:** This plate can be formed easily using a press brake or rollers. Relief cracks are normal in the hard surface when forming. Caution when forming along the same direction as the overlay weld seams, structural cracking may occur when pressing a tight radius. Refer to the Rolling Limits table below;

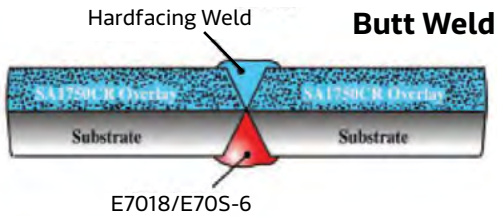
Radius Rolling Limits		
Thickness	**Chromium Outside**	**Chromium Inside**
10-11mm	600mm OD	500mm OD
13-15mm	700mm OD	600mm OD
18-20mm	850mm OD	650mm OD
24mm	900mm OD	750mm OD

- **Plate Grain:** Where possible, always have direction of the overlay weld seams (plate grain) running across the flow of the moving material. This helps to get even wear and prevents washing between the weld seams.
- **Welding & Fitting:** This overaly plate can be using E70S-6 mig wire or E7018 electrodes or similar grades for welding mild steel. All weld seams, plug weld holes, bolt holes and other joints exposed to wear, should be protected by a weld cap of hard facing.
- **Bolt-on Options:** Threaded studs can be fitted to the mild steel side, or pre-machined countersunk inserts can be welded in to the plate to suit cap screws. These fastening methods ensure quick change overs when replacing them.

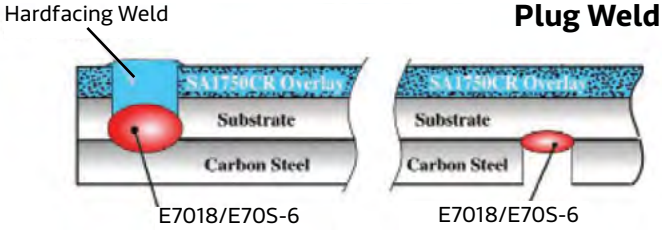
Fillet Weld



Butt Weld



Plug Weld



Threaded Stud

Countersunk Insert

CHROMIUM CARBIDE APPLICATIONS

Dozer Blade Liners

Truck Deck Liners

Excavator Bucket Liners

Loader Bucket Liners

CHROMIUM CARBIDE APPLICATIONS

POWER INDUSTRY APPLICATIONS


Frozen Coal Cracker


Cyclone Burner Door


Square to Round Transition


Journal Liner

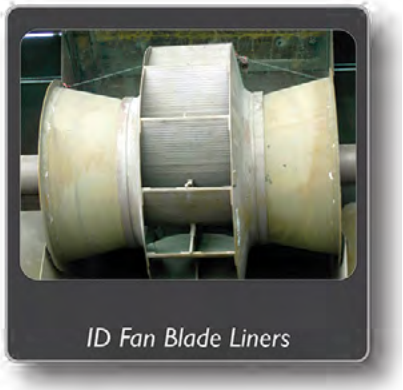

T-Fired Burner Barrel


Crusher Screen Plate

CEMENT INDUSTRY APPLICATIONS


Stationary Classifier Blades


Slurry Transport Pipes


ID Fan Blade Liners


Raw Mill Nozzle


Augers


Raw Mill Classifier Cone

CHROMIUM CARBIDE APPLICATIONS

QUARRY AND MINING INDUSTRY APPLICATIONS


Truck Bed Liner Systems


Dozer Blade Liner Systems


Shovel Bucket Liners


Loader Bucket Liners


Raw Material Chute


Raw Material Funnel

STEEL INDUSTRY APPLICATIONS


Coke Injection Line Elbows


High Blast Furnace Coke Screens


Reverse Fan Box


Dust Handling System


Alloy Hopper


Replaceable ID Fan Housing Liners

Case study - Fulton Hogan

INCREASED BUCKET LIFE, REDUCED DOWNTIME & MAINTENANCE COSTS

Fulton Hogan specialises in building and maintaining transport and civil infrastructure so our communities can operate safely and efficiently.

SITUATION:
Fulton Hogan Christchurch operates a large fleet of wheel loaders at its 4 fixed quarry sites and 7 portable plants.
The aggregate is highly abrasive causing wear and damage to the loader buckets if they are not adequately protected. Fulton Hogan needed a long lasting wear liner kit to protect the inside of their buckets from wear.

RESPONSE:
West-Trak worked closely with Fulton Hogan to understand their needs and provide the ultimate bucket liner solution. We used Chromium Carbide Overlay Plate which outlasts Abrasion Resistant steel by up to 5 times, resulting in less downtime and maintenance costs.

Need a Loader bucket wear package that works?

Talk to us today 0800 654 323

OUTCOME:
The below benefits were acheived

- **4 to 5 times longer wear life over standard buckets, which means less bucket work and down time.**
- **It is a lot easier to work with than normal wear plate**
- **Very little maintenance - easy to repair cracks and chips**
- **Significant savings in downtime and maintenance costs**

STEEL PLATE OFFCUTS

PALLET LOADS OF OFFCUTS & HANDY SHEETS OF STEEL ARE AVAILABLE IN A RANGE OF GRADES AND THICKNESSES

- Great for making your own Wear Parts & Plates to armour up Buckets, Blades, Crushers and other wear areas that need protecting.
- Offcuts are available in 500kg pallets of G450/G500 grade wear steel, from 10-50mm thickness and Chromium Carbide plate from 10-24mm thickness.
- All offcuts are subject to availability

Need fast, accurate plate cutting?

GET IT RIGHT HERE WITH OUR CNC PLASMA AND GAS CUTTING CAPABILITIES

We're experts at profile cutting the heaviest and hardest steel plate up to 200mm thick. Our high definition CNC Plasma & Gas cutting machines make easy work of producing the most accurate and highest quality cut.

You'll get the largest range of Wear Steel in NZ and the fastest lead times in the industry, with our specialist plate processing skills and machinery.

PROFILE CUTTING CAPABILITIES:

- **12m x 3.4m cutting area**
- **400amp high definition Plasma for cutting 1-50mm thick plate**
- **Oxy-fuel gas for cutting 60-200mm thick plate**
- **360-degree bevel head with a 45 degree cutting angle**
- **True-hole technology for very accurate hole cutting tolerances**
- **Solidworks CAD drawing & Pronest software plate management systems**

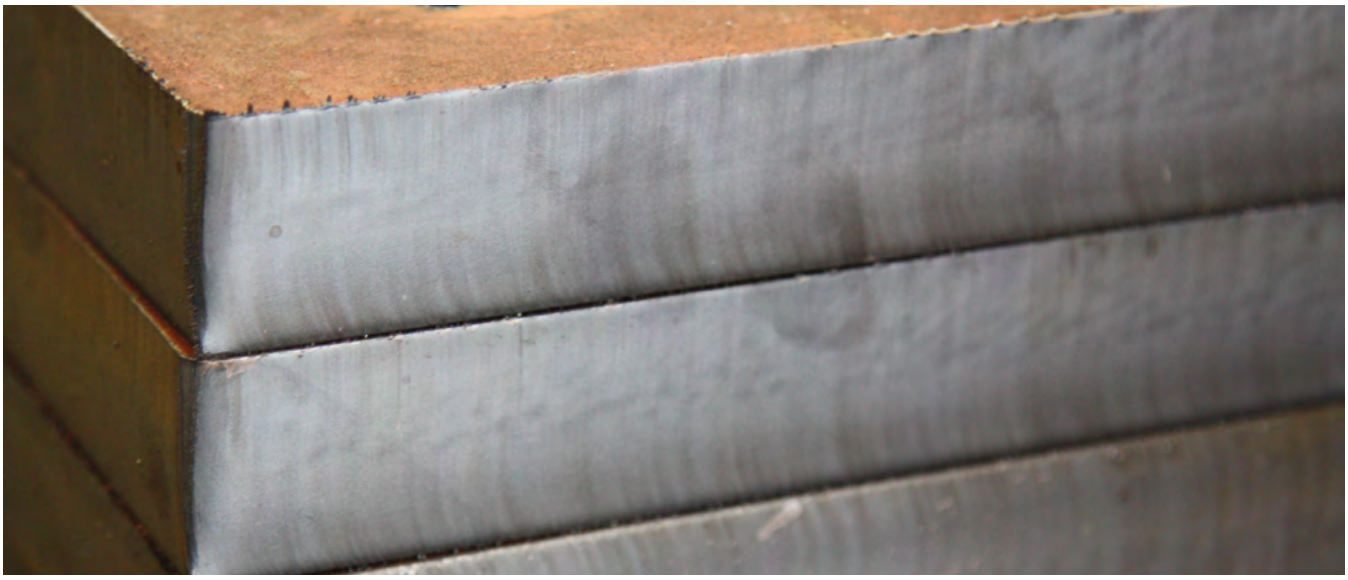
Send us your DXF drawing files to cut from or our professional design team can draw up your cutting requirements. We can convert your sketches and templates into fully scaled working drawings. Our mechanical design engineers are also available to measure up onsite.

We offer a complete range of steel grades and thicknesses from 5mm-140mm, for all types of structural and extreme wear applications. Guaranteed fast delivery times - 90% of orders are dispatched within 24hours!

CNC PROFILE CUTTING

High Definition Plasma Cutting

Oxy-fuel Gas Cutting



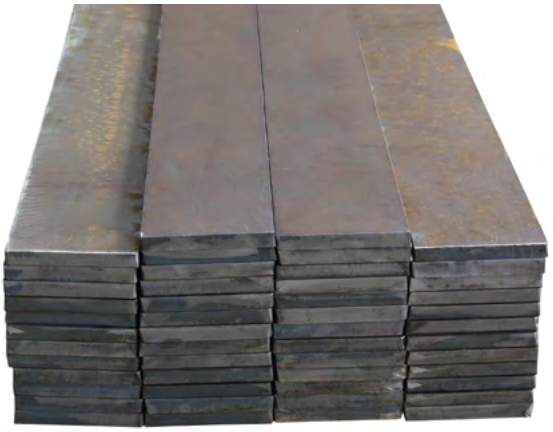
Screen Plates

Mill Anvil Plate

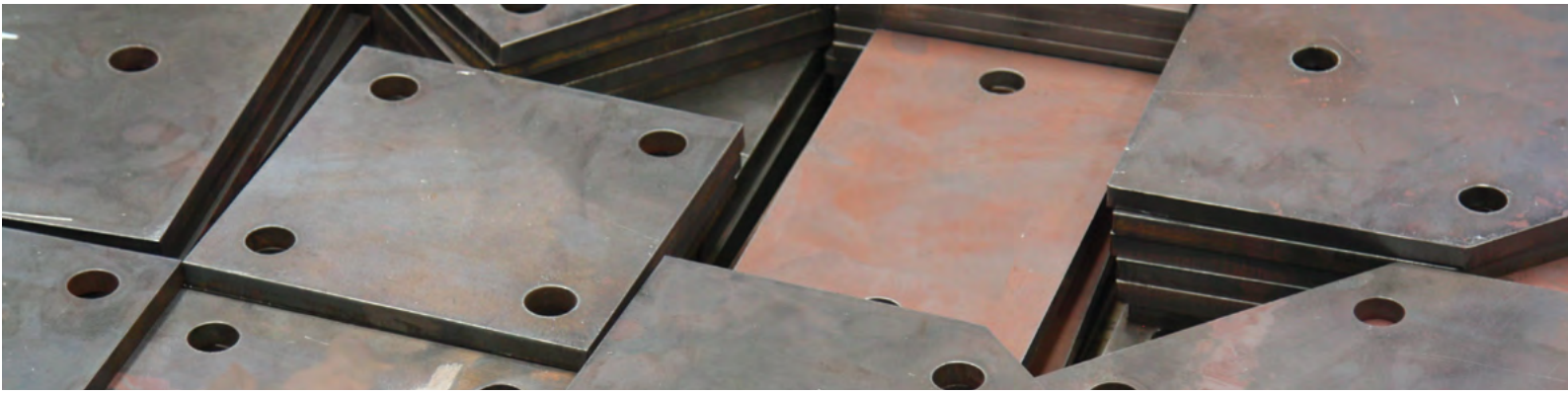
Cutting Edges

Grizzly Bars

Shooting Targets

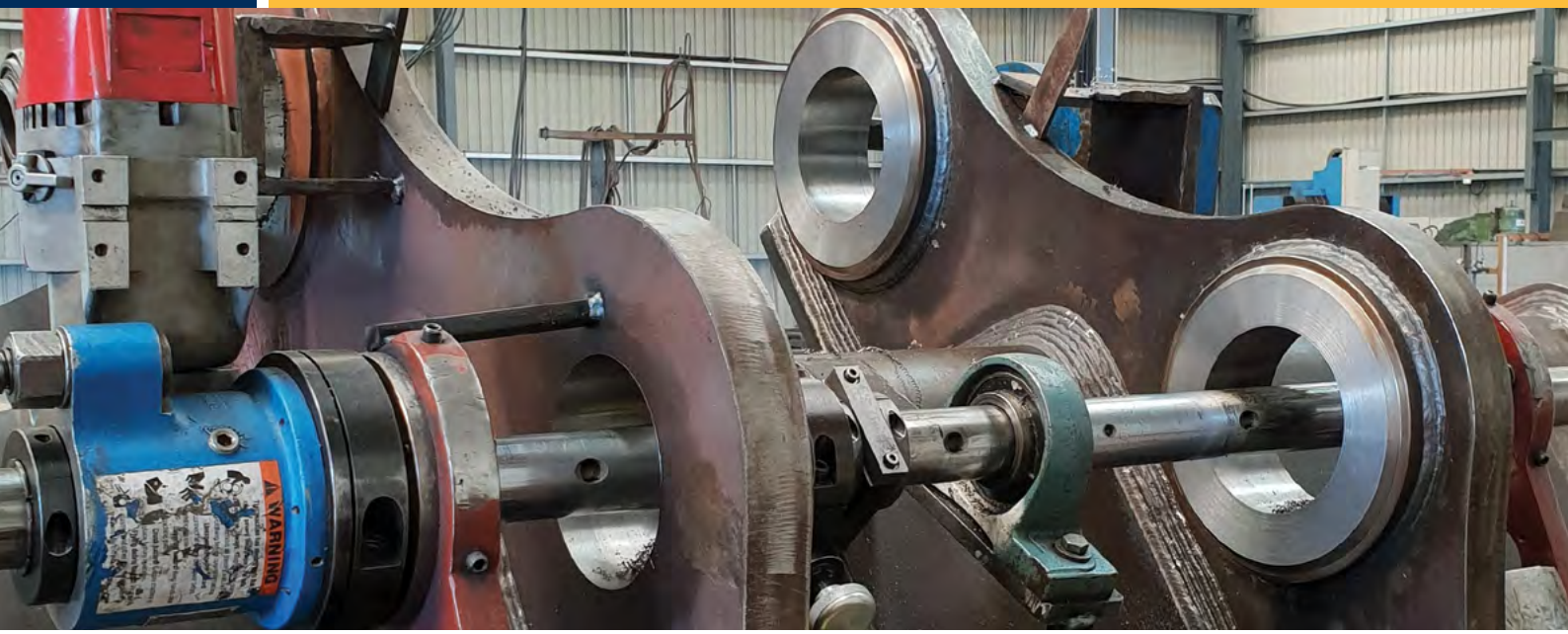


Wear Strips



Structural Steel Base Plates

MACHINING & LINEBORING



Precision plate machining

OUR TEAM OF HIGHLY SKILLED FITTER TURNERS & MACHINISTS CAN SHAPE THE HARDEST WEAR STEELS INTO YOUR REQUIRED PART.

