



# FORESTRY ENGINEERING



Serving the Forest Industry  
since 1924

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Lubrication** 32 - 49

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# HARVESTER

## Centre of Excellence



2013 saw the creation of the new Oregon Harvester division dedicated to the design, development and marketing of Oregon Harvester products worldwide. Clark Engineering was appointed the world's first Oregon Harvester Centre of Excellence.

The Oregon Harvester Centre of Excellence dealer programme has now been rolled out worldwide, with partner companies appointed in major timber harvesting countries to hold stocks of Oregon Harvester products, promote all aspects of the product and support the customer with sales and technical knowledge.



# Harvester

Harvester

Bars & Chain  
Sprockets  
Sharpening & Grinders  
Bar Maintenance  
Delimiting Knives  
Feed Wheels  
Urea Spray  
Chain Lubricant & Oil



# Oregon SpeedMax XL Harvester Bar

**NEW**



## SpeedMax XL - The New Generation of Harvester Bars

- Larger 14 Tooth Nose Sprocket for a 20% Reduction in Sprocket R.P.M.
- Stronger, Wider Bar Body for Strength and Reduced Vibration
- Extended Length Precision Fit Replaceable Nose
- Fully Hardened Bar Rails
- Industrial Strength Nose Wheel Bearings
- Lubritec Oil System

**OREGON**®



Speedmax XL  
The New  
Generation of  
Harvester Bars

# SpeedMax XL... The New Generation of Harvester Bars



Oregon Speedmax XL RSN Solid Harvester Bar (10mm Slot)

Length of Bar	Narrow Tail 2 Hole Mount	Narrow Tail 4 Hole Mount	Wide Tail 2 Hole Mount	Wide Tail 4 Hole Mount
54cm	542SMRQ104	-	-	-
59cm	592SMRQ104	-	-	-
64cm	642SMRQ104	642SMRQ114	642SMRR104	-
75cm	752SMRQ104	752SMRQ114	752SMRR104	752SMRR114
80cm	802SMRQ104	802SMRQ114	-	802SMRR114
90cm	-	902SMRQ114	-	-
100cm	-	002SMRQ114	-	-
Drive Sprocket	10-12 Teeth	10-12 Teeth	13-15 Teeth	13-15 Teeth

**.404"**

Industrial Dimensioned Larger Nose Bearing



Replaceable Sprocket Nose  
SMR14T



Oregon Speedmax XL RSN Solid Harvester Bar (15mm Slot)

Length of Bar	Narrow Tail Jet-Fit Mount	Wide Tail Jet-Fit Mount	Extra Wide Tail Jet-Fit Mount
60cm	602SMRQ163	-	602SMRS163
67cm	672SMRQ163	-	672SMRS163
75cm	752SMRQ149	752SMRR149	752SMRS149
82cm	822SMRQ149	822SMRR149	822SMRS149
90cm	902SMRQ149	-	902SMRS149
Drive Sprocket	10-12 Teeth	13-15 Teeth	16-17 Teeth

**Jet-Fit**

**.404"**

**OREGON**



SPEEDMAX XL - MORE ROBUST FOR A LONGER LIFE

## Oregon 18HX Replaceable Sprocket Nose (RSN) Harvester Bar

RSN - The well proven standard harvester bar with the replaceable sprocket nose. Manufactured from two precision machined alloy steel plates, the nose design offers a perfect bearing housing for a long working life.

If the nose bearing is damaged, the complete nose assembly can easily be replaced which, combined with a superior Oregon Solid Harvester bar body and full length induction hardened rails, offers a superior harvester bar.



# RSN... Replaceable Sprocket Nose Harvester Bars



**.404"**

Length of Bar	Narrow Tail 2 Hole Mount	Narrow Tail 4 Hole Mount	Wide Tail 2 Hole Mount	Wide Tail 4 Hole Mount
54cm	542RHFL104	-	-	-
59cm	592RHFL104	-	-	-
64cm	642RHFL104	642RHFL114	642RHFN104	-
75cm	752RHFL104	752RHFL114	752RHFN104	752RHFN114
80cm	-	802RHFL114	-	802RHFN114
90cm	-	902RHFL114	-	-
100cm	-	002RHFL114	-	-
Drive Sprocket	10-12 Teeth	10-12 Teeth	13-15 Teeth	13-15 Teeth

## Oregon 18HX RSN Solid Harvester Bar (10mm Slot)



### Replaceable Sprocket Nose

537245



**.404"**

Length of Bar	Narrow Tail Jet-Fit Mount	Wide Tail Jet-Fit Mount	Extra Wide Tail Jet-Fit Mount
67cm	672RHFL163	-	-
75cm	752RHFL149	752RHFB149	752RHFD149
82cm	822RHFL149	822RHFB149	822RHFD149
90cm	902RHFL149	902RHFB149	902RHFD149
Drive Sprocket	10-12 Teeth	13-15 Teeth	16-17 Teeth

## Oregon 18HX RSN Solid Harvester Bar (15mm Slot)

**Jet-Fit**



Full Length  
Induction  
Hardened Rails

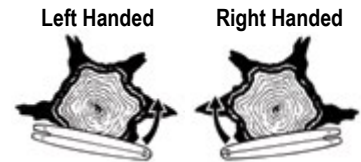
.404"



### Oregon 18H Urea Bar (10mm Slot)



Length of Bar	LEFT Narrow Tail 2 Hole Mount	LEFT Wide Tail 2 Hole Mount	RIGHT Narrow Tail 2 Hole Mount	RIGHT Wide Tail 2 Hole Mount
54cm	542HLFL104	-	542HRFL104	-
64cm	642HLFL104	642HLFN104	642HRFL104	-
75cm	752HLFL104	752HLFN104	752HRFL104	752HRFN104
80cm	-	-	-	802HRFN104
Drive Sprocket	10-12 Teeth	13-15 Teeth	10-12 Teeth	13-15 Teeth



line of site from cab

### Oregon 18H Jet Fit Urea Bar (15mm Slot)



Length of Bar	LEFT Narrow Tail Jet-Fit Mount	LEFT Wide Tail Jet-Fit Mount	RIGHT Narrow Tail Jet-Fit Mount	RIGHT Wide Tail Jet-Fit Mount	RIGHT Extra Wide Tail Jet-Fit Mount
75cm	752HLFL149	752HLFB149	752HRFL149	752HRFB149	752HRFD149
82cm	822HLFL149	-	-	-	822HRFD149
Drive Sprocket	10-12 Teeth	13-15 Teeth	10-12 Teeth	13-15 Teeth	16-17 Teeth

Jet-Fit



For Urea Spraying Systems See Pages 26-27



# Solid Nose Harvester Bars



**.404"**

Length of Bar	Narrow Tail 2 Hole Mount	Narrow Tail 4 Hole Mount	Wide Tail 2 Hole Mount	Wide Tail 4 Hole Mount
42cm	422HSFM104	-	-	-
48cm	482HSFM104	-	-	-
54cm	542HSFL104	-	-	-
59cm	592HSFL104	-	-	-
64cm	642HSFL104	642HSFL114	642HSFN104	-
75cm	752HSFL104	752HSFL114	752HSFN104	752HSFN114
80cm	802HSFL104	802HSFL114	802HSFN104	802HSFN114
90cm	-	902HSFL114	-	902HSFN114
Drive Sprocket	10-12 Teeth	10-12 Teeth	13-15 Teeth	13-15 Teeth

**Oregon 18H  
Solid Harvester Bar  
(10mm Slot)**

**OREGON®**



**.404"**

Length of Bar	Narrow Tail Jet-Fit Mount	Wide Tail Jet-Fit Mount	Extra Wide Tail Jet-Fit Mount
75cm	752HSFL149	752HSFB149	752HSFD149
82cm	822HSFL149	822HSFB149	822HSFD149
90cm	902HSFL149	902HSFB149	902HSFD149
For Timberjack 762 head only (75cm)	752HSFL172	-	-
Drive Sprocket	10-12 Teeth	13-15 Teeth	16-17 Teeth

**Jet-Fit**

**OREGON®**

**Oregon 18H Jet Fit  
Solid Harvester Bar  
(15mm Slot)**



**Replacement  
Sprocket Nose Kit**

101918

**OREGON®**

Supplied with rivets

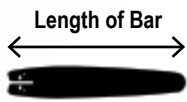
# Oregon 3/4" Solid Harvester Bars

Oregon® 3/4" Solid Harvester bars are designed for use on specialist and larger timber harvesting equipment.

3/4"



- The bar body is made from an extremely tough and durable specialised 3/8" thick solid alloy-steel material that minimises rail chipping and spreading
- Precision-milled grooves are straight, square and consistent to minimise wear
- Chain lead-ins are chamfered to help prevent damage to the chain drive links and to minimise wear
- Replacement nose kits are available to maximise bar life



### Standard UK Stocked Sizes

38" SN	381SNCF212
40" SN	401SNCT138
Other Sizes Available to Special Order	



# 3/4" Harvester Drive Sprockets

3/4"



### Rims

Number of Teeth	Bore	Key	Width	Part No
9	1 1/4"	5/16"	.850"	108872
	1"	1/4"		108959
	30mm	8mm		529086

### Spurs

\* with extended hub

Number of Teeth	Bore	Key	Width	Part No
9	1 1/4"	5/16"	5/8"	108863
9	1 1/8"	1/4"	1"	108865
9*	35mm	10mm	.850"	529091
8*	35mm	10mm	.850"	529092

### Complete HarvesterLok™ Systems

Number of Teeth	Bore	Part No
9	7/8"	OR9-HL1-14
	15/16"	OR9-HL1-15
	1"	OR9-HL1-16
	1 1/8"	OR9-HL1-18
	1 1/4"	OR9-HL1-20
	30mm	OR9-HL1-30



## .404" Harvester Drive Sprockets



We offer rim sprockets of three differing patterns to fit a range of common drive shaft configurations. The size of sprocket affects chain speed.



### Number of Teeth

- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16



Type A  
Splined

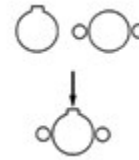


10-14 teeth

- 
- OR-A10-404
- OR-A11-404
- OR-A12-404
- OR-A13-404
- OR-A14-404
- 
- 
- 



Type B  
ø20mm

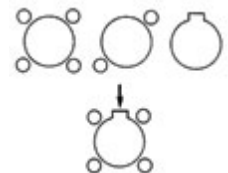


9-12 teeth (ø 20mm)

- OR-B09-404
- OR-B10-404
- OR-B11-404
- OR-B12-404
- 
- 
- 



Type C  
ø25mm



10-16 teeth (ø 25mm)

- 
- OR-C10-404
- OR-C11-404
- OR-C12-404
- OR-C13-404
- OR-C14-404
- OR-C15-404
- OR-C16-404

## Harvester Bar Sprocket Shims

For adjusting the alignment of the drive sprocket to ensure correct fit with the guide bar.



1.0mm OR-C100



## Harvester Chain

**.404"**

## 2mm (.404") Oregon 18HX Harvester Saw Chain

- Reinforced Drive Link Upper Body
- Increased Rivet Size
- Pre-Lubricated Bearing Surfaces
- Lubri-Link Oil Reservoir Incorporated Into Tie Straps

**OREGON®**

## 2mm (.404") Carlton Harvester Saw Chain

**.404"**



- Fast Cutting
- Honed Sharp Cutters
- Industrial Hard Chromed Cutters
- Made from Special Nickel Alloy Steel

**CARLTON®**

## 100ft Harvester Chain Reels

**.404"**

**OREGON®** 100ft Reel - 18HX100R

**CARLTON®** 100ft Reel - B8HC-100RW

### Harvester Chain Parts

**.404"**

**OREGON®**

**CARLTON®**

Right Hand Cutter



512891  
Pack of 25

43088RH  
Pack of 25

Left Hand Cutter



512890  
Pack of 25

43089LH  
Pack of 25

Drive Link



512892  
Pack of 25

43118DL  
Pack of 25

Tie Strap



518812  
Pack of 25

42997TS  
Pack of 25

Pre-Set Tie Strap



512893  
Pack of 25

42998PS  
Pack of 25



**Pallet  
Quantities  
Available**



# Ready Made Harvester Chain Loops

**.404"**

**Box Quantities Available**



**3/4"**

Number of Drive Links

**OREGON®**

**CARLTON®**

64	18HX064E	B8HC-64EB
65	18HX065E	-
66	18HX066E	-
69	18HX069E	-
70	-	B8HC-70EB
71	-	B8HC-71EB
72	-	B8HC-72EB
74	18HX074E	B8HC-74EB
75	18HX075E	B8HC-75EB
76	18HX076E	B8HC-76EB
77	-	B8HC-77EB
78	18HX078E	B8HC-78EB
79	-	B8HC-79EB
81	-	B8HC-81EB
82	-	B8HC-82EB
84	18HX084E	-
85	18HX085E	B8HC-85EB
86	18HX086E	B8HC-86EB
87	18HX087E	B8HC-87EB
88	18HX088E	B8HC-88EB
89	18HX089E	B8HC-89EB
90	18HX090E	B8HC-90EB
91	18HX091E	B8HC-91EB
92	18HX092E	-
93	18HX093E	B8HC-93EB
94	18HX094E	B8HC-94EB
96	18HX096E	B8HC-96EB
97	18HX097E	B8HC-97EB
98	18HX098E	B8HC-98EB
99	18HX099E	-
100	18HX100E	-
101	18HX101E	B8HC-101EB
103	18HX103E	-
104	18HX104E	-

Harvester



## Oregon 11H 3/4" Chain

For a Long Life in Harsh Working Conditions

No. of Drive Links

45	11H45
53	11H53
54	11H54
58	11H58
59	11H59
60	11H60
64	11H64
65	11H65
66	11H66

Other sizes available to special order

**OREGON®**

## Rivet Spinners

With a rivet spinner, harvester chain rivet heads can be spun to match factory-spun rivets of new chain.



24549A



**HEAVY DUTY**  
109565

Spare Rivet Spinner Inserts Available



**HEAVY DUTY**  
109570

Spare Punches Available



## Chain Breakers



24548A

Eye protection should be used when operating spinners and breakers



**OREGON**®

## .404" Harvester Multi Purpose Tool



533689

- Sprocket Line Up Tool
- Bar Groove Cleaner
- Bar Straightening Tool
- Bar Groove Depth Gauge
- Chain Stretch Gauge

**.404"**

## Pocket Chain Breaker



39472P

A handy little tool making it easy to repair chain in the woods or in the workshop.

## Bar Groove Cleaner



13616

Easy to use bar maintenance tool. Cleans grooves and oil holes.

**OREGON**®



Grinders should only be used by qualified operators. Safety eye goggles must be worn in grinding operations

## Chain Sharpening File Handles



Plastic With Integrated  
Angle Guides  
PH-6604-1P-WIND

Wooden Handle  
534370



## Round Chain Files

File Dia	Single	3 Pack	12 Pack
4.0mm 5/32"	70514	70509	70504
4.8mm 3/16"	70513	70508	70503
5.5mm 7/32"	70512	70507	70502



## Flat Chain Files

Single	12 Pack
12211-1P	12211



Always use a file  
handle with files



Harvester

## Oregon X Chain Grinder

For fast accurate chain sharpening, this well designed and constructed 220/240v electric chain grinder is ideal for workshop use and suitable for all chain pitches and types. The state-of-the-art vice design provides up to 15% time saving compared to traditional grinders.

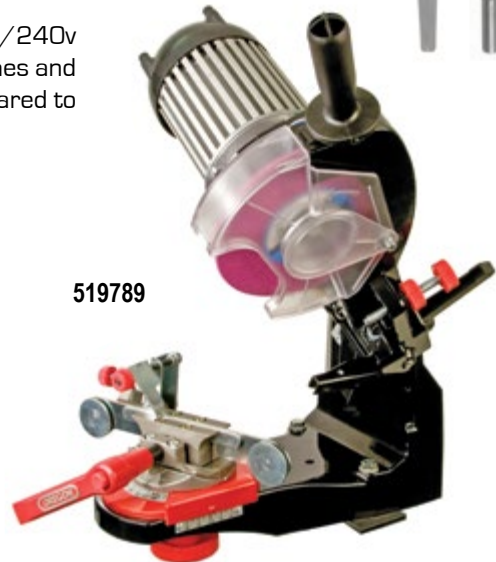
- Self centering
- Faster grinding
- Optimum grind geometry
- Enhanced chain performance
- Large ergonomic handle with release button
- Built in lamp for better visibility
- Torsion spring for comfort grinding
- Supplied complete with three grinding wheels (3.2, 4.7 & 6mm)
- Gauge 1.1mm > 3.1mm
- Pitch 1/4" to 3/4"



Recommended  
Replacement  
Grinding Stone  
GRD22B



519789



## Oregon Hydraulic Assist Chain Grinder

542654

Bench mounted chain grinder with a hydraulically assisted clamping system - this can cut down sharpening time by 50%. Sharpens precisely every time enhancing chain performance.

- Large ergonomic handle with release button
- Built in lamp for better visibility.
- Torsion spring for comfort grinding
- Rugged and reliable
- Withstands periods of extended use
- Includes 3 sizes of grinding stones 5/32", 3/16" & 7/32"
- Gauge 1.1mm > 3.1mm
- Pitch 1/4" to 3/4"



Recommended  
Replacement  
Grinding Stone  
GRD22B



Fine grit, long lasting  
 Can burn cutters under heavy cuts  
 Good for polishing and light cuts  
 Manual machines only  
 22mm i.d. fitting  
 For .404 Chain

**Pink**

i.d. 22mm • GRD22P



Medium / Coarse grit  
 Good working life  
 Superior stone for heavy cuts on  
 damaged cutters - without burning  
 Best stone for automatic machines  
 16mm & 22mm i.d. fitting  
 For .404 Chain

**Blue**

i.d. 16mm • GRD16B  
 i.d. 22mm • GRD22B



22mm i.d. for Oregon Machines • 16mm i.d. for Markusson Machines



**Markusson Diamond Dressing Wheel**



Pressed gently against the grinding disc for only a few seconds, this diamond impregnated wheel ensures a perfect profile - every time.



**Markusson Borazon Discs**



i.d. 16mm MBD-16  
 i.d. 22mm MBD-22



Lasting many times longer than ordinary grinding discs and producing little grinding dust, the stainless steel disc incorporates bonded super-abrasive Boron Nitride crystals. This improves grinding finish and maintains profile shape for a superior ground chain. Discs are 145mm outside diameter x 5mm thick.

**Dressing Stones**

Ideal for simple hand dressing and cleaning of grinding stones to the desired profile.



Grinders should only be used by qualified operators. Safety eye goggles must be worn in grinding operations



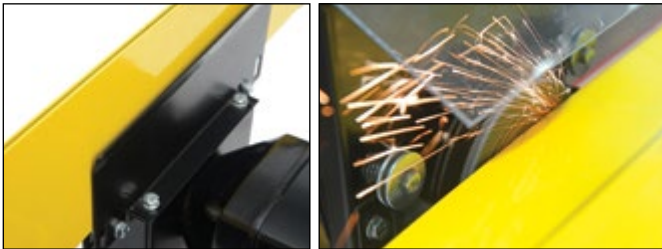


# Markusson Chain & Bar Grinder



MG-LBG

A combination machine to grind the harvester chain drive link sides, the harvester bar rail edges and harvester bar groove. The Markusson Chain & Bar Grinder offers the perfect partner machine to Markusson chain grinders to offer the complete bar and chain service.



# Markusson Drive Link Grinder



MDLG125G



To ensure smooth running and long working life of drive sprockets, bar rails and nose sprockets, the drive links of the chain must be kept in good order. The Markusson Drive Link Grinder is a fast, efficient solution to the smooth polishing of chain drive links. Fitted with twin link grinder discs combined with a standard grinding wheel, this is the ultimate chain maintenance tool.



Replacement Stones & Wheels  
Twin Grinding Discs DLG125D  
Grinding Wheel DLG125W

# Semi-Automatic Chain Sharpening Markusson Sematic

Harvester



For Chainsaw Chain

Markusson Sematic without stand MG-SA

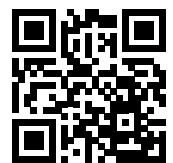


For Chainsaw Chain



The Sematic offers an economical solution for the sharpening of chainsaw chains.

Available with or without a stand, the Sematic is a semi-automatic machine, similar in design and construction to the fully automatic Markusson grinders but without the automatically swivelling grinding head facility,

Markusson Sematic with stand MG-SAS



SCAN FOR VIDEO

Grinders should only be used by qualified operators. Safety eye goggles must be worn in grinding operations  

# Automatic Chain Sharpening

The Markusson Grindomatic V12 automatically sharpens all the teeth of a chain, without any need for manual adjustment, by means of an oscillating grinding head. The V12 grinder is simple and reliable in operation, fully automatic and produces an extremely sharp cutting edge. The V12 can grind up to 3mm from cutters in one grinding operation, saving time in sharpening extremely damaged chains. Chains sharpened by the V12 can still be filed by normal chainsaw files, the V12 does not damage the hardness or glaze the surface of cutters. Approximate production rate - 12 chains per hour.\*

\* Estimate, depending on the grinding required.



The V12 takes two grinding strokes to each cutter, a first grinding cut and a second polishing operation. The V12 Grindomatic can grind chains at angles from 0° to 35° and sharpen harvester, chainsaw and sawmill machine chains. The V12 Grindomatic can be operated by a 12v or 230v electrical supply with converter and can be supplied with or without stand.



**.404"**

## Grindomatic V12

Markusson Grindomatic V12 without stand MG-V12

Markusson Grindomatic V12 with stand MG-V12-S



SCAN FOR VIDEO



Recommended Replacement Grinding Stone GRD16B

## Grindomatic V12 with chain tensioner

with stand MG-V12-SCT

The automatic compressed air tensioner stretches out the chain, tensioning it during the grinding operation, to straighten out sticking and seized links.



**.404"**

**Chain Tensioner**

THE ULTIMATE AUTOMATIC CHAIN SHARPENING MACHINE

Link  
Counter

3/4"

.404"

Chain  
TensionerHIGH VOLUME  
PROFESSIONAL  
CHAIN GRINDERSRecommended  
Replacement  
Grinding Stone  
GRD16BLink  
Counter

.404"

Chain  
Tensioner

SCAN FOR VIDEO

## Combimatic

Fully automatic sharpening machine for 3/4", .404", 0.325" and 3/8" saw chains.

- Chain Link counter as standard
- Individually adjustable speed setting to enable grinding a 3/4" cutting link in one operation, without it turning blue.
- Adjustable depth centering at the grinding head, easily set.
- Very high grinding capacity.
- Simple to use and easy to adjust.
- Grinding angle easily adjusted between 0° and 35°. Enables easy grinding of, for example, sawmill machine chains and depth gauge.
- Power supply: 12V DC or 230V AC with converter.
- Chain tensioner stretches out the chain and straightens out sticking links in the chain assembly.

Markusson Combimatic with stand MG-C34-SCT

Grinders should only be used by qualified operators. Safety eye goggles must be worn in grinding operations



The Triplematic automatic sharpening machine from Markusson grinds at three different places on the cutting link and additionally touches the cutting edge three times in the process for razor sharp cutting.

- The Triplematic operates as a normal grinder when it starts to grind the cutting edge - the unique feature is that it also widens the gullet so the chain gets a higher chip flow and thus improves cutting performance. Additionally it grinds the depth gauge.
- Depth gauge setting is fully automatic but can be set manually.
- Chain Link counter as standard.
- Custom speed adjustment to enable grinding of cutting edge in one action.
- Adjustable depth centering at grinding head.
- Very high grinding capacity.
- Grinding angle is easily adjusted between 0° and 35°.
- Power supply: 12V DC or 230V AC with converter.
- Chain tensioner stretches out the chain and straightens out sticking links in the chain assembly.

Markusson Triplematic with stand MG-T350-SCT

SHARPENS CHAINS LIKE NEW... EVERY TIME

# Clark Harvester Bar Press

The high lift cam design, combined with an 18" (450mm) long handle, ensures that even the most severely bent bars can be straightened. Robustly constructed from heavy section steel, the bar press has adjustable bend bars for coarse or fine adjustment.

HBP450

**Straighten Bent Bars On Site**



Easy Lever Operation Of High Lift Cam



Robust Heavy Section Steel Construction



Easy Control Of Bar Adjustment



## Bahco Mill File

The superior quality of the Bahco mill file makes it ideal for dressing and smoothing harvester bar rails and removing burrs and razor edges for improved performance and less chain damage.

8" file length      4-138-08-1-2  
 10" file length    4-138-10-1-2



## Oregon Bar Rail Dresser



Dresses guide bar rails back to square. Good bar maintenance can mean up to 30% longer chain and bar life with enhanced safety and cutting efficiency.



Coarse File Recommended For Harvester Bars

Bar rail dresser with one flat fine file	111439E
Fine flat file (6 pack)	111589
Coarse flat file (6 pack)	111588

# New Delimiting Knives Manufactured



## Clark Delimiting Knives

Let us work with you to improve the delimiting performance of your machine. Worn and poor quality knives consume machine energy and fuel, produce high stress forces on the harvester head and offer poor delimiting. Clark Harvester Delimiting Knives are designed for UK conditions. Manufactured from special hardened and tempered Borarc alloy steel, ground and polished for best delimiting results.

- ✓ Low friction
- ✓ High delimiting quality
- ✓ Less bark removal
- ✓ Reduced delimiting force requirements
- ✓ Low maintenance and resharping
- ✓ Special heat treated alloy steel for strength and hardness



## Delimiting Knife Blades

We can supply weld on replacement blades for many types of harvester. Borarc steel is easily weldable with standard welding procedures making the task of blade replacement very simple.

For Technical Assistance On Delimiting Knives,  
Please Contact: Technical Sales  
01387 860241



BORARC 504 ALLOY STEEL HIGH STRENGTH HARDENED CUTTING EDGES

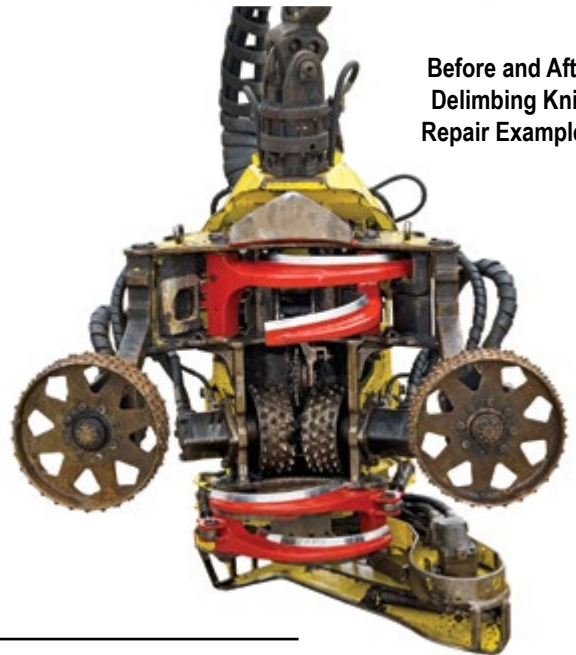
# Delimiting Knife Repair

We repair all types of harvester knives, removing broken/worn blades and reinforcing plates, manufacturing new Borarc 504 alloy steel blades, welding new blades to the original knife chassis, followed by a hardening and polishing process for superior cutting performance.

A Superior Knife Edge - Keeps Sharper For Longer With Less Wear  
Easily Welded - Resists Fracture And Cracking  
Borarc 504 - The Ultimate Cutting Edge

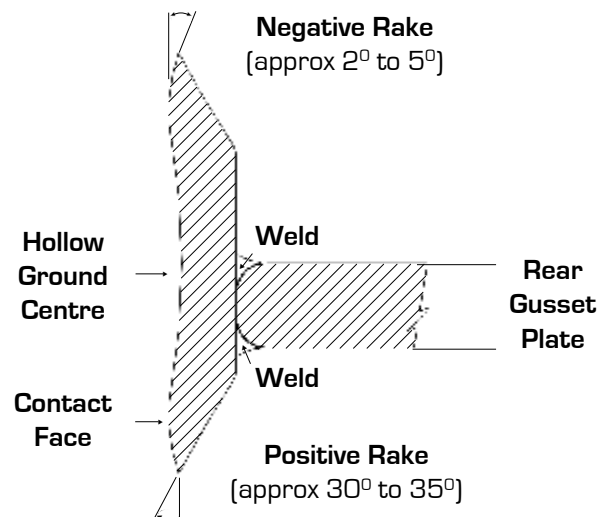


Before and After  
Delimiting Knife  
Repair Examples



## Clark Borarc 504 Delimiting Knives Care & Maintenance Information

The knives we manufacture are hardened, ground and polished ready for use, however due to variations in operating conditions, it may be necessary to fine tune the cutting angles for optimum performance. Correct negative rake angle is necessary to prevent the blade from digging too hard into the stem and planing the wood from the tree, however too much negative rake will result in the knife lifting off the tree leaving small branch sprags on the tree stem. Blunt, badly sharpened or worn knives increase the power requirement from the machine to delimit and offer poor delimiting results.





## Before and After Delimiting Knife Repair Examples

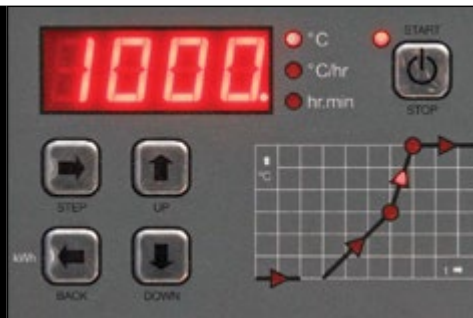


**We Repair All Types of Harvester Knives**

**New Blades Manufactured To Fit Original Knife Chassis**

**Finished with a Hardening and Polishing Process For Superior Cutting Performance**

**BORARC  
504 STEEL  
EDGE**





- All Welded Construction
- Hardened Alloy Steel Grip Segments
- Self Cleaning Tooth Pattern
- Available To Fit Most Harvesters
- Unique Double Grip Tooth Pattern



**NEW**

## RIDGEBACK-Non Skid Traction for Faster Delimiting



SCAN FOR VIDEO



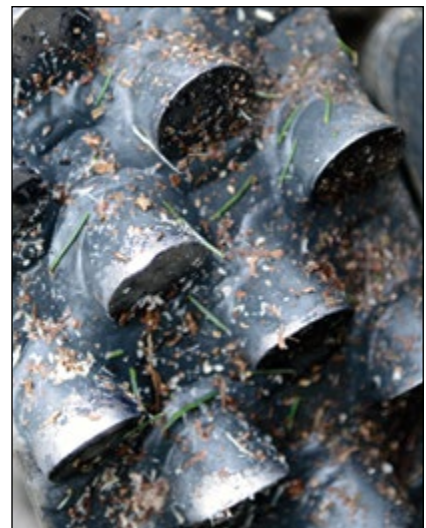




Chisel Spike	Height	Diameter	Base
	15mm	12mm	3mm
	19mm	16mm	3mm
	23mm	20mm	3mm
Double Angle Chisel Spike	Height	Diameter	Base
	15mm	12mm	3mm
	20mm	16mm	4mm
	25mm	20mm	5mm

### Clark Hardened Feed Wheel Spikes

We manufacture hardened steel spikes in a range of types & sizes.



## Low Pressure Hose

For use with Maxi and Water Puppy. 1" diameter high quality reinforced hose in cut lengths from 1 metre.



## Urea Filling Pumps

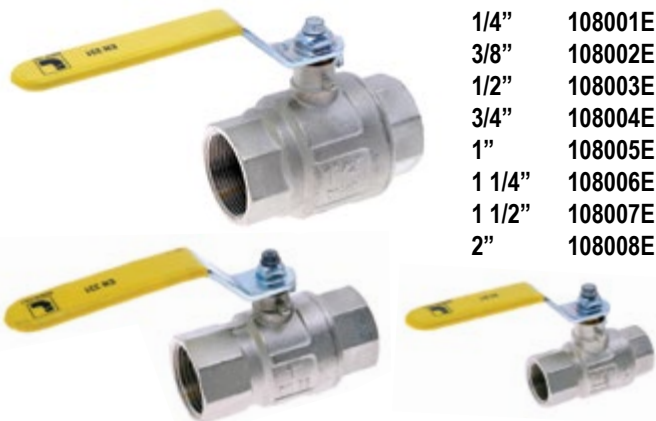
For machine installation. Used to fill harvester urea tanks.

The flexible impeller pump principle was invented and patented by Jabsco in the 1930's. It continues to be used around the world in industrial and chemical applications that demand its special features: Versatility, Ability to handle difficult liquids, Self-priming ability and Simplicity - only one moving part for a long working life.



## Ball Valves

Available in BSP fittings in the following sizes:



1/4"	108001E
3/8"	108002E
1/2"	108003E
3/4"	108004E
1"	108005E
1 1/4"	108006E
1 1/2"	108007E
2"	108008E

## Jabsco Water Puppy

This compact and lightweight pump has a streamlined body incorporating 2 port options. It has a flow rate of up to 32 litres/minute (6.5 gallons/minute), is self priming up to 1.2m (4ft) and is equipped with a permanent magnet motor which is continuously rated.



12v 23680-4003

**JABSCO**

24v 23680-4103

## Hose Clips



Hose Diameter	Part Number
1/2" (12mm)	420020
3/4" (20mm)	420025
1" (25mm)	420035
1 1/4" (30mm)	420040
1 1/2" (40mm)	420050

## Jabsco Maxi Puppy

This compact lightweight, heavy duty pump has a flow rate of up to 45 litres/minute (10 gallons/minute) and is self priming up to 2.4m (6ft) and equipped with a permanent magnet motor.



12v 23610-3003

**JABSCO**

24v 23610-3103



Water & Maxi Puppy pumps should not be mounted with the pump head above the motor

## Bronze Gate Valves



Available in BSP fittings in the following sizes:

1"	10024
1 1/4"	10025
1 1/2"	10026



## Service Kits

Service kits consisting of: impeller, endcover screws, seal and gasket.

Water Puppy Service Kit SK224  
Maxi Puppy Service Kit SK224-01

**JABSCO**



This high performance urea spray pump system for harvesters can be operated by servo or pump pressure up to 100 Bar and can be used with stump spray or through-the-bar systems. The high pressure spray provides good stump coverage. The unique base design allows the pump to be mounted at the most convenient position and can be removed and dismantled easily for servicing. All parts that are in contact with urea are manufactured from stainless steel and bronze. The nozzle check valve prevents fluid escape when not in use. Standard pump has a 0.5 litre capacity, and other sizes and capacities can be manufactured to order. The pump can be supplied as pump only or supplied as a kit complete with two stainless steel operating ball check valves, one bronze spray nozzle, stainless steel check valve, filter, stand and clamps.

Urea Pump Only  
Urea Pump Full Kit  
Pump Seal Kit

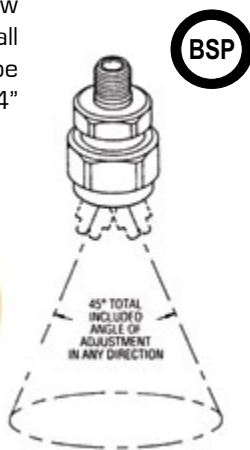
UPO500  
UPK500  
CFE755522

## Universal Nozzle Mounting (eyeball)

A universal mounting to allow easy angling of nozzles in all directions via an eyeball type fitting and locking nut. 1/4" BSP.



EBM14



## Spray Nozzle



1/4" Male BSP Bronze Spray Nozzles with wide angle spray coverage.

SNM14

## Check Valves



Stainless steel ball check valves in 1/4", 3/8" BSP and 1/2" BSP sizes.

- 1/4" 203041
- 3/8" 203042
- 1/2" 203047



## In-Line Filter



Manufactured from polypropylene with a stainless steel filter screen, this high quality filter is designed to fit between the urea header tank on the machine and Jet Spray Urea Pump. The filter can be easily dismantled for cleaning. 3/4" BSP.



ILF34



1000ℓ  
COBIO 1000

**Cobiolube®**  
JARMAT

205ℓ  
COBIO 205

10ℓ  
COBIO 10

**Pallet  
Quantities  
Available**

**THE OIL FREE LUBRICANT WITH ECOLABEL RECOGNITION**

Cobiolube® Chain has been awarded with European Union's Ecolabel emblem. This emblem is given only to products that are able to lighten the environmental footprint throughout their lifecycle from raw materials all the way to manufacturing, usage and disposal. The high quality is ensured with independent tests, where the candidate products have to be able to meet the performance level of the respective market leader.





FOR **WINTER** AND  
SUMMER USE

# CHAIN COBIOLUBE®

# OIL FREE Advanced Chain Lubricant

Cobiolube® Chain Lubricant is a new development in chain lubrication which is manufactured from 100% natural products. Cobiolube is exceptionally economical as lubrication consumption can be reduced by up to 50% when compared to other comparable chain oils and this unique lubricant stays on the chain, efficiently lubricating the nose bearing and therefore increases the lifetime of guide bars, nose bearings and chain. Cobiolube is also non-hazardous to health or the natural environment and is 99.9% bio-degradable.

There is no 'spray' from Cobiolube meaning there is no contamination on the harvester head, the machine or on the windscreen. After use with Cobiolube, chains can be cleaned using only water, which results in grinding discs lasting longer and grinding quality is increased.

**Available in 10 litre, 200 litre and 1000 litre drums**

#### Reliability and Savings:

Stays on the chain, efficiently lubricating the nose bearing  
Rinses the resin, thus helping to keep the chain clean  
Increases significantly the lifetime of the guide bar and chain  
Excellent resistance against pressure and wear  
Reduces lubricant consumption significantly

#### Features:

- › Non-hazardous to health or to the natural environment
- › 99.9% Bio-Degradable
- › Non-toxic to marine/aquatic life
- › Manufactured from 100% natural products
- › For Summer and Winter use

# SUPERTACK

## HIGH SPEED BIO CHAIN OIL



- Superior High Speed Chain Lubrication
- Specially Formulated For UK Conditions
- Non-Fling-Tack Formula
- Made From Rape Seed Oil
- Harvester & Chainsaw Use
- Bio-Degradable

## Bio-degradable Superior Performance Environmentally Friendly

Manufactured from >90% rapeseed oil, <10% natural rubber/vegetable oil preparation, Super Tack Bio Chain Oil provides superior high speed chain lubrication and contains a special non-fling tack formula. Environmentally friendly and bio-degradable, Super Tack has been specially formulated for UK conditions and can be used for harvester and chainsaw use. Available in four container sizes, 10 litre, 25 litre, 205 litre and 1000 litre IBCs. For larger sizes and pallet quantities, please contact our sales team.



**Pallet  
Quantities  
Available**

# Oregon Super Saw Chain Oil



Pallet Quantities Available



25 Litre 90301

Mineral Oil Chain Lubricant



5 Litre 90300



Oregon Super Saw Chain Oil is a specially formulated mineral oil based non-fling lubricant for use on cutting chains. It protects the chain chassis and helps prevent saw chain failure. The in-built adhesiveness of the oil enables it to resist the wiping effect of adjacent surfaces as the chain carries out its cutting function. Available in 5 litre or 25 litre containers.



## Clark Harv-Mark Harvester Tree Marking Paint



Specially formulated for free flow on harvester tree marking systems. Available in 10 litre containers in Blue and Red.

Pallet Quantities Available



HVM10BL



HVM10RD



# Refuelling & Lubrication

Fuel Tanks

Site Workshop

Drum Store

Tool Store

AdBlue Tanks

Spill Kits

Hand & Electric Pumps

Grease & Grease Guns

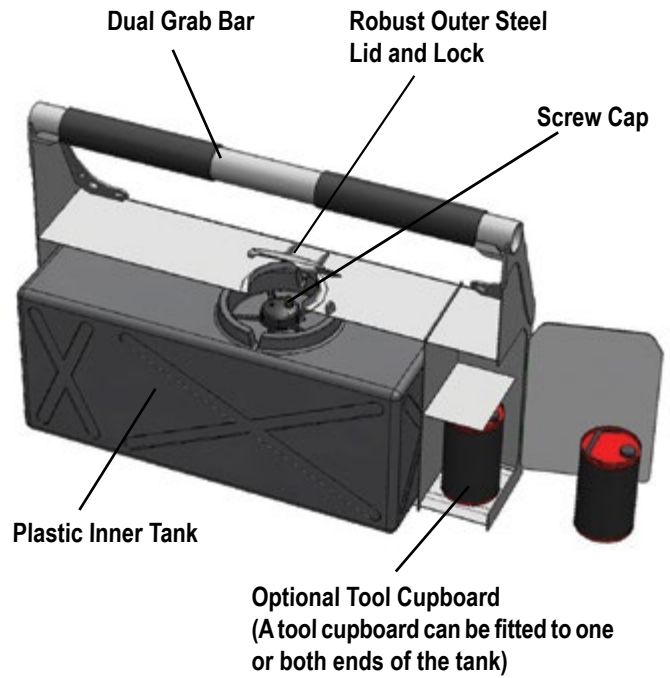
**CLARK**™







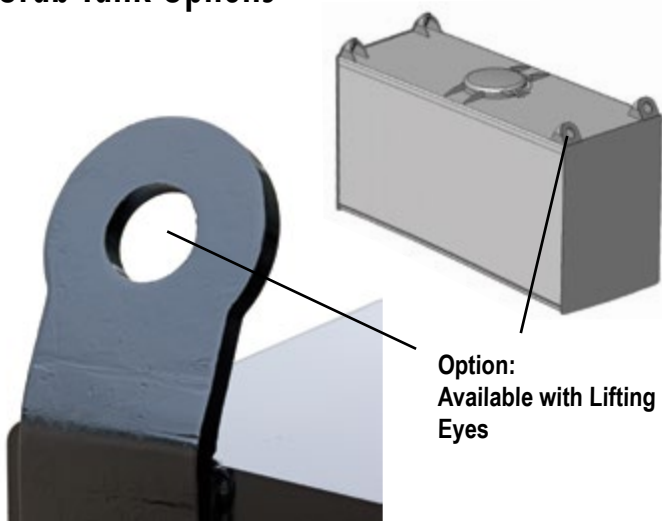
# Clark Standard Bunded Grab Tanks



Clark Standard Bunded Grab Tanks are available in three tank sizes - 850 litre, 1150 litre and 1500 litre. The tanks are constructed from heavy gauge pressed steel with 6mm steel end plates. The inner tank is manufactured from thick section polyethylene which offers improved cleanliness over steel lined tanks. A lockable steel lid with protected padlock hasp is fitted to the outer steel tank. The inner tank employs a 6" screw-on lid with 'O' ring seal. Clark Grab Tanks are available with a range of additional options.



## Clark Standard Bunded Grab Tank Options



Tanks are for static site use only and not designed for the movement of fuel on the public highway



## Secure Tool Cupboard

A tool cupboard can be specified at the time of ordering. Fitted with one shelf plate, the cupboard has space for two 25 litre oil drums plus other items of equipment. The tool cupboard door is secured by a protected padlock hasp.



Refuelling & Lubrication

## Refuelling Hose & Dip Tube



A 4 metre refuelling hose and dip tube fitted with quick release couplings is available for use on all our standard tanks. The dip tube remains permanently connected to the tank through the tank inner cap with an outer quick release connection. The hose can be stored coiled up inside the steel tank and offers fast spill free machine refuelling.

## Hand or Electric Refuelling Pump

A hand pump or 12v/24v electric pump can be specified for our range of standard tanks. Fitted inside the tank tool cupboard, pumps are supplied complete with suction and delivery hoses, creating a stand alone refuelling station... wherever the location.



## Paint Colour Options

The standard paint colour of Clark Grab Tanks is black, however other colours may be specified at the time of ordering, including the camouflage paint option shown here.



Tank Model	Part No	Capacity Litres	Weight Empty Kg	Full Weight Diesel Kg	Full Weight Urea Kg	Width mm	Length mm	Height to Top of Bar mm	Options
Standard Bunded Tank 850 litre	BGT850	850	365	1080	1215	740	1560	1720	Tool Cupboard Refuelling Hose Hand Pump Electric Pump
Standard Bunded Tank 1150 litre	BGT1150	1150	405	1370	1555	740	2060	1720	
Standard Bunded Tank 1500 litre	BGT1500	1500	460	1720	1960	740	2060	2020	Please specify options at time of ordering

# Clark Grab Box Site Workshop



A Secure On Site  
Workshop And Store

Workshop Shown With Some Additional Features

# Clark Grab Box Site Workshop

Available in two sizes with various options, Grab Box Workshop offers a convenient, secure on site tool store and workshop facility. Capable of holding and transporting equipment ranging from small parts and tools to major items, the Clark Grab Box Workshop is an essential resource for on site work.



Available Fitted With Dual Grab Bar Or Lifting Eyes

Dual Grab Bar

Top Shelf

## Design Features

Pressed Sides For Rigidity

Work Bench

Steel Runners

Wooden Floor

Tie Down Bar

Tie Down Bars  
Fitted As Standard To Secure Items  
During Transportation & Lifting Operations

Dual Guarded Padlocks x2

Heavy Duty Hinges

Option: Lifting Points

Air Vent

Lockable Door Handle

Lashing Points

Grab Box Workshop	Part No	Length mm	Width mm	Workshop Height mm	Weight Empty Kg
Grab Box Workshop with grab bar 2.0m	GBW-GB20	2090	1540	1980	886
Grab Box Workshop with grab bar 2.5m	GBW-GB25	2590	1540	1980	980
Grab Box Workshop with lifting eyes 2.0m	GBW-LE20	2090	1540	1980	675
Grab Box Workshop with lifting eyes 2.5m	GBW-LE25	2590	1540	1980	735

## Options

- Interior Strip Lighting
- Additional Tie Down Bars
- Additional Shelves
- Heavy Duty Vice
- Hanger Hooks

Please Specify Options At Time Of Ordering



Twin Drum



Single Drum

## For Safe, Secure Storage Of Oil In The Forest

Drum Store - an innovative addition to the Clark Grab Box family. Drum Store models are available to hold either one or two standard 205 litre (45 gallon) oil drums plus a secure store cupboard - a useful addition to all harvesting sites. Oil drums can be loaded into the drum bunds by simply swinging the grab bar back and using the drum lifting chains to quickly and safely load and unload drums.



Pump System Connected To Drum



Screw In Dip Tube & Breather Valve Fitted

# Clark Grab Box Drum Store

Refuelling & Lubrication



**Twin Drum**

Shown With Optional Gear Pump System For Pumping Chain Oil

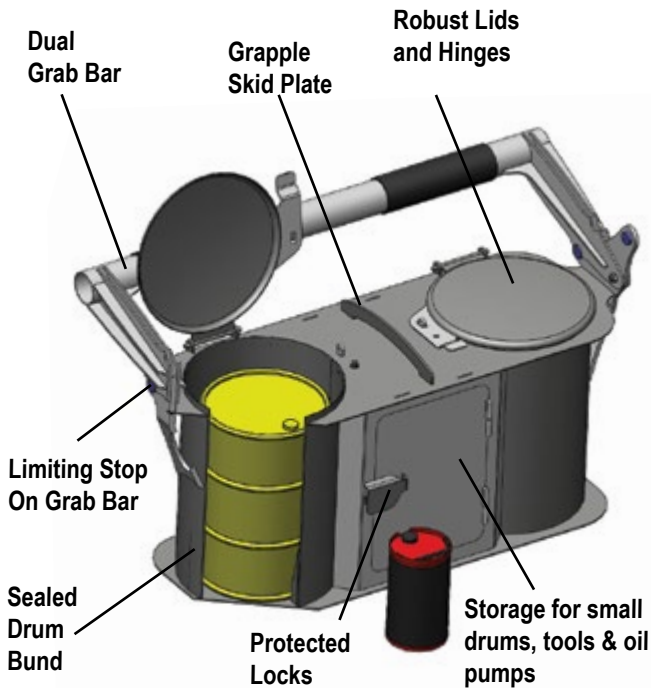


**Single Drum**

The single drum model of the Clark Grab Box Drum store is similar in dimensions to the twin drum model but features an extra-large capacity storage cupboard.

Extra Large Capacity Storage Cupboard

## Standard Design Features



## Options

## Drum Lifting Chains with Test Certificate



Specially designed for handling 205 litre (45 gallon) oil drums, these chains offer a unique solution to safe lifting and handling with the ability to clamp to drums for vertical or horizontal lifting. Light, compact and easy to store. Safe working load on both chains 500kg.

DLC-500



DS2-DTV

## Drum Dip Tube

Screw on dip tube & breather valve for use with pump systems.

## Hand Or Electric Pumps

A hand pump or 12v/24v electric pump can be supplied with our drum stores, complete with suction and delivery hoses, for the safe, easy transfer of forest machine hydraulic oil and the filling of chain oil tanks.



Hydraulic Oil Transfer Pump

For More Info on Pumps See page 45

Please Specify Options At Time Of Ordering

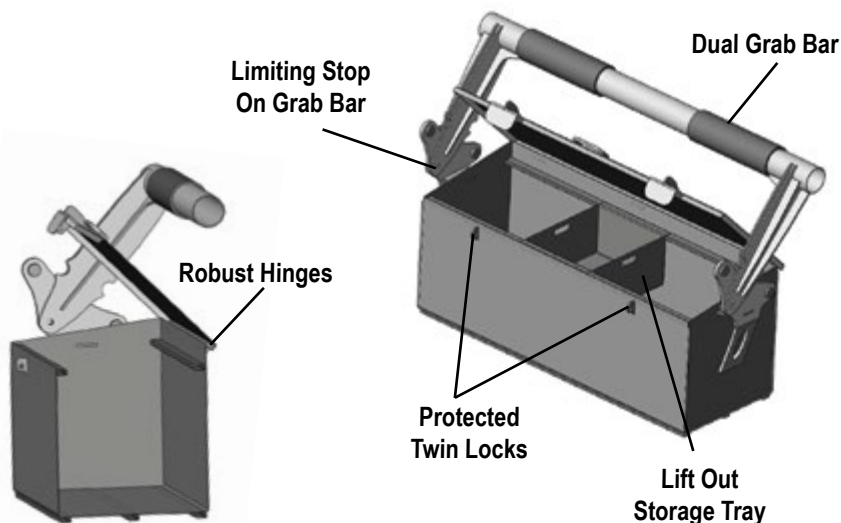
Drum Store Model	Length mm	Width mm	Height To Top Of Tank mm	Weight Empty Kg
DS2-205 Twin Drum Store	2320	840	1080	550
DS1-205 Single Drum Store	2320	840	1080	565

# Clark Grab Box Tool Store Top Opening



## For Secure Equipment Storage In The Forest

Tool Store - offers a compact solution for the secure storage of tools and equipment. The lockable lid opens fully to offer unrestricted access by means of our Grab Bar Pivot System - allowing easy lifting by both harvester heads and grapples.



Drum Store Model	Length mm	Width mm	Box Height mm	Weight Empty Kg
TS1500	1500	870	875	280
TS2000	2000	870	875	360

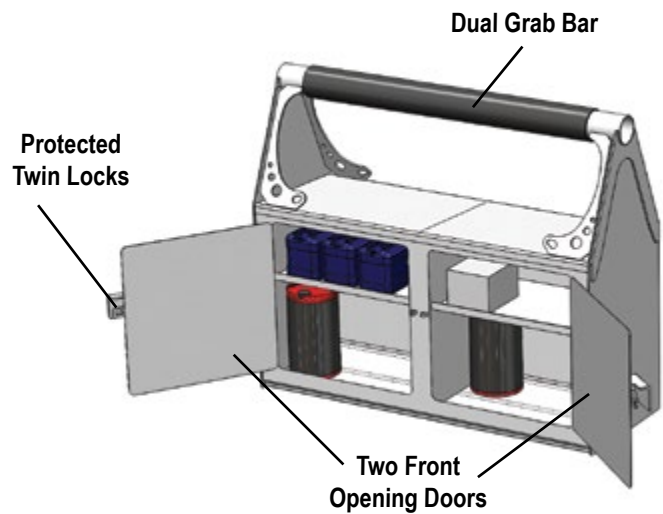
### Options

Box Divider Plates  
Wooden Floor  
Paint Colour





# Clark Grab Box Tool Store Front Opening



The new front opening tool store offers excellent storage for oils, hoses, tools etc. With two full width opening doors, access is easy, a small bund keeps any oil drips or spillages contained safely within the box. Two secured padlock hasps offer protected security and the plastic covered grab bar offers forwarder or harvester lifting capabilities.



Drum Store Model	Length mm	Width mm	Box Height mm	Weight Empty Kg
F-TS2000	2000	740	950	520





Standard AdBlue Tank



AdBlue Tank with Single Tool Cupboard

Designed specifically for banded storage of AdBlue IBC containers, the Clark AdBlue Grab Tank is robustly manufactured with a full length plastic sleeved grab bar for lifting by timber grapple or harvester. The upper section of the tank can simply be lifted from the tank body for ease of installation of the IBC container. Upper lids permit easy access to the IBC. Tanks can be supplied as standard or with end tool cupboards. A grab lifting bar and two lifting straps are supplied with each tank for easy lifting of the IBC into the tank. Options include special AdBlue hand pumps and fittings.

## Clark AdBlue Tank



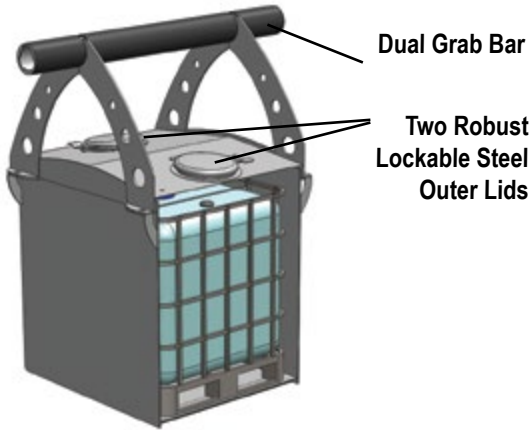
AdBlue Grab Tanks	Part No	Length mm	Width mm	Height To Top Of Bar mm	Tank Weight Empty Kg (without IBC)
Standard AdBlue Tank	ABT1000	1860	1380	2170	505
AdBlue Tank with Single Tool Cupboard	ABT1000/TC	2150	1380	2170	630
AdBlue Tank with Double Tool Cupboard	ABT1000/2TC	2400	1380	2170	755

### Options

Complete AdBlue Pump, Hose and Gun Kit

AdBlue IBC Tank Valve

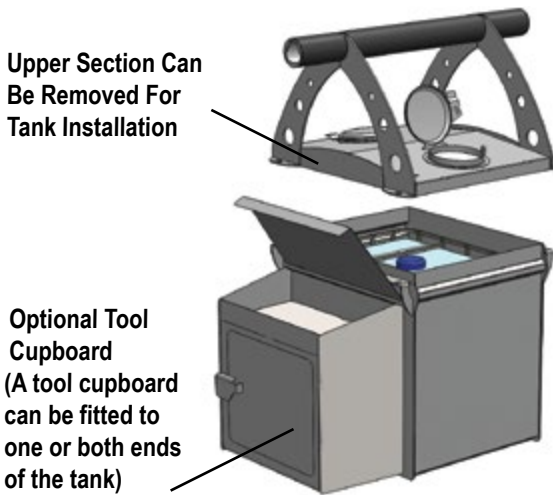
Please Specify Options At Time Of Ordering



**Optional Lockable Tool Cupboard**



**Two Lockable Outer Tank Lids**



**Optional Electric Pump System**



**Optional Hand Pump System**



**AdBlue IBC Tank Valve ADB-V**

## AdBlue Pumps & Fittings



Complete 24v AdBlue Electric Pump System can be supplied fitted to tank or separately for independent use.



**Complete AdBlue Hand Pump Kit**

Complete AdBlue Hand Pump Kit can be supplied fitted to tank or separately for independent use.



# CLARK™ Spill Responder *Spill Kits*

**15**  
Litre



Contains: 1 Miniboom, Oil Sorbent Sheets, Waste Bags and Tie

**15 Litre Spill Responder Kit XL-4015**

**30**  
Litre



Contains: 3 Minibooms, Oil Sorbent Sheets, 3 Waste Bags and Ties

**30 Litre Spill Responder Kit XL-4030**

**40**  
Litre

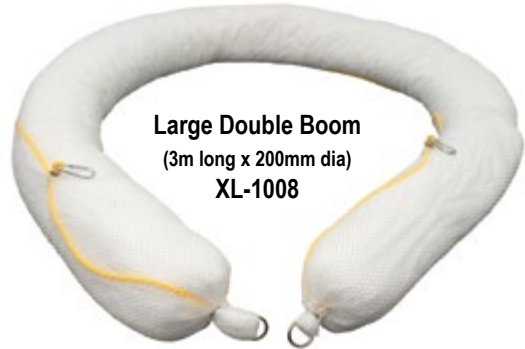


Contains: 3 Minibooms, Oil Sorbent Sheets, Oil Sorbent Pillow, 3 Waste Bags and Ties

**40 Litre Spill Responder Kit XL-4040**

Be prepared for accidental oil spills with these kits - contained in an easily stowed heavy duty resealable bag with handle

**Booms** For containing and skimming oil spills in forest streams and other inland waterways.



**Large Double Boom**  
(3m long x 200mm dia)  
**XL-1008**



**CL-1200 Sheets**

For use in smaller spills and particularly where ground coverage is essential.