Using specialized tungsten tip tooling & techniques we can machine G450 & G500 grade Abrasion Resistant Steels with ease. We have a huge range of tooling on hand for all types of machining requirements.

You'll get high quality workmanship, fast turnaround times with guaranteed form, fit & function. Our professional engineers & mod-con machinery can produce the tightest tolerances & most precision accuracy.

With a large machine shop and years of fitter turning experience, we offer all the tools & tolerances you need! Our engineers are master craftsmen, skilled in fitting, turning, welding, tool making and mechanical problem-solving.

Our work includes hole building and boring, joint/pivot repairs, CNC Drilling, Milling, Tapping, Line Boring & Lathing.

OUR MACHINES:

- **CNC Machining Centre with a 60-piece tool set**
- **CNC Horizontal Lathe with a 3m travel bed**
- **3x Vertical Milling & Drilling Machines**
- **Line Boring Unit with 450mm ID boring capacity**

OUR TOOLING:

- **Drilled holes: 5mm to 75mm Ø**
- **Counterbored holes: 10mm to 75mm Ø**
- **Countersunk Plow Bolt holes: 1/2" to 1.3/8"**
- **Cap Screw holes: 10mm to 30mm Ø**
- **Threaded holes: 10mm to 30mm Ø**

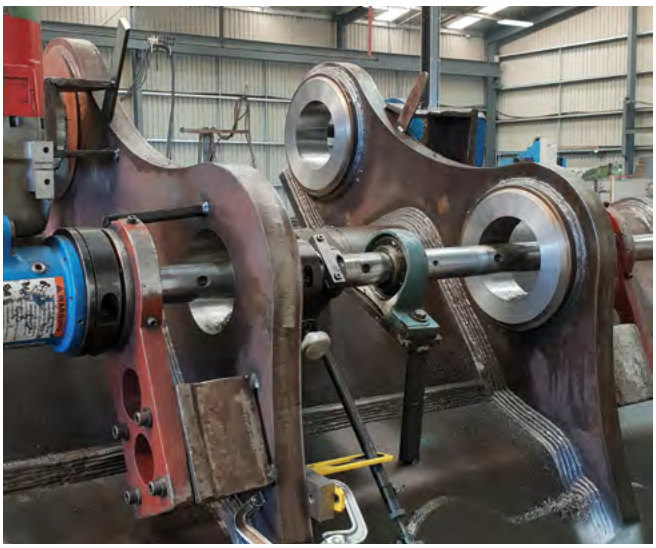
Cap Screw Holes

Keyway Holes

Drilled & Counterbored Holes

Plow Blot Holes

Threaded Holes



Lineboring

Heavy welding expertise

WE'RE EXPERTS AT WELDING THE HARDEST, TOUGHEST & THICKEST WEAR STEELS

Our steels require specialist welding methods to survive the roughest wear and tear environments. Extreme working conditions need extreme know-how to deliver strong, long lasting, high performing wear parts.

Our team of certified fitter/welders are highly skilled at welding High Tensile and Abrasion Resistant wear steels from 5mm to 140mm thickness. We specialize in custom building wear products for the Quarry, Mining, Forestry and Engineering industries.

You'll get guaranteed workmanship and the right welding processes that work. We ensure the correct weld preps, pre and post heating, welding wire and weld finishing procedures are strictly adhered to.

We use the best brands of quenched and tempered, steels that comply to AS3597 and welding consumables that comply to AS/NZS 1554.4 standards

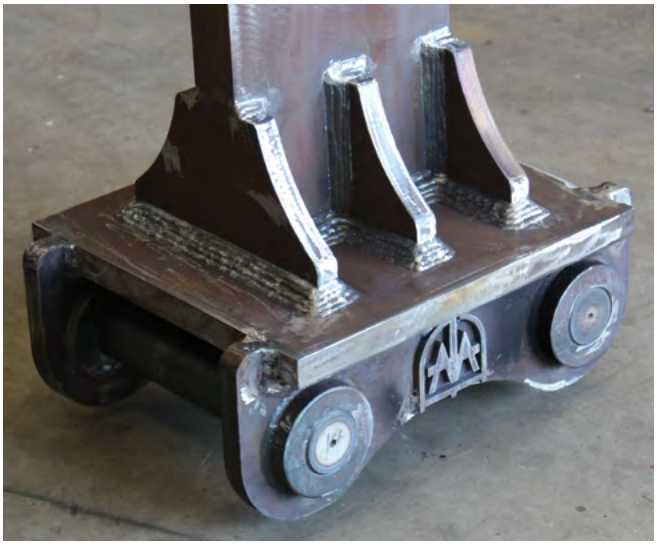
Our qualified welding staff are certified to AS/NZS 1554.4 and AS2980 structural welding procedure standards.

We also offer Threaded Stud welding for replaceable wear plates in fixed and mobile crusher applications, which makes it super quick and easy to change-out worn plates, reducing downtime and maintenance costs.

Threaded studs are available from 10-20mm diameter and in any length. The advantage of studs is you can wear your plates down much thinner, compared to using a bolt or cap screw as the heads eventually wear off and the plates will come loose.

Abrasion Resistant Material (A.R.M) is a Tungsten chip and hard-facing wire mix that can be applied to Bucket Teeth, Cutting Edges and other wear parts to extend their service life and performance.

Pre-Fabricated Bucket Lips



Excavator & Dozer Rippers

Stud Welding

A.R.M Hardfacing

Hardened steel plate forming

WE CAN FORM THE HARDEST & TOUGHEST WEAR STEELS INTO ANY SHAPE & SIZE

Rely on our heavy engineering experience to supply the best brands and highest quality Steel Plate, formed to your required shape. As direct importers, stockists and processors of Wear Steels, we can form the hard stuff for any application.

Our experts can press or roll all grades and sizes of steel including, Mild Steel, Medium Tensile, High Tensile, Abrasion Resistant and Chromium Carbide Overlay Plate.

We deliver fast, customized forming solutions to suit your needs with guaranteed quality, fitment and performance.

Our mechanical design engineers can come to your site to measure up your rolled plate requirements, or you can send us drawings and templates to work from

PLATE FORMING APPLICATIONS:

- **Excavator & Loader Bucket Liners**
- **Dozer & Grader Blade Liners**
- **Bucket Building**
- **Truck Deck Liners**
- **Crusher Plate Liners**
- **Hoppers, Chutes & Screen Liners**
- **Gold Screen Trommel Plates**

Call 0800 654 323 to discuss your plate forming needs now.

Bucket Liners

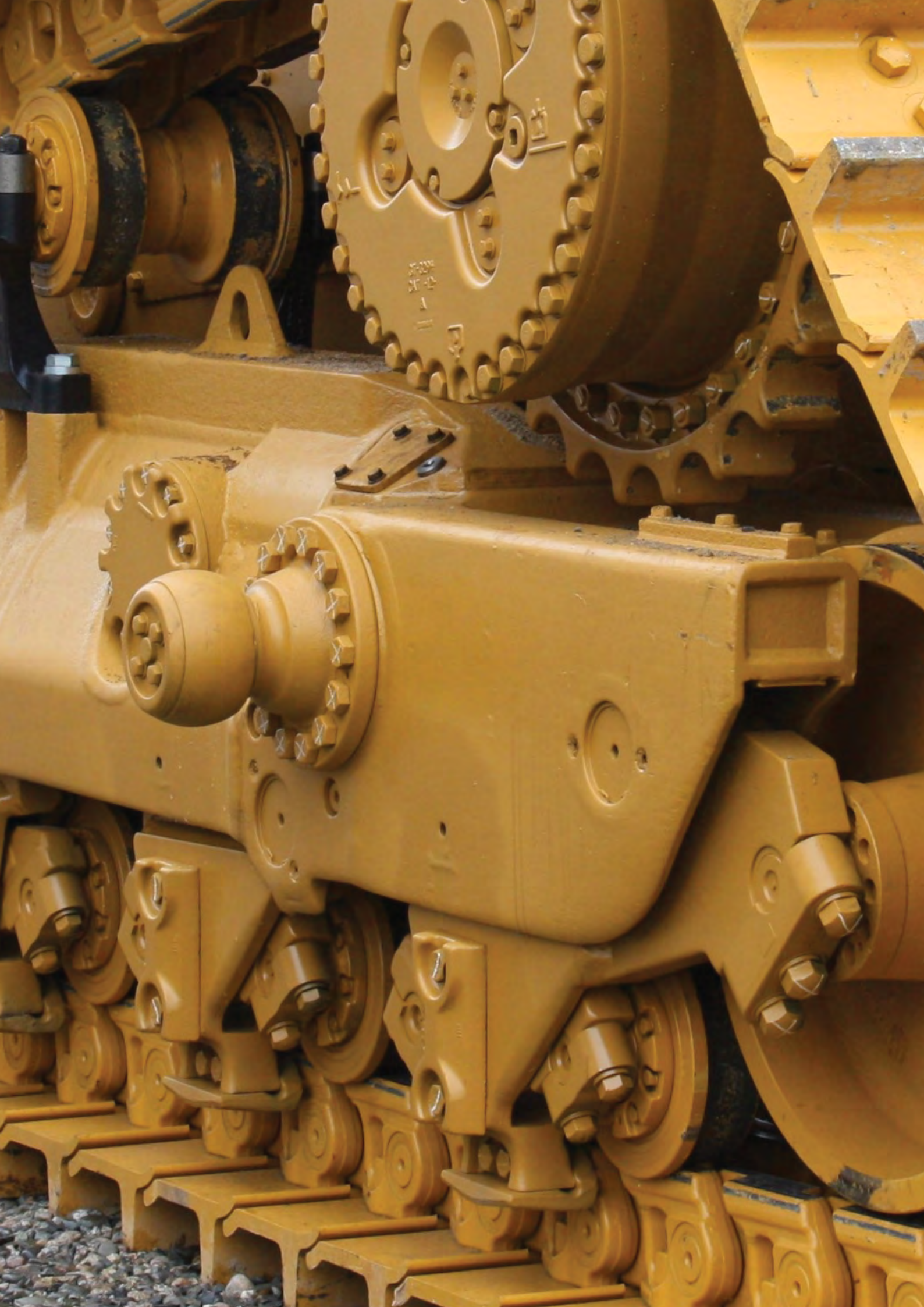
Blade Liners

Truck Deck Liners

Trommel Screens

Crusher Rings

Chute Liners



UNDERCARRIAGE

Stay on track with our huge range of Undercarriage Parts for all makes & models of Excavators, Dozers & Crawler Cranes

"12 month/2000hr warranty on all parts"

- UNDERCARRIAGE SOLUTIONS 289
- GREASED & SEALED EXCAVATOR CHAINS 290
- S.A.L.T TYPE DOZER CHAINS 291
- SPARE TRACK LINKS & PINS 292
- EXCAVATOR TRACK GUARDS 293
- 1 BAR DOZER SHOES 294
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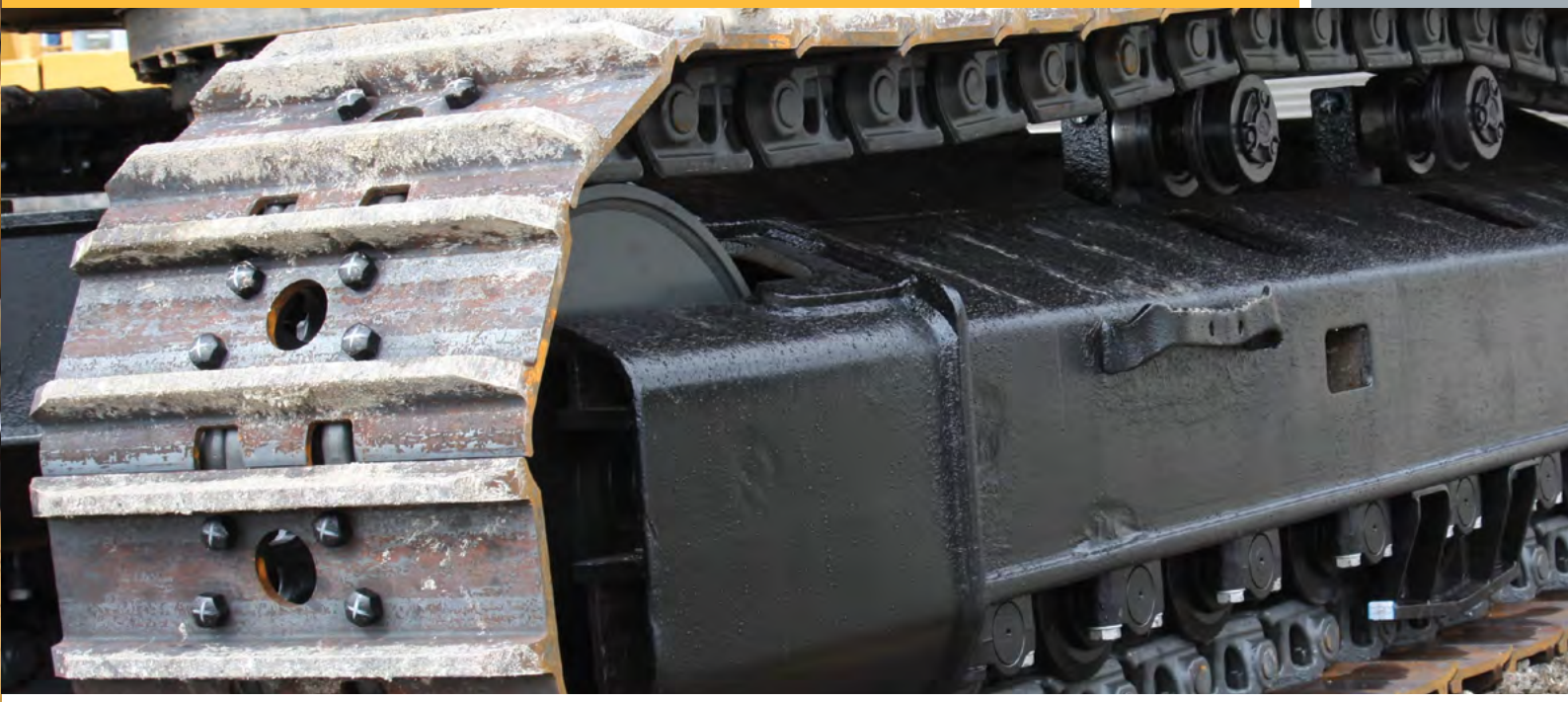


Are you on the right track?

KEEP YOUR MACHINES ON TRACK WITH OUR LARGE RANGE OF UNDERCARRIAGE PARTS FOR MOST MAKES & MODELS OF EXCAVATORS & DOZERS

We've been the trusted Track gear specialists for over 25 years, with a huge range of Undercarriage Parts in stock, to fit most makes & models of Excavators & Dozers up to 100 tonne size. Crawler Crane track parts are also available for cranes up to 800 tonnes.

Our Track parts are high-quality aftermarket brands, which interchange with OEM fitment and are well proven in Forestry, Mining, Quarry & Construction industries, often outperforming other brands and delivering the best cost per hour.

We're committed to increasing your uptime and reducing unexpected downtime. As a one-stop-shop, you'll get trusted advice, guaranteed quality, fast service and reliable back up support to keep your machines moving.

All Undercarriage Parts have a 12 month, 2000-hour warranty (whichever comes first).

Large stocks of track parts are warehoused in Auckland & Westport to support our customers nationwide. Track Presses & bolt-up tables are also based in each of these locations.

With our team of experienced track technicians we offer a range of services including Track Shoe re-lugging, Track Group bolt ups, Pin & Bush turns, onsite Wear Measuring and technical advice.