**Miniboom**  
(1.2m long x 100mm dia)  
**EL-1000**



**Contain Spillage**



**Absorb & Remove Spillage**

## 35L Refuelling Pump

Diesel refuelling pump suitable for refuelling of forestry and agricultural, off-road vehicles, excavators, other construction plant and generators. Duty time 30 mins at +30°C ambient. Self priming up to 2.8 metres. Flow 35 litres per minute at 3 metres head. Maximum head 6 metres. Available in 12v or 24v.

**DIESEL**

**JABSCO**



**12v** 23870-1200

**24v** 23870-1300

## Sliding Vane Pumps



These Jabsco pumps utilise the well proven sliding vane principle. Whenever the application demands a reliable pump with no elastomeric moving parts, a sliding vane pump is ideal. Especially suitable for the transfer of diesel fuel and hydraulic oils.

**JABSCO**

**Durable • Wide Temperature Range  
Self Priming • Field Proven**

Refuelling & Lubrication

## 50L Refuelling Pump

Heavy duty refuelling pump suitable for equipment and vehicles with tanks between 100 and 400 litres. Duty is continuous up to 40°C ambient. Self priming up to 3 metres dry (4 metres wet). Flow 50 litres per minute at 3 metres head. Maximum head 6 metres. Available in 12v or 24v.

**DIESEL**

**JABSCO**



**12v** VR050-1022

**24v** VR050-1122

## Hydraulic Oil Transfer Pump

**HYD. OIL**

**12v** 23590-2010

**24v** 23590-2110



**JABSCO**

Available in 12v & 24v models, the hydraulic oil transfer pump offers flows up to 26 litres per min and is the ideal pump for filling forest machine hydraulic oil and chain oil tanks.

## 100L Refuelling Pump

Heavy duty refuelling pump suitable for use on large diesel powered equipment where high flow rates and priming heights are required. For tank capacities between 400 and 1500 litres. Duty time is 40 minutes at an ambient temperature of 30°C. Self priming 4 metres dry (5 metres wet). Flow rate is 100 litres per minute at 3 metres head. Maximum head 6 metres. Available in 24v.

**DIESEL**

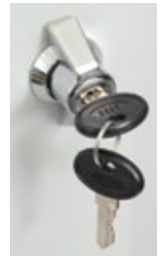
**JABSCO**



**24v** VR100-1122

## 240v Fixed Refuelling System

**DIESEL**



A complete pump system for static applications. Supplied complete with auto switch off gun, reset-able fuel meter and main on/off switch. Only suitable for Diesel fuel.

**240v**

FRS-240



## 110v Utility Pump

A reliable, dirt tolerant, flexible impeller pump used in the forest industry for draining and filling gearbox and axle bogey oils. The utility pump offers a flow of 35 litres per minute. Fitted with 1" BSP internal thread fittings, the pump comes complete with a 2 metre long 110v supply cable.

**GEAR OIL**

**JABSCO**



**110v** 53040-2103

## Fuel Flow Meters & Guns



### Mechanical Flow Meter

Robust weatherproof gravity flowmeter providing simple economic indication of liquid dispensed from gravity feed tanks. May also be used in pumped systems where the pressure does not exceed 50psi.

806CL

**DIESEL**

### Electronic In-Line Flow Meter



**DIESEL**

GP113255-12

Designed to be used as part of diesel refuelling systems where the fuel flow is in the 10 to 100 litres per minute range. The meter can be fitted in-line with the delivery hose or in pipework.



**DIESEL**

### Standard Gun

Sturdy aluminium body with smooth finish, featuring a stay open trigger latch and 1" BSP inlet swivel. Maximum operating pressure up to 3.5 bar. Suitable for use on gravity or electric pumps.

NOZ.S2A

### Automatic Shut Off Gun



**DIESEL**

80 ltr/min HUSK.GS2  
150 ltr/min HUSK.H1

These automatic nozzles offer full protection against overfilling a vehicle tank. Comes supplied with inlet swivels and stay open latches. Available for 80 litre/minute or 150 litre/minute.

## Hand Operated Refuelling Pumps

### DD120C

High delivery rate, double action pump constructed from alloy. Max flow is 136 litres per minute with a lift suction of 6 metres and a delivery head of 6 metres, weight 4.5kg, hose dia. 1 1/2" hose.

A2003



### DD70C/DD100C

Smaller versions of the DD120C alloy pump. DD70C has a max flow rate of 70 litres per minute with a lift suction of 6 metres and delivery head of 4.5 metres, weight 3kg, hose dia 1". DD100C has a max flow rate of 100 litres per minute with a lift suction of 6 metres and delivery head of 6 metres, weight 3.1kg, hose dia. 1 1/4"

DD70C - A2018

DD100C - A2010



### SD45C

Compact alloy pump with cranked pump handle and rear mounting holes for attachment to machines for refuelling. Max flow of 45 litres per minute with a lift suction of 4.5 metres and delivery head of 4.5 metres, weight 2.0kg, hose dia. 1"



A2029

## Site Pumps

High delivery rate double action pumps for transferring all types of liquids including diesel, oil, water or urea. Constructed from aluminium for strength and lightness, these pumps are equipped with an extra long handle and are mounted on an aluminium foot plate, for ease of use. Baseplate also provides compact storage for the hose and handle.



With DD100C Pump SP100C  
With DD120C Pump SP120C

### BE45E

This high quality reliable barrel emptying pump comes complete with barrel dip tube. Max flow of 45 litres per minute with a lift suction of 4.5m and delivery head of 4.5m, weight 2.1kg, hose dia 1"



A2035

Service Kits And Spare Parts Are  
Stocked For All Pumps

## Bypass Relief Valve

This unit will enable the pump to run against a closed head as required when using a trigger nozzle. Suitable for 50 litre pumps only.



**DIESEL** 23525-1050B

## Fuel System Fittings

### Reinforced Hose

High quality reinforced diesel refuelling hose available in cut lengths from 1 metre in diameters:

3/4"	(19mm)
1"	(25mm)
1 1/4"	(30mm)
1 1/2"	(40mm)

**DIESEL**



Refuelling & Lubrication

## Hose Adaptors

Available in straight or 90 degree union versions which can aid difficult installations.

19mm	Straight	23533-1000
25mm	Straight	23543-1000
19mm	90 Degree	5020-003
25mm	90 Degree	5020-002



## Hose Clips



Hose Diameter	Part Number
1/2" (12mm)	4200020
3/4" (20mm)	4200025
1" (25mm)	4200035
1 1/4" (30mm)	4200040
1 1/2" (40mm)	4200050

## Foot Valves

For fitment to suction hose. Prevents spillages and keeps pump permanently primed.



19mm	23736-0000B
25mm	23739-0000B

## Bronze Gate Valves



Available in BSP fittings in the following sizes:

1"	10024
1 1/4"	10025
1 1/2"	10026



## Ball Valves



Available in BSP fittings in the following sizes:

1/4"	108001E
3/8"	108002E
1/2"	108003E
3/4"	108004E
1"	108005E
1 1/4"	108006E
1 1/2"	108007E
2"	108008E



## Suction Strainers



300 micron mesh, self cleaning to prevent tank sludge build up.

19mm	23732-0000B
25mm	23733-0000B



# Grease Guns & Accessories

**Complete Hands Free Greasing System**



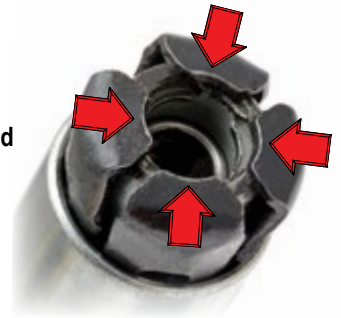
GG-119

## GG Bucket Grease Gun

The heavy duty GG Bucket Grease Gun enables quick, clean and easy greasing. Operation is by using the two stage foot pump mechanism which creates a wave action that smooths out air locks and grease is then returned to the canister after use via the pressure release system. No mess and no waste. When combined with the GR Coupler, it offers the ultimate in hands free greasing, greatly speeding up the greasing process. The solid and sturdy construction ensures that the bucket doesn't fall over when in use and with a canister volume that holds up to 8kg of grease (20 standard sized grease cartridges), time is not wasted on refilling. Supplied with 2 metre hose. Convenient fold away carry handle.

Trigger Activated Grease Nipple Connection

GGC-115



**Hands Free Grease Nipple Coupler**



## GR Grease Coupler

Trigger activated to lock onto the grease nipple for a leak free, no hands grease nipple clip on connection. Fast connect and release trigger mechanism.

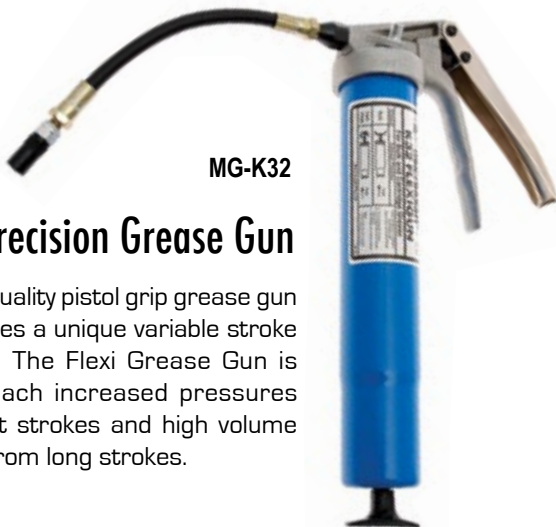
**Precision Grease Gun**

## Precision Grease Gun

Manufactured for professional use, this high quality lever grease gun is designed for high pressure volume greasing. Working pressure 10000psi.



MG-LK40



MG-K32

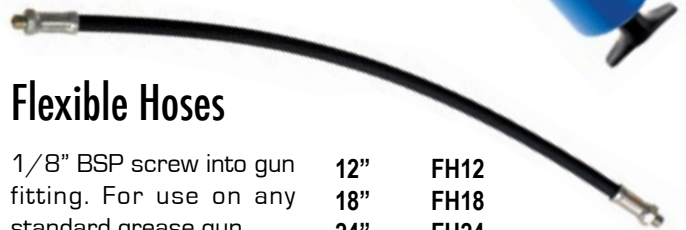
## Pistol Precision Grease Gun

This high quality pistol grip grease gun incorporates a unique variable stroke operation. The Flexi Grease Gun is able to reach increased pressures from short strokes and high volume greasing from long strokes.

## Flexible Hoses

1/8" BSP screw into gun fitting. For use on any standard grease gun.

12"	FH12
18"	FH18
24"	FH24



## Gun End Connectors



GEC-SPR

GEC-STD

## Rigid / Flexible Extension

LKFR102877

A 330mm extension which offers flexible or rigid operation by simply sliding the outer sleeve backwards or forwards.





## CLARK Advanced Lithium Complex EP2 Grease

A high quality multi-purpose grease designed for all off highway equipment in heavy-duty applications. Advanced Lithium Complex EP2 is extremely 'tacky' providing exceptional anti-wear protection to bearings and bushes. Easily identified by a red sparkle appearance, this grease is ideal for use with both manual and automatic central lubrication systems.



Refuelling & Lubrication



Pallet Quantities Available



Single 400g Cartridge  
Box of 36 Cartridges  
12.5kg Pail

LCEP2-1  
LCEP2-36  
LCEP2-12.5



## CLARK Lithium Graphite Pin & Bush Grease

Specially designed for heavy-duty applications where adhesion, shock loading and high corrosion resistance is essential. Lithium Graphite Pin & Bush is the ultimate grease for use on excavator bucket pins & bushes, crane pivots & slews and all high load bearing applications. The graphite content combined with the super 'tackiness' of this grease ensures the extended working life of components.



Pallet Quantities Available



Single 400g Cartridge  
Box of 36 Cartridges  
12.5kg Pail

PBL-1  
PBL-36  
PBL-12.5



## CLARK PTFE Telescopic Boom Grease

A specially formulated grease for the sliding surfaces of telescopic booms. Containing PTFE, Telescopic Boom Grease ensures minimum friction and low wear rates on nylon slide pads.



Pallet Quantities Available



Single 400g Cartridge  
Box of 36 Cartridges

PFTE-1  
PFTE-36

Mixed Grease Pallets Available

# Hydraulics





**Indexator Rotators  
Parker Saw Motors  
Poclain Wheel Motors  
Danfoss Wheel Motors**

# Harvester Feed Wheel Motor Service & Repair

Employing advanced cleaning equipment in a controlled environment, the new clean room facility allows our trained engineers to offer a new level of hydraulic motor servicing.

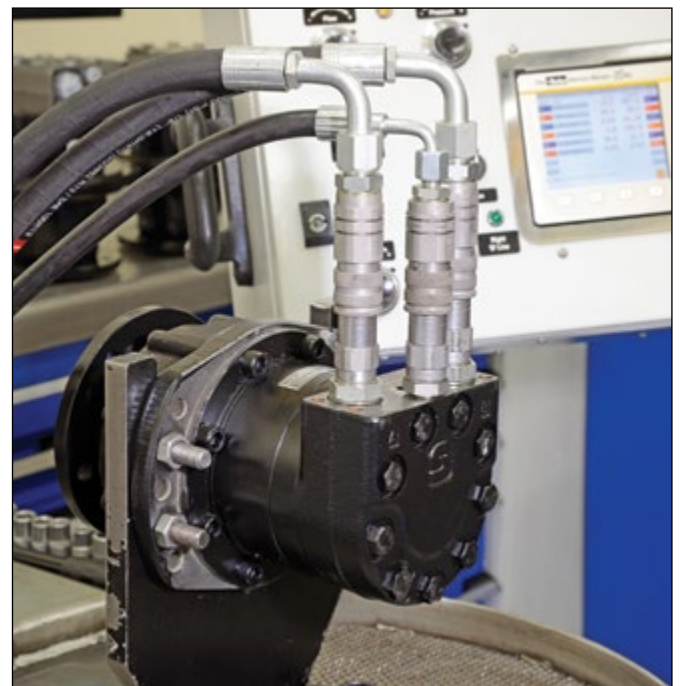
Our specially designed assembly benches employ advanced computer monitoring equipment to measure motor performance parameters.

Specialising in Poclain, Bosch Rexroth and Danfoss wheel motors we hold extensive stocks of motors and spare parts for fast service turn around.

Please contact our hydraulic motor service department for further details.



We hold large stocks of genuine service and repair parts



# Harvester Saw Motor Service & Repair

As a distributor and service centre for saw motors, we hold extensive stocks of motors and parts for most harvesting head models.

Our trained hydraulic engineers offer a complete service and repair package... whether your motor requires a simple seal or a full recondition.

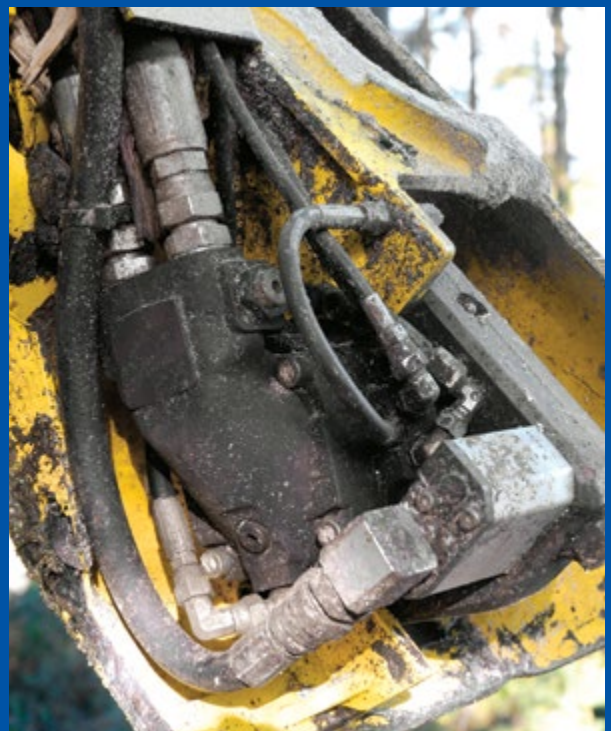
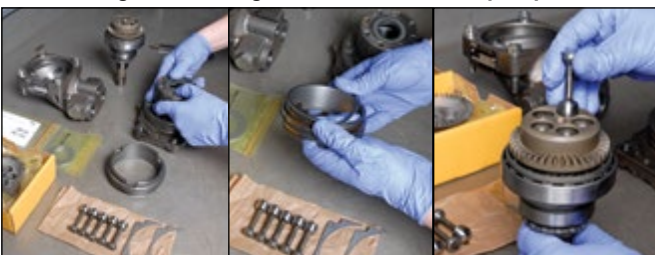
All service and repair work is carried out using genuine parts with full pressure testing taking place after final assembly.

Please contact our hydraulic motor service department for further details.

Hydraulics



We hold large stocks of genuine service and repair parts



# Indexator Rotator Service & Repair

Our specialist engineers offer a full service and repair package for all Indexator rotators. Our custom designed testing and assembly benches employ advanced computer monitoring equipment to analyse rotator performance. All service and repair work is carried out using genuine parts with full pressure testing taking place after final assembly.

Our engineers are Indexator factory trained and offer warranty inspection & repair on all Indexator rotators.

Please contact our hydraulic motor service department for further details.



For information on the full Indexator rotator and link system range, sales, service and technical assistance, see pages 90 - 113.

We hold large stocks of genuine service and repair parts





# K100 Next Generation Hose Swivels

*“A twist of as little as 10 degrees shortens the hose’s lifetime by up to 90 percent.”*

Indexator hose swivels take out that twist.

Hydraulics

Seal and support ring for high pressure

Easy to service

New design with powerful slide bearings

Secure solution - it cannot be forced apart during work

Surface treatment is highly resistant to corrosion and wear



Hardened bearing surfaces

Withstands high pressure levels

Dirt and water-resistant seal protects from outside particles

Compact dimensions

Optimised design with few parts



The K100 builds on tried-and-tested technology that eliminates pressure drops, harmful twisting and ruptured hoses, but what makes the K100 unique is the flexible modular design specially developed for modern hydraulic systems. K100 swivels are ideally suited for applications within forestry, construction, trucks, mining, agricultural machines and other highly demanding industrial applications.

With their compact design and reliable bearings, K100 swivels are dimensioned to handle truly tough assignments and high oil flows. Low torque resistance and a unique seal solution contribute to both high performance and long service life.

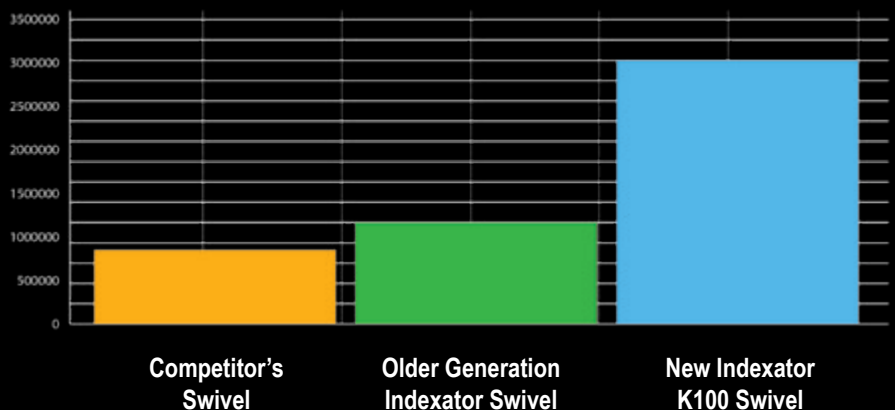


## K100 Hose Swivel Performance

Tests show that the K100 has more than twice the service life as competitor models.

Swivels taken at random from series production show that service life in respect of pressure, pressure peaks, rotation and bending moment is better by far than all the competitors.

## Number of Cycles



# K100

## Next Generation Hose Swivels



Hose Swivel Size	Fitting Type	Lock Nut	Part Number
1/4" BSP	Male/Female	No	9010020
3/8" BSP	Male/Female	No	9010017
1/2" BSP	Male/Female	No	9010000
3/4" BSP	Male/Female	No	9010001
1" BSP	Male/Female	No	9010002
1 1/4" BSP	Male/Female	No	9010015
1 1/2" BSP	Male/Female	No	9010016
3/4" BSP x 3/4" BSP	Male/Male	No	9010018
1/2" BSP x 1/2" BSP	Male/Male	No	9010019
7/8" JIC x 1/2" BSP	Male/Female	No	9010012
1 1/16" JIC x 3/4" BSP	Male/Female	No	9010010
1 5/16" JIC x 1" BSP	Male/Female	No	9010011
1 5/8" JIC x 1 1/4" BSP	Male/Female	No	9010013
1 1/16" JIC x 1 1/16" JIC	Male/Female	No	9010005
1 5/16" JIC x 1 5/16" JIC	Male/Female	No	9010006
1 3/16" ORFS x 12 UN	Male/Female	No	9010007
1 7/16" ORFS x 12 UN	Male/Female	No	9010008
1 11/16" ORFS x 12 UN	Male/Female	No	9010009



## Clark New Hydraulic Ram Manufacture



**New Rams  
Designed & Manufactured**

- ✓ Ram Design
- ✓ Ram Manufacture
- ✓ Technical Advice
- ✓ Specialist Knowledge
- ✓ Fully Equipped Workshops
- ✓ Massive Stocks Of Parts & Materials
- ✓ All Work Fully Tested Prior To Dispatch

We employ the latest CAD computer aided design systems combined with our advanced manufacturing equipment to offer our hydraulic ram design and manufacture service. We hold extensive stocks of chrome shafting, cylinder tube and hydraulic seals from 25mm to 200mm cylinder diameter in stroke lengths of up to 3 metres.

Contact our hydraulics department for specialist technical advice on the ram required for your application. We would be pleased to offer initial drawings and pricing to suit your requirements.

Hydraulics

## Clark Hydraulic Ram Repair

We offer a comprehensive hydraulic ram repair service for forestry and industrial equipment covering all of the UK.

We have the manufacturing capacity to repair hydraulic rams up to 200mm in diameter x up to 3 metres in length. We always hold large stocks of hydraulic ram component parts and raw materials. Our advanced manufacturing facilities ensure we offer a fast, efficient, reliable service.

All work is carried out in-house at our Service Centre, from the initial stripping and inspection, the machining of parts and the final assembly and pressure testing of repaired rams. Our repairs carry a 6 month warranty on the work we have carried out.



- ✓ Repaired To 'As New' Standard
- ✓ Repair Warranty 6 Months
- ✓ Fast Turnaround On Repairs
- ✓ Specialist Knowledge
- ✓ Collection & Delivery Service
- ✓ Fully Equipped Workshops
- ✓ Massive Stocks Of Parts & Materials
- ✓ All Work Fully Tested Prior To Dispatch



**All Types  
of Rams  
Repaired**

**Crane Slew Pots  
Manufactured &  
Repaired**

## Shaft Nuts • Plain, Nyloc & Tab Washers



Thread Diameter	Plain Nut Part No.	Nyloc Nut Part No.	Tab Washer Part No.
20mm	KM4P	KM4N	KM4TW
25mm	KM5P	KM5N	KM5TW
30mm	KM6P	KM6N	KM6TW
35mm	KM7P	KM7N	KM7TW
40mm	KM8P	KM8N	KM8TW
45mm	KM9P	KM9N	KM9TW
50mm	KM10P	KM10N	KM10TW
55mm	KM11P	KM11N	KM11TW
60mm	KM12P	KM12N	KM12TW

Standard Stocked Sizes Shown - Other Sizes Available To Order

## CLARK M1 Pull Hammer

Designed for the removal of pivot pins, the M1 Pull Hammer incorporates a heavy slide hammer handle on a one metre long slide shaft for high impact force. The front shaft incorporates a high tensile thread to accommodate a range of threaded end pulling tools for the removal of a wide range of pivot pins.

The standard M1 Pull Hammer comes complete with threaded tools in sizes: M10, M12, M14, M16 and M20 with the threaded end of the rod being M24.



M1PHK



## Hydraulic Seals

If you know the seal type and dimensions you require, contact or visit our Service Centre to collect your seals, or we can deliver by post or courier.

If you are unsure of the seals you require, call our Service Centre: have the old seals to hand along with the ram piston and gland and a good tape measure... we can talk you through measuring and identifying the correct seals.

If you are still unsure of the exact seals you require bring or post your old seals to us. We will identify the seals you need and supply replacement seals from our vast stocks.

Massive  
Stocks

Seal Kits  
Available



## Heli-Guard • The Original Hose Protection Coil



# HELI-GUARD



Heli-Guard is a protective sleeve designed to protect hoses against external wear in the tough forestry environment. Manufactured from strong and supple polyethylene, Heli-Guard is capable of withstanding wide variations in temperature and has rounded edges and a smooth inner surface. Heli-Guard can be easily fitted by simply spiralling onto hoses without the need to disconnect any couplings.

Please order by Outer Diameter x Length  
Required x Colour

Outer Dia	Material Thickness	Inner Dia	Yellow	Black
21mm	2.0mm	17mm	Up to 50m Lengths	Up to 50m Lengths
25mm	2.5mm	20mm	Up to 50m Lengths	Up to 50m Lengths
32mm	3.0mm	26mm	Up to 50m Lengths	Up to 50m Lengths
54mm	3.5mm	47mm	3m or 6m Lengths	3m or 6m Lengths
75mm	5.5mm	64mm	3m or 6m Lengths	3m or 6m Lengths
96mm	6.0mm	84mm	3m or 6m Lengths	3m or 6m Lengths
110mm	6.5mm	97mm	3m or 6m Lengths	3m or 6m Lengths
140mm	6.5mm	127mm	3m or 6m Lengths	3m or 6m Lengths

Hydraulics

## Magnum Hose Cutters



Standard  
cuts up to  
ø 3/4" hose

XL  
cuts up to  
ø 1 1/4" hose

The fast and economical way to cut hose. A specially designed jaw profile ensures minimum hose deformation and gives a clean square cut with a minimum of cutting force required. Available in two sizes: Standard - cuts up to 3/4" hose and XL - cuts up to 1 1/4" hose. The hardened alloy steel cutting jaws are replaceable. Standard Magnum hose cutters are 770mm in length and Magnum XL cutters are 1007mm in length.

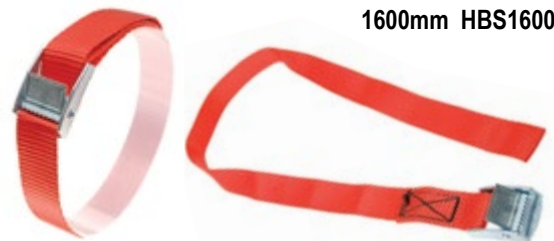
Standard Magnum Cutters  
Standard Replacement Jaws  
XL Magnum Cutters  
XL Replacement Jaws

MCC770-C  
MCC770-J  
MCC1007-C  
MCC1007-J

## Hose Bundling Straps

Available in two lengths, 800mm and 1600mm, these straps are specially designed for holding hydraulic hose bundles on forest machines. Manufactured from high strength 25mm wide webbing, they come complete with a fast action adjustable buckle.

800mm HBS800  
1600mm HBS1600



## Hydraulic Oil Transfer Pump



JABSCO



Available in 12v & 24v models, the hydraulic oil transfer pump offers flows up to 26 litres per min and is the ideal pump for filling forest machine hydraulic oil and chain oil tanks.