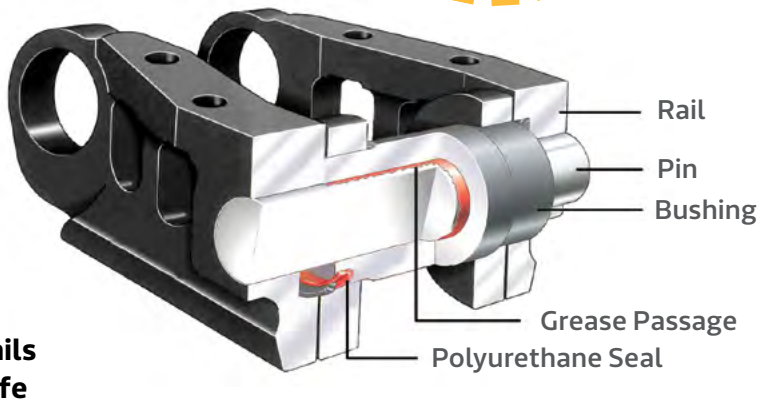
You can rely on our expertise and huge database of machine models to deliver the right parts, fast. We know what fits your machine, so repeat ordering is quick and easy.

Our international network of world leading manufacturers ensures we have your Undercarriage needs covered, with access to the largest range of parts on the planet.

GREASED & SEALED EXCAVATOR CHAINS

HIGH QUALITY, KOREAN MADE GREASED & SEALED EXCAVATOR CHAINS ARE AVAILABLE FOR ALL MAKES & MODELS OF STEEL TRACKED EXCAVATORS

- Grease filled and sealed with polyurethane seals (not steel) for quiet operation and extended wear life
- Polyurethane seals prevent abrasives from entering the internal pin & bushing, reducing bush wear
- Internal bushing life is extended about 20% compared dry chains
- Rails are heat treated boron steel, hardened to 48-56RC up to 10mm deep for increased service life and higher wear resistance
- All Pins and Bushes are hardened to 55-60RC
- Heavy Duty EWL (Extended Wear Life) chains are available for some models. These have bigger bushes and higher rails for greater strength & extended wear life

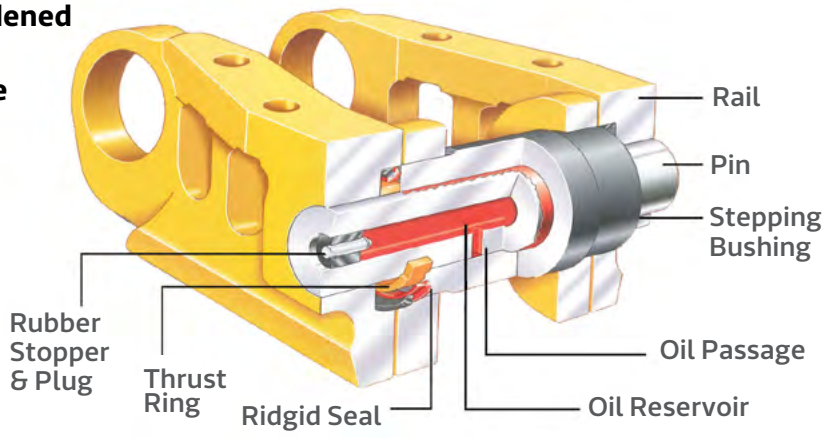


S.A.L.T TYPE DOZER CHAINS

HIGH QUALITY, KOREAN MADE SEALED & LUBRICATED DOZER CHAINS ARE AVAILABLE FOR ALL MAKES & MODELS OF BULLDOZERS

12 Month 2000 hr WARRANTY *CONDITIONS APPLY

- Oil filled lubricant eliminates internal friction and wear between the pin and bushing
- Internal bushing life is extended by up to 50% compared to standard sealed tracks
- Every link is individually pressure tested for guaranteed sealing
- Rails are heat treated boron steel, hardened to 48-56RC up to 13mm deep for increased wear life and wear resistance
- Pins and bushes are hardened to 55-60RC
- Heavy Duty EWL (Extended Wear Life) chains are available for some models. These have bigger bushes and higher rails for longer service life



SPARE TRACK LINKS AND PINS

- A large range of spare Track Link Kits & Master Pin Kits are available for all Greased & Sealed Excavator Chains & SALT type Dozer Chains
- These are available as individual Links pressed together with 2x Rails, 1x Bush, 1x Track Pin and 2x Seal Groups
- Master Pin Kits are available as Press fit type and T-type to suit various chains and come with 2x steel Seals

Excavator Link Kit

Press fit Master Pin

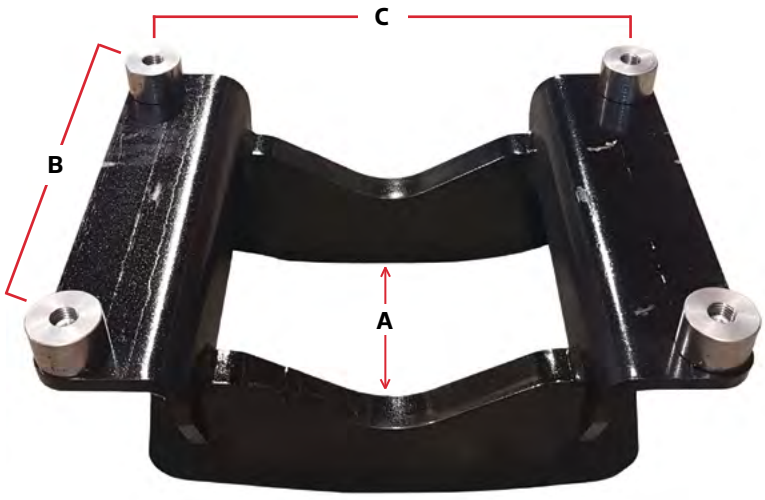
T-type Master Pin

Dozer Link Kit

Stay on track with us

GET LONGER LIFE FROM YOUR EXCAVATOR CHAINS BY USING TRACK GUARDS

- High quality, custom made Track Guards are available for all makes and models of 10-40 tonne size Excavators. Made from G450 Abrasion resistant wear steel for maximum strength and wear life
- Our Track Guards have 4 x mounts that weld to your track frame and the Track Guards bolt to them. Multiple Track Guards can be fitted along the track frame to get full length protection
- Track Guards prevent your Excavator Chains from snaking and de tracking, prolonging the life of your Chains and Rollers. These are a must have for steep slope and forestry applications where roller flange wear and chain snaking can be a big issue
- All Track Guards come with 4x bolts and spring washers included



Part No/Size	A	B	C	KG
10-14_TON	200mm	280mm	235mm	14
16-24_TON	240mm	320mm	425mm	35
25-29_TON	255mm	340mm	240mm	25
30-35_TON	270mm	380mm	260mm	40
40_TON	290mm	374mm	455mm	45

1 BAR DOZER SHOES

When pushing performance matters!

MAXIMISE YOUR TRACTION & PUSHING POWER WITH OUR 1 BAR DOZER SHOES

- Standard Dozer Shoes with no mud holes are available for light duty, low abrasion applications such as agricultural and civil earthworks
- Extreme Service Shoes (ESS) are available for high impact, high abrasion applications such as Quarry, Mining and Forestry. These shoes are thicker & stronger with more wear material and resistance to bending
- Options of Round or Trapezoidal mud holes to help reduce material packing in landfill, forestry and sticky clay applications
- Large range of sizes & styles are available to suit all makes and models of Dozers

No Mud Hole

Trapezoidal Mud Hole

Round Mud Hole

Stick to the slopes safely

GET MORE GRIP & STAY SAFER ON THE SLOPES WITH OUR 1 BAR TRACK SHOES

1 BAR FORESTRY SHOES

- Heavy duty Shoe design for steep slope forestry machines, providing maximum traction and safety
- Extreme Service shoe (ESS) type which is thicker & stronger, with more resistance to wear and bending
- Options of Round or Trapezoidal mud holes to clear debris and prevent material packing in the chains
- Options of Square or Clipped lug corners for maximum slope stability & ease of turning
- Large range of shoes for all makes & models of forestry machines from 20 - 40 tonne size

Square Corners

Clipped Corners

2 & 3 BAR EXCAVATOR SHOES

2 BAR FORESTRY & MINING SHOES

- A good Shoe type for Forestry, Quarry and Mining excavators in heavy duty and high abrasion applications
- Extreme Service Shoe (ESS) type which is thicker & stronger than standard shoes
- Higher lug height providing more penetration and traction than 3 bar Shoes
- Options of Round or Trapezoidal mud holes to prevent material packing in the chains
- Large range of sizes available to suit all makes and models of excavators

Round Mud Hole

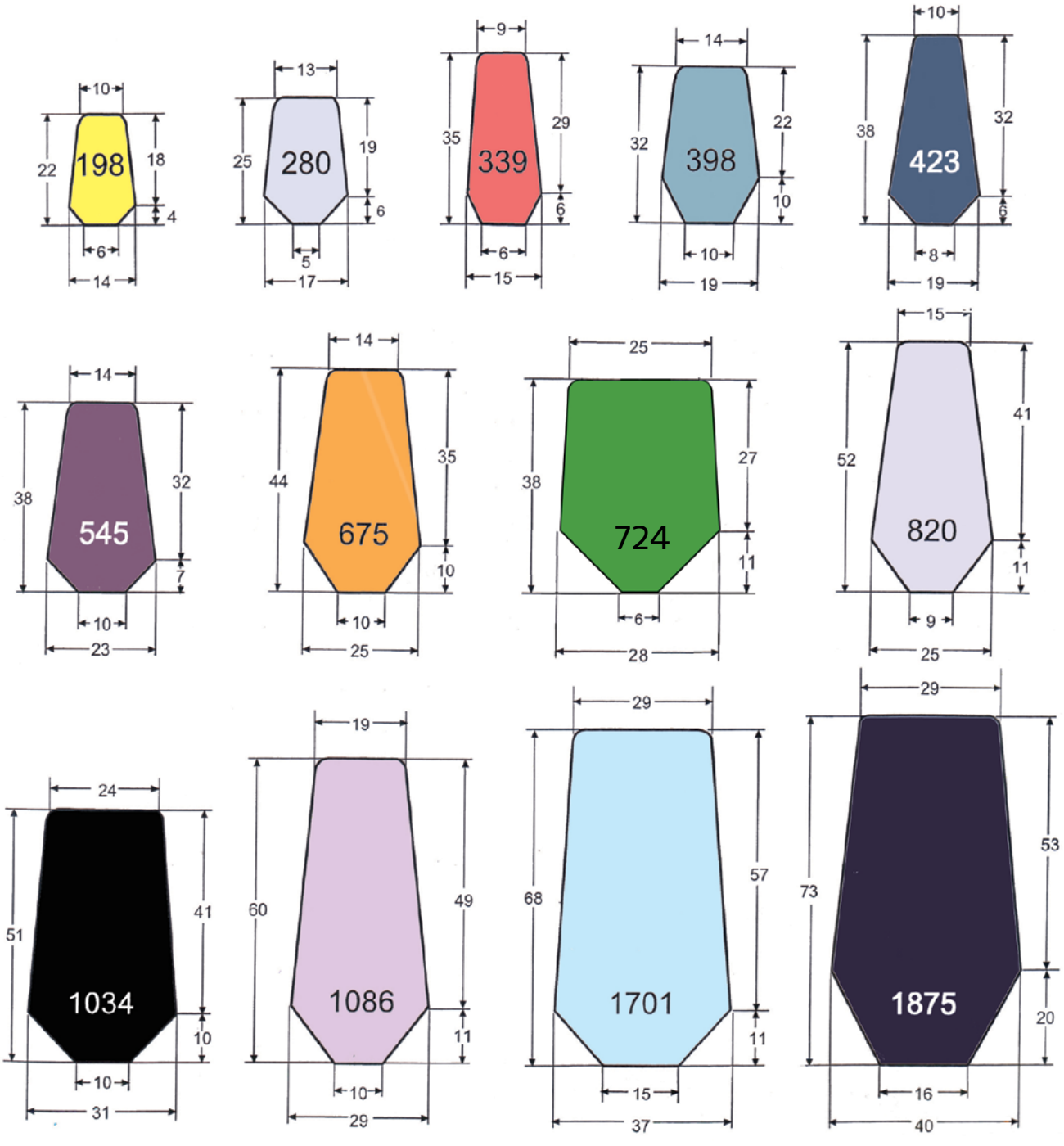
Trapezoidal Mud Hole

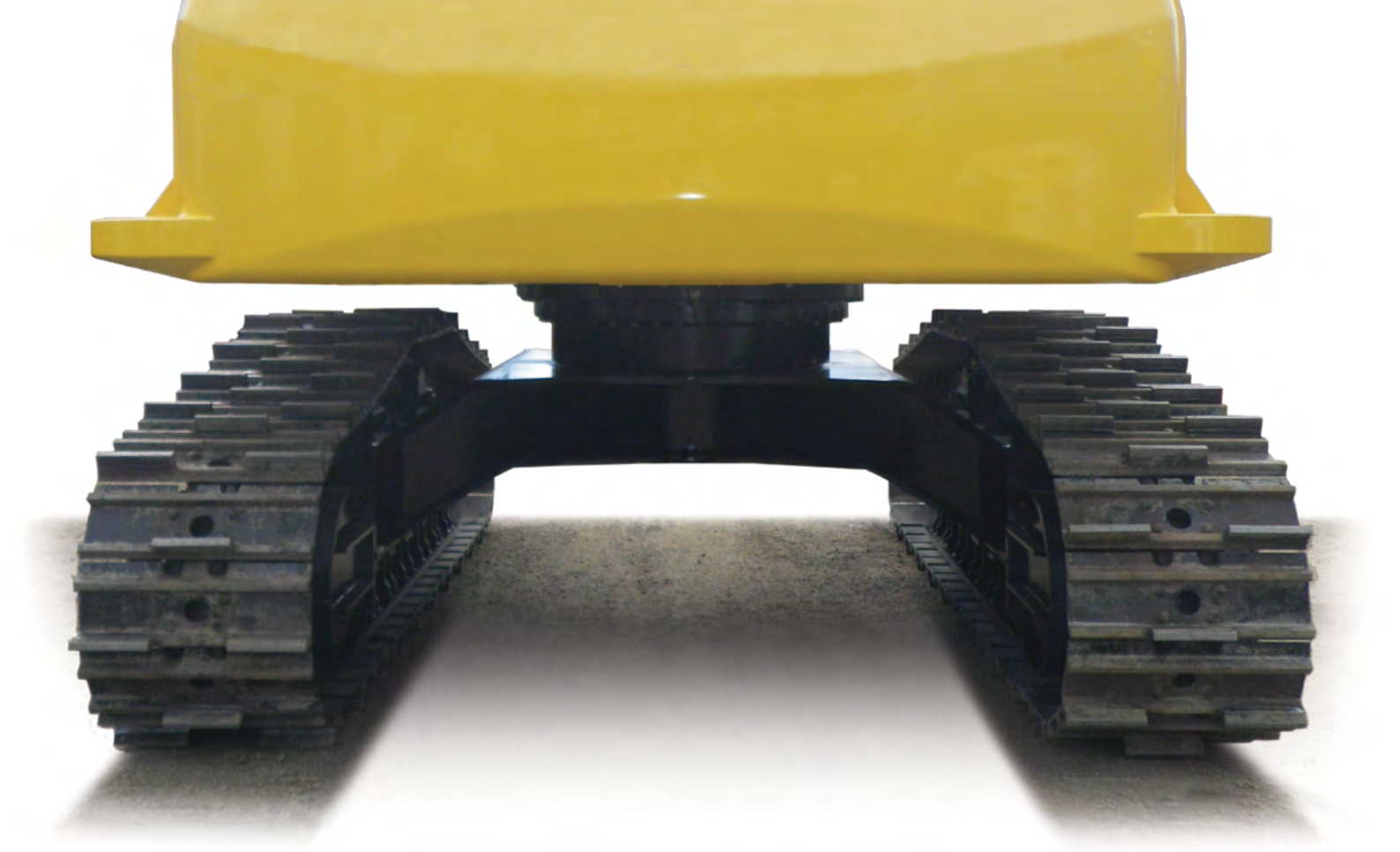
3 BAR STANDARD SHOES

- A general purpose shoe for excavators that provides good flotation and moderate traction
- Recommended for applications that require good turning capability with minimal ground disturbance
- Oval shape mud holes to prevent material packing in the chains
- Large range of sizes available to suit all makes and models of excavators