12v 23590-2010

24v 23590-2110

# Plain Spherical Bearings, Circlips & Weld-On Housings



We Can Also Manufacture Special Sized Housings To Order

Bearings				Circlips		Housings			
Part No	i.d.	o.d.	Width over Ball	Part No	Part No	o.d.	i.d.	Width	
SR20	20mm	35mm	16mm	CIR20	WH20	50mm	35mm	19mm	
SR25	25mm	42mm	20mm	CIR25	WH25	60mm	42mm	23mm	
SR30	30mm	47mm	22mm	CIR30	WH30	70mm	47mm	28mm	
SR35	35mm	55mm	25mm	CIR35	WH35	85mm	55mm	30mm	
SR40	40mm	62mm	28mm	CIR40	WH40	95mm	62mm	35mm	
SR45	45mm	68mm	32mm	CIR45	WH45	110mm	68mm	40mm	
SR50	50mm	75mm	35mm	CIR50	WH50	120mm	75mm	40mm	
SR60	60mm	90mm	44mm	CIR60	WH60	138mm	90mm	50mm	
SR70	70mm	105mm	49mm	CIR70	X	X	X	X	
SR80	80mm	120mm	55mm	CIR80	X	X	X	X	
SR100	100mm	150mm	70mm	CIR100	X	X	X	X	



## Weld-On Bearing Housings with Bearings



'D' End Type

Part No	Centre Bearing Type	Bearing i.d.	Housing Width	Housing Thickness	Housing Length
TS20N	SR20	20mm	50mm	19mm	63mm
TS25N	SR25	25mm	55mm	23mm	72.5mm
TS30N	SR30	30mm	65mm	28mm	83.5mm
TS35N	SR35	35mm	83mm	30mm	102.5mm
TS40N	SR40	40mm	100mm	35mm	119mm
TS45N	SR45	45mm	110mm	40mm	132mm
TS50N	SR50	50mm	123mm	40mm	149.5mm
TS60N	SR60	60mm	140mm	50mm	170mm
TS70N	SR70	70mm	164mm	55mm	197mm
TS80N	SR80	80mm	180mm	60mm	231mm



Shaft End Type

Part No	Centre Bearing Type	Bearing i.d.	Housing Width	Housing Thickness	Shaft Weld to Dia
TS20C	SR20	20mm	53mm	13mm	27.5mm
TS25C	SR25	25mm	64mm	17mm	33.5mm
TS30C	SR30	30mm	73mm	19mm	40mm
TS35C	SR35	35mm	82mm	21mm	47mm
TS40C	SR40	40mm	91mm	23mm	45mm
TS45C	SR45	45mm	102mm	27mm	50.5mm
TS50C	SR50	50mm	112mm	30mm	56mm
TS60C	SR60	60mm	133mm	38mm	66.5mm

# Bronze Pivot Bushes

Standard Stocked Sizes Indicated In Tables  
Other Sizes Are Available To Order

## WBB 800 Series Plain Bushes

(with diamond indentation grease pockets)



i.d.	Bush o.d.	Length									
		15mm	20mm	25mm	30mm	40mm	50mm	60mm	80mm	90mm	100mm
20mm	23mm	✓									
25mm	28mm			✓							
28mm	31mm				✓						
30mm	34mm				✓	✓					
35mm	39mm				✓	✓	✓				
40mm	44mm		✓			✓	✓				
45mm	50mm				✓	✓	✓				
50mm	55mm				✓	✓	✓	✓			
55mm	60mm								✓		
60mm	65mm				✓	✓	✓	✓			
65mm	70mm									✓	
70mm	75mm					✓	✓	✓	✓		
75mm	80mm										✓
80mm	85mm								✓	✓	
90mm	95mm							✓			✓
100mm	105mm							✓			✓



## WBB 802 Series Plain Bushes

(with full hole through grease pockets)

i.d.	Bush o.d.	Length					
		40mm	50mm	60mm	70mm	80mm	
35mm	39mm	✓	✓				
45mm	50mm	✓	✓				
50mm	55mm	✓	✓	✓	✓		
60mm	65mm	✓	✓	✓	✓		
65mm	70mm	✓					
70mm	75mm	✓	✓	✓		✓	
75mm	80mm			✓			
80mm	85mm	✓		✓		✓	
90mm	95mm		✓				

## WBB 800 Series Bushes with Flange

(with diamond indentation grease pockets)



i.d.	Bush o.d.	Flange o.d.	Length							
			30mm	35mm	40mm	45mm	50mm	60mm	70mm	80mm
25mm	28mm	35mm	✓							
30mm	34mm	45mm	✓							
35mm	39mm	50mm		✓						
40mm	44mm	55mm			✓					
45mm	50mm	60mm				✓	✓			
50mm	55mm	65mm	✓		✓		✓			
60mm	65mm	75mm						✓		
70mm	75mm	85mm							✓	
75mm	80mm	90mm			✓			✓		
80mm	85mm	95mm								✓

## WBB 802 Series Bushes with Flange

(with full hole through grease pockets)



i.d.	Bush o.d.	Flange o.d.	Length									
			30mm	35mm	40mm	45mm	50mm	60mm	70mm	80mm	90mm	
25mm	28mm	35mm	✓									
30mm	34mm	45mm	✓									
35mm	39mm	50mm		✓								
40mm	44mm	55mm			✓							
45mm	50mm	60mm				✓	✓					
50mm	55mm	65mm	✓		✓		✓					
60mm	65mm	75mm						✓				
70mm	75mm	85mm							✓			
75mm	80mm	90mm				✓		✓				
80mm	85mm	95mm								✓		
100mm	105mm	115mm									✓	



# Engineering

Engineering Design  
Forest Equipment Manufacture  
Machining, Fabrication & Welding  
Grab & Grapple Repair



# DOOSAN-FANUC i Series

MANUAL GUIDE 1  
ACTUAL POS. (ABS.)

X	-107.8005
Y	99.8000
Z	1.5000
A	0.0000

DIST TO GO G03

X	248.385
Y	-99.8000
Z	0.0000
A	0.0000

SPINDLE R1001 STRT MTH S1

820 RPM

FEED F 380 MM/MIN

41% (Z)

01230

```
13 T1 ;  
14 G43 Z2.0 H4 D4 M7 ;  
15 G1 Z1.5 F600 ;  
16 / G1 X140.5 Y0 I-140.5 J0 ;  
17 / G3 X140.5 F380 ;  
18 / G1 X110 ;  
19 / G1 X110 ;  
20 / G1 X140.5 F380 ;  
21 / G3 X140.5 Y0 I-140.5 J0 ;  
22 / G1 X110 ;  
23 G0 X0 Y0 ;  
24 G1 Z-50. F800 ;
```

Engineering

Navigation buttons: [REVERSE], [STOP], [FEED HOLD], [RESET], [SRCH], [SRCH], [ACTPOS], [PRESET], [HESLST], [NCHDRM], [SIMLAT]

QWERTY keyboard

NUMERIC keypad

SYSTEM button

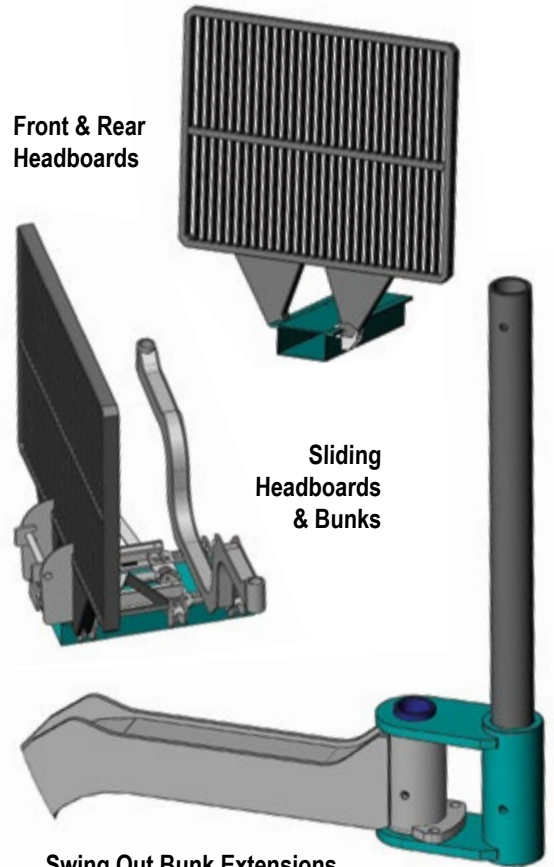
Emergency stop button (red)



# Specialist Forestry Equipment Designed & Manufactured



Alloy Steel Bunks



Front & Rear  
Headboards

Sliding  
Headboards  
& Bunks

Swing Out Bunk Extensions



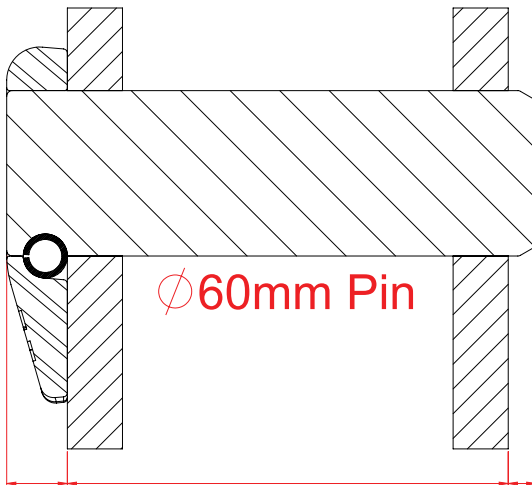
# SIDE-LOCK Pivot Pin Locking System



The SIDE-LOCK Pin Locking System has been used by our Powerhand Attachments division on grabs and grapples for over ten years. SIDE-LOCK offers a superior pin locking system, is fast to fit, completely secure and locks the pin from movement both axially and radially.



Engineering



Available for 60mm dia. pivot pins and made to the length required for your grab.

Please give dimension 'L', the outside width of the pivot lugs, when ordering.

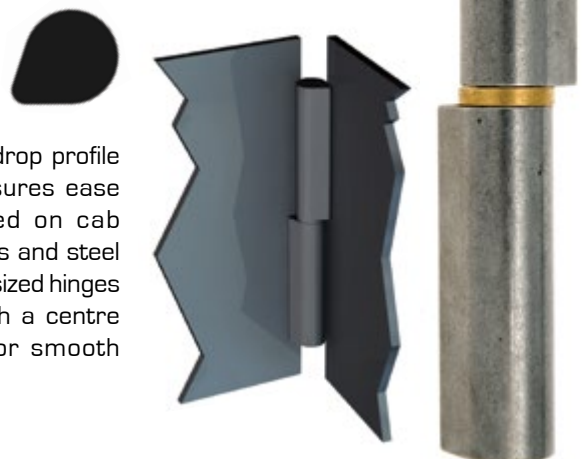
22mm      L mm      10mm

**powerhand**  
ATTACHMENTS

## Weld On Teardrop Hinges

Part Number	Length	Specification
TDH60	60mm	without grease nipple
TDH80	80mm	without grease nipple
TDH100	100mm	without grease nipple
TDH120	120mm	without grease nipple
TDH160	160mm	without grease nipple
TDH120G	120mm	with grease nipple
TDH180G	180mm	with grease nipple

The special teardrop profile of the hinge ensures ease of welding. Used on cab doors, toolbox lids and steel windows. Larger sized hinges are available with a centre grease nipple for smooth operation.





## Loader Grab Repair



**Grab Prior To Repair:**  
 Fork Legs Worn, Broken & Twisted  
 Bushings & Pivots Worn  
 Hoses Leaking & Hydraulic Rams Damaged



**Damaged Leg Plates Are Cut Away**



**New Alloy Steel Fork Plates Are Fabricated And Welded To Grab**



**Repaired Grab:**  
 New Alloy Steel Fork Legs & Wear Plates  
 New Pivot Pins & Bushes  
 New Hydraulic Hoses  
 Rams Fitted With New Piston Shafts & Hydraulic Seals  
 Grab Assembled & Painted



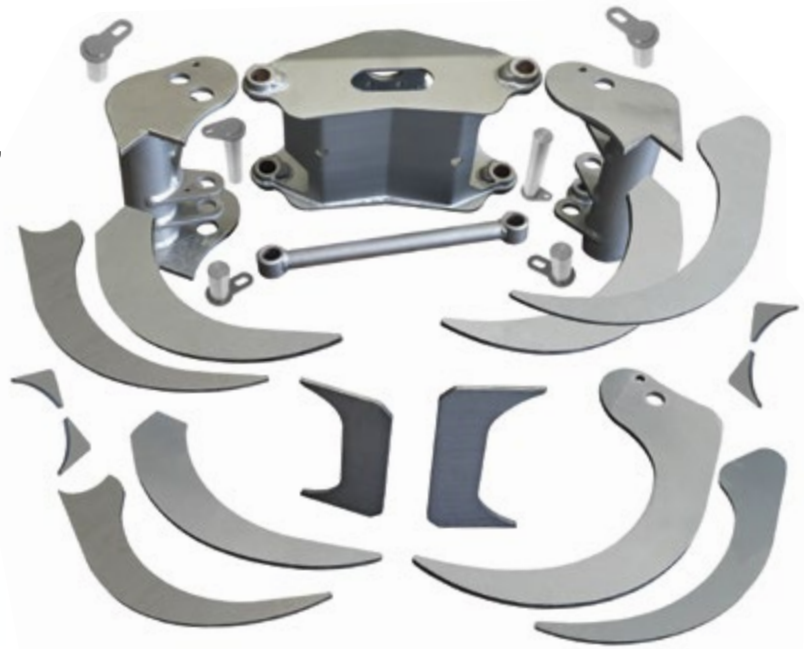
# We Repair all Makes & Types of Grab



## Timber Grapple Service & Repair

Broken & Worn Grapple  
Prior To Repair

Grapple Stripped, Shotblasted,  
Damaged Parts Cut Off & New  
Parts Manufactured



Components Welded & Grapple Assembled  
New Pins & Bushes Fitted



## From A Minor Repair, To Re-Pinning & Bushing, To A Complete Grapple Re-Build



Completed Repair: New Alloy Steel Components  
Ram Repaired & Painted



# Timber Handling

Cranes | Materials Handling | Rotators  
Weigh Link Systems



Timber Handling



Forwarder Cranes

Harvester Cranes

Tractor Cranes

Timber Trailer Cranes

Recycling Cranes

Sawmill Cranes

**Cranab<sup>®</sup>** 

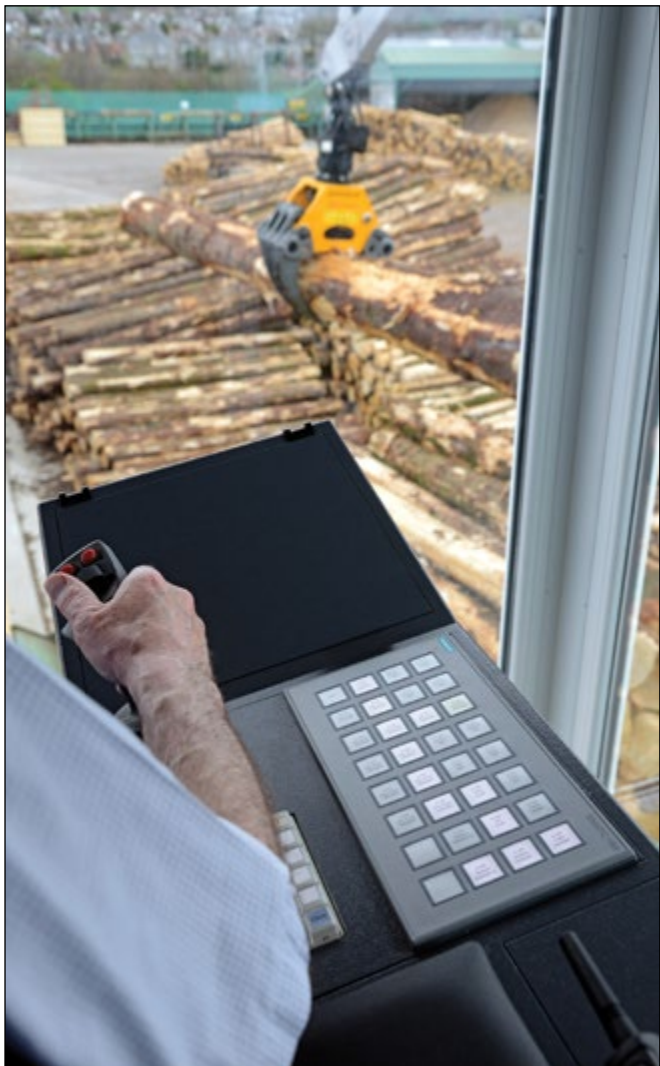


# Cranab Static Mounted Cranes

Cranab offer an extensive range of cranes for static mount materials handling with reaches from 4.75 to 10 metres and lifting capacities of up to 1250kg at 8.5 metres reach. Cranab cranes are designed to 85 cycle standard, the highest for forest cranes and can be used for 100% duty cycle. A wide range of log and materials handling grabs and attachments can be used with Cranab cranes for all types of handling operations. Cranab cranes are today in worldwide use in sawmills and recycling stations.



Static Mounted Crane on Sawmill Log Line



Cabin Crane Operation



Wireless Remote Crane Operation



## Cranab Spares, Service & Repair

We hold large stocks of spare parts for Cranab cranes and grapples. Our Cranab factory trained engineers can offer service, repair and parts for Cranab products.



Timber Handling

# Cranab Cranes For Tractor & Trailer Mounting

Cranab FC timber cranes are ideally suited for mounting on both agricultural tractors and forestry trailers. With a wide range of control systems and boom reach options available, Cranab can cater for most crane applications and customer requirements.

Please contact our sales department for further information.





# Cranab Timber Grapples

We offer the full range of Cranab grapples, with models suitable for use with forwarders, timber trucks and excavators. Cranab grapples are designed for excellent log bundling geometry and combine hardened steel expander pivot pins for a long and trouble free operating life. Cranab grapples are manufactured from extra high strength steel. Special heavy duty HD models are available for use on excavators.



Also available with Powerhand SIDE-LOCK Pin Locking System on all four leg pivots



See Page 65

**HEAVY DUTY**

Grapple Type		CR200	CR250	CR280	CR360	CR400	CR360HD (HEAVY DUTY)	CR400HD (HEAVY DUTY)
Max working pressure	bar	190	235	235	235	235	235	235
Weight	kg	115	170	200	270	295	340	375
Gripping Area	m <sup>2</sup>	0,19	0,23	0,26	0,33	0,40	0,33	0,40
Max Jaw Opening	mm	1290	1443	1500	1820	1980	1816	1980
Min Grip dia	mm	Ø82	Ø 57	Ø 90	Ø 124	Ø 129	Ø 124	Ø 129
Jaw Width	mm	341	456	456	520	520	576	576
Fully Open Height	mm	704	780	784	801	885	802	885
Fully Closed Height	mm	781	862	886	990	1066	975	1066
Power at tip: max open grapple width	kp	730	1018	1059	1440	1752	1440	1750
Power: Tip to Tip	kp	920	1232	1242	1590	1965	1590	1960
Max load	kg	2000	3500	3500	5000	5500	7000	7000
Expander pins	y/n	No	Yes	Yes	Yes	Yes	Yes	Yes

Timber Handling

## Cranab CR X-Grip Grapples



- Innovative Tapered Jaw Profile
- Easier Movement Around Forest Floor Obstacles
- Less Debris Collected From Forest Floor
- Increased Ability To Penetrate Log Piles
- Improved Operator Visibility Of Jaw Tip
- Improved Working Performance

The CR X-Grip Grapple based on proven Cranab grapple construction incorporates an innovative new tapered jaw profile. The new jaw shape increases timber handling performance with the tapered profile more able to penetrate log piles, glide past obstacles and lift less debris from the forest floor. The tapered profile also offers better operator visibility of the jaw tip enabling improved working performance of the grapple and crane.



Grapple Type	Gripping Area (m <sup>2</sup> )	Min Grip dia. mm	Jaw Width mm	Grapple Weight kg	Fully Open Height mm	Fully Closed Height mm	Max Jaw Opening mm	Max Load kg	Max Working Pressure bar	Power At Tips Fully Open kp	Power Tip To Tip kp
CR280x	0.26	ø90	456	200	784	886	1500	3500	235	1059	1242
CR360x	0.33	ø124	520	270	801	990	1820	5000	235	1440	1590

CR360 HDx Heavy Duty	0.33	ø124	576	340	802	975	1816	7000	235	1440	1590
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## Cranab Energy Grapples



**Cranab**®

Designed to handle tree branches, brushwood and other biomass materials. Ideal for feeding mechanised chipping and shredding machines. Fitted with reinforced, heavy duty, penetrating tines.

Grapple Type	Gripping Area (m <sup>2</sup> )	Min Grip dia. mm	Jaw Width mm	Grapple Weight kg	Fully Open Height mm	Max Jaw Opening mm	Max Load kg	Max Working Pressure bar	Power At Leg Tips kp
CE250 4Leg	0.23	ø57	456	165	780	1443	3500	235	1018
CE270k3 3Leg	0.24	ø90	412	167	821	1225	3500	230	1240
CE280 4Leg	0.25	ø90	460	225	780	1500	3500	235	1060
CE360 4Leg	0.30	ø124	550	295	755	1820	5000	235	1440

✓ Expander Pins

# Cranab Grapple Saw Unit

The Cranab GSK Saw Cassette can be mounted on most grapples in the Cranab and Powerhand ranges. Suitable for different saw bar lengths, the saw unit is available for cutting logs up to 600mm diameter.



The GSK Saw Cassette incorporates many innovative design features to ensure a smooth efficient operation whilst featuring a low overall power requirement. Chain tensioning is automatic and the unit utilises 15mm slot type harvester bars. The chain is lubricated from a separate oil tank with adjustable flow.



## Features

- Self contained saw unit.
- Automatic chain tensioning and bar return.
- Separate oil tank for chain lubrication with adjustable flow.
- Quick change bar and chain.
- Heavy-duty 18H bar and chain.

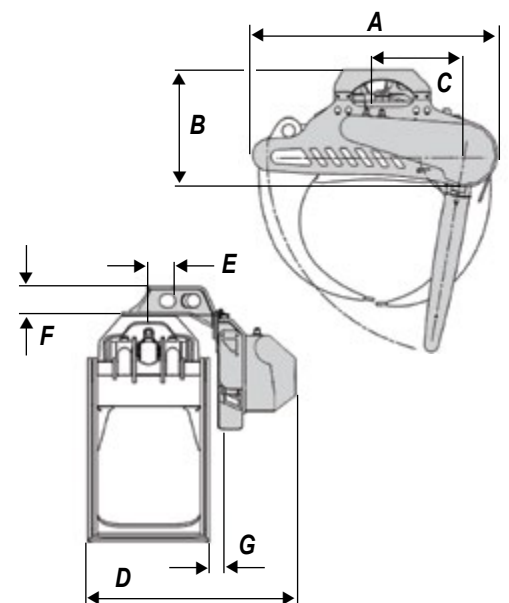


## Benefits

- Needs only one hydraulic service to operate (flow/ return).
- Low power flow of 190-250 bar at 80-100 litres per minute.
- Oil can easily be ported to the saw unit through Indexator GV124 or GV124-S rotators.

## Dimensions

		GS-28	GS-36	GS-40
Length Of Bar		750mm	820mm	900-1000mm
Suitable For Grapples		0.23 - 0.26m <sup>2</sup>	0.33m <sup>2</sup>	0.40m <sup>2</sup>
Weight (saw unit only)		110kg	110kg	110kg
Overall Length	A	1060mm	1135mm	1220mm
Overall Height	B	490mm	545mm	545mm
Bar Pivot Centre	C	430mm	470mm	470mm
Width	D	810mm	890mm	890mm
Offset Centre Of Gravity	E	105mm	105mm	105mm
Increased Grapple Height	F	125mm	125mm	125mm
Distance - Bar From Grab	G	65mm	65mm	65mm
Oil Pressure & Flow		190-250 bar	80-100 L/min	



Timber Handling

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Specialist Grabs Designed & Manufactured For All Applications





# Powerhand Single Log Sorting Grapples



Well Protected Hydraulic Cylinder & Hoses

Narrow Tines

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## Features

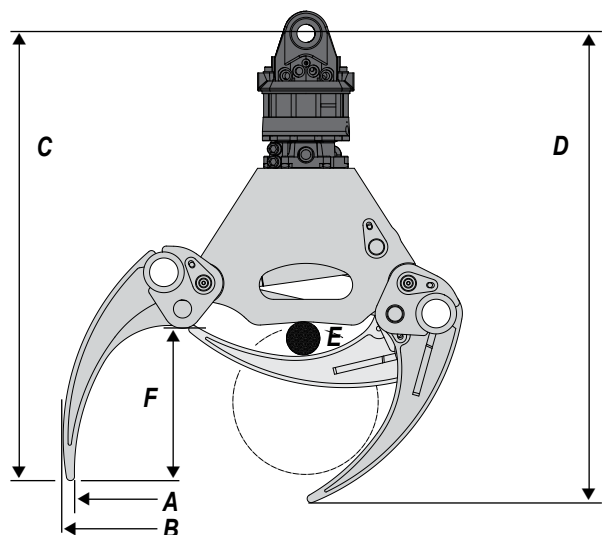
- Designed for single log / pole handling.
- Manufactured from high grade Swedish alloy steels.
- Optional lock valve can be fitted to hydraulic cylinder.
- Optional relief valve for excavator fitting.
- Well protected hydraulic cylinder and hoses.
- Leg width extensions are available for pole handling to avoid grip marks on the material being lifted.

## Benefits

- Compact dimensions.
- Narrow tines are perfect for penetrating piles of stacked material.
- Fast action - ideal for sorting cranes on sawmill log lines.
- Light enough to be mounted on a truck crane for pole handling, yet still robust enough to be fitted to a small excavator.
- Ideal for Rototilt® / tilt rotator fitting.

## Dimensions

	GT-15	GT-20
Capacity	0.15m <sup>2</sup>	0.20m <sup>2</sup>
Weight (excluding rotator)	150kg	170kg
Jaw Opening	A 1010mm	970mm
Overall Opening	B 1110mm	1110mm
Open Height	C 1120mm	1180mm
Tip to Tip Height	D 1140mm	1190mm
Min Gripping Diameter	E 45mm	45mm
Clearance	F 425mm	480mm
Width at Tips	230mm	230mm



# Powerhand Heavy Duty Timber Grapples

## Features

- For large truck crane and excavator fitment.
- Twin hydraulic cylinders for increased gripping power on GH-80 and GH-100 models.
- Large diameter pivot pins and bushes ensure a long working life.
- Well protected cylinders and hoses.
- Optional cylinder lock valves.
- Optional pressure relief valve to allow fitment to excavators.
- Manufactured from high strength Swedish alloy steels.

## Benefits

- Designed to work specifically with materials handlers.
- Huge open span in relation to grapple size, yet still able to pick up and hold a single log.
- Two ram size options - speed of operation or maximum power.
- Excellent log bundling ability.
- Can be fitted with Indexator's GV or IR rotators.
- Compatible with Rototilt® / tilt rotator fitting.



SCAN FOR VIDEO

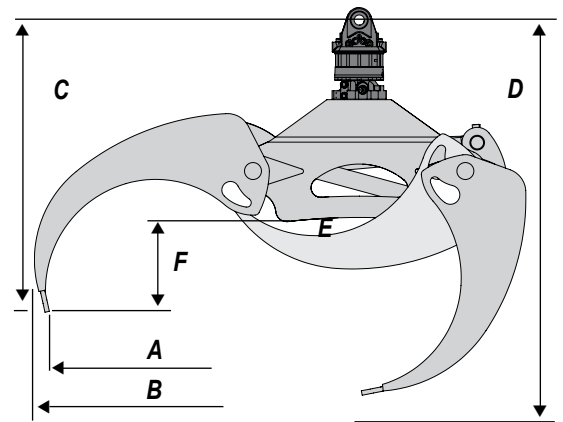
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Twin Hydraulic Rams



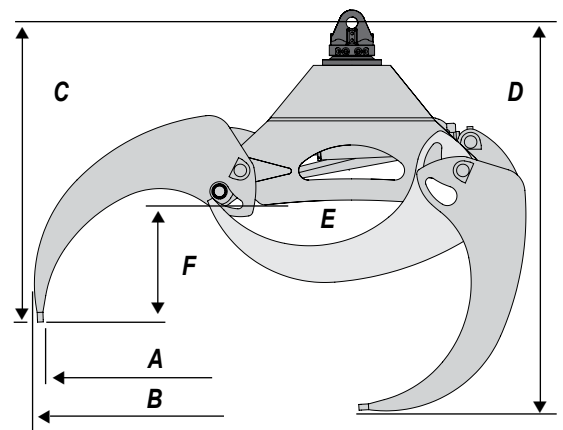
Large Diameter Pins & Bushes



GH-60

## Dimensions

		GH-60	GH-80	GH-100
Capacity		0.6m <sup>2</sup>	0.8m <sup>2</sup>	1.0m <sup>2</sup>
Weight (excluding rotator)		690kg	980kg	1190kg
Jaw Opening	A	2400mm	2820mm	3220mm
Overall Opening	B	2580mm	3000mm	3390mm
Open Height	C	1460mm	1520mm	1570mm
Tip to Tip Height	D	1675mm	1860mm	2050mm
Min Gripping Diameter	E	125mm	175mm	220mm
Clearance	F	570mm	600mm	620mm
Width		700mm	760mm	760mm



GH-80 & GH-100

# Powerhand Brushwood Grapples



## Features

- Designed to handle brushwood, such as tree branches, hedges and forest brush but also ideal for loose materials such as paper and cardboard.
- Available in 5 or 7 tine models - T5 & T7.
- Manufactured from high strength Swedish alloy steels.
- Optional pressure relief valve to allow fitting to excavators.
- Optional cylinder lock valve.
- High strength reinforced legs.
- Single ram gives fast operating cycle times.
- T5 model can be used with the GSK saw unit.



Well Protected  
Hydraulic  
Cylinders



5 & 7  
Tine  
Options

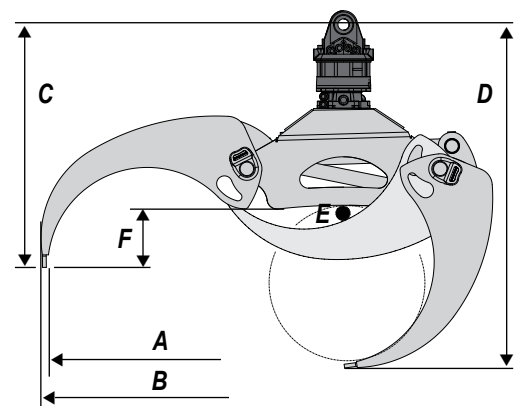
## Benefits

- Ideal for loading chippers as the tined legs are less likely to pick up stones and other unwanted debris.
- Excellent log bundling geometry.
- De-glazing ring on hydraulic cylinder vastly extends seal life.
- Ideal for Rototilt® / tilt rotator fitting.

## Dimensions

		GB-23	GB-26	GB-33	GB-40
Capacity		0.23m <sup>2</sup>	0.26m <sup>2</sup>	0.33m <sup>2</sup>	0.40m <sup>2</sup>
Weight (excl rotator) T5		190kg	220kg	310kg	350kg
Weight (excl rotator) T7		290kg	330kg	440kg	490kg
Jaw Opening	A	1445mm	1500mm	1820mm	1980mm
Overall Opening	B	1585mm	1670mm	1925mm	2115mm
Open Height	C	1110mm	1115mm	1130mm	1215mm
Tip to Tip Height	D	1190mm	1220mm	1320mm	1400mm
Min Gripping Diameter	E	57mm	90mm	125mm	130mm
Clearance	F	435mm	435mm	480mm	480mm
Width - T5		455mm	455mm	575mm	575mm
Width - T7		910mm	910mm	1150mm	1150mm

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# Powerhand Three Tine Grapples



## Features

- Multi-purpose grapple - ideal for handling tree stumps, light rocks and scrap rail.
- Designed for excavator or loader crane fitting.
- Optional pressure relief valve.
- Cylinder lock valve as standard.
- Can be used with the GS saw unit.
- Single ram gives fast operating cycle times.
- Robust leg stops.
- Manufactured from high strength Swedish alloy steels.

Cylinder Lock Valve



Robust Leg Stops



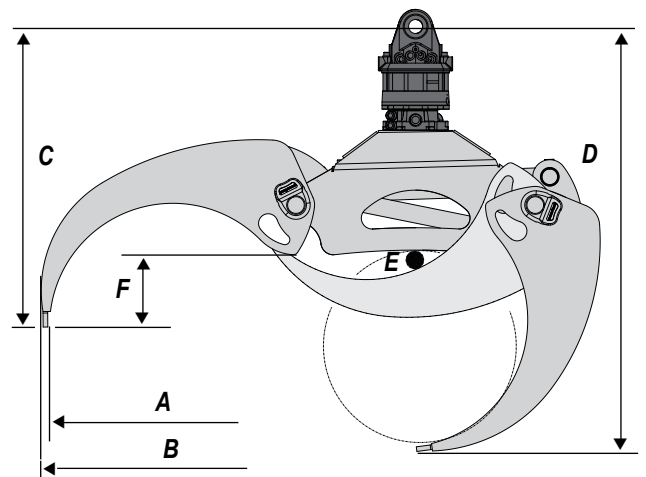
## Benefits

- Rugged box section legs.
- De-glazing ring on hydraulic cylinder vastly extends seal life.
- Ideal for Rototilt® / tilt rotator fitting.
- Robust 3 leg design.

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## Dimensions

	GM-26	GM-33	GM-40
Capacity	0.26m <sup>2</sup>	0.33m <sup>2</sup>	0.40m <sup>2</sup>
Weight (excl rotator)	260kg	330kg	370kg
Jaw Opening	A 1500mm	1820mm	1980mm
Overall Opening	B 1670mm	1925mm	2115mm
Open Height	C 1085mm	1110mm	1185mm
Tip to Tip Height	D 1280mm	1320mm	1400mm
Min Gripping Diameter	E 90mm	125mm	130mm
Clearance	F 420mm	385mm	465mm
Width	455mm	520mm	520mm



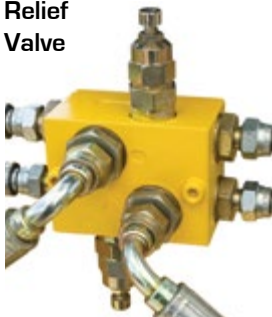
## Features

- Multi-purpose grapple, ideal for light demolition work, handling logs, sleepers, scrap rail and other bundling and pinching applications.
- Manufactured from high grade Swedish alloy steels.
- Heat treated hardened cutting edges and wear plates.
- Hydraulic cylinder lock valves.
- Pressure relief valves for excavator use.
- Twin hydraulic cylinders provide high gripping forces.



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Relief Valve



Cylinder Lock Valves

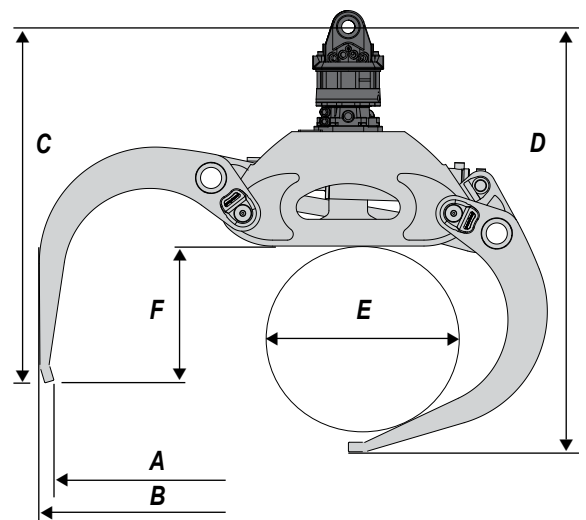


## Benefits

- Strong boxed leg sections make this grab ideal for heavy load handling.
- Ideal for Rototilt® / tilt rotator fitting.

## Dimensions

	GR-40	GR-60	GR-80
Capacity	0.4m <sup>2</sup>	0.6m <sup>2</sup>	0.8m <sup>2</sup>
Std Weight (excl rotator)	465kg	620kg	850kg
Jaw Opening	A 1470mm	1960mm	2080mm
Overall Opening	B 1630mm	2080mm	2250mm
Open Height	C 1170mm	1200mm	1230mm
Closed Height	D 1290mm	1425mm	1490mm
Min Gripping Diameter	E 540mm	650mm	710mm
Clearance	F 470mm	480mm	490mm
Width	690mm	760mm	760mm



# Powerhand Clam Grapples

## Features

- Ideal 'all-in-one' grapple for many different types of work.
- Manufactured from high strength Swedish alloy steels.
- Available with plain, grid or pierced back options.
- Bolt on side plates to increase clamshell capacity when handling loose materials. Bolt on teeth are ideal for demolition work / rock handling.
- Heat treated hardened cutting edges and wear plates.
- Hydraulic cylinder lock valves.
- Pressure relief valves for excavator use.
- Twin hydraulic cylinders provide high gripping forces.
- Optional digging teeth.



Relief Valve



Cylinder Lock Valves



Optional Bolt On Jaws

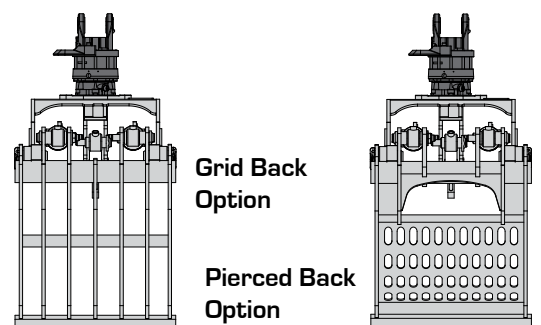


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Timber  
Handling

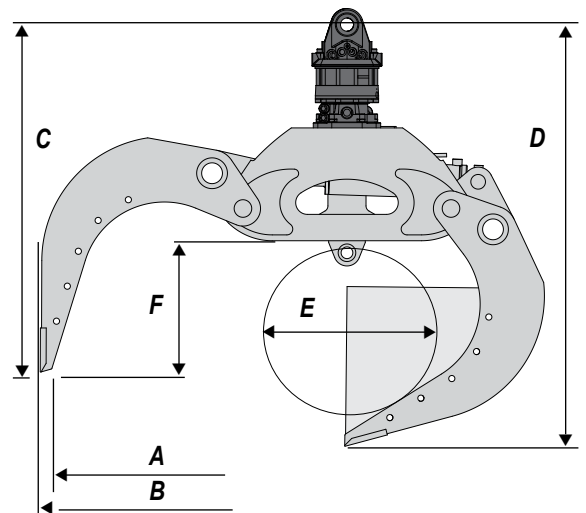
## Benefits

- Combines the benefits of a clamp grapple with a clamshell in one.
- Powerful twin hydraulic cylinders.
- Ideal for Rototilt® / tilt rotator fitting.



## Dimensions

		CG-43	CG-64	CG-88
Capacity		300Litres	400Litres	800Litres
Std Weight (excl rotator)		620kg	660kg	730kg
Jaw Opening	A	1580mm	2010mm	2180mm
Overall Opening	B	1630mm	2080mm	2250mm
Open Height	C	1170mm	1200mm	1230mm
Closed Height	D	1290mm	1425mm	1490mm
Min Gripping Diameter	E	540mm	650mm	710mm
Clearance	F	470mm	480mm	490mm
Width		690mm	760mm	760mm



# Features

- Designed for log carrying on today's high capacity wheeled loaders.
- Manufactured from high strength Swedish alloy steels.
- Robust leg stops, large diameter pivot pins and bushes ensure a long working life.
- Well protected hydraulic cylinders and hoses.



# Powerhand Hi-Capacity VK Log Grapples



# Benefits

- Horizontally mounted hydraulic cylinders reduces overall height, lowering machine boom during operation, increasing machine stability and offering extra lifting reach.
- Leg design and dimensions ease log bin unloading where there are tight clearances over the log line.
- Large capacity construction, yet still allows for a single log to be held.
- Fitted with Indexator's robust industrial rotators.



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Easy Access To Lower Rotator Hoses



Well Protected Hydraulic Cylinders

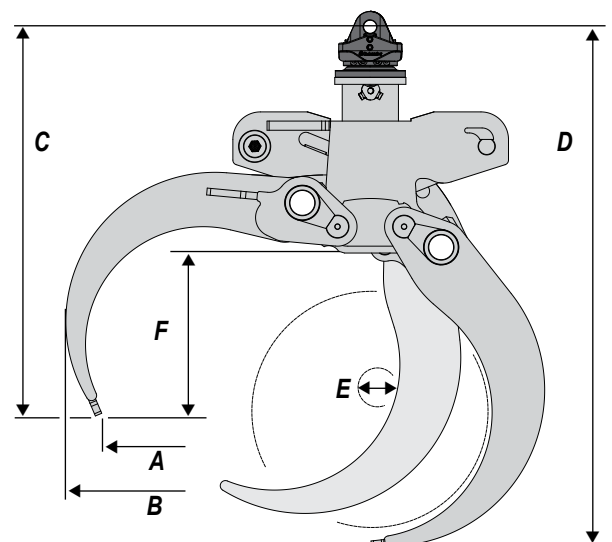


Robust Construction For Long Life



# Dimensions

		VK-08	VK-10	VK-12
Capacity		0.8m <sup>2</sup>	1.0m <sup>2</sup>	1.25m <sup>2</sup>
Weight (excluding rotator)		1320kg	1530kg	1760kg
Jaw Opening	A	2380mm	2440mm	2700mm
Overall Opening	B	2710mm	2790mm	3070mm
Open Height	C	1645mm	1675mm	1730mm
Tip to Tip Height	D	2240mm	2275mm	2435mm
Min Gripping Diameter	E	75mm	80mm	100mm
Clearance	F	660mm	675mm	745mm
Width at Tips		700mm	700mm	700mm



# Powerhand DK Hi-Capacity Log Grapples

## Features

- Our highest capacity log grapple series.
- Designed for log carrying and handling with today's high capacity wheeled loaders.
- Manufactured from high strength Swedish alloy steels.
- Robust leg stops and large diameter pivot pins & bushes ensure a long working life.
- Well protected hydraulic cylinders and hoses.



## Benefits

- Excellent log bundling ability. The design ensures no 'hollow pockets' where logs could slide from the middle of the load.
- High power gripping force.
- Remote greasing points for ease of maintenance.
- Large capacity construction, yet still allows for a single log to be held.
- Fitted with Indexator's robust IR industrial rotators.

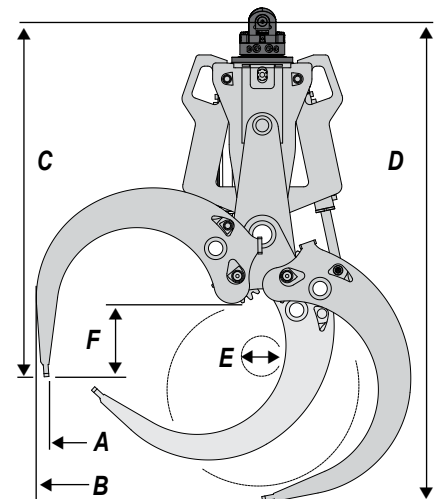


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## Dimensions

	DK-10	DK-13	DK-15	DK-17	DK-21
Capacity	1.0m <sup>2</sup>	1.3m <sup>2</sup>	1.5m <sup>2</sup>	1.7m <sup>2</sup>	2.1m <sup>2</sup>
Weight	1610kg	1682kg	1738kg	1810kg	1892kg
Jaw Opening	A 2410mm	2650mm	2880mm	2980mm	3300mm
Overall Opening	B 2620mm	2850mm	3080mm	3230mm	3690mm
Open Height	C 2190mm	2217mm	2240mm	2400mm	2520mm
Tip to Tip Height	D 2900mm	2995mm	3080mm	3150mm	3400mm
Min Gripping Diameter	E 140mm	150mm	150mm	170mm	260mm
Clearance	F 400mm	450mm	480mm	600mm	810mm
Width at Tips	800mm	800mm	800mm	800mm	800mm



Timber Handling

# Powerhand Loader Grabs



## Features

- Sorting grapple, designed for use with today's high capacity loaders.
- Available as quick hitch or direct mount to suit a range of machines.
- Manufactured from high strength Swedish alloy steels.
- Robust leg stops and large diameter pivot pins ensure a long working life.
- Optional crossline relief valve can be fitted to adjust the gripping pressures.
- Well protected hydraulic cylinders and hoses.
- Heat treated hardened fork tines and wear plates.



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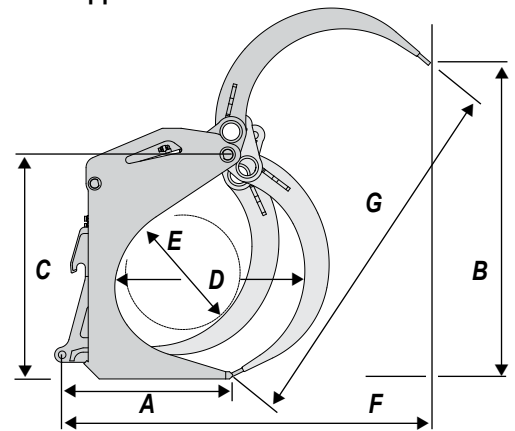
Can Be Built To Any Width To Suit Your Application



Short Forks Version Also Available

## Benefits

- Compact but strong rear frame keeps the centre of gravity close to the base machine, increasing stability.
- Wide grooved top forks minimise log roll / spillage on unloading.
- Open frame design provides driver with good visibility of the load.
- Can be manufactured to any width to suit your log bin width.
- Computer designed working geometry ensures excellent log bundling ability, with no 'hollow pockets' where logs could slide from the middle of the load.



		LG-50	LG-70	LG-90	LG-110	LG-120	LG-150	LG-180
Capacity		1.1m <sup>2</sup>	1.4m <sup>2</sup>	1.7m <sup>2</sup>	2.0m <sup>2</sup>	2.5m <sup>2</sup>	3.0m <sup>2</sup>	3.5m <sup>2</sup>
Weight (Standard Width)		980kg	1210kg	1420kg	1710kg	1850kg	2260kg	2440kg
Tine Length (Quick Hitch Mount)	A	1260mm	1475mm	1610mm	1780mm	1960mm	2130mm	2350mm
Jaw Opening	B	1520mm	1600mm	2100mm	2400mm	2500mm	2700mm	2930mm
Pivot Point Height	C	1225mm	1375mm	1575mm	1750mm	1960mm	2155mm	2370mm
Internal Length - Tip to Tip	D	1050mm	1380mm	1590mm	1750mm	1950mm	2150mm	2400mm
Min Gripping Diameter	E	600mm	800mm	900mm	950mm	1050mm	1140mm	1200mm
Overall Open Length	F	2130mm	2385mm	2560mm	2830mm	3245mm	3570mm	3710mm
Span	G	1600mm	1800mm	2300mm	2575mm	2770mm	3020mm	3390mm
Standard Width		1520mm	1650mm	1650mm	1650mm	1800mm	1800mm	1800mm

Standard Sizes Shown - Up To 8.0m<sup>2</sup> Capacity Available to Special Order

# Powerhand Hi-Tip Sawdust & Bark Buckets (Single Ram Type)

## Features

- Available in standard sizes or built to customer specifications.
- Available with quick hitch or direct mount.
- Manufactured entirely from high strength Swedish alloy steels.
- Available with one or three piece bolted cutting edges.
- Single ram model for fast operation.
- Ideal for smaller wheeled loaders.
- Compact dimensions, compatible with loaders with 'Z' linkage tipping mechanisms.

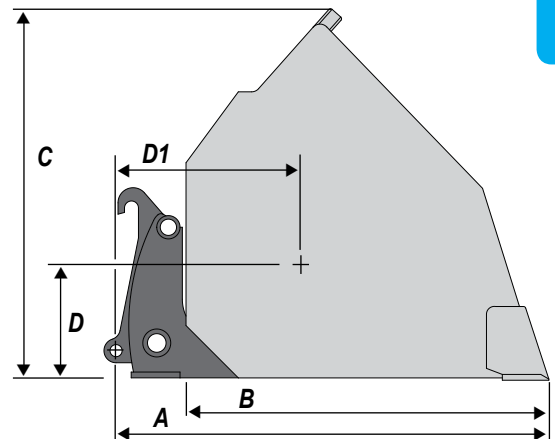


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## Benefits

- Compact undercarriage keeps the centre of gravity close to the base, increasing machine stability.
- Mesh top allows the driver to see when bucket is fully loaded
- Reversible cutting edge.
- Single ram allows a lightweight design.
- Hi-Tip design allows for operations WITHOUT a loading ramp.

## Dimensions



	HS-25	HS-30	HS-35	HS-40	HS-45
Capacity (SAE Heaped)	2.5m <sup>3</sup>	3.0m <sup>3</sup>	3.5m <sup>3</sup>	4.0m <sup>3</sup>	4.5m <sup>3</sup>
Weight (Standard)	1185kg	1350kg	1450kg	1590kg	1680kg
Overall Length	A 1640mm	1640mm	1700mm	1735mm	1750mm
Bucket Length	B 1330mm	1330mm	1400mm	1420mm	1570mm
Height	C 1380mm	1430mm	1480mm	1500mm	1500mm
Centre Of Gravity (Heaped)	D 510mm	530mm	560mm	560mm	560mm
	D1 820mm	840mm	880mm	900mm	940mm
Width (Standard)	2100mm	2200mm	2300mm	2400mm	2500mm

Maximum load per m<sup>3</sup> is 1000kg

# Powerhand Hi-Tip Sawdust & Bark Buckets (Twin Ram Type)

## Features

- Available in standard sizes or built to customer specifications.
- Available with quick hitch or direct mount.
- Manufactured entirely from high strength Swedish alloy steels.
- Available with one or three piece bolted cutting edges.
- Twin hydraulic cylinders.
- Easy access greasing points.



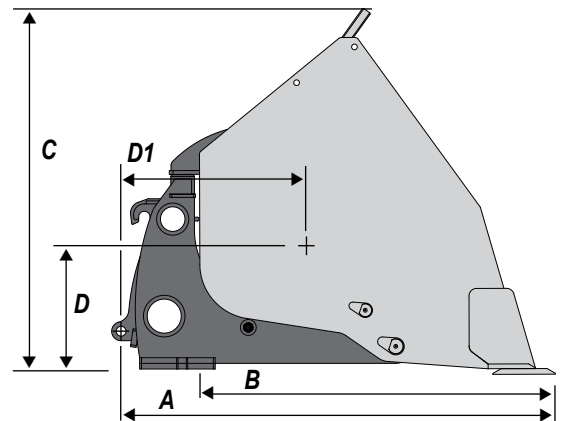
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## Benefits

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- Compact undercarriage keeps the centre of gravity of the load close to the base, increasing machine stability.
- Mesh top allows the driver to see when bucket is fully loaded.
- Reversible cutting edge.
- Bucket design allows clearance for machines with 'Z' linkage tipping mechanisms.
- Hi-Tip design allows for operations WITHOUT a loading ramp.



## Dimensions

		HD-50	HD-55	HD-60	HD-65	HD-70	HD-80	HD-90	HD-100
Capacity (SAE Heaped)		5.0m <sup>3</sup>	5.5m <sup>3</sup>	6.0m <sup>3</sup>	6.5m <sup>3</sup>	7.0m <sup>3</sup>	8.0m <sup>3</sup>	9.0m <sup>3</sup>	10.0m <sup>3</sup>
Weight (Standard)		2195kg	2340kg	2480kg	2590kg	2700kg	2930kg	3275kg	3990kg
Overall Length	A	1910mm	2050mm	2190mm	2250mm	2250mm	2300mm	2300mm	2390mm
Bucket Length	B	1500mm	1620mm	1800mm	1910mm	1910mm	1960mm	1960mm	2000mm
Height	C	1720mm	1750mm	1900mm	1900mm	1900mm	2000mm	2000mm	2060mm
Centre Of Gravity (Heaped)	D	310mm	320mm	355mm	370mm	405mm	440mm	440mm	470mm
	D1	990mm	1020mm	1110mm	1140mm	1150mm	1170mm	1170mm	1220mm
Width (Standard)		2700mm	2700mm	2800mm	2800mm	2900mm	3000mm	3300mm	3300mm

Maximum load per m<sup>3</sup> is 1000kg





Protected Hydraulic Hoses Are Routed Internally Through Boom



Quick Coupler Options Are Available To Suit Most Machine Makes & Types



## Powerhand Forklift Boom

The Powerhand Forklift boom is manufactured to order in lengths to suit your application and can be fitted with a range of grapple and rotator options.

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Timber Handling



## Excavator Nose Cones

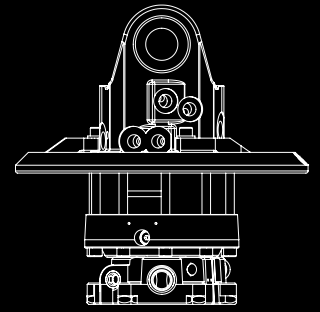
Manufactured To Order

We can manufacture nose cones to fit most excavator booms in length and boom fittings to suit customer requirements.

**powerhand**  
ATTACHMENTS



# Indexator



**World Leaders In Hydraulic Rotator Technology**



Indexator leads the world in rotator design, manufacturing the widest range of rotator products and supplying the leading machine and equipment manufacturers worldwide. All Indexator rotators operate on the vane motor principle, invented by Indexator during 1978, which offers high slewing and braking torque performance whilst being tolerant of extreme shock loads.

Rotators operating on the latest hydraulic systems must offer an extremely high level of performance and oil cleanliness. Indexator achieves these requirements by employing the most advanced design and manufacturing systems available, with industry leading materials testing systems being used to measure components and surface finishes to absolute tolerances. After final assembly, each rotator is subjected to rigorous testing, with results continuously monitored for all aspects of cleanliness and performance.

## **Built For The Most Demanding Applications**



Indexator Rotator Servicing In Our Clean Room Facility



# Technical Assistance

Whether you require technical assistance on new rotators, your existing rotator serviced/repaired or you simply need some helpful advice, please give us a call ...we will be delighted to help.

If you really are in a hurry, we can often carry out repairs while you wait.

**Indexator Factory Trained Engineers**

**Massive Rotator & Spare Parts Stocks**

**New Clean Room - Advanced Service Equipment & Test Facilities**

**Warranty Inspection & Repairs**

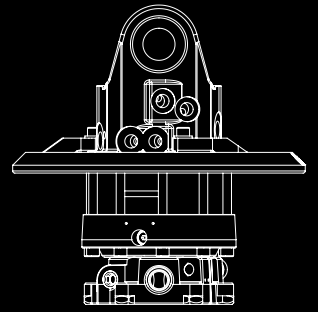
For Indexator technical assistance please contact Richard Gordon:  
richard@clark-engineering.com  
01387 860241

Timber Handling

Large Stocks Held In Our UK Warehouse



## 30 Years of Cooperation in the UK Market



## World Leaders In Hydraulic Rotator Technology

In order to obtain maximum performance from your Indexator rotator, we recommend the following maintenance procedures. If in any doubt, please contact Richard Gordon in our Indexator technical department.

# Rotator Maintenance

## Oil Cleanliness

### Forwarder & Truck Crane Rotators

Once every 40 hours or weekly as appropriate, rotate the rotator continuously in a clockwise rotation for 10 or more turns to introduce clean filtered oil into the rotator.



40  
HOURS  
OR WEEKLY



### Harvester Rotators

For harvester rotators (with limited rotation) bear hug a standing tree with the harvester head and operate the clockwise rotation hydraulic function for 3 minutes, this will introduce clean filtered oil into the rotator.



40  
HOURS  
OR WEEKLY



## Rotator Weekly Checks

1



### Check Magnetic Plug

Remove and inspect plug to assess oil cleanliness.



WEEKLY

3

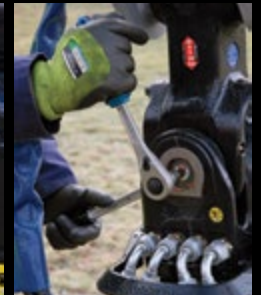


### Check Brake Pads

Check for wear, check tension and adjust to operator preference.

Max Torque MPB Brake = 60Nm

Max Torque Standard Brake = 30Nm



2



### Check Lower Link Pinch Bolts

Check lower link pinch bolts are tightened to torque of 600Nm.



4



### Check Fixing Bolts

Check fixing bolts between rotator and attachment are tight to ensure rotator remains securely mounted.



# Extend The Working Life Of Your Indexator Rotator

All Indexator rotators are manufactured to the most exacting quality standards and tolerances for a long working life. In order to maintain this performance, we recommend our Indexator Advanced Service Schedule.

The Advanced Service Schedule involves a complete strip down of the rotator, cleaning all parts, replacing seals, vane springs, thrust bearing and any other parts required. Normally taking only three hours in our new Hydraulic Clean Room, this service can be scheduled at the convenience of our customers.

On completion of the service, we offer a further six months full warranty. Please contact Richard Gordon in our Indexator technical department for further information.