GROUSER RELUG BAR

- A great way to increase your machine's traction by re-lugging your old shoes, or enhancing your new ones
- Available in 3000mm lengths or cut to any size
- Heat treated to 450HB for long wear life
- These can be welded using low hydrogen electrodes, E7018, and Mig 71T flux core wire or equivalent



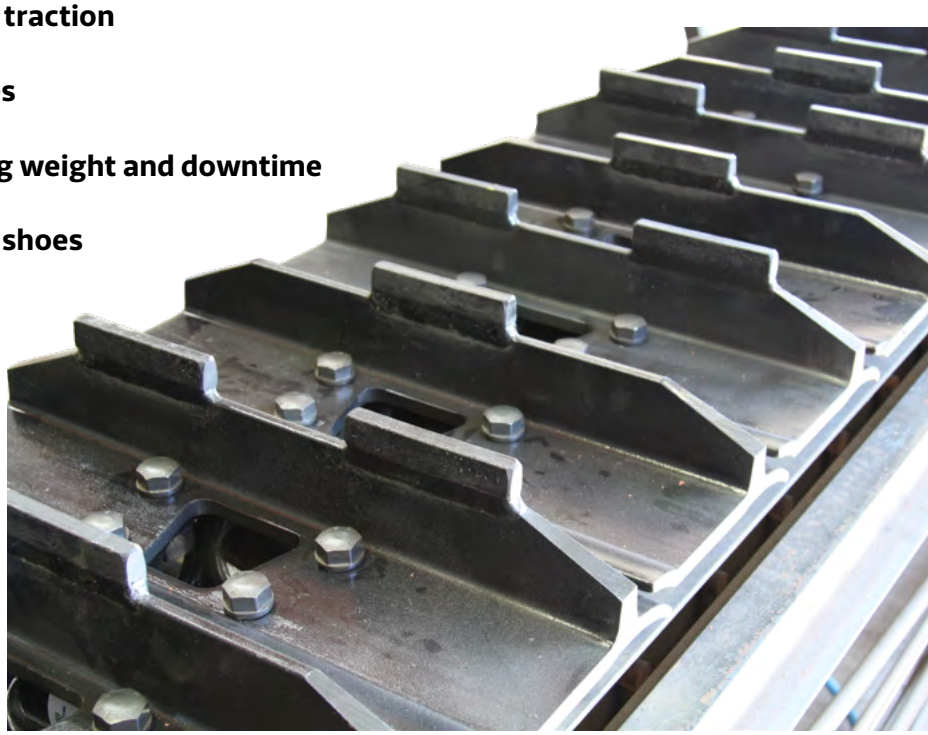


Maximise your traction
on forestry machines

STAY SAFE AND STICK TO THE SLOPES WITH GROUSER BAR GRIP.

THIS 'STAGGERED' GROUSER BAR CONCEPT WILL DO JUST THAT

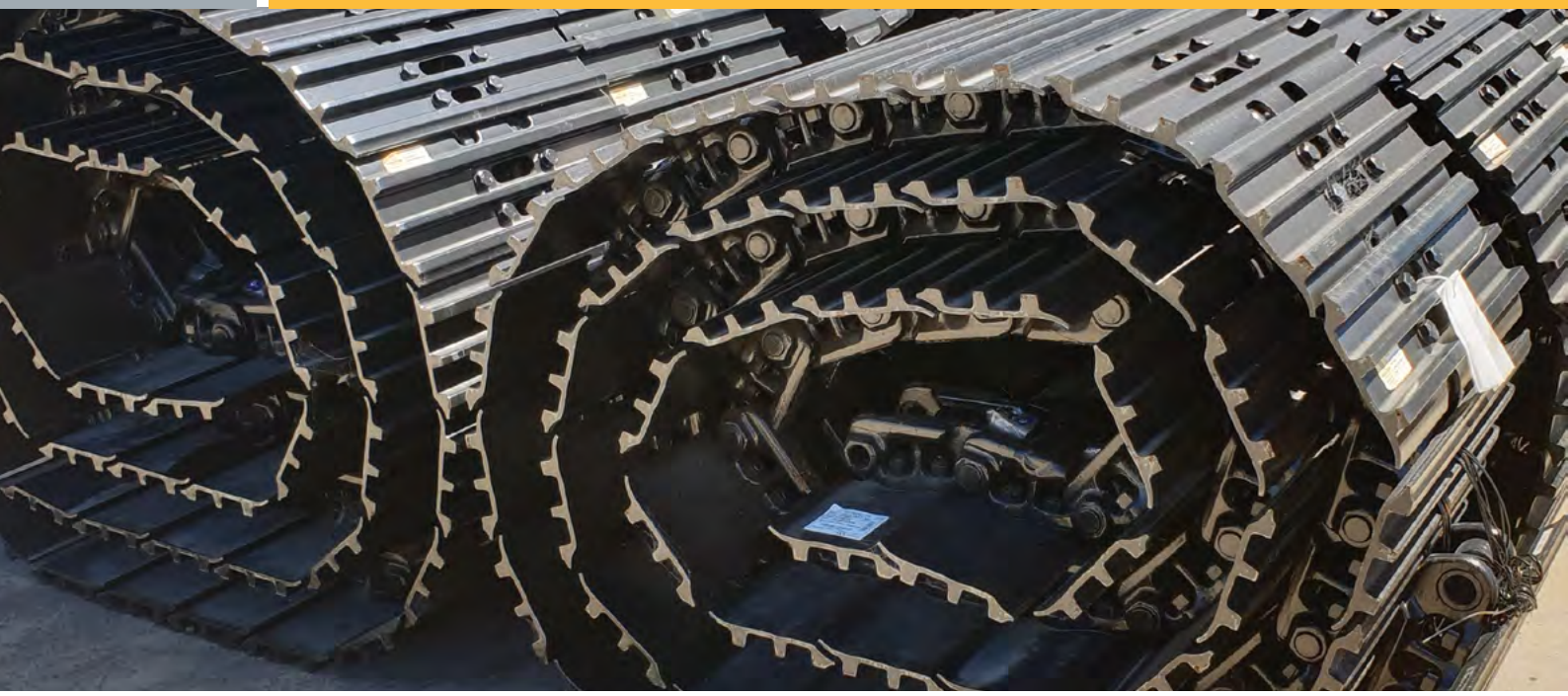
- Better ground penetration, increasing traction
- Reduces sideways slippage on hillsides
- Less grouser bar and welding, reducing weight and downtime
- Less packing of material on top of the shoes
- Can be fitted to 1, 2 & 3 bar shoes
- Increased safety on the slopes
- Go more places, get more done



CALL US NOW
0800 654 323

to discuss your needs!

CUSTOMISED TRACK GROUPS



Ready to roll on

SAVE YOURSELF THE HASSLE OF BOLTING TRACK SHOES TO YOUR CHAINS AND BUY THEM READY TO ROLL ON AS A TRACK GROUP

We make track replacements easy by supplying Track Groups with your choice of Track Shoes already bolted on. You can just roll off the old, roll on the new and keep on tracking!

A huge range of 1, 2 & 3 Bar Track Groups are available in stock for most makes and models of Excavators & Dozers up to 100 tonne size.

Our hydraulic nut runner and roller bed offers a fast and efficient shoe fitment, ensuring the right shoe-chain installation and correct bolt torque settings are applied.

Don't take the risk of your shoes coming loose when you're hard at work. You can trust our team of expert track technicians to get it right every time.

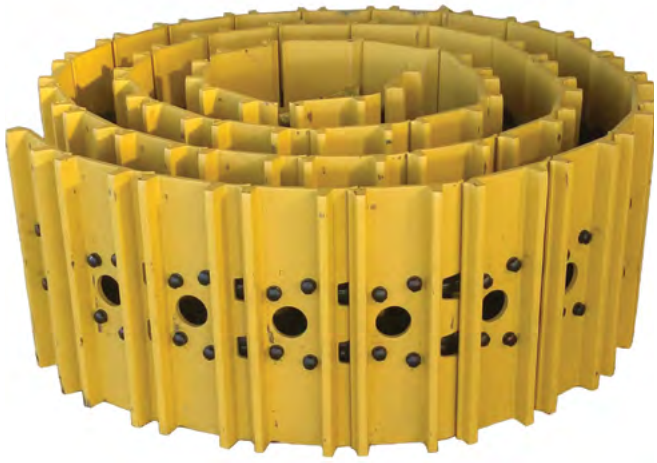
Get more grip with Grouser Relug Bar welded to your Track Shoes! You can boost traction on your forestry machines and stick to slopes for longer with our huge range of profiles to suit all Shoe sizes.

We can weld this Relug Bar to your new Track Shoes in various patterns to enhance your climbing performance and productivity.

CUSTOMISED TRACK GROUPS

1 Bar Dozer Track Group

1 Bar Excavator Track Group



2 Bar Excavator Track Group

3 Bar Excavator Track Group

ROLLERS

A LARGE RANGE OF ROLLERS ARE AVAILABLE TO SUIT ALL MAKES AND MODELS OF EXCAVATORS, DOZERS AND OTHER TRACKED MACHINERY

- Manufactured with reinforced flanges for increased wear life and structural reliability under severe operating conditions
- Heavy Duty Duo-Cone seal groups are fitted to guarantee perfect sealing in all working applications
- Shafts are made from forged alloy or rolled carbon steel and hardened over 3mm deep to 56-60 RC
- Roller shells are forged in two halves, welded together by friction or submerged arc then through hardened and machined

Shaft Type Carrrier Roller

Bolt on Type Carrier Roller

Single Flange Track Roller

Double Flange Track Roller

Inner Flange Track Roller

A LARGE RANGE OF IDLERS ARE AVAILABLE TO SUIT ALL MAKES AND MODELS OF EXCAVATORS, DOZERS AND OTHER TRACKED MACHINERY

- Cast idler groups come completely assembled with heavy duty Duo-Cone seal groups, shafts and/or mounting arms, blocks or brackets
- Through hardened Manganese steel is used for Idlers and Rollers, which provides high strength and good wear resistance
- Idler shells are cast or forged, depending on the design, then heat treated to 48-56 RC and machined to size
- All Idlers are made to OEM fitment specifications and are pressure tested to ensure guaranteed sealing and reliability
- 12 month/2000 hour Warranty (which ever comes first) on all Undercarriage Parts

Shaft Type
Dozer Idler

Bracket Type
Dozer Idler

Arm Type
Excavator Idler

Block Type
Excavator Idler

SPROCKETS & SEGMENTS

- A large range of high quality Sprockets & Segments are available to suit all makes and models of Excavators, Dozers and other tracked machinery up to 100 tonne size
- Sprockets are made to OEM fitment specifications and manufactured from cast steel, with the external tooth profiles deep induction hardened in excess of 50RC to provide long service life
- Segments are made to OEM fitment specifications and manufactured by forging, with the tooth profiles being through hardened for extra toughness, better wear resistance and long service life

Sprocket

Segment

Sprocket Hub

TRACK ADJUSTERS

- A large range of Track Adjusters are available to suit most makes and models of Excavators
- A Track Adjuster assembly consists of a recoil spring, cylinder and sometimes a yoke, depending on the machine model
- All Track Adjusters are manufactured to OEM fitment specifications and are fully inspected and tested to ensure reliable performance
- Maintaining proper track tension is critical for getting the longest possible undercarriage life and ensuring even wear rates. Track Adjusters are designed to absorb shock, keep proper track tension and protect the entire track system
- Weak or broken recoil springs and leaking Track Adjusters will cause unnecessary wear and tear on all Track components including, idler and roller flange wear, sprocket jumping, chain damage and de-tracking issues

UNDERCARRIAGE HARDWARE

HARDWARE RANGE

- A full range of Metric and Imperial Track Bolts, Sprocket/Segment Bolts, Roller Bolts and hardened washers are stocked to suit all models of tracked machines
- Track Bolts, Segment Bolts and Split Master Link Bolts are 12.9 grade
- Roller Bolts and Sprocket Bolts are 10.9 grade
- All hardware is forged from alloy steels and heat treated to the specifications of OEM

TRACK BOLTS & NUTS

SPROCKET /SEGMENT BOLTS & NUTS

SPLIT MASTER LINK BOLTS

ROLLER BOLTS

INSTALLATION NOTES:

- Remove all paint and scale from points of connection
- Clean bolt holes from all grease and foreign materials
- Align parts together and thread bolts in by hand or with a rattle gun before applying the final torque setting
- Install self-interlocking, HD cone type track nuts with rounded corners against the link
- Tighten ALL bolts 70% of torque rating before applying the final torque value
- It is recommended to use OEM torque settings for all roller and sprocket bolts

TRACK BOLTS & NUTS - METRIC RANGE

Size	Part Type	Part No	Pitch	Grade
M12x39mm	Track Bolt	M12X39X1.5P	1.5P	12.9
M12mm	Track Nut Square	M12_SQUARE	1.5P	12.9
M14x39mm	Track Bolt	M14X39X1.5P	1.5P	12.9
M14x45mm	Track Bolt	911407	1.5P	12.9
M14x56mm	Track Bolt	911408	1.5P	12.9
M14mm	Track Nut Square	970114	1.5P	12.9
M16x46mm	Track Bolt	911607	1.5P	12.9
M16mm	Track Nut Square	M16SQ	1.5P	12.9
M18x57mm	Track Bolt	911809	1.5P	12.9
M18mm	Track Nut Square	970118	1.5P	12.9
M20x60mm	Track Bolt	912009	1.5P	12.9
M20x63mm	Track Bolt - stepped shank	912008	1.5P	12.9
M20x68mm	Track Bolt	912011	1.5P	12.9
M20x85mm	Track Bolt	M20X85X1.5P	1.5P	12.9
M20mm	Track Nut Square	970120	1.5P	12.9
M22x55mm	Track Bolt	912255	2.0P	12.9
M22x66mm	Track Bolt - stepped shank	912200	1.5P	12.9
M22x70mm	Track Bolt	M22X70X1.5P	1.5P	12.9
M22mm	Track Nut Square	970122	1.5P	12.9
M24x68mm	Track Bolt - stepped shank	150-4741	1.5P	12.9
M24x76mm	Track Bolt	912412	1.5P	12.9
M24mm	Track Nut Square	970124	1.5P	12.9
M27x82mm	Track Bolt	KM263	1.5P	12.9
M27x92mm	Track Bolt	4218740	2.0P	12.9
M27mm	Track Nut Square	KM264	1.5P	12.9

Track Bolt

Track Nut

Track Nut HD Cone Type

UNDERCARRIAGE HARDWARE

TRACK BOLTS & NUTS - IMPERIAL RANGE

Size	Part Type	Part No	Pitch	Grade
1/2”x1.11/16”	Track Bolt - stepped shank	890821	20-UNF	12.9
1/2”	Track Nut Square	950108	20-UNF	12.9
5/8”x1.13/16”	Track Bolt	891004	18-UNF	12.9
5/8”x2.3/32”	Track Bolt	891006	18-UNF	12.9
5/8”x2.5/32”	Track Bolt - stepped shank	891046	18-UNF	12.9
5/8”	Track Nut Square	950110	18-UNF	12.9
3/4”x2.5/32”	Track Bolt	891206	16-UNF	12.9
3/4”x2.13/32”	Track Bolt - stepped shank	891210	16-UNF	12.9
3/4”x2.5”	Track Bolt	7H3598	16-UNF	12.9
3/4”x105mm	Track Bolt	6T2162	16-UNF	12.9
3/4”	Track Nut Square	950112	16-UNF	12.9
7/8”x2.21/32”	Track Bolt - stepped shank	891410	14-UNF	12.9
7/8”x3.27/64”	Track Bolt	891435	14-UNF	12.9
7/8”	Track Nut Square	950114	14-UNF	12.9
1”x3.35/64”	Track Bolt	891631	14-UNS	12.9
1”	Track Nut Square HD Cone Type	950121	14-UNS	12.9
1.1/8”x3.25/32”	Track Bolt	7T1000	14-UNF	12.9
1.1/8”	Track Nut Square HD Cone Type	5P8221	14-UNF	12.9
1.3/8”x4.1/4”	Track Bolt	6T-8853	12-UNF	12.9
1.3/8”	Track Nut Square HD Cone Type	3T-6292	12-UNF	12.9

Track bolt torque settings

FINAL TORQUE SETTING METHOD

Metric Thread - Grade 12.9	
Bolt Size	**Final Torque ft-lb**
M12 x 1	118 ± 6
M14 x 1.5	177 ± 7
M16 x 1.5	273 ± 15
M18 x 1.5	398 ± 22
M20 x 1.5	553 ± 30
M22 x 1.5	752 ± 37
M24 x 1.5	995 ± 50
M27 x 1.5	1423 ± 74
M30 x 2	1917 ± 96
M33 x 2	2754 ± 125

UNF Imperial Thread - Grade 12.9	
Bolt Size	**Final Torque ft-lb**
7/16” - 20 UNF	88 ± 5
1/2” - 20 UNF	133 ± 7
9/16” - 18 UNF	192 ± 7
5/8” - 18 UNF	265 ± 15
3/4” - 16 UNF	472 ± 22
7/8” - 14 UNF	752 ± 37
1” - 14 UNF	1150 ± 59
1.1/8” - 12 UNF	1630 ± 81
1.1/4” - 12 UNF	2198 ± 110
1.3/8” - 12 UNF	3053 ± 155

PRE-TORQUE PLUS ADDITIONAL 1/3 TURN METHOD

Metric Thread - Grade 12.9		
Bolt Size	**Initial Pre-Torque ft-lb**	**Final Torque Additional Turn**
M12 x 1	-	-
M14 x 1.5	185 ± 18	+ 1/3 Turn
M16 x 1.5	130 ± 30	+ 1/3 Turn
M18 x 1.5	-	-
M20 x 1.5	300 ± 50	+ 1/3 Turn
M22 x 1.5	370 ± 50	+ 1/3 Turn
M24 x 1.5	370 ± 50	+ 1/3 Turn
M27 x 1.5	400 ± 50	+ 1/3 Turn
M30 x 2	-	-
M33 x 2	-	-

UNF Imperial Thread - Grade 12.9		
Bolt Size	**Initial Pre-Torque ft-lb**	**Final Torque Additional Turn**
7/16” - 20 UNF	-	-
1/2” - 20 UNF	165 ± 15	+ 1/3 Turn
9/16” - 18 UNF	65 ± 15	+ 1/3 Turn
5/8” - 18 UNF	130 ± 30	+ 1/3 Turn
3/4” - 16 UNF	300 ± 50	+ 1/3 Turn
7/8” - 14 UNF	250 ± 50	+ 1/3 Turn
1” - 14 UNF	400 ± 50	+ 1/3 Turn
1.1/8” - 12 UNF	650 ± 50	+ 1/3 Turn
1.1/4” - 12 UNF	-	-
1.3/8” - 12 UNF	1100 ± 110	+ 1/3 Turn

NOTES: These torque settings are a guide only. Please refer to your machine manual to Confirm.

Track Bolt

Track Nut

UNDERCARRIAGE HARDWARE

ROLLER BOLTS - METRIC RANGE

Size	Part Type	Part No	Pitch	Grade
M12x70mm	Roller Bolt	M12X70X1.75P	1.75P	G10.9
M14x55mm	Roller Bolt	M14X55X2.0P	2.0P	G10.9
M14x65mm	Roller Bolt	M14X65X2.0P	2.0P	G10.9
M16x60mm	Roller Bolt	M16X60X2.0P	2.0P	G10.9
M16x65mm	Roller Bolt	M16X65X2.0P	2.0P	G10.9
M16x70mm	Roller Bolt	M16X70X2.0P	2.0P	G10.9
M16x75mm	Roller Bolt	M16X75X2.0P	2.0P	G10.9
M16x80mm	Roller Bolt	M16X80X2.0P	2.0P	G10.9
M16x85mm	Roller Bolt	M16X85X2.0P	2.0P	G10.9
M16x90mm	Roller Bolt	M16X90X2.0P	2.0P	G10.9
M18x65mm	Roller Bolt	M18X65X2.5P	2.5P	G10.9
M18x75mm	Roller Bolt	M18X75X2.5P	2.5P	G10.9
M18x80mm	Roller Bolt	M18X80X2.5P	2.5P	G10.9
M18x90mm	Roller Bolt	M18X90X2.5P	2.5P	G10.9
M18x100mm	Roller Bolt	M18X100X2.5P	2.5P	G10.9
M20x70mm	Roller Bolt	M20X70X2.5P	2.5P	G10.9
M20x90mm	Roller Bolt	M20X90X2.5P	2.5P	G10.9
M20x95mm	Roller Bolt	M20X95X2.5P	2.5P	G10.9
M20x100mm	Roller Bolt	M20X100X2.5P	2.5P	G10.9
M20x110mm	Roller Bolt	M20x110x2.5P	2.5P	G10.9
M22x100mm	Roller Bolt	M22X100X2.5P	2.5P	G10.9
M22x110mm	Roller Bolt	M22X110X2.5P	2.5P	G10.9
M22x120mm	Roller Bolt	M22X120X2.5P	2.5P	G10.9
M22x150mm	Roller Bolt	M22X150X2.5P	2.5P	G10.9
M22x75mm	Roller Bolt	M22X75X2.5P	2.5P	G10.9
M22x90mm	Roller Bolt	M22X90X2.5P	2.5P	G10.9
M24x110mm	Roller Bolt	M24X110X3.0P	3.0P	G10.9
M24x120mm	Roller Bolt	M24X120X3.0	3.0P	G10.9
M30x120mm	Roller Bolt	7X-2583	3.5P	G10.9

Roller Bolt

ROLLER BOLTS - IMPERIAL RANGE

Size	Part Type	Part No	Pitch	Grade
5/8”x2.1/2”	Roller Bolt	0S1625	11-UNC	G12.9
5/8”x2.1/4”	Roller Bolt	8S9092	11-UNC	G12.9
5/8”x2.3/4”	Roller Bolt	1A8537	11-UNC	G12.9
5/8”x3.1/4”	Roller Bolt	0S-2318	11-UNC	G12.9
5/8”x3.3/4”	Roller Bolt	0L1169	11-UNC	G10.9
3/4”x2.3/4”	Roller Bolt	ID-4608	10-UNC	G12.9
3/4”x3.1/4”	Roller Bolt	ID4610	10-UNC	G12.9
7/8”x3.1/2”	Roller Bolt	ID-4629	9-UNC	G12.9
7/8”x86mm	Roller Bolt	6T1140	9-UNC	G12.9
7/8”x5”	Roller Bolt	19H2702	9-UNC	G12.9
1”x97mm	Roller Bolt	6T1139	8-UNC	G12.9
1”x4.1/4”	Roller Bolt	ID-4640	8-UNC	G12.9
1”x7”	Roller Bolt	2438A700	8-UNC	G12.9

SPROCKET BOLTS

Size	Part Type	Part No	Pitch	Grade
M16x35mm	Sprocket Bolt	M16X35X2.0P	2.0P	10.9
M16x45mm	Sprocket Bolt	M16X45X2.0P	2.0P	10.9
M16x50mm	Sprocket Bolt	M16X50X2.0P	2.0P	10.9
M16x55mm	Sprocket Bolt	M16X55X2.0P	2.0P	10.9
M18x45mm	Sprocket Bolt	M18X45X2.5P	2.5P	10.9
M18x50mm	Sprocket Bolt	M18X50X2.5P	2.5P	10.9
M18x60mm	Sprocket Bolt	M18X60X2.5P	2.5P	10.9
M20x45mm	Sprocket Bolt	M20X45X2.5P	2.5P	10.9
M20x50mm	Sprocket Bolt	M20X50X2.5P	2.5P	10.9
M20x55mm	Sprocket Bolt	M20X55X2.5P	2.5P	10.9
M20x60mm	Sprocket Bolt	M20X60X2.5P	2.5P	10.9
M20x65mm	Sprocket Bolt	M20X65X2.5P	2.5P	10.9
M22x50mm	Sprocket Bolt	M22X50X2.5P	2.5P	10.9
M22x60mm	Sprocket Bolt	M22X60X2.5P	2.5P	10.9
M22x65mm	Sprocket Bolt	M22X65X2.5P	2.5P	10.9
M22x70mm	Sprocket Bolt	M22X70X2.5P	2.5P	10.9
M24x60mm	Sprocket Bolt	M24X60X3.0P	3.0P	10.9
M24x70mm	Sprocket Bolt	M24X70X3.0P	3.0P	10.9
M24x75mm	Sprocket Bolt	M24X75X3.0P	3.0P	10.9
M30x90xmm	Sprocket Bolt	J833090	3.0P	10.9

UNDERCARRIAGE HARDWARE

SEGMENT BOLTS & NUTS - METRIC RANGE

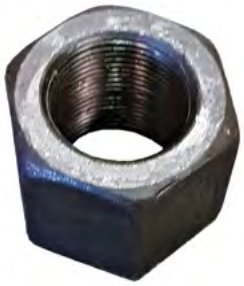
Size	Part Type	Part No	Pitch	Grade
M18x61mm	Segment Bolt	931861	1.5P	12.9
M18	Segment Nut Hex	960118	1.5P	12.9
M20x64mm	Segment Bolt	295-7802	1.5P	10.9
M20	Segment Nut Hex	8T-3573	1.5P	12.9
M22x71mm	Segment Bolt	932271	1.5P	12.9
M22	Segment Nut Hex	960122	1.5P	12.9
M24x80mm	Segment Bolt	932479	1.5P	12.9
M24	Segment Nut Hex	962401	1.5P	12.9
M24x90mm	Segment Bolt	195-27-12630	1.5P	12.9

SEGMENT BOLTS & NUTS - IMPERIAL RANGE

Size	Part Type	Part No	Pitch	Grade
5/8”x1.7/8”	Segment Bolt	941054	18-UNF	12.9
5/8”x2.7/64”	Segment Bolt	941057	18-UNF	12.9
5/8”	Segment Nut Hex	960310	18-UNF	12.9
3/4”x2.3/8”	Segment Bolt	3S0336	16-UNF	12.9
3/4”x2.1/2”	Segment Bolt	941268	16-UNF	12.9
3/4”	Segment Nut Hex	960312	16-UNF	12.9
7/8”x2.9/16”	Segment Bolt	9S2727	14-UNF	12.9
7/8”x3”	Segment Bolt	941464	14-UNF	12.9
7/8”	Segment Nut Hex	960314	14-UNF	12.9
1”x3”	Segment Bolt	5P0233	14-UNS	12.9
1”x92mm	Segment Bolt	5P-5422	14-UNF	10.9
1”	Segment Nut Hex	2M-5656	14-UNF	12.9

Sprocket Bolt

Segment Bolt



Segment Nut

Split Master Link Bolt torque settings

PRE-TORQUE PLUS ADDITIONAL 1/3 TURN METHOD

Metric Thread - Grade 12.9		
Bolt Size	**Initial Pre-Torque ft-lb**	**Final Torque Additional Turn**
M12 x 1	-	-
M14 x 1.5	185 ± 18	+ 1/3 Turn
M16 x 1.5	130 ± 30	+ 1/3 Turn
M18 x 1.5	-	-
M20 x 1.5	300 ± 50	+ 1/3 Turn
M22 x 1.5	370 ± 50	+ 1/3 Turn
M24 x 1.5	370 ± 50	+ 1/3 Turn
M27 x 1.5	400 ± 50	+ 1/3 Turn
M30 x 2	-	-
M33 x 2	-	-

UNF Imperial Thread - Grade 12.9		
Bolt Size	**Initial Pre-Torque ft-lb**	**Final Torque Additional Turn**
7/16" - 20 UNF	-	-
1/2" - 20 UNF	165 ± 15	+ 1/3 Turn
9/16" - 18 UNF	65 ± 15	+ 1/3 Turn
5/8" - 18 UNF	130 ± 30	+ 1/3 Turn
3/4" - 16 UNF	300 ± 50	+ 1/3 Turn
7/8" - 14 UNF	250 ± 50	+ 1/3 Turn
1" - 14 UNF	400 ± 50	+ 1/3 Turn
1.1/8" - 12 UNF	650 ± 50	+ 1/3 Turn
1.1/4" - 12 UNF	-	-
1.3/8" - 12 UNF	1100 ± 110	+ 1/3 Turn

NOTES: These torque settings are a guide only. Please refer to your machine manual to Confirm.

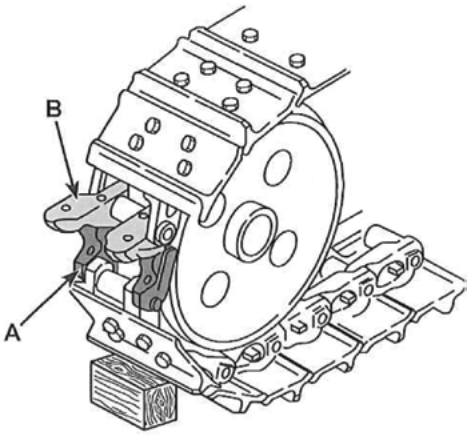
Split master link joining Instructions

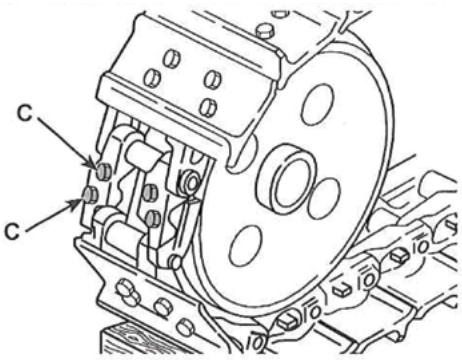
FOR SALT TYPE DOZER CHAINS THAT HAVE AN ALLIGATOR STYLE JOINING LINK

WARNING

Install the new track chain according with safety precautions and procedures explained in your machine Operation and Maintenance Manual and/or Service and Repair Manual.