## Recommended Service Schedule Intervals

**Forwarder Rotators** Every **3500 hours** of operation

**Truck Crane Rotators** Every **3 years** of operation

**Harvester Rotators** Every **3000 hours** of operation



6 Months Extended Warranty

Advanced Service Schedule

Timber Handling



## Rotator Range

Timber Handling Applications

GV/AV



GV4EFK

4.5  
Tonne  
Capacity

GV4E



6  
Tonne  
Capacity

GV6

GV6-59/68/69



10  
Tonne  
Capacity

GV12



10  
Tonne  
Capacity

GV12-2



10  
Tonne  
Capacity

AV12



HEAVY  
DUTY

10  
Tonne  
Capacity

GV12S



HEAVY  
DUTY

10  
Tonne  
Capacity

GV12-2S



HEAVY  
DUTY

10  
Tonne  
Capacity

AV12S / AV12SA



HEAVY  
DUTY

10  
Tonne  
Capacity

GV124S



HEAVY  
DUTY

HIGH  
TORQUE

10  
Tonne  
Capacity

GV14S



HEAVY  
DUTY

HIGH  
TORQUE

10  
Tonne  
Capacity

AV14S / AV14SA



HEAVY  
DUTY

HIGH  
TORQUE

16  
Tonne  
Capacity

GV17S



HEAVY  
DUTY

HIGH  
TORQUE

16  
Tonne  
Capacity

AV17S / AV17SA

Full GV/AV  
Rotator Info  
Pages 96-101  
GV/AV Links  
Pages 102-104

# MPB



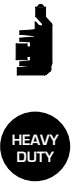
G121



G121-2



H122



H132 / H132A



G141



H172 / H172A



Full MPB Rotator Info Pages 105-107  
MPB Links Pages 108-109



IR10



IR12



IR12AV



IR20



IR22



Full IR Rotator Info Pages 110-111  
IR Links Page 112

# XR



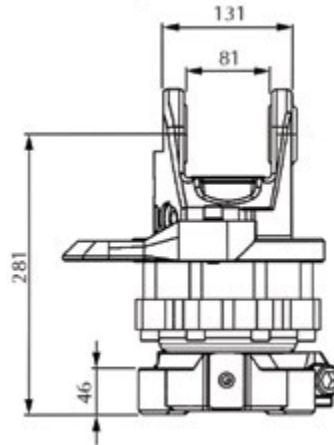
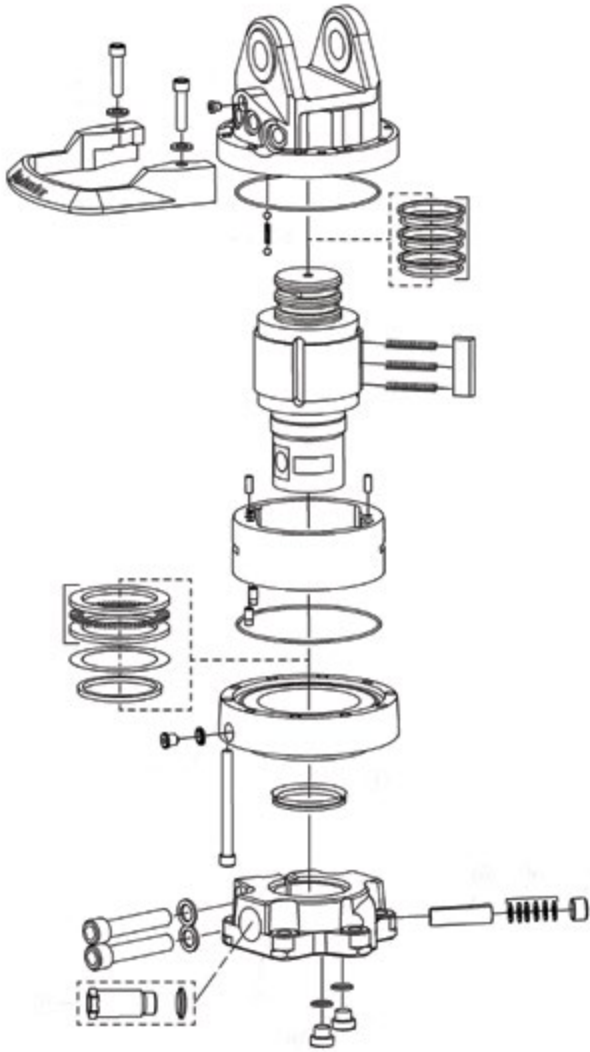
Full XR Series Rotator & Link Info Page 113

Timber Handling

# GV4

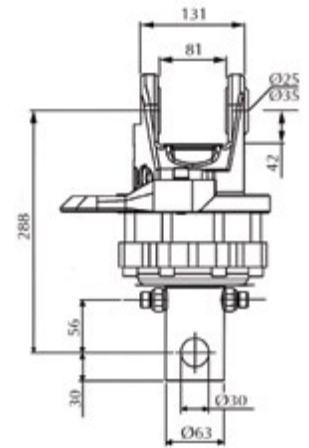


The ideal rotator for use on small forwarder and tractor / trailer cranes. Combines compact dimensions with high slewing torque. Available in flange and shaft mounting options.



**GV4EFK**  
(Flange Mounted)

**GV4E-63/30**  
(Shaft Mounted)



## GV-AV Series Rotators

For  
GV/AV Links  
See Pages  
102-104

A wide range of GV/AV series rotators is available with models and links to suit all forest machine applications.

GV - AV rotators employ a high torque vane motor which ensures high slewing and stopping power.

GV models have oil fed from the upper stator ports through the central shaft to the lower base port outlets, to power grapples and attachments

AV models employ a different method of oil porting with only two hydraulic rotator inlet ports mounted to the rotator base and are intended for specific harvester head use only.



Technical Data	GV4E-63/30	GV4E/GV4K
Rotation	Continuous	Continuous
Weight	27kg	34kg
Max Axial Load Static	45kN	45kN
Max Axial Load Dynamic	25kN	25kN
Torque at 25MPa (3625psi)	1150Nm	1150Nm
Recommended Oilflow	12 l/min	12 l/min

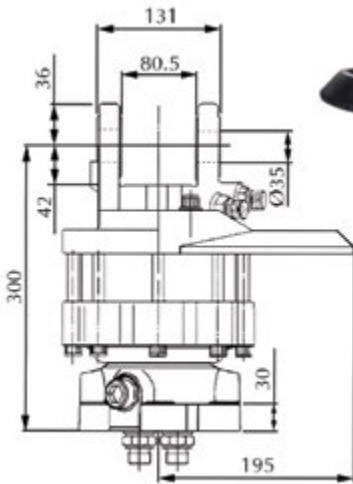


# GV6

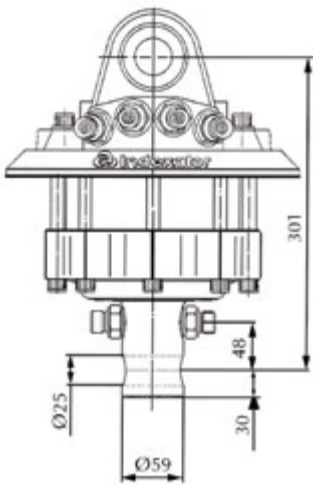


Designed for use with smaller forest machines and truck cranes. GV6 is available in flange and shaft mounting options.

**GV6  
(Flange Mounted)**



**GV6-59/25  
(Shaft Mounted)**



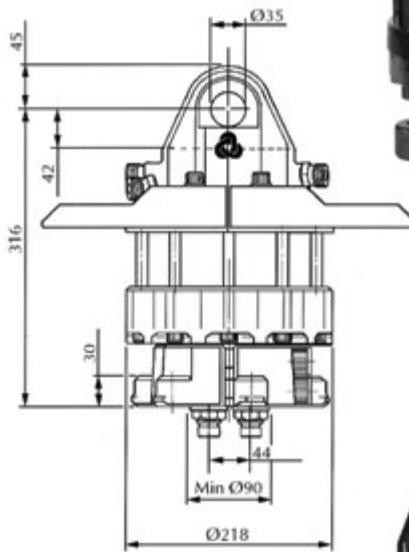
Technical Data	GV6
Rotation	Continuous
Weight	44kg
Max Axial Load Static	60kN
Max Axial Load Dynamic	25kN
Torque at 20MPa (3625psi)	1400Nm
Recommended Oilflow	25 l/min

# GV12



The world's most popular forest machine rotator, GV12 is designed for use on medium sized forest machines and truck cranes. Available in two upper hydraulic porting options: GV12 with all four hydraulic ports mounted to the front of the rotator. GV12-2 with two ports mounted to each side of the rotator.

**GV12**



**GV12-2**



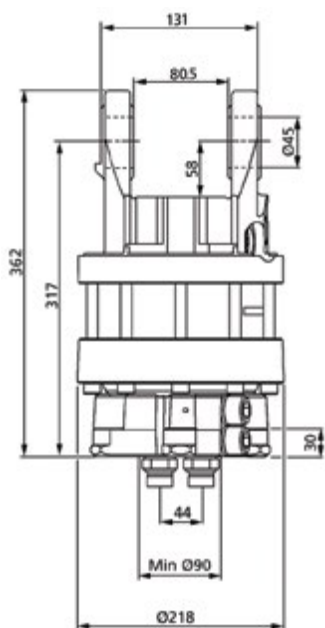
Technical Data	GV12 / GV12-2
Rotation	Continuous
Weight	56kg
Max Axial Load Static	100kN
Max Axial Load Dynamic	50kN
Torque at 25MPa (3625psi)	2200Nm
Recommended Oilflow	25 l/min

Timber Handling

# AV12



Designed for use with smaller sized harvester heads which employ the oil feed via the rotator base plate.



**Indexator**

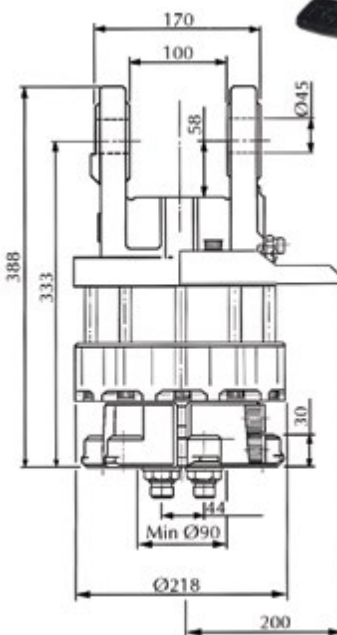
Technical Data	AV12
Rotation	Continuous
Weight	56kg
Max Axial Load Static	100kN
Max Axial Load Dynamic	50kN
Torque at 25MPa (3625psi)	2200Nm
Recommended Oilflow	25 l/min

# GV12S



The heavy duty rotator for use on larger sized forest machines, truck cranes and medium sized excavators. Available in two upper hydraulic porting options: GV12S with all four hydraulic ports mounted to the front of the rotator; GV12-2S with two ports mounted to each side of the rotator.

GV12S



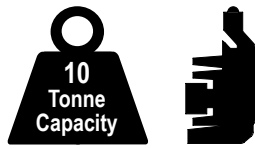
GV12-2S



**Indexator**

Technical Data	GV12S / GV12-2S
Rotation	Continuous
Weight	58kg
Max Axial Load Static	100kN
Max Axial Load Dynamic	50kN
Torque at 25MPa (3625psi)	2200Nm
Recommended Oilflow	25 l/min

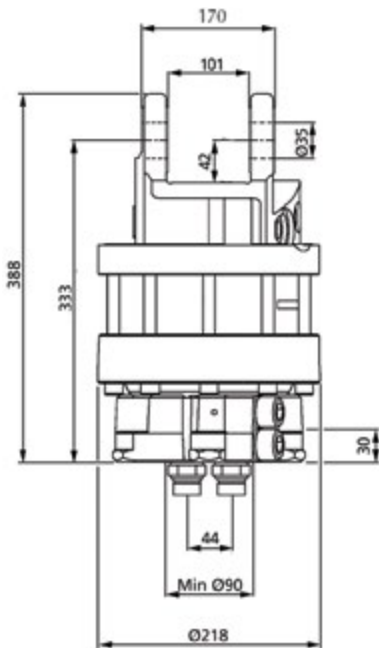
# AV12S



The heavy duty harvester rotator, for use with small to medium sized harvester heads employing the rotator oil feed via the rotator base plate.



Also Available With Solid Centre Shaft AV12SA

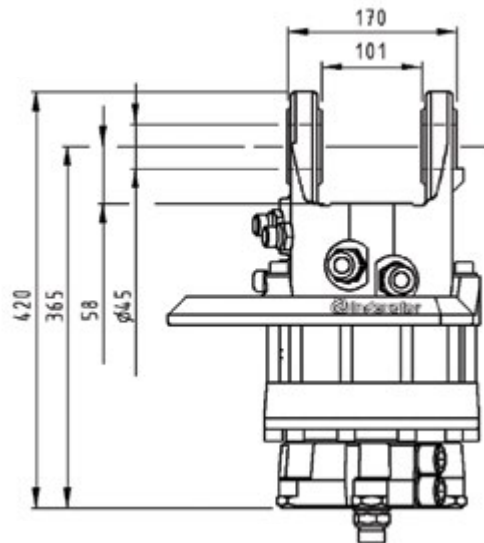


Technical Data	AV12S
Rotation	Continuous
Weight	56kg
Max Axial Load Static	100kN
Max Axial Load Dynamic	50kN
Torque at 25MPa (3625psi)	2200Nm
Recommended Oilflow	25 l/min

# GV124S



The heavy duty rotator with extra hydraulic porting for the operation of attachments with dual functions. Regularly used with timber grapple saws where hydraulic functions are required to operate both the grapple ram and chain saw motor.



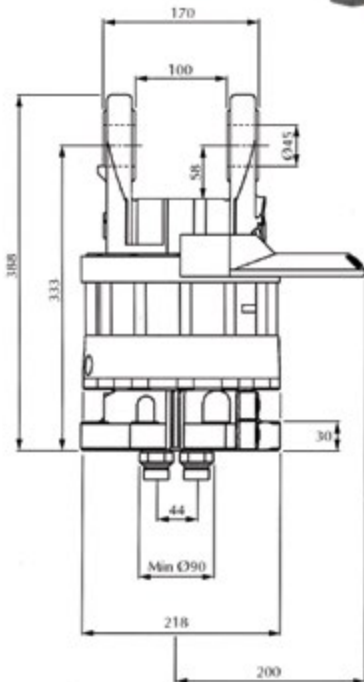
Technical Data	GV124S
Rotation	Continuous
Weight	64kg
Max Axial Load Static	100kN
Max Axial Load Dynamic	50kN
Torque at 25MPa (3625psi)	2200Nm
Recommended Oilflow	25 l/min

Timber Handling

# GV14S

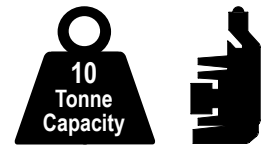


A heavy duty rotator with extra high torque slewing motor for use on larger sized forest machines, truck cranes and medium sized excavators.



Technical Data	GV14S
Rotation	Continuous
Weight	58kg
Max Axial Load Static	100kN
Max Axial Load Dynamic	50kN
Torque at 25MPa (3625psi)	3300Nm
Recommended Oilflow	35 l/min

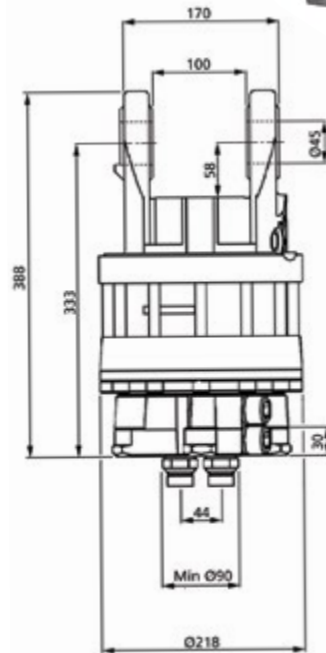
# AV14S



A heavy duty harvester rotator with an extra high torque slewing motor for use with medium sized harvester heads which employ the rotator oil feed via the rotator base plate.



Also Available With Solid Centre Shaft AV14SA

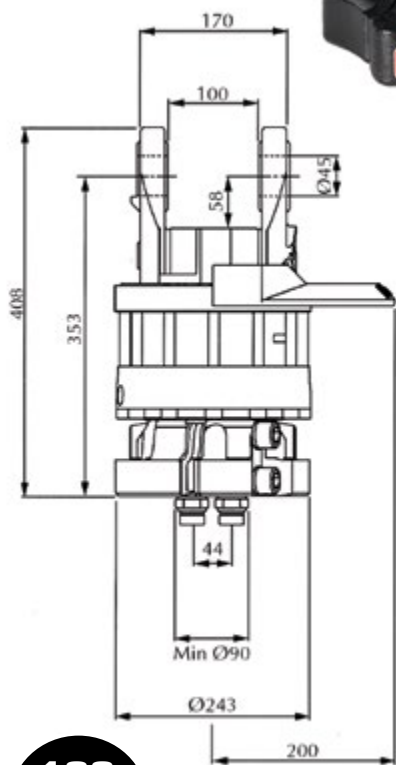


Technical Data	AV14S
Rotation	Continuous
Weight	56kg
Max Axial Load Static	100kN
Max Axial Load Dynamic	50kN
Torque at 25MPa (3625psi)	3300Nm
Recommended Oilflow	35 l/min

# GV17S

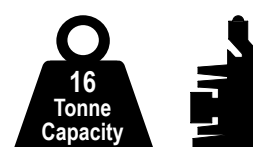


The largest rotator in the GV series combining high torque slewing motor with high load capacity. For use on large forest machines, truck cranes and medium sized excavators.

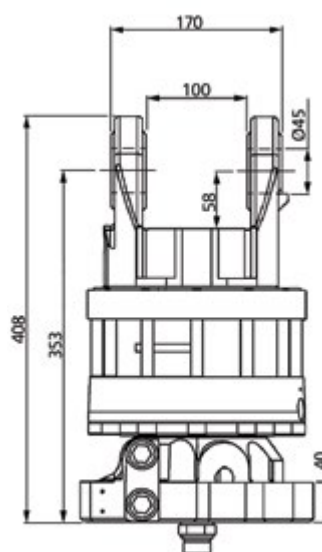


Technical Data	GV17S
Rotation	Continuous
Weight	64kg
Max Axial Load Static	160kN
Max Axial Load Dynamic	50kN
Torque at 25MPa (3625psi)	3300Nm
Recommended Oilflow	35 l/min

# AV17S



The largest AV series rotator, combining high torque slewing motor with high load capacity. For use with the largest of standard type harvesting heads employing the rotator oil feed via the rotator base plate.



Technical Data	AV17S
Rotation	Continuous
Weight	61kg
Max Axial Load Static	160kN
Max Axial Load Dynamic	50kN
Torque at 25MPa (3625psi)	3300Nm
Recommended Oilflow	35 l/min

Also Available With Solid Centre Shaft AV17SA

Timber Handling

# GV-AV Crane Links

Available In A Range Of Upper Pivot Hole Bushing Diameters



Indexator



**Standard Crane Link**

Width: Upper 80mm  
Lower 80mm



**S-Type Standard Crane Link**

Width: Upper 80mm or 100mm  
Lower 100mm



Indexator



**One Way Swing Damper Link**

Width: Upper 80mm  
Lower 80mm



**S-Type One Way Swing Damper Link**

Width: Upper 80mm or 100mm  
Lower 100mm



Indexator



**Two Way Swing Damper Link**

Width: Upper 80mm  
Lower 80mm



**S-Type Two Way Swing Damper Link**

Width: Upper 80mm or 100mm  
Lower 100mm



CLARK

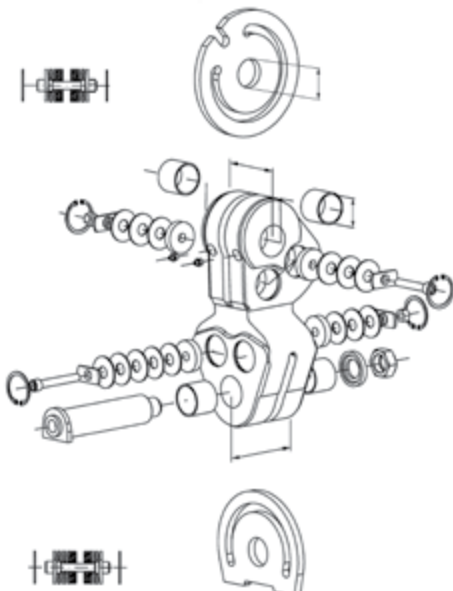


**Excavator S-Type Standard Link**

Upper Dimensions Made To Fit Excavator Boom Sizes  
Lower Width 100mm



**Excavator S-Type One Way Swing Damper Link**



## Swing Damper Links

Swing damper links dampen out the oscillation movement of boom and attachments during crane operation allowing faster, more controlled attachment operation whilst reducing the strain on crane booms and pivots. Swing dampening is achieved via a unique system of brake pads acting upon a brake disc.

Indexator

CLARK™



# GV-AV Hose Routing Links

Available for the complete range of Indexator rotators, 'Y' Links offer a compact solution for hose protection. Hose routing is through the top centre of the link, protected by the upper hose saddle against wear and damage. Y links are designed for use on cranes with boom end pivot lugs 185mm width with 40mm dia. pivot pin.

Standard  
Hose Routing Link



Swing Damper  
Hose Routing Link



'Y' LINKS WITH PROTECTED HOSE ROUTING

# GV-AV Crane Links

Manufactured To Order

## Extra Heavy Duty Links For Specialist Applications

For specialist heavy duty applications, we can design and manufacture links to order. Produced from high strength alloy steel, these links are constructed for use with the largest forest machines. For further information, please contact our Indexator technical department.



Excavator Quick Coupler Link With Swing Damping System



Weld On Link

Available For Standard & S-Type Rotators

Excavator Coupler Links



With Swing Damper



Excavator Quick Coupler Link

With Rubber Buffer Damping System



Standard



Ø 45mm



Ø 35mm

Indexator Link Pivot Pins

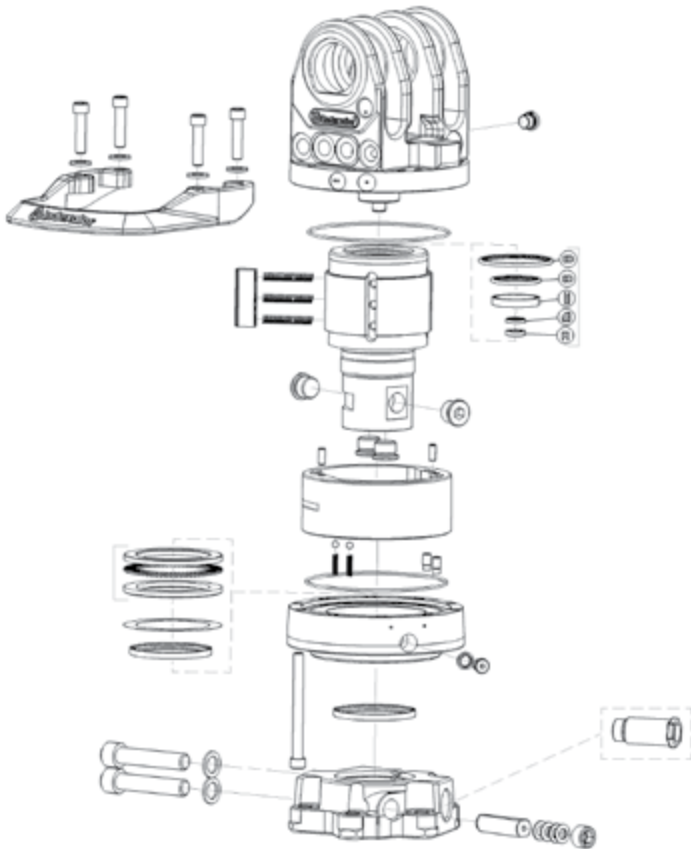




# G121



A heavy duty rotator for use with grapples and attachments which require the high performance swing dampening of the MPB system.

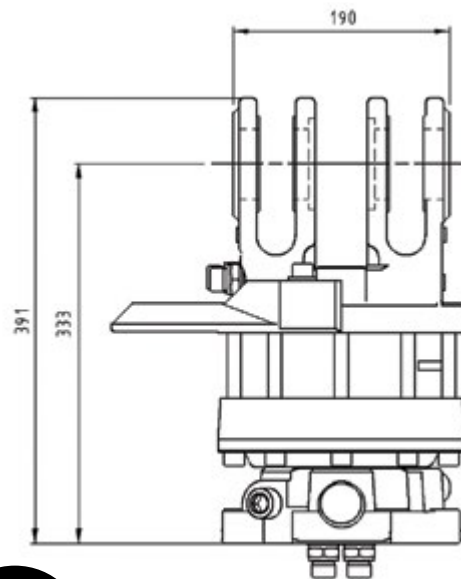


G121



G121-2

Available in two upper hydraulic porting options: G121 with all four hydraulic ports mounted to the front of the rotator. G121-2 with two ports mounted to each side of the rotator.



Technical Data	G121
Rotation	Continuous
Weight	57kg
Max Axial Load Static	100kN
Max Axial Load Dynamic	50kN
Torque at 25MPa (3625psi)	2200Nm
Recommended Oilflow	25 l/min



## MPB Rotator System

For  
MPB Links  
See Pages  
108-109

MPB system rotators use the same tried and tested drive motor units and base plate designs as GV/AV rotators, but employ the new Multi Plate Brake System (MPB). The MPB brake dampening system consists of a specially designed rotator head plate and link accommodating a series of large diameter brake discs and pads. This offers a massive brake dampening force to ensure effective swing dampening of even the heaviest of loads ensuring faster, more efficient machine operation, with less strain on crane booms and pivots.

**G Type rotators** are designed for use with grapples and attachments and employ one brake pack system.

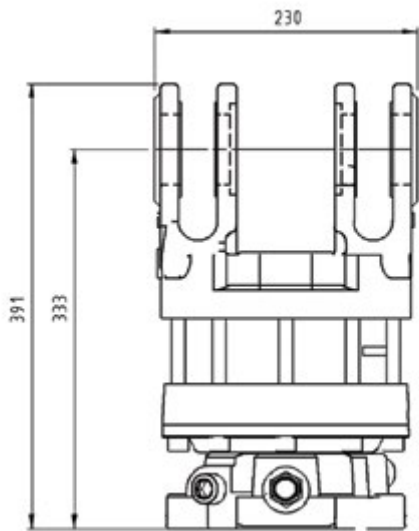
**H Type rotators** are designed for harvester use and employ twin brake pack systems.

Timber Handling

# H122



A heavy duty harvester rotator which utilises the twin brake pack MPB2 high performance swing dampening system. Designed for use on small to medium sized harvesting heads which employ the rotator oil feed via the rotator base plate.



MPB2  
Links



Technical Data	H122
Rotation	Continuous
Weight	57kg
Max Axial Load Static	100kN
Max Axial Load Dynamic	50kN
Torque at 25MPa (3625psi)	2200Nm
Recommended Oilflow	25 l/min

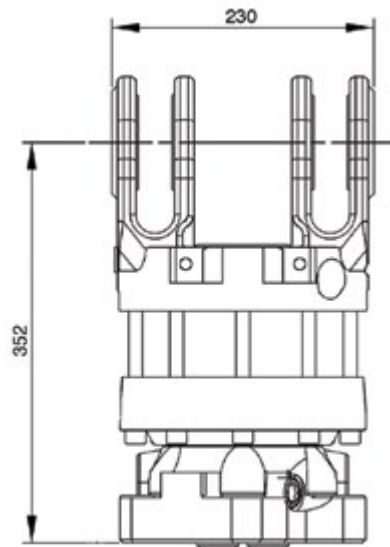
# H132



A heavy duty harvester rotator which employs the twin brake pack MPB2 high performance dampening system. Designed for use on medium sized harvesting heads, the H132 has the same drive motor as the H122 rotator but utilises the heavier base construction of the H172. For use with harvester heads which employ oil feed via the rotator base plate.



Also Available With Solid Centre Shaft H132A



MPB2  
Links

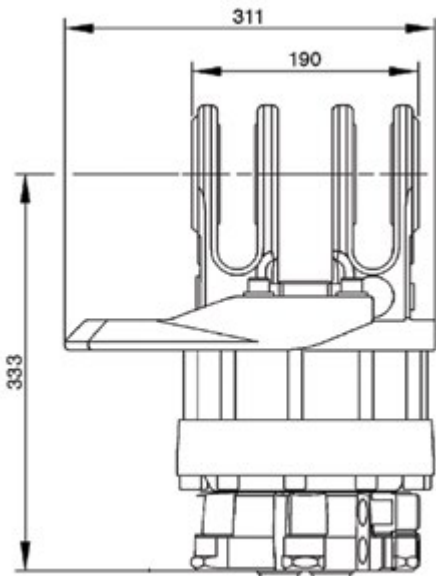


Technical Data	H132
Rotation	Continuous
Weight	63kg
Max Axial Load Static	100kN
Max Axial Load Dynamic	50kN
Torque at 25MPa (3625psi)	2200Nm
Recommended Oilflow	25 l/min

# G141



A heavy duty rotator for use with larger grapples and attachments which require the high performance swing dampening of the MPB system. The G141 incorporates a more powerful motor, with greater torque than the G121 model.