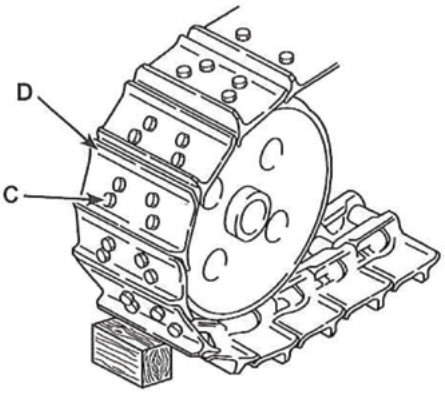
Failure to follow these recommendations and instructions could result in damages to your machine and track chain components





IMPORTANT NOTES

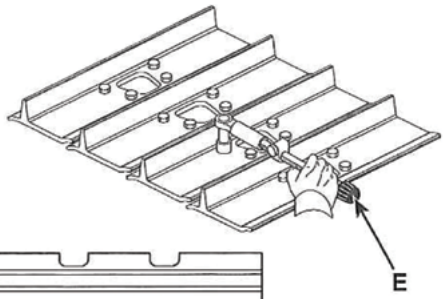
- **Remove all grease or foreign matter from the bolt holes**
- **Remove all paint from mating surfaces of the links and shoes**
- **Ensure bolts are clean and apply anti-seize compound to the threads**



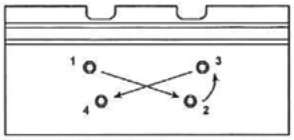
1. Engage the master links (A) & (B) and check the bolt hole alignment. Screw in the four bolts (C) without fitting the shoes (the bolts must go easily in by hand). Do not force the track bolts into misaligned holes; damage to bolt and link threads will occur.

2. Remove the four bolts (C).

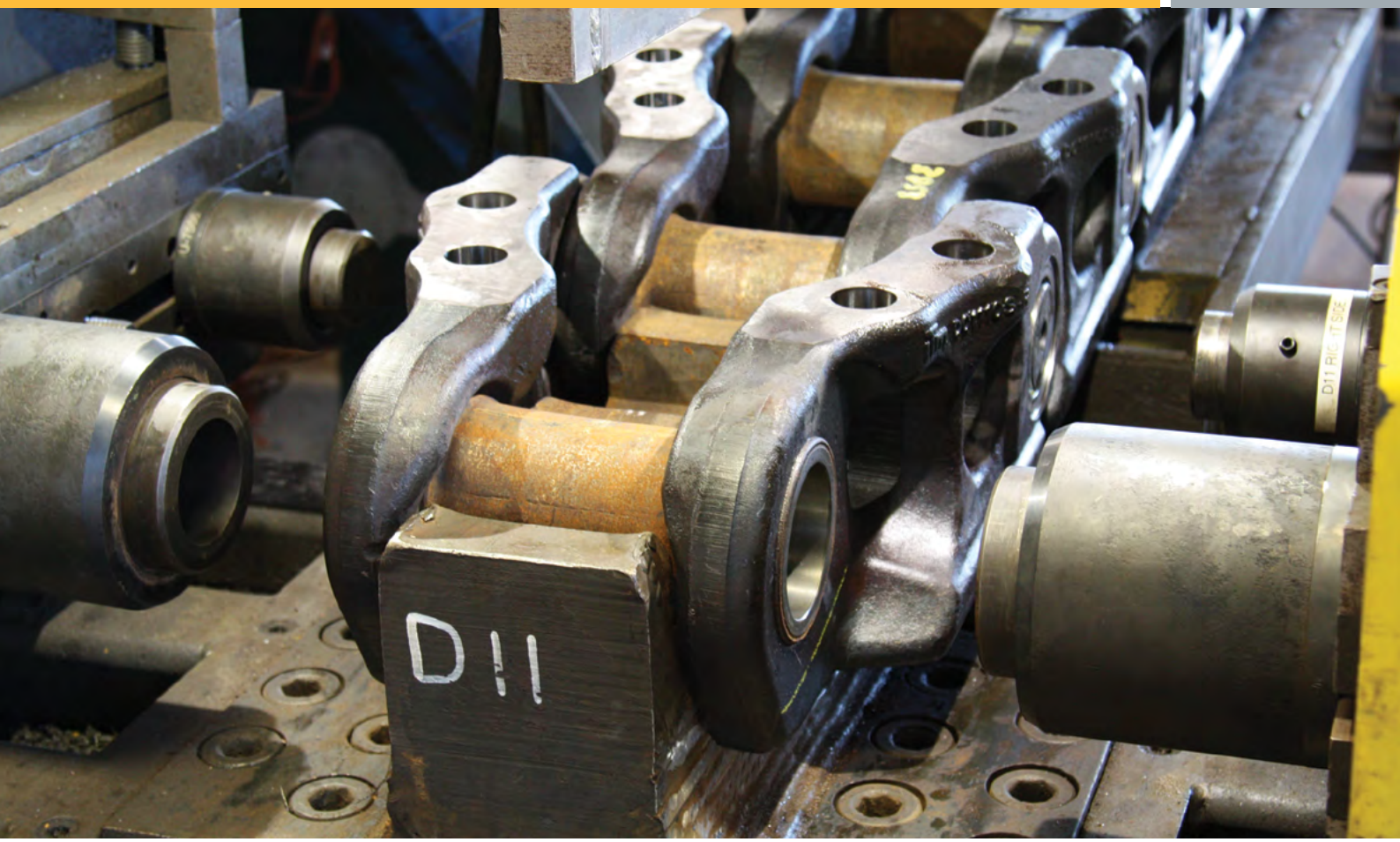
3. Position the track shoe (D) on the master link by aligning the bolt holes, then screw up all four bolts (C) fully by hand. Check that the split master link mating faces remains precisely aligned.



4. Use a suitable torque wrench (E) to tighten the four bolts (C). Tighten the bolts in order 1 to 4 as shown.



5. After installation, check the master shoe bolts (C) tightening torque after the first 100 machine working hours and again after 500 working hours.



Pin & bush turns

TRACK RE-BUILDING IS A GREAT WAY TO GET MORE FROM YOUR CHAINS & SHOES

Keeping your tracks properly maintained and in top working order is critical for getting the longest possible service life & return on investment.

With a 200 tonne hydraulic track press at our Auckland branch & a 400 tonne track press in Westport, we can service up to D11/D475 size Bulldozer SALT chains and 200 tonne size Excavator chains, for pin and bush turns and other repairs.

The track rebuild process involves removing the track shoes, disassembling the chain and carefully inspecting each & every track component for excessive wear or damage.

The chain is then assembled back togther by fitting post turn seals, turning the bushes around 180 degrees, refilling the pins with oil & refitting the track shoes.

It is recommended for large Dozer Chains to have a mid-life pin & bush turn to maximise the useful service life of the chains and ensure even wear rates of the chain components. Our team of experienced Undercarriage technicians have the know-how to deliver a complete roll off roll on, hassle free rebuild service you can rely on.

Get in touch with West-Trak for your pin & bush turn needs today! 0800 654 323

UNDERCARRIAGE SERVICES

Track shoe re-lugging

INCREASE TRACTION WITH GROUSER RELUG BAR WELDED ON YOUR TRACK SHOES

Extend your track shoe life & get more grip, with Grouser Relug Bars welded on. This bar is a quick and effective way to rebuild your old shoes or enhance your new shoes to maximise traction for any application.

The lug height of your shoes is an important factor for track shoe strength & machine performance. Different patterns of grouser bars can be fitted to any size Excavator or Dozer shoes.

Forestry machines require extended lug heights to help stick to the slopes, safely. Bull-dozers need to maintain a high lug height to ensure good pushing performance.

Grouser Bar is made from 450HB hardened wear steel and is available in 3000mm long lengths or cut to any size. We stock a huge range of profile sizes to fit all track shoes. Send us your shoes for rebuilding today.

Track group bolt-ups

GET YOUR CHAINS & SHOES BOLTED TOGETHER, READY TO ROLL AS A TRACK GROUP

Stay on track for longer with less hassle, less downtime! We make it easy by supplying your choice of track shoes bolted to your chains, so you can roll off the old, roll on the new & keep on tracking.

Don't take the risk of your shoes coming loose when you're hard at work. Our trained Undercarriage technicians and engineers ensure the right shoe-chain fitment & correct bolt torque settings are applied.

With our hydraulic nut runners & roller beds based at our Auckland & Westport branches, we offer a fast and efficient shoe fitment and shoe swap service, nationwide.

We stock a huge range of track shoes and chains, available for all makes & models of Excavators & Dozers. Get in touch with us today for your next Track Group!.

UNDERCARRIAGE SERVICES

Track measuring & reporting

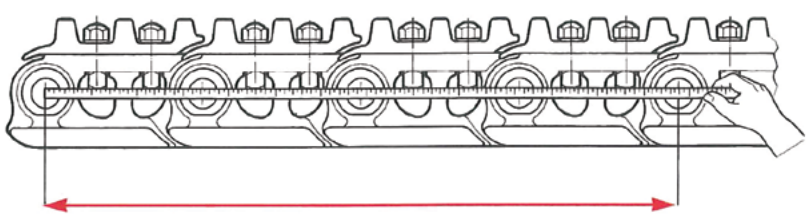
We know wear, we know Track Gear! We'll help you stay on track and increase uptime of your Excavators and Dozers by monitoring and measuring the performance of your entire Undercarriage system. Don't get caught out with unexpected break downs and downtime.

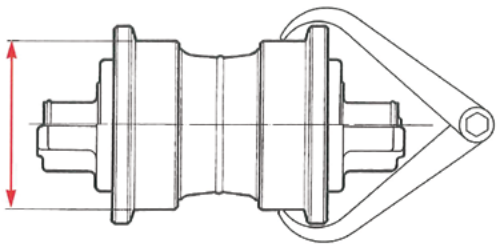
Lack of Undercarriage management can account for more than half of a machine's maintenance costs and Track Gear replacements can be the second largest expense after your machine purchase, so it's important to keep an eye on your Undercarriage performance, to maximise return on investment.

Our experienced team of track technicians come to you with a range of measuring tools and technology to check and inspect your wear performance. They'll measure the individual Track components to determine remaining service life and look for any potential issues that need repairing or replacing.

Supported by our huge database of product drawings, and wear limit measurements, we'll provide the right advice to keep you on track.

This service will help you to plan for upcoming maintenance repairs or replacements and ensures you get the best possible wear life from your Track gear.





TRACK MEASURE UP FORM

You can use this page to check the critical wear measurements of each Undercarriage Component. Copy the page and fill out the information below. You can email to **sales@west-trak.co.nz** and we will advise the remaining service life percentage

Company Name: ..... Contact person: .....

Phone: ( ) ..... Mobile: .....

Email: ..... Machine Model: .....

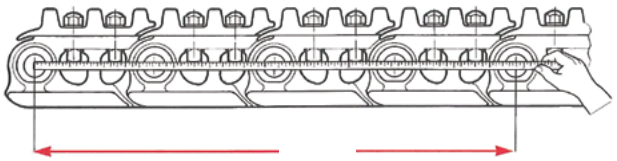
Serial No: ..... Hours at time of inspection: .....

Please record all measurements below in millimetres (mm). Please note for Excavators - the sprockets should be facing the back of machine to accurately define the R/H and L/H sides.

Chain stretch (Measure 4 sections of links)

R/H: ..... L/H: .....

Brand: ..... Part No: .....

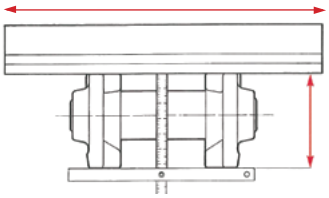


Shoe Width:

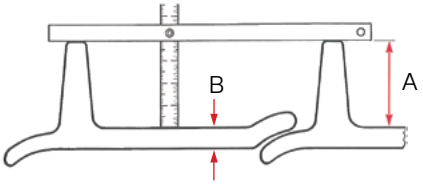
.....

Number of Shoes:

.....



Rail Height R/H: ..... L/H: .....

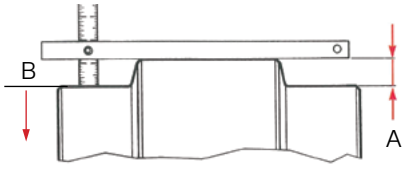


Shoe Lug Height (A) R/H: ..... L/H: .....

Shoe Thickness (B) R/H: ..... L/H: .....

Idler Diameter (B):

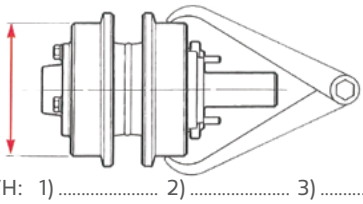
.....



Front Idler Flange (A) R/H: ..... L/H: .....

Rear Idler Flange (B) R/H: ..... L/H: .....

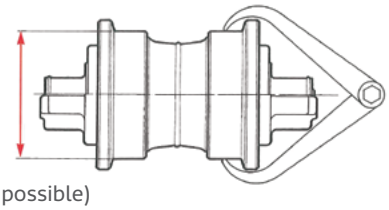
(High Track Dozers)



Top Roller Diameter R/H: 1) ..... 2) ..... 3) .....

Top Roller Diameter L/H: 1) ..... 2) ..... 3) .....

(Measure from sprocket end)



List Roller Brand(s) (if possible)

.....

Track Roller diameter R/H (Measure from sprocket end)

1) ..... 2) ..... 3) ..... 4) ..... 5) .....

6) ..... 7) ..... 8) ..... 9) ..... 10) .....

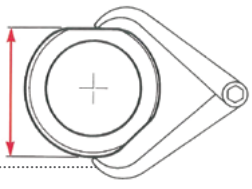
Track Roller diameter L/H (Measure from sprocket end)

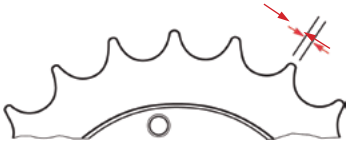
1) ..... 2) ..... 3) ..... 4) ..... 5) .....

6) ..... 7) ..... 8) ..... 9) ..... 10) .....

Outside Bushing Diameter:

R/H: ..... L/H: .....





Width of Sprocket Tip:

R/H: ..... L/H: .....

Number of Holes: .....

Number of Teeth: .....