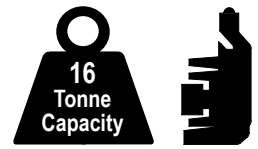


**MPB1  
Links**



Technical Data	G141
Rotation	Continuous
Weight	57kg
Max Axial Load Static	100kN
Max Axial Load Dynamic	50kN
Torque at 25MPa (3625psi)	3300Nm
Recommended Oilflow	35 l/min

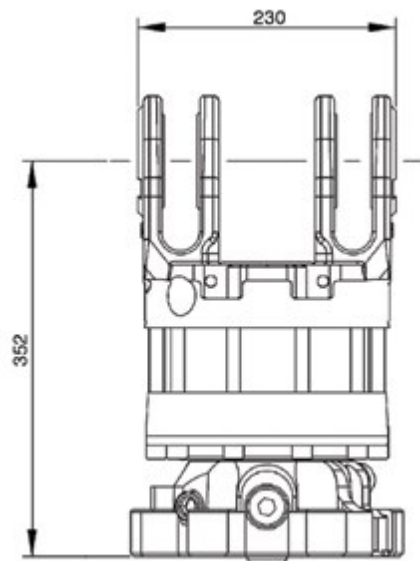
# H172



The largest H series rotator. Utilises the twin brake pack MPB2 high performance dampening system. Designed for use on large harvesting heads. The H172 has a high torque drive motor and robust base design. For use with harvester heads which employ the rotator oil feed via the rotator base plate.



Also Available With Solid Centre Shaft H172A



**MPB2  
Links**



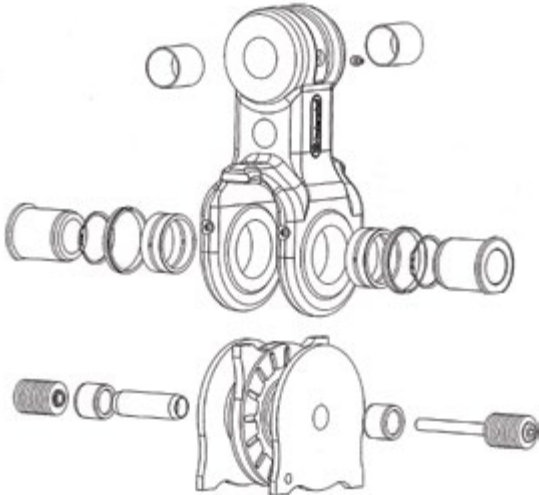
Technical Data	H172
Rotation	Continuous
Weight	63kg
Max Axial Load Static	160kN
Max Axial Load Dynamic	50kN
Torque at 25MPa (3625psi)	3300Nm
Recommended Oilflow	35 l/min

Timber  
Handling

# MPB Crane Links



Offering the ultimate in crane link swing damping, the Multi Plate Brake (MPB) system employs a series of large diameter brake discs and pads to ensure an efficient damping system. For use with harvesting heads and large grapples, the MPB system offers a faster and more efficient operation with less strain on the crane boom.



One Way MPB1 Swing Damper Link



Two Way MPB2-100s Swing Damper



Two Way MPB2-2 Swing Damper Link Fitted To Crane Tip & Rotator



Crane Tip MPB2



Two Way MPB2-2 Swing Damper Link



# MPB Hose Routing Links

Combining the hose protection of the 'Y' link with the MPB brake damper system to offer the ultimate rotator link. Hose routing is through the top centre of the link, protected by the upper hose saddle against wear and damage. Y links are designed for use on cranes with boom end pivot lugs 185mm width with 40mm dia. pivot pin.



MPB Hose Routing  
Swing Damper Link



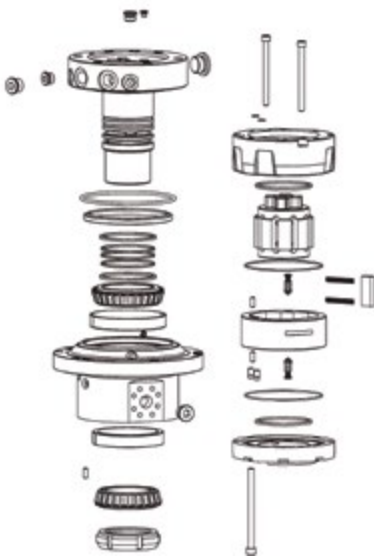
Timber  
Handling

# IR Series Rotators

Designed for the toughest of applications and working environments, IR Rotators are available in a range of sizes and models. IR Rotators incorporate a twin taper roller bearing design in robust housings and are available with static load ratings up to 45 tonnes. IR Rotators are designed to be mounted inside the headstock of attachments and can be supplied with mounting adaptors, upper suspension links and hose guards to suit each specific application.



For  
IR Links  
See Page  
112



## IR10



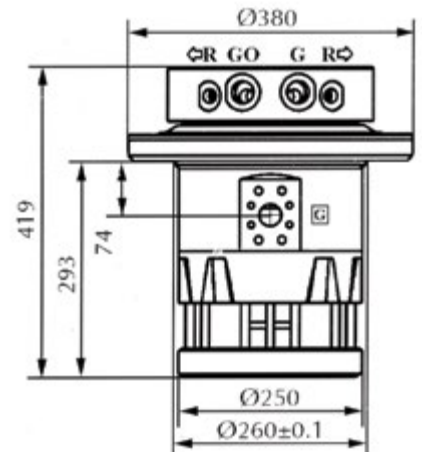
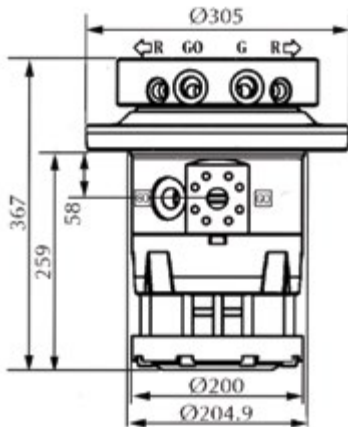
## IR20



Designed for use in the toughest of industrial applications, the IR10 is of robust construction and is suitable for large cranes and excavators.



The ultimate industrial rotator, IR20 is designed for extremely demanding working environments. Built to the same overall design and exacting standards as the IR10, the IR20 incorporates heavy duty bearings capable of taking static loads up to 45 tonnes.



Technical Data	IR10 M16	IR10 M20
Upper Bolt Hole Diameter	16mm	20mm
Rotation	Continuous	Continuous
Weight	84kg	87kg
Max Axial Load Static	±250kN	±250kN
Max Axial Load Dynamic	±70kN	±70kN
Torque at 20MPa (2900psi)	2200Nm	2200Nm
Recommended Oilflow	25 l/min	25 l/min

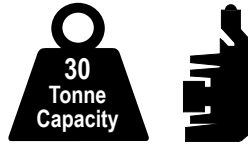
Technical Data	IR20 M20	IR20 M24
Upper Bolt Hole Diameter	20mm	24mm
Rotation	Continuous	Continuous
Weight	145kg	150kg
Max Axial Load Static	±450kN	±450kN
Max Axial Load Dynamic	±120kN	±120kN
Torque at 20MPa (2900psi)	3300Nm	3300Nm
Recommended Oilflow	35 l/min	35 l/min

IR - HX rotators with additional oil channels are available to order

# IR12



# IR12AV



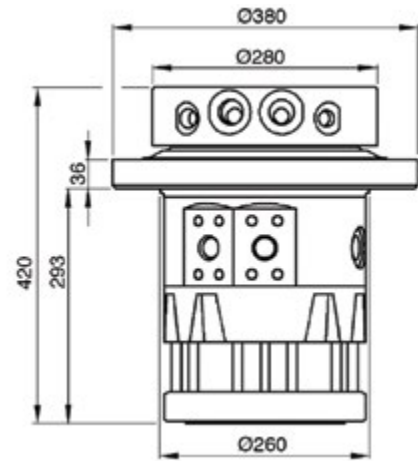
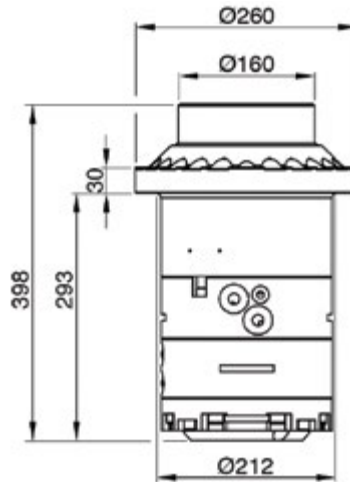
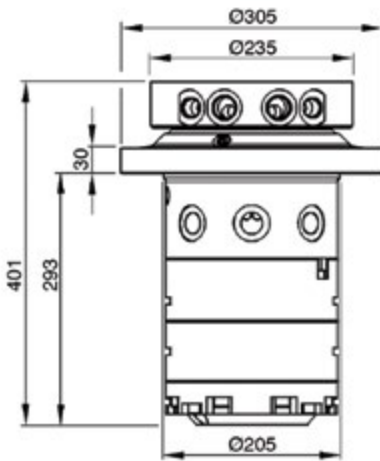
# IR22



Similar in construction to the IR10, the IR12 rotator has dual oil feed ports to each side making it ideal for use with heavy duty timber grapples. The IR12 employs a high torque slew motor suitable for use in the most demanding applications.

Designed specially for use on timber harvesters, the IR12AV employs the AV system of slew motor oil being fed from the harvester head to the lower body of the rotator. Employing a high torque slew motor and robust upper link, the IR12 is suitable for use with the largest harvester heads.

Like the IR12, the IR22 rotator has dual oil feed ports to each side for heavy duty grapple use which combined with the extra torque slew motor and robust upper linkage mount makes the IR22 suitable for use on the largest of grapples and attachments.



Technical Data	IR12	IR12AV
Rotation	Continuous	Continuous
Weight	97kg	82kg
Max Axial Load Static	±250kN	±300kN
Max Axial Load Dynamic	±70kN	±100kN
Torque at 20MPa (2900psi)	2900Nm	2900Nm
Recommended Oilflow	25 l/min	25 l/min

Technical Data	IR22
Rotation	Continuous
Weight	150kg
Max Axial Load Static	±450kN
Max Axial Load Dynamic	±150kN
Torque at 25MPa (2900psi)	4100Nm
Recommended Oilflow	35 l/min

# IR Series Crane Links & Rotator Link Plates



IR 10/12  
Link Plate  
c/w Pin



IR 20/22  
Link Plate  
c/w Pin



IR 10/12  
Links



IR 10/12  
Hose  
Guard



IR 20/22  
Hose Guard



Bossed  
Link Plates



Weld On Link  
IR 10/12



IR 10/12  
Excavator  
Link



IR 20/22  
Excavator  
Link



# XR Series Rotators



The XR Series from Indexator is designed for the heaviest of applications on excavators and large cranes. Featuring upper and lower flange bolt mountings, XR rotators can be used with both suspension links for pivot mounting and excavator type lugs for fixed mounting. Please contact our Indexator technical department for more information.



Technical Data	XR400	XR500	XR600
Max Rotational Torque	4100Nm	7000Nm	7000Nm
Weight	180kg	216kg	264kg
Max Working Pressure Rotator Motor	25MPa	25MPa	25MPa
Max Working Pressure Grapple	35MPa	35MPa	35MPa
Max Axial Load Static	550kN	700kN	850kN
Max Axial Load Dynamic	200kN	250kN	300kN
Outside Dia	474mm	490mm	565mm
Height	244mm	228mm	229mm



## THE NEW HIGH TORQUE ROTATOR FROM INDEXATOR

Timber Handling

# XR Series Links

A range of upper mount options are available for XR rotators in both free swinging link or fixed excavator brackets. Lower link and hydraulic manifold options can also be manufactured to suit customer requirements.



# Timber Truck & Forwarder Weigh Link Systems



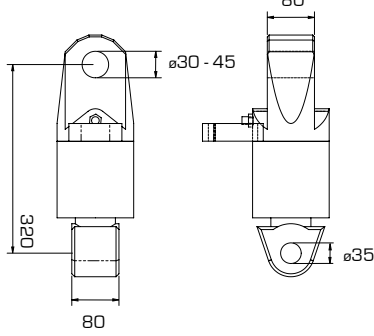
**New  
Wireless  
Weigh Link  
Option**

The new **Wireless Weigh Link** option removes the need for extra hoses and the effects of temperature on hydraulics. Battery life (2xAA) is two months in normal use with a wireless range of 50 metres.

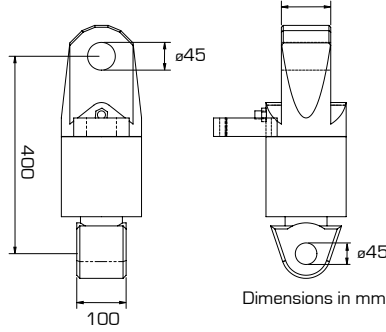


# Korsells Weigh Links

Standard



Heavy Duty S Type

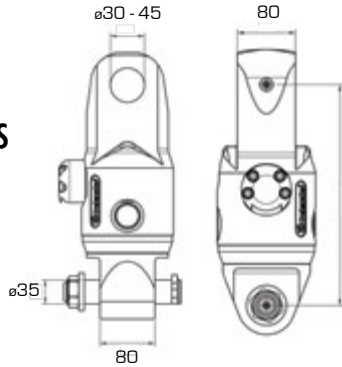


Dimensions in mm

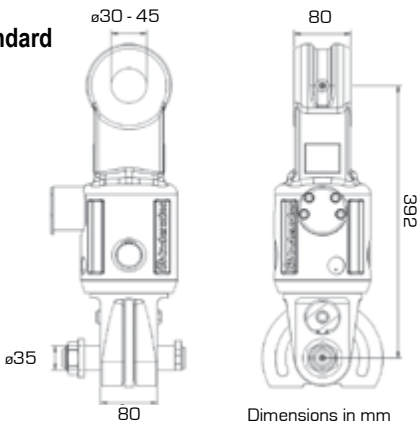


## Indexator Standard Weigh Links

## Indexator Swing Damper Weigh Links

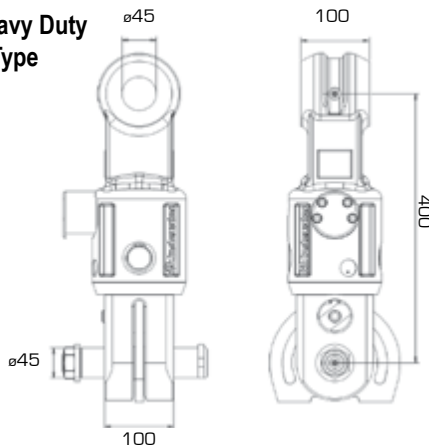


Standard



Dimensions in mm

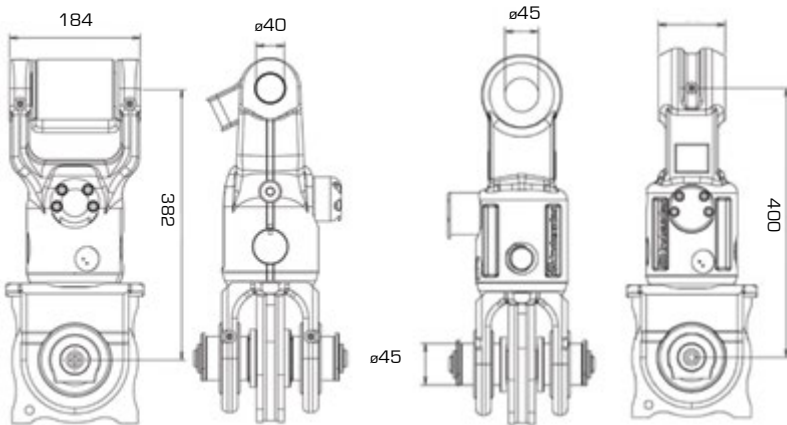
Heavy Duty S Type



Dimensions in mm



## Indexator MPB System Weigh Links



'Y' Link

Dimensions in mm

Standard Upper Mount



MPB1 'Y' Link with Hose Routing



MPB1 Standard Upper Mount

Timber Handling

# Truck Weigh System



## Weigh Link Options



Standard Weigh Links



Swing Damper Weigh Link



## Computer Scale Unit

The Tamtron hydraulic weighing system for timber trucks offers simple operation via a press button for weight registration. Scale unit is contained in a weatherproof housing for open cab use. In-cab version (without housing) also available.

- Simple calibration
- Automatic warning system (AWS)
- Easy update of personal settings via USB flash drive
- Fast update of programmes, user info and materials via USB flash drive
- Options for receipt printing: via USB drive as a text file or with optional printer - receipts contain the company contact details, the date and the weighing data grouped into memory slots
- System capacity: Timber trucks 99 tonnes load
- Easy transfer of data to a computer via USB port
- Clear text and control buttons
- Operating voltage 10 - 30 v



Supplied as ready-to-fit kits for customer installation directly from our warehouse or fitted via our nationwide network of dealer partners.

# Forwarder Weigh System



## Weigh Link Options



Standard Weigh Links



Swing Damper Weigh Link



MPB System Weigh Link



MPB System 'Y' Weigh Links with Hose Routing

## Computer Scale Unit

The Tamtron hydraulic weighing system for forwarders ensures accurate operation via a foot pedal for weight registration. With a maximum capacity of 9999 tonnes, the instrument can hold data for the largest of operations. Data files can easily be transferred from the Tamtron scale to computer via USB connection / flash drive.

- Simple calibration
- Automatic warning system (AWS)
- Easy update of personal settings via USB flash drive
- Fast update of programmes, user info and materials via USB flash drive
- Options for receipt printing: via USB drive as a text file or with optional printer - receipts contain the company contact details, the date and the weighing data grouped into memory slots
- System capacity: Forwarders 9999 tonnes
- Easy transfer of data to a computer via USB port
- Clear text and control buttons
- Operating voltage 10 - 30 v



Timber Handling

Supplied as ready-to-fit kits for customer installation directly from our warehouse or fitted via our nationwide network of dealer partners.

# Logging

Logging Wire Rope  
Stratos® Winch Pro Rope  
Logging Fittings  
Tugger Tow Ropes  
Ram Wedge  
Logging Tongs  
Tree Marking Paint  
Safety Signs  
Loggers' Tapes & Calipers







**STRATOS®**

# WINCH PRO

HIGH PERFORMANCE FIBRE ROPES FOR LOGGING



- 80% Lighter Than Comparable Steel Ropes
- Smooth & Safe to Handle
- Available For Both Winch Lines & Chokers
- Wide Range of Specialist Hooks & Fittings



SCAN FOR VIDEO

Made of Dyneema®, the STRATOS® Winch Pro kernmantle rope is made for demanding winching operations. It's tightly braided Dyneema® cover protects the load bearing Dyneema® fibres of its core against abrasion, ingress of dirt and chafing, increasing the rope's service life by several fold. When used correctly this proven rope will outlast any similar strength steel rope.



**STS**  
STRONGER THAN STEEL



STRATOS® Winch Pro

Rope ø mm	Core ø mm	Weight g/m	Max Breaking Strength Tonnes
8	6	44	5
10.5	8	72	9
12	10	96	11.5
13	11	124	13.5
15	12	151	18
17	14	188	23.5
20	16	224	28
23	18	301	35.5



# WINCH PRO ROPE FITTINGS



Noose Type  
Choker Rope with Chain



Choker Rope  
with Twitch Hooks



VGE Winch Pro End Socket  
(Bonded)



Splice End  
Socket



Grampian Rope  
Choker Hook



Stratos Easyglide  
Keyhole



Twitch Hook



Stratos Winch Pro Bonding Resin  
Bonding Resin is available for  
the attachment of end fittings to  
STRATOS® Winch Pro Ropes.



Tube Slide  
with Keyhole



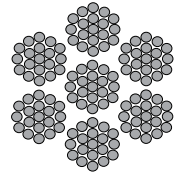
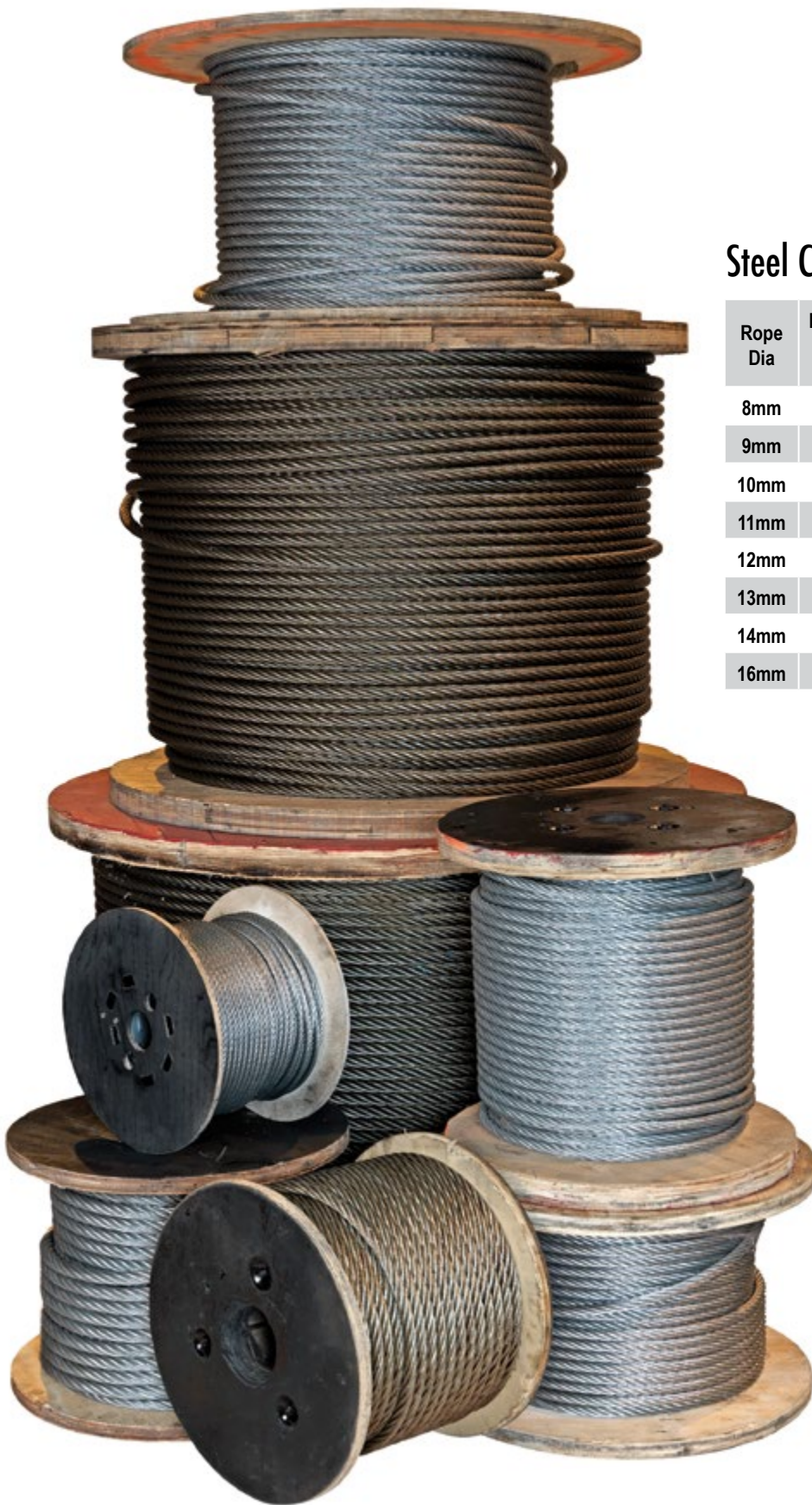
Tube Slide with  
Swivel Keyhole

Standard Choker Chains can also be  
Used with STRATOS® Winch Pro



## Wire Rope Drums - Standard Stock

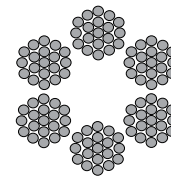
We stock a wide range of wire rope in drummed lengths in both steel and fibre core. Designed for use on timber winch operations, this high quality rope offers exceptional strength and flexibility. Supplied as standard with plain bare rope ends, rope can also be supplied to order with hard or soft crimped eye ends.



### Steel Core Wire Rope

7 x 19

Rope Dia	Breaking Strain Tonnes	50m	70m	75m	80m	100m	200m	400m
8mm	4.10					✓		
9mm	5.20					✓	✓	✓
10mm	6.42	✓				✓	✓	✓
11mm	7.77	✓			✓	✓		
12mm	9.25	✓				✓		
13mm	10.8	✓		✓	✓	✓		
14mm	12.6	✓	✓			✓		
16mm	16.4	✓		✓		✓		



6 x 19

### Fibre Core Wire Rope

Rope Dia	Breaking Strain Tonnes	50m	100m	200m	400m
8mm	3.48		✓		
9mm	4.41		✓	✓	✓
10mm	5.95	✓	✓	✓	✓
11mm	7.21	✓	✓		
12mm	8.57	✓	✓		
13mm	10.1	✓	✓		

Other wire rope sizes, types and lengths are available in coils up to 1000 metres in length to special order. Please contact our sales department for further information.

## Rope Terminations



Rope Size	Part Number
6mm	E0603
8mm	E0604
10mm	E0605
13mm	E0606
16mm	E0607
19mm	E0608
22mm	E0609
26mm	E0610



## Wire Rope Grips



Specially designed for clean cutting of steel wire rope, these cutters have a unique notched jaw profile which holds and locks the rope during cutting, giving a clean square cut to coarse or fine stranded ropes. Available in three sizes with cutting capacities up to 16mm.

Part No	Length	Max Rope Capacity
WR10	600mm	10mm
WR14	750mm	14mm
WR16	900mm	16mm

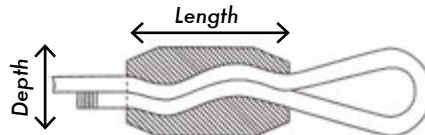


## Magnum Cutters for Wire Rope

## Wire Rope Pulling Hoist Kit

This wire rope pulling machine is an extremely versatile and portable unit for pulling, lifting, lowering and securing loads, that is both easy and safe to operate.

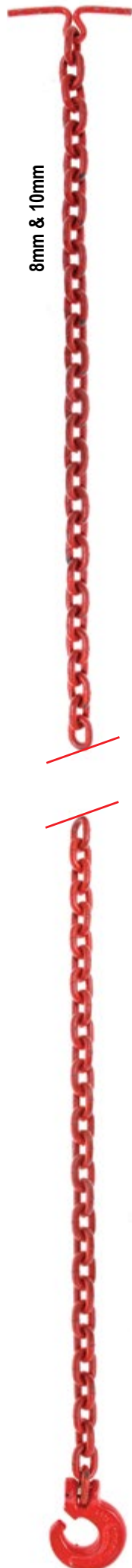
- Supplied with 20 metres of wire rope and an extendable operating lever.
- Wire rope is tapered one end and fitted with a hook and safety catch at the other end.
- Overload protection ensures high personal safety when in operation.
- Specially built-in shear pins can be replaced without removing the load.
- Available in 800kg and 1600kg capacities.
- Low maintenance, easy to service.



## Winch Rope End Stops



Part No	Rope Dia mm	No of Bolts	Length mm	Depth mm
E0803	8	2	50	33
E0804	9-10	2	63	42
E0805	11	2	62	43
E0806	12-13	2	82	48
E0807	14	2	106	50
E0808	15-16	4	100	62



## Choker Chains + T Bar • Grade 80

Other Chain Lengths Can Be Manufactured To Order

Chain Dia.	Length	Part No
8mm	1.5m	CCT-8-15
8mm	2.0m	CCT-8-20
10mm	2.0m	CCT-10-20
10mm	3.0m	CCT-10-30

<p><b>Fittings</b></p> <p>We offer a wide range of high strength grade 80 logging chains and fittings to suit even the most demanding of logging operations.</p>	<p><b>Logging Hook</b></p> <p>8mm Chain Size LGH-8</p> <p>10mm Chain Size LGH-10</p> 	<p><b>Swivel Keyhole Plate</b></p> <p>7mm &amp; 8mm Chain Size</p> <p>SKP-SL-8</p> 
<p><b>Keyhole Slider Assembly</b></p> <p>10mm Chain Size</p> <p>KP-SL-10</p> 	<p><b>Keyhole Slider Assembly</b></p> <p>7mm &amp; 8mm Chain Size</p> <p>KP-SL-8</p> 	<p><b>Grampian Skyline Choker Hook</b></p>  <p>For Fibre Rope Chokers GPH-50</p>
<p><b>Keyhole Plate</b></p> <p>10mm Chain Size</p> <p>KP-10</p> 	<p><b>Keyhole Plate</b></p> <p>7mm &amp; 8mm Chain Size</p> <p>KP-8</p> 	
<p><b>Slider</b></p> <p>10mm Chain Size (supplied c/w bolt)</p> <p>SL-10</p> 	<p><b>Slider</b></p> <p>7mm &amp; 8mm Chain Size (supplied c/w bolt)</p> <p>SL-8</p> 	

## Lifting Fittings

We offer a wide range of high strength grade 80 lifting chains and fittings to suit a wide range of lifting requirements.