Tips for new undercarriage installations

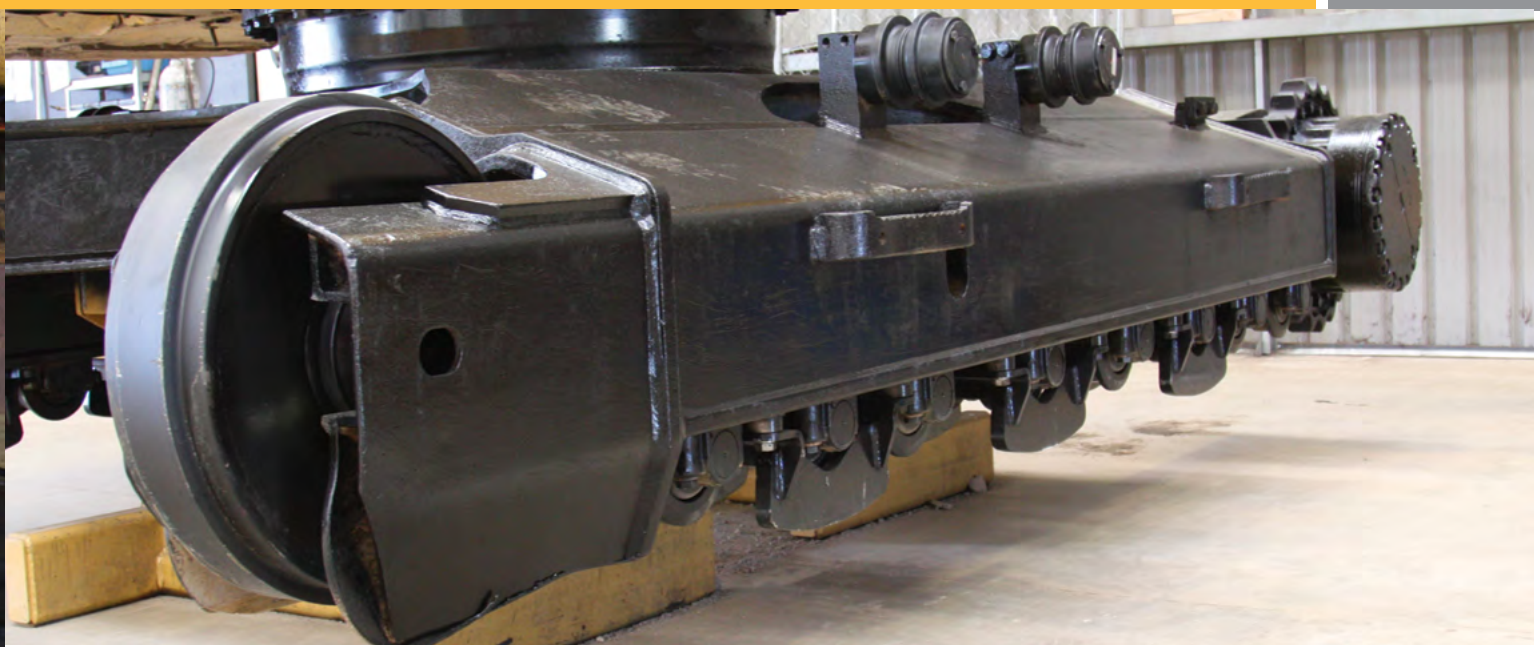
A NUMBER OF PRODUCT SELECTION, OPERATIONAL AND MAINTENANCE THINGS CAN BE DONE TO HELP PROLONG THE SERVICE LIFE OF YOUR UNDERCARRIAGE

TRACK ROLLERS & IDLERS

- Avoid mixing new and old track rollers on the same side as this will overload the new ones because they sit lower than the worn ones, therefore taking a lot of extra weight
- If not replacing all new bottom rollers, it is recommended to fit all the old/worn rollers on one side and all the new ones on the other side. This helps keep even pressure on each roller without overloading individual ones
- When replacing new rollers and idlers, do not travel long distances without stopping the machine frequently as they could overheat and seize. Stop every 4-5 minutes and go the opposite direction to help circulate the oil. This is standard precaution for the first 100 hours

CHAINS BUNCHING UP

- While there is no one reason for this to happen, it can be caused by wet working conditions or the machine sitting stationary for long periods, and moisture gets in causing seizure of the seals. Pressing out the affected track pins, re-greasing the bush & re-fitting the pins can help to fix this issue
- This can also be caused by putting bent grouser shoes onto new chains in a different order than they came off especially on wider shoes - 700 - 900mm. Bent shoes can catch or lock into each other, preventing the Chain to move freely. Track bolts may also be breaking if this happens



FITTING DOZER CHAINS THE CORRECT WAY

- With Dozer chains, the grouser shoe lug goes closest to the front of the machine when looking at the top of the chains

FITTING EXCAVATOR CHAINS THE CORRECT WAY

- The open end of the chain goes under the bottom rollers and over the sprocket end first

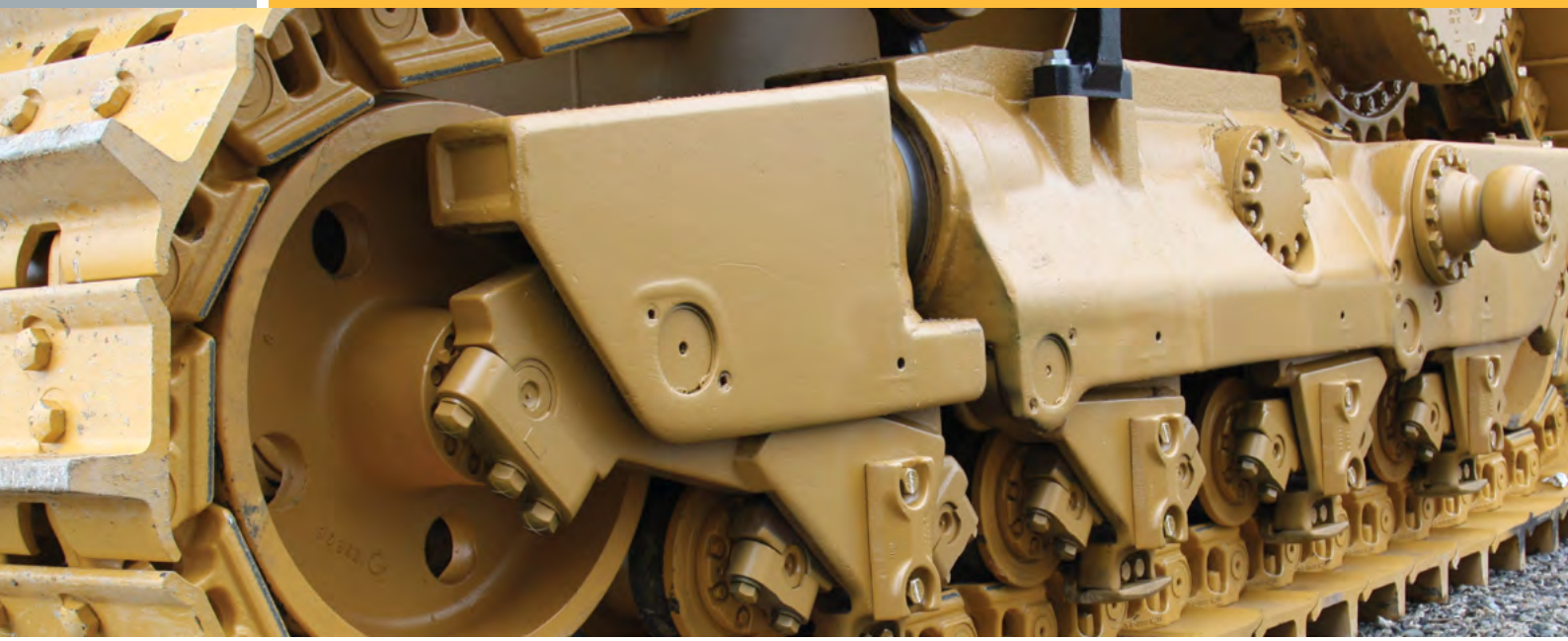
GROUSER SHOES

- Always use the narrowest shoe possible for adequate flotation. The wider the shoes, the less life you will get out of the chains
- Always grind paint, scale or surface rust off shoes and chains when fitting. These must be metal to metal contact, otherwise the bolts will come loose and shoes may fall off

CHAINS JUMPING ON THE SPROCKETS

- If the chains are slipping or jumping on the sprockets, it can mean the sprockets are very worn. If the chains and sprockets are new, it may be the track adjuster spring is broken causing it to retract and loosening the chain tension
- Some sprockets are offset and will only fit one way; they could be on incorrectly and running into the side rails of the chains and not in the centre.
- Sprockets could be the wrong pitch for the chains or vice versa
- Worn track roller flanges can cause the chain to waver out to the side and become misaligned with the sprocket. Track guards will help to prevent this issue

- Mud holes in shoes are to stop 'material packing' inside the chains under the plates. When the chain passes around the sprocket, the sprocket teeth will push the dirt out. Very necessary in coal, muddy, swampy, forestry and landfill conditions



Tips to make your undercarriage last longer

CHOOSING HEAVY DUTY, GREASE FILLED AND POLY SEALED EXCAVATOR CHAINS WILL:

- Extend external bush wear up to 20%
- Reduce internal bush wear up to 25% compared to dry chains
- Reduce undercarriage noise for operator comfort

CHOOSING THE NARROWEST SHOE POSSIBLE, WITH GOOD FLOTATION WILL:

- Minimize internal wear on pins and bushes
- Reduce shoe wear and prevent bending or cracking
- Reduce stress and wear on the entire undercarriage system

MINIMIZE REVERSING

- Excavator and Dozer chains are designed to operate with less wear when travelling forwards. Excessive reverse travel can cause faster undercarriage wear. The extra power required when reversing will also increase fuel consumption

ALWAYS DIG OVER YOUR IDLERS

- It's important to note for excavator operation that digging over your sprockets will increase bush wear and possibly cause pin and bush cracking. Always dig over your idlers as the weight is on the chain links and not directly on the pins and bushes.

CORRECT CARE AND MAINTENANCE WILL INCREASE SERVICE LIFE

- Ensure the correct track adjustment is maintained - check this regularly after installing a new set of undercarriage
- Measuring and monitoring of track components is important to determine any wear issues - especially in abrasive and high impact conditions
- Keep the undercarriage components as clean as possible at all times. If you allow the tracks to pack or build up with dirt, mud, dust and other ground products it will lead to increased wear rates, percieved lower power and increased fuel usage

KNOW YOUR WORKING CONDITIONS

- Consider the conditions where your equipment is operating as this can be a major contributor to wear. High impact, abrasive or sandy materials on a wet site, will contribute to faster undercarriage wear
- In the past it was accepted in an abrasive environment that you would simply run SALT type dozer tracks to destruction, then replace them. Now the preferred option is to carry out regular inspections and do a mid-life pin and bush turn (turning the pins and bushes 180 degrees) to get longer service life

MAINTAIN GROUSER SHOE LUG HEIGHT

- Keeping a good lug height on your Grouser shoes will ensure proper traction and help reduce track slippage. A spinning track under load will increase the wear rate of your undercarriage system. Grouser relug bars can be used to build up your worn shoe lugs and maximise traction

Grouser Shoes

- The most important wear is the relative height of the grouser lug from the top of the shoe. A depth gauge is used to measure this

---

ACCELERATED WEAR OF OVERLAPPING SURFACES

- This is normally caused by a worn snaking chain and is eliminated by tightening or replacing the chains

---

SEVERE WEAR OF THE END OF THE GROUSER

- This is especially noticeable on single bar grousers and is usually caused by using shoes too wide for the type of ground the tractor is operating on. The use of a narrower shoe will eliminate this problem

---

BENDING AND CRACKING

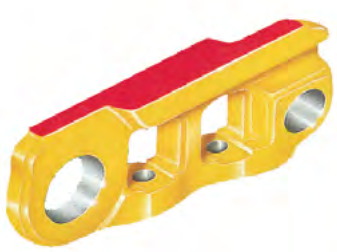
- This is due to excessive impact or stress on the shoes. The use of narrow shoes or Extreme Service (ESS) shoes will help prevent this happening

---

ENLARGED BOLT HOLES

- This is caused by movement between the chain and shoe due to loose bolts or machine motion
- Reduced shoe size or the use of shoes with less penetration (i.e. double or triple grousers) and accurate control of the bolt torque will help prevent this happening

Track Links



- The normal wear area on track links is on the surface that contacts the rollers and idlers

---

EXCESSIVE SIDE RAIL WEAR

- Besides the operational conditions, steep ground or frequent sudden turns, this wear could be caused by track misalignment, excessive chain snaking or worn chains

---

INDENTATIONS ON INTERNAL SURFACE OF RAIL

- This is caused by the sprocket teeth rubbing on the inside of the link because of sloping ground, misaligned sprocket and chain or a severley bent chain. Adjust chain tension and check alignment

---

PIN BOSS SIDE WEAR

- This is caused by contact with the outside flange of the bottom track rollers. Should it occur before 100 percent of the link wear then it means the rollers are beyond their useful life and should be replaced

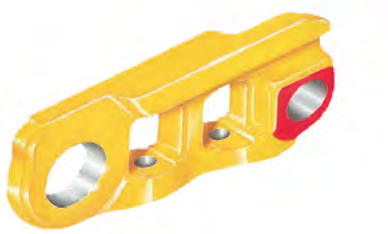
---

EXCESSIVE FACE WEAR

- This wear is caused by snaking of the links or highly abrasive working conditions
- The use of track guards or fitting of lubricated SALT type chains can reduce this wear

Track Links

PIN BOSS WEAR FROM TRACK GUARDS



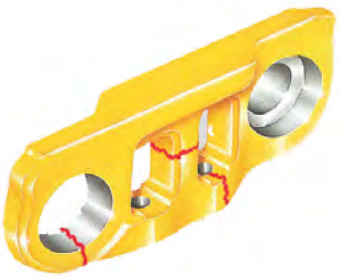
- This results from excessive snakiness of the chain rubbing against the track guards. Worn bottom rollers & working on steep slopes can be the cause.
- Check sprocket alignment and rotate some rollers will help

RAIL CORNERS GOUGED

- Caused by severe shock loads usually transmitted by the rollers to links
- Besides operating conditions (heavy work, speed, weight and power of machine) the situation can be aggrevated by the size of the shoes and/or track tension.
- A remedy could be to reduce the shoe size and/or adjust the chain tension

---

CRACKS OR BREAKAGES OF THE MOST STRESSED AREAS



- Most breakages are caused by tortional stress transmitted to the link structure when the machine is used in a severe impact application
- To reduce this failure, narrower shoes can be used and the chain tension regularly adjusted

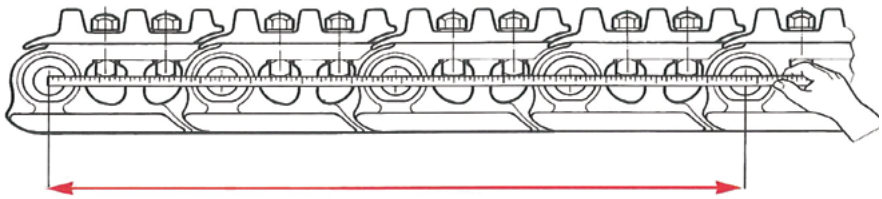
---

BUSHING COUNTERBORE AND PIN BOSS DEFORMATION

- If this is not caused by incorrect tooling being used when assembling or disassembling the chain, then it is caused by bending stresses in the pins and bushes
- This problem can be reduced by fitting smaller shoes and by having the correct chain tension

Pins & Bushes
grease filled type

- The internal pin and bush wear on greased and sealed chains is measured by the chain stretch. This is done by measuring the pin centres over 4-5 links and comparing to new chain specs.

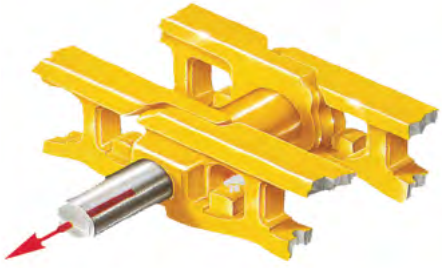


WORN PIN END

- Besides the obvious factor of hillside operation and uneven ground, this type of wear is caused by incorrect chain tension and roller wear
- If chain elongation has not reached the limit, then adjust chain tension and rotate some rollers
- If this pattern of wear starts immediately after installing a new undercarriage, then check position of the track guards is not too close to the chain

LOOSE PINS

- If there is no obvious fault such as incorrect assembly or disassembly, then this can be caused by bending stresses during heavy operation of the machine
- To eliminate this, replace any worn shoes, check bolt tension and/or fit narrower shoes



Pins & Bushes
grease filled type

EXTERNAL BUSHINGS

- Wear is caused at the point of contact between the bushing and the sprocket tooth. To measure this wear, use a small outside calliper

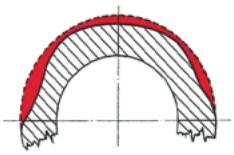
CRACKING OR BREAKING OF SURFACES IN CONTACT WITH SPROCKET

- Due to excessive wear either externally or internally, will allow the bush to break
- It could also be caused by to heavy working conditions or packing sprockets. To reduce this effect, check and adjust chain tension and use track shoes with mud holes in.

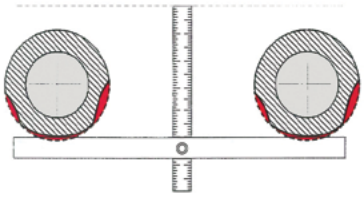
PIN BREAKAGES

- Main cause of this failure is extreme shock or high static loads which occur when the machine works on rocky ground and/or when material packs in the sprocket causing extreme tension on the track chain
- Protect the track chain and sprocket from material packing under the shoes by using shoes with mud holes in

Pins & Bushes
oil filled S.A.L.T type



- The normal bush wear is on the external surface. The bushing wears evenly and should be measured in the centre of the wear area
- One way to measure external wear is to evaluate the distance from the underside of the shoe (top of link) to the centre of the wear area on the bushing
- A depth gauge or ultrasonic wear indicator tool can be used.



PIN GALLING

- This is due to interference between the pin and bushing in the press fit contact areas and is caused by fine abrasions getting in or the pins bending under load
- This effect is of no consequence for greased chains and the pin can be reused. However for oil filled S.A.L.T chains this may damage the seals causing oil to leak. The pins should not be reused.

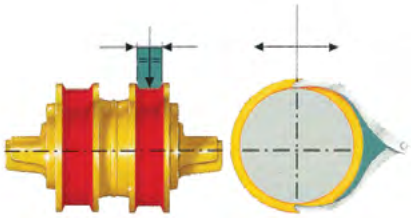
PIN SPALLING

- All spalling is due to large bending stresses in heavy working conditions
- Besides the application of the machine, this can be caused by excessive chain tension due to build up and packing of material
- Adjust the chain correctly and protect against packing of rocky material between chain and sprocket by using track shoes with mud holes in.

Lower Track Rollers

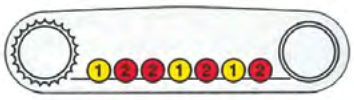
- The tread wear of the roller is most important and is measured on the roller diameter. The most suitable tool is a large outside calliper.

- The correct measurement is to take the least diameter of either tread on the roller which will be the one with the highest wear. Because of the difficulty in measuring the rollers on the machine, it is usaully sufficient to measure the front (nearest idler) and back (nearest sprocket) roller as the greatest wear occurs at these two points due to the rocking action of the machine

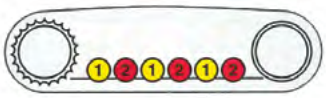


EXCESSIVE SIDE FLANGE WEAR

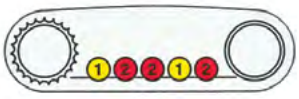
- Besides operational conditions, this wear can be caused by misalignment of excessive slackness of the chain



- If the rollers have not reached their wear limit, then adjust the chain tension and rotate some of the rollers



- It should be noted that double flange rollers have a longer life and the correct sequence of double and single flange rollers is important



- If longer life is required due to the operating conditions, then more double flange rollers can be fitted

---

TOP FLANGE DEFORMATION

- This is caused by contact of the link pin boss or due to the chain sliding over the flanges because of exceptional wear of the chain rails or bottom roller wear

Top Carrier Rollers

- The normal wear condition can be measured as for the bottom rollers. Other wear patterns are analysed below

---

EXCESSIVE FLANGE SIDEWEAR

- This can be caused by hillside operation, using special offset grousers, and incorrect alignment or track tension
- To increase the roller life, align carrier rollers with idler and sprocket and rotate top rollers if more than one are fitted to the machine

---

FLAT SPOTS AND IRREGULAR WEAR

- This is usually caused by material packing under the top carrier roller and restricting its rotation
- Rollers should be cleaned and all material removed regularly

Idlers

- Radial tread wear is the most important wear factor. The easiest method of measuring tread wear is to measure the depth of the tread from the centre of the idler flange.
- Check the idler flange has not worn from the original diameter, before comparing wear rates

EXCESSIVE FLANGE SIDEWEAR

- The main causes of this wear is abrasive soil conditions, hillside operation or excessive turning
- Other factors influencing side wear can be incorrect roller alignment or chain tension
- To reduce side wear to a minimum, make sure the correct chain tension is used and the idler is correctly aligned in the track frame or use track guards.

TOP FLANGE WEAR

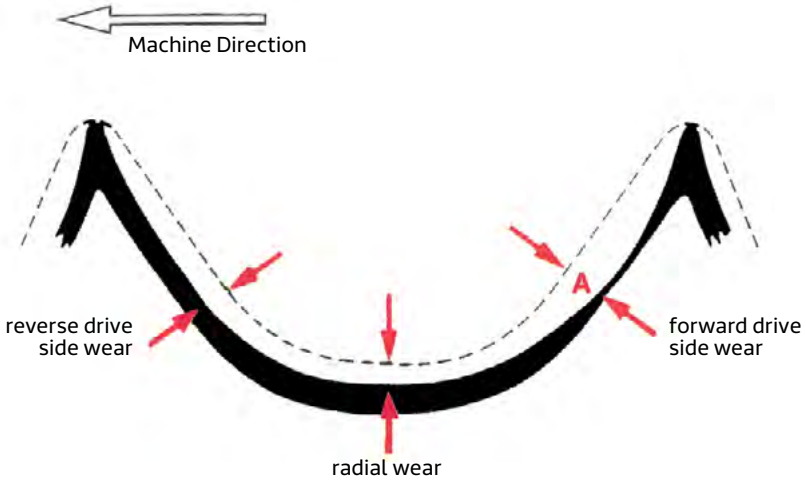
- Usually caused by material packing under the chain rails or excessive idler tread wear. To eliminate this, make sure that the chain is correctly adjusted, check the idlers are not worn or use track shoes with mud holes in.

Idlers

TREAD CRACKING AND SPALDING

- This can be caused by high impact loads due to heavy working conditions or by excessive wear of the idler
- The condition of the chain can also contribute to the effect
- Unfortunately the factors which lead to the breakdown of the idler can not be controlled and therefore the only remedy will be not to exceed the wear limits of the idler or any of the undercarriage components

Sprockets & Segments



- If chains are jumping on the sprockets, check chains are on the correct way and check the pitch of chains and sprockets are the same. If worn sprockets are doing this they are due for replacement
- Sprocket wear measurement is one of the most difficult to take. Under normal conditions of work, the wear occurs in such a way that no trace of the original toothing remains as a valid reference to base measuring the wear on
- Consequently it is not possible to get the exact data and for any evaluation, it is always necessary to refer to an unused sprocket of the same type
- As a general rule, the sprocket has to be replaced or rerimmed when the wear line reaches the limits as outlined in the figure above
- Due to the fact that the wear is never even, the point where there is major wear must be considered

CRAWLER CRANE UNDERCARRIAGE

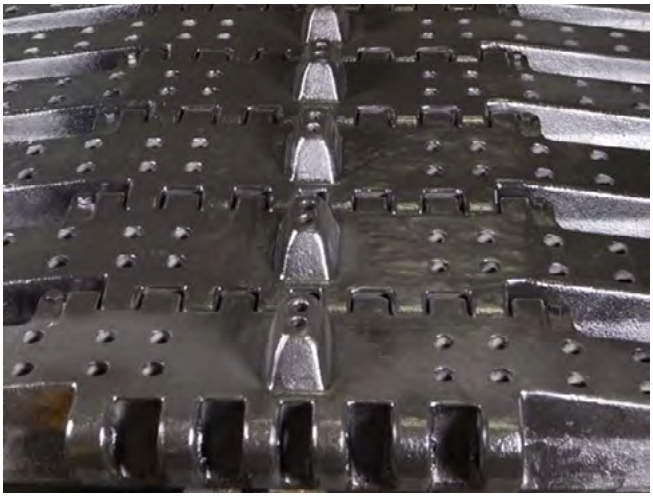
A LARGE RANGE OF HIGH QUALITY TRACK PARTS ARE AVAILABLE FOR MOST MAKES & MODELS OF LARGE CRAWLER CRANES, EARTH DRILLS & PILE DRIVERS

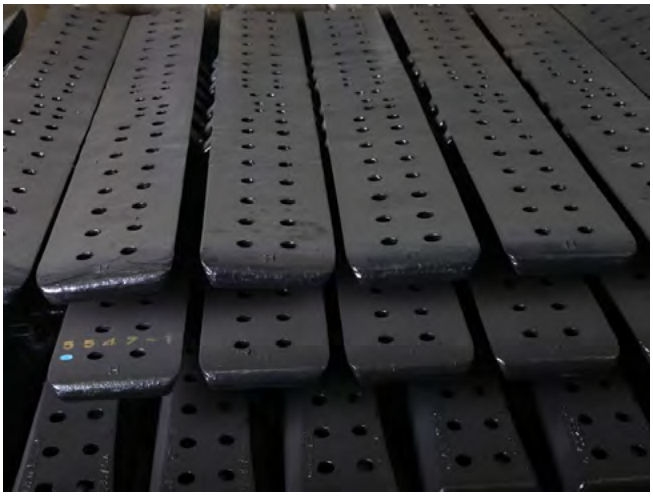
Crane Make	Crane Model
HITACHI	KH70, KH100, KH100-1,KH100D,KH125, KH125-2, KH125-3, KH150, KH150-2, KH150-3, KH180, KH180-2, KH180-3, KH230, KH230-3, KH250HD, KH300, KH300-2, KH300-3, KH500-2, KH500-3, KH700-2,KH850,KH850-3, KH1000,U106A,TH55, CX300, CX350, CX500, CX550, CX650, CX700, CX900, CX1000, CX1100, CX1800, CX2000, PD7, PD100, CD1500, CD2000 etc.
SUMITOMO	SC350, SC400, SC400-2, SC500, SC500-2, SC500-3, SC550-2, SC650, SC650-2, SC650DD-2, SC650-3, SC700, SC700-2, SC800, SC800HD,SC1000, SC1000-2, SC1500-2, LS78RH, LS78RM, LS78RH5, LS78RHD5, LS98, LS108RH5, LS100C, LS118RH3, LS118RH5,LS118RH6, LS118RM, LS120RH5, LS138H, LS138RH5, LS208H, LS218H, LS218RH5, LS238RH2, LS238RH3, LS238RH5, LS248RH5, LS458HD, LS468HD, LS518, LS528, LS528-S, SD205, SD307, SD407, SD510, SD610 etc.
HITACHI-SUMITOMO	SCX300, SCX300-C, SCX400, SCX500, SCX550E, SCX700, SCX700-2, SCX700HD, SCX800, SCX800-2, SCX800HD, SCX800HD-2, SCX900, SCX900-1, SCX900-2, SCX900HD, SCX900HD-1, SCX900HD-2, SCX1000, SCX1200, SCX1200-2, SCX1200HD,SCX1200HD-2, SCX1500, SCX1500-2, SCX2000, SCX2000HD, SCX2500, SCX2600, SCX2800-2, SCX3500, CX5000(CT10000), SCX6500(CT12000), 6000SLX, 6000SLX(SL-N), 6000SLX(SL-T), 218HSL, SDX207 etc.
KOBELCO	P&H60P, P&H70P, P&H75P, P&H100P, P&H315, P&H320, P&H325, P&H330, P&H335, P&H335AS, P&H345, P&H440, P&H550A, P&H550-1, P&H550-2, P&H550S, P&H5035, P&H5045, P&H5055, P&H5100, 7035, 7045, 7050, 7055, 7065, 7070, 7080, 7090, 7100, 7120, 7150, 7200, 7250, 7250-2,7300, FS80, FS90, BM500, BM600, BM650, BM700, BM700HD, BM750, BM800, BM800HD, BM900, BM900HD, BM1000HD,BM1200, CKS600, CKS2500, CKE600, CKE700, CKE700-1, CKE800, CKE850, CKE900, CKE1000, CKE1100, CKE1350, CKE1800, CKE2000, CKE2500, CKE2500-2,CK800,CK850, CK1000, CK1000G, CK1600, CK2000-2, CK2500, SL4500, SL6000, TK350, TK750, TK550, etc.
IHI	CH350, CH500, CCH250W, CCH280W, CCH300T, CCH350, CCH350-D3, CCH400, CCH500, CCH500-2, CCH500-3, CCH500-T, CCH550, CCH650, CCH700, CCH800, CCH800-2, CCH1000, CCH1000-5, CCH1200, CCH1500, CCH1500HDC, CH1500-2, CCH1500E, CCH2000, CCH2500, CCH2800, DCH650, DCH700, DCH800, DCH1000, DCH1200, DCH6020,DCH15030,DCH2000, K300, K400A, K400B, K1000, etc.
MANITOWOC	2900wc, 3900, 4100, 8500, 10000, 12000, 14000, 777S2, 888, 16000 BRS, 3000, 888 II, etc
LIEBHERR	LR1100, LR1550, LR1280, LR1300, LR1600, LR1650,LR1750,HS852HD, HS853HD, HS855HD, HS871HD, HS872HD, HS873HD, HS875HD, HS882HD, HS883HD, HS885HD, etc.

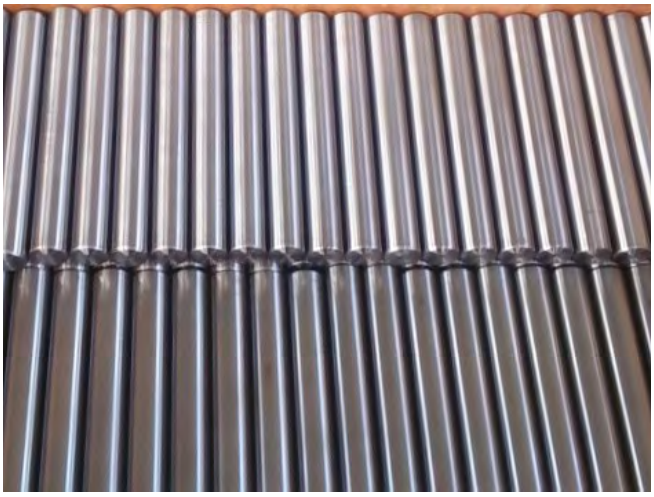
Parts for other models not listed here may be available on request.

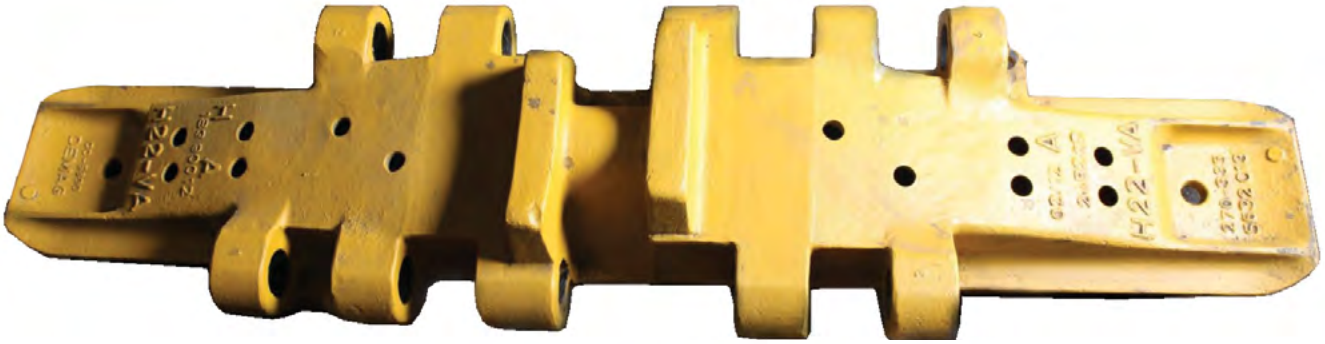
CRAWLER CRANE UNDERCARRIAGE

CRANE MONO BLOCK TRACK SHOES & PIN RANGE









CRANE SPROCKET RANGE

CRAWLER CRANE UNDERCARRIAGE

CRANE IDLER & ROLLER RANGE

NOTES

NOTES

NOTES

DELIVERING THE SOLUTIONS YOU NEED TO STAY PRODUCTIVE

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sales@west-trak.co.nz

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