## Chain Coupling Link

- 7mm K0501
- 10mm K0502
- 13mm K0503
- 16mm K0504



## Lifting Ring

- 7mm K0701
- 10mm K0710
- 13mm K0702
- 16mm K0706



## Sling Hook

- 7mm K0251
- 10mm K0252
- 13mm K0253
- 16mm K0254



## Clevis Sling Hook

- 7mm K0351
- 10mm K0352
- 13mm K0353
- 16mm K0354



## Clevis 'C' Hook

- 7mm K1001
- 10mm K1002
- 13mm K1003
- 16mm K1004



## Grab Hook

- 7mm K0451
- 10mm K0452
- 13mm K0453
- 16mm K0454



## Clevis Grab Hook

- 7mm K0401
- 10mm K0402
- 13mm K0403
- 16mm K0404



## Clevis Shortening Clutch

- 7mm K0001
- 10mm K0002
- 13mm K0003
- 16mm K0004



## Clevis Latch Hook

- 7mm K0951
- 10mm K0952
- 13mm K0953
- 16mm K0954

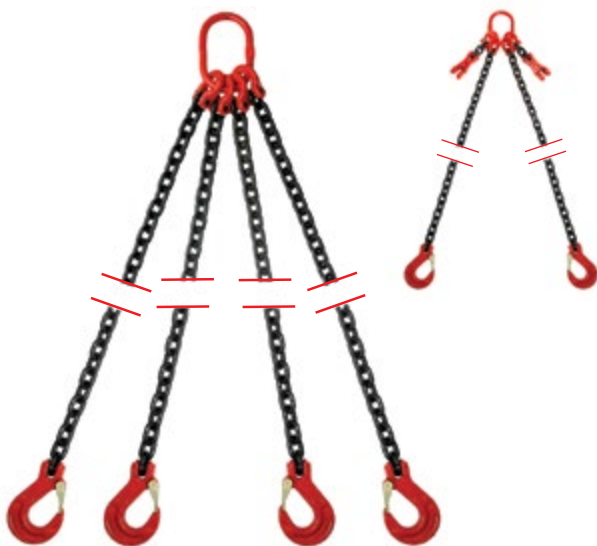


## Swivel Hook

- 7mm L0601
- 10mm L0602
- 13mm L0603
- 16mm L0604



## Lifting Chain Manufacture



Lifting Chains Can Be Made To Order For Virtually Any Lifting Operation

## Drum Lifting Chains

with Test Certificate

For handling 205 litre (45 gallon) oil drums, these chains offer a unique solution to safe lifting and handling with the ability to clamp to drums for vertical or horizontal lifting. Light, compact and easy to store. Safe working load on both chains 500kg.

**DLC-500**





Chain Size mm	Working Load Limit Kg
7	1500
8	2000
10	3150
13	5300
16	8000

## Short Link Chain

Grade 80 Short Link Chain

## Long Link Chain

Mild Steel Long Link Chain

Chain Size mm	Working Load Limit Kg
9.5	1125
12	2125
16	3300



Long Link Chain is not for use in lifting applications

## Shackles

### Galvanised Bow Shackles

Pin Size	Part No
6mm	C0202
8mm	C0203
10mm	C0204
11mm	C0205
12mm	C0206
16mm	C0208
19mm	C0210
22mm	C0211
25mm	C0212



### Galvanised 'D' Shackles

Pin Size	Part No
6mm	C0102
8mm	C0103
10mm	C0104
11mm	C0105
12mm	C0106
16mm	C0108
19mm	C0109
22mm	C0110
25mm	C0112



### High Load Bow Shackles (Stamped)



SWL.	Pin Size	Part No
1.0 tons	7/16"	A1104
2.0 tons	5/8"	A1106
3.25 tons	3/4"	A1107
4.75 tons	7/8"	A1108
6.5 tons	1"	A1109
8.5 tons	1 1/8"	A1110
12 tons	1 3/8"	A1112
17 tons	1 5/8"	A1114

### High Load 'D' Shackles (Stamped)



SWL.	Pin Size	Part No
1.0 tons	7/16"	A1204
2.0 tons	5/8"	A1206
3.25 tons	3/4"	A1207
4.75 tons	7/8"	A1208
6.5 tons	1"	A1209
8.5 tons	1 1/8"	A1210
12 tons	1 3/8"	A1212
17 tons	1 5/8"	A1214

### Stamped Alloy 'D' Shackles



SWL.	Pin Size	Part No
0.6 tons	1/2"	B0550
0.75 tons	5/8"	B0103
1.0 tons	5/8"	B0551
1.5 tons	3/4"	B0104
2.0 tons	7/8"	B0105



# CLARK™ Web Slings



We hold a wide range of Flat Webbing Slings in most popular sizes. Available with reinforced cover protected eyes.



SWL kg	Colour	2m Length	3m Length	4m Length	5m Length	6m Length	8m Length
1000	Violet	FS-1T-2M	FS-1T-3M	FS-1T-4M	FS-1T-5M	X	X
2000	Green	FS-2T-2M	FS-2T-3M	FS-2T-4M	FS-2T-5M	X	X
3000	Yellow	FS-3T-2M	FS-3T-3M	FS-3T-4M	FS-3T-5M	FS-3T-6M	FS-3T-8M
4000	Grey	X	X	FS-4T-4M	FS-4T-5M	FS-4T-6M	FS-4T-8M
5000	Red	X	X	FS-5T-4M	FS-5T-5M	FS-5T-6M	FS-5T-8M
6000	Brown	X	X	FS-6T-4M	FS-6T-5M	FS-6T-6M	FS-6T-8M
8000	Blue	X	X	FS-8T-4M	FS-8T-5M	FS-8T-6M	FS-8T-8M
10000	Orange	X	X	FS-10T-4M	FS-10T-5M	FS-10T-6M	FS-10T-8M
12000	Orange	X	X	FS-12T-4M	FS-12T-5M	FS-12T-6M	FS-12T-8M

  
 Factor of safety 7:1 based on straight pull  
 Test Certificates Are Available When Required



# CLARK™ Round Slings



We hold extensive stocks of Round Slings in a wide range of sizes. Straight pull length is half of circumference.

  
 Factor of safety 7:1 based on straight pull  
 Test Certificates Are Available When Required

SWL kg	Webbing Width	Colour	2m Circumference	3m Circumference	4m Circumference	5m Circumference	6m Circumference	8m Circumference
1000	25mm	Purple	1T-2MRS	1T-3MRS	1T-4MRS	1T-5MRS	1T-6MRS	1T-8MRS
2000	50mm	Green	2T-2MRS	2T-3MRS	2T-4MRS	2T-5MRS	2T-6MRS	2T-8MRS
3000	75mm	Yellow	3T-2MRS	3T-3MRS	3T-4MRS	3T-5MRS	3T-6MRS	3T-8MRS
4000	100mm	Grey	4T-2MRS	4T-3MRS	4T-4MRS	4T-5MRS	4T-6MRS	4T-8MRS
5000	125mm	Red	5T-2MRS	5T-3MRS	5T-4MRS	5T-5MRS	5T-6MRS	5T-8MRS
6000	150mm	Brown	6T-2MRS	6T-3MRS	6T-4MRS	6T-5MRS	6T-6MRS	6T-8MRS
8000	200mm	Blue	8T-2MRS	8T-3MRS	8T-4MRS	8T-5MRS	8T-6MRS	8T-8MRS
10000	250mm	Orange	X	X	10T-4MRS	10T-5MRS	10T-6MRS	10T-8MRS
12000	300mm	Orange	X	X	12T-4MRS	12T-5MRS	12T-6MRS	12T-8MRS

**EXTREME  
PERFORMANCE  
TOW ROPE  
TECHNOLOGY**

**STRATOS® stronger than steel**  
**TUGGER  
TOW ROPE**

Stratos Tugger Tow Ropes incorporate 'Stronger than Steel' rope technology, a high tech polyethylene fibre (HMPE), which provides a high strength, light weight, abrasion resistant tow rope with a tensile strength 15 times higher than traditional steel ropes.

**Light Weight**

Around 80% lighter than comparable steel wire ropes making the Tugger Tow Rope very easy to handle and install.

**High Strength**

'Stronger than Steel' technology provides a tensile strength fifteen times higher than traditional steel tow ropes giving Tugger Tow Ropes a distinct strength advantage over steel rope options.

**Abrasion Resistant**

Tugger Tow Ropes are highly abrasion resistant thereby giving a long service life.

**Ergonomic Working**

No risk of injury from protruding steel wires and physical stress and tiredness are vastly reduced due to the light weight and comfortable handling of Tugger Tow Ropes.

**Easily Stored**

Lightweight and compact and supplied in a canvas bag makes easy storage in the cab of a vehicle, for immediate use when required.



**LIGHTER & STRONGER THAN STEEL ROPES  
UP TO 48 TONNES IN BREAKING STRAIN**

Rope Length & Weight		Diameter	Breaking Strain	Typical Application
Length <b>3</b> Metres	<b>0.3</b> kg	ø7 mm	Breaking Strain <b>6</b> Tonnes 60 kN 6000 daN	
Length <b>4</b> Metres	<b>0.8</b> kg	ø12 mm	Breaking Strain <b>15</b> Tonnes 150 kN 16000 daN	
Length <b>4</b> Metres	<b>1.6</b> kg	ø18 mm	Breaking Strain <b>30</b> Tonnes 320 kN 32000 daN	
Length <b>4</b> Metres	<b>2.5</b> kg	ø22 mm	Breaking Strain <b>48</b> Tonnes 480 kN 48000 daN	





## Single Sheave Snatch Blocks

We offer a range of heavy duty snatch blocks with pulley wheel sizes of 4 1/2", 6" and 8" diameter. Fitted with a heavy duty bronze bushing, these snatch blocks feature side opening for ease of access and are available with hook or shackle type eye fittings. Shackle eye models are standard stock with hook types available to order.

Pulley Diameter	Wire Rope Diameter	Ultimate Tensile Strength Tonnes	Part No
4 1/2"	10-22mm	16 Tonnes	F0352
6"	16mm	32 Tonnes	F0355
8"	20-22mm	32 Tonnes	F0354

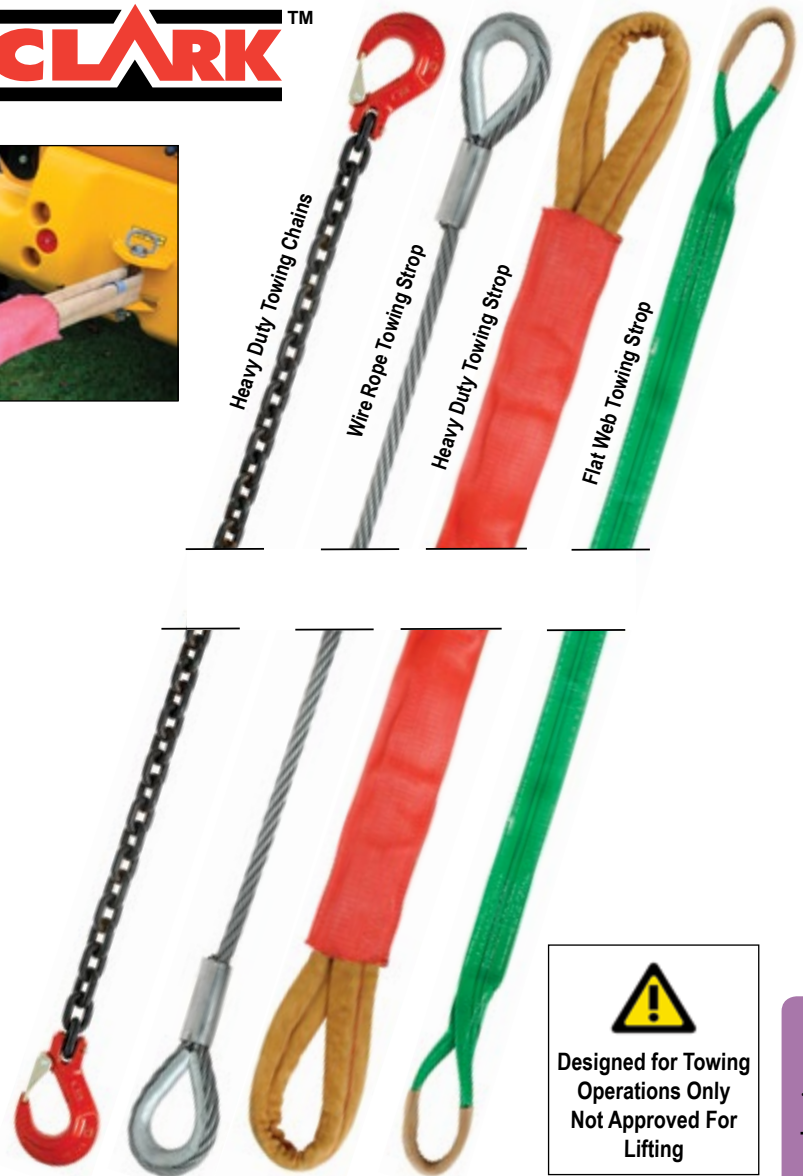
## High Load Blue Pin Towing Shackles



Body Dia mm	Pin Dia mm	WLL Tonnes	Ultimate Tensile Strength Tonnes	Part No
25.4	30	8.5	34	A1210
31.5	36	12	48	A1212
38	42	17	68	A1214

## Towing & Debogging Straps

Available in a range of types and sizes, we stock towing and debogging straps for all applications - from simple towing to debogging the largest of machines.



## Flat Web Towing Strap

(with leather protected eyes)

Length	Breaking Strength	Part No
5m	7 Tonnes	WTS 5-7
5m	14 Tonnes	WTS 5-14
6m	21 Tonnes	WTS 6-21

## Heavy Duty Towing Strap

(double sleeve protected with leather covered eyes)

Length	Breaking Strength	Part No
4m	42 Tonnes	HTS 4-42
6m	42 Tonnes	HTS 6-42

## Heavy Duty Towing Chains

(with hooks)

Chain Size	Length	Breaking Strength	Part No
10mm	4m	12.8 Tonnes	DTS 4-12
13mm	5m	21.6 Tonnes	DTS 5-21
16mm	5m	32 Tonnes	DTS 5-32

## Wire Rope Strap

(with hard end eyes)

Rope Diameter	Length	Breaking Strength	Part No
26mm	3.5m	32 Tonnes	WRS 3.5-32
26mm	5m	32 Tonnes	WRS 5-32
26mm	6m	32 Tonnes	WRS 6-32

# RAM WEDGE



**Take the Hard Work Out of Tree Felling**

Designed as a high powered alternative to ordinary hammer type tree wedges, Ram Wedge offers up to five tonnes of hydraulic force and via the sliding wedge design, power is multiplied up to three times on the tree. Ram Wedge does not shake the tree like hammer wedges do, so the danger of falling branches is greatly reduced. By applying hydraulic power, Ram Wedge offers superior power with greatly reduced manual effort.

## Hydraulic Felling Wedge

**RAM WEDGE**



SCAN FOR VIDEO



Ram Wedge should only be used by fully trained operators.



**15**  
Tonnes  
of Lift In  
Your Hands

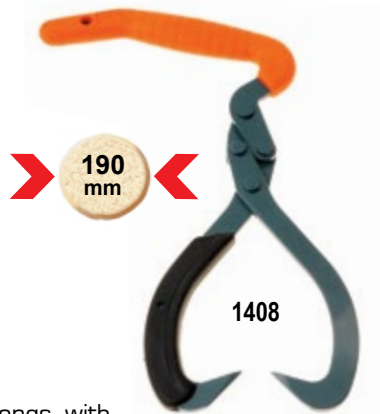
Weight	9.5kg
Length	650mm
Wedge Height	60mm
Stroke Length	170mm
Oil	approx. 0.5 litre Bio Hydraulic Oil

Pressure Power

Pulling on the lever with a force of 40kg produces a force of 5000kg on the piston rod. Ram Wedge triples the power on the tree.

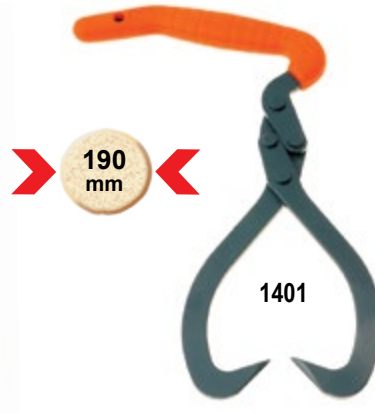


## Hand Lifting Tongs



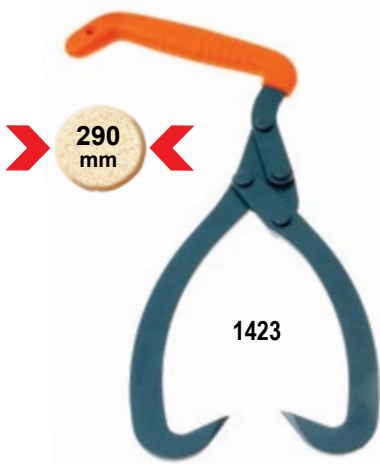
### EIA Lifting Tongs 1408

Fully hardened, solid steel lifting tongs with thermoplastic rubber handle. One shank equipped with non-slip plastic grip for rolling. Set shanks with three edge ground tips. Jaw opening 20-190mm.



### EIA Lifting Tongs 1401

Fully hardened, solid steel lifting tongs with thermoplastic rubber handle. Set shanks with three edge ground tips. Jaw opening 20-190mm.



### EIA Lifting Tongs 1423

Fully hardened, solid steel lifting tongs with thermoplastic rubber handle. Set shanks with three edge ground tips. Jaw opening 60-290mm.



### Ochsenkopf Tongs

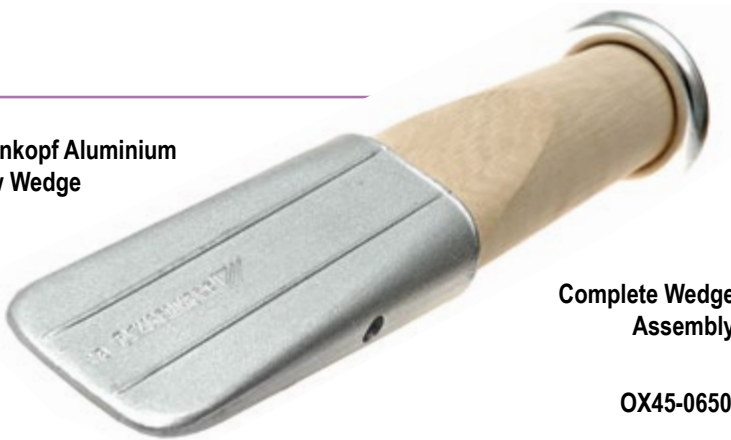
Drop forged pattern with hardened tips. The high quality handle has a cork and plastic cover for added comfort and grip. Jaw opening 185mm.



### Long Handled Tongs 1426

Fully hardened, solid steel lifting tongs with thermoplastic rubber handle. Extra long length (320mm) for lifting and pulling logs in an upright position. Set shanks with three edge ground tips. Jaw opening 60-290mm.

### Ochsenkopf Aluminium Hollow Wedge



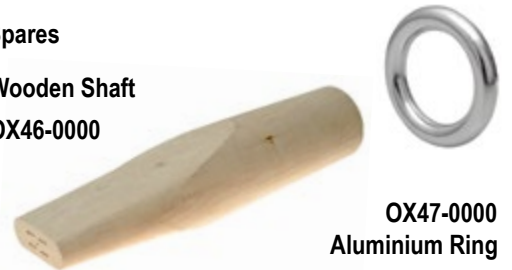
Complete Wedge Assembly

OX45-0650

Forged of high quality aluminium - for felling and splitting. Especially developed for extremely hard or frozen wood. Longitudinal grooves on the front and back side. The shaft extends the wedge effect and enables a higher splitting and spreading effect. The aluminium ring on the wood shaft prevents splintering. Length 360mm, Width 72mm, Weight 940g

### Spares

Wooden Shaft  
OX46-0000



OX47-0000  
Aluminium Ring

Plastic Shaft  
OX49-0000





## Heavy Duty Log Skidding Tongs

Heavy Duty Skidding Tongs are ideal for dragging logs behind ATVs and 4WDs. Made from fully hardened steel with set shanks with three edge ground tips. Maximum load capacity 1000kg. Jaw opens to maximum of 420mm.

Not To Be Used  
For Lifting



## Breaker Bars

Provides extra leverage when felling trees, rolling logs and breaking up stumps. Also excellent for freeing up pinched saws.

Spare Available



Ochsenkopf Sappie  
OX 173 E-0500



Ochsenkopf Sappie Holder

OX 126-0000

# Heavy Duty Lifting Tongs

Designed for lifting single logs, these tongs are ideal for use on agricultural tractor loaders and overhead cranes. Ideal for use in sawmills for the removal of jammed or misplaced logs in conveyors and other awkward areas.

Part No	Max Load kg	Max Jaw Opening dia mm
1432	1500	550
1434	1500	700
1440	1000	520
1449	1500	420
1450	800	420



1432



Made from fully hardened steel with loop for lifting and handle for releasing. Clamping spring for safer grip. Set shanks with three edge ground tips. Maximum load 1500kg. Jaw Opening 80-550mm.



1434



Wider jaw width version of the 1432 tongs. Made from fully hardened steel with loop for lifting and handle for releasing. Clamping spring for safer grip. Set shanks with three edge ground tips. Maximum load 1500kg. Jaw Opening 80-700mm



1440



Made from fully hardened steel with locking ring for lifting. Clamping spring for safer grip. Set shanks with three edge ground tips. Maximum load 1000kg. Jaw Opening 60-520mm.



1449



Made from fully hardened steel with loop for lifting and clamping spring for safer grip. Set shanks with three edge ground tips. Maximum load 1500kg. Jaw Opening 60-420mm.



1450



Sturdy lifting tongs made from fully hardened steel, suitable for use with 4WDs such as ATVs, with loop for lifting and clamping spring for safer grip. Set shanks with three edge ground tips. Maximum load 800kg. Jaw Opening 30-420mm.

# DISTEIN®

## EUROPE'S No1 FOREST MARKING PAINT

- Intense neon colours make Distein Neon the brightest paint for marking trees
- Specially designed spray nozzle also makes Distein Neon ideal for labelling timber stacks
- Ergonomic spray cap for fatigue-free extended spraying
- Patented colour ring on top of can simplifies colour identification
- Weather-proof and adheres well even in humid conditions or in direct sunlight
- Gives optimal covering and is frost proof to -20°C
- Minimal atomised spray
- High spreading rate
- 100% guaranteed to completely empty can thanks to the self-cleaning valve
- Environmentally-neutral propellant
- Free of Toluol and free of Cadmium, Lead and other heavy metals
- High quality product made in Germany



# DISTEIN NEON

HI-VISIBILITY FOREST MARKING PAINT



Large  
500ml  
Cans

NEON  
YELLOW

NEON  
RED

WHITE

NEON  
BLUE

NEON  
ORANGE

NEON  
GREEN

NEON  
PINK

FMP500

## DISTEIN®

TREE  
UNMARKER  
PAINT

BROWN

DIST-TREEUP



When you've made a mistake you need to correct... simply overspray with Distein Tree Un-marker Brown!

# DISTEIN®



Logging



## Risk Zone Stickers for Crane Booms

We operate an in-house manufacturing service for crane boom stickers. Custom made to suit your risk zone requirements, these bright yellow, self-adhesive vinyl stickers measure approximately 850mm long x 110mm high, with bold lettering in black.



CPW125



CPW170



CPW175





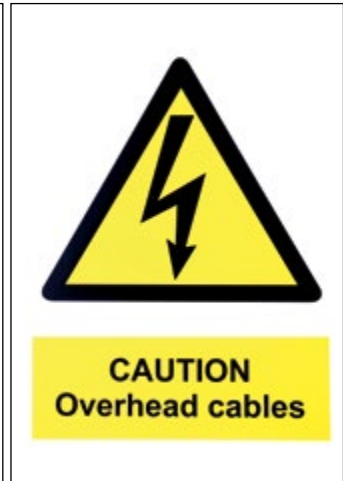
CPW140



CPW105



CPW110



CPW130



CPW135



CPW120



CPW115



CPW200



CPW155



CPW160



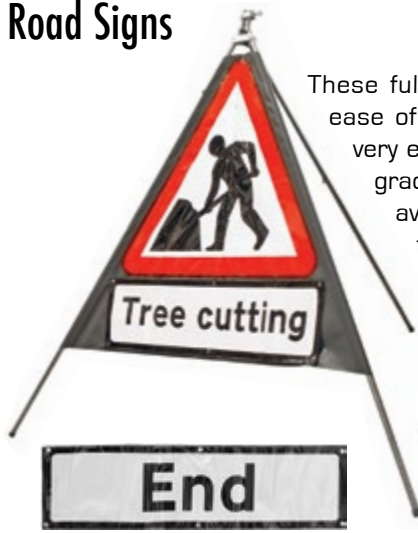
CPW145



CPW150

Low-Cost | Lightweight | 400mm x 600mm approx | 4mm Correx Board  
6mm Heavy Duty Foamex Board Available | Company Branding Available

## Road Signs



These fully conforming road signs roll up for ease of transportation and storage and are very easy to erect. All signs are to standard grade reflectivity. Supplementary plates are available and are interchangeable and easy to attach to the main sign with pop studs.

Road Works Sign 7001750EF  
 Tree Cutting Sign Plate V750TCUT  
 Hedge Cutting Sign Plate V750HCUT  
 Grass Cutting Sign Plate V750GCUT  
 End Sign Plate V750END



## Barrier Tape

Protect your work zone with our high visibility safety barrier tape. Supplied in convenient roll dispenser boxes, in red and white or black and yellow.



70mm x 500m Boxed Rolls	Yellow / Black
Standard Grade	BT-YB-500-SUP
70mm x 250m Boxed Rolls	Red / White
Extra Strong	BT-RW-500-SUP

## Lumber Crayons

12 Pack



Long lasting, fade proof, waterproof and smearproof lumber marking crayons. Excellent resistance to melting, even under direct sunlight. Work well on a range of surfaces: dry timber, wet/green timber, metal and concrete. Hex shaped 4.5" x 0.5" crayons.



Black LC-12P-BK      Green LC-12P-GR  
 Blue LC-12P-BL      Red LC-12P-RD

## Tree Marking Bands

Approved for pulp industry process. Lightfast and water repellent. 20mm wide, 65m long, 45gm weight per roll.



Colours Available:  
 Red | Blue | Yellow | Orange | Green  
 Red/White | Yellow/Black

## Loggers' Tapes

### Spencer Loggers' Tape & Refills



Plastic Casing

EIA Loggers' Tape & Refills

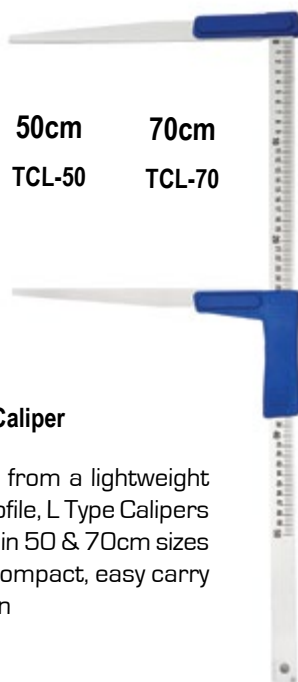


Durable Aluminium Casing



Measurement	Loggers Tape	Tape Refill
15 m only	WNS-15M-T	WNS-15M-RF
15 m + 50 ft	WNS-15M-50FT-T	WNS-15M-50FT-RF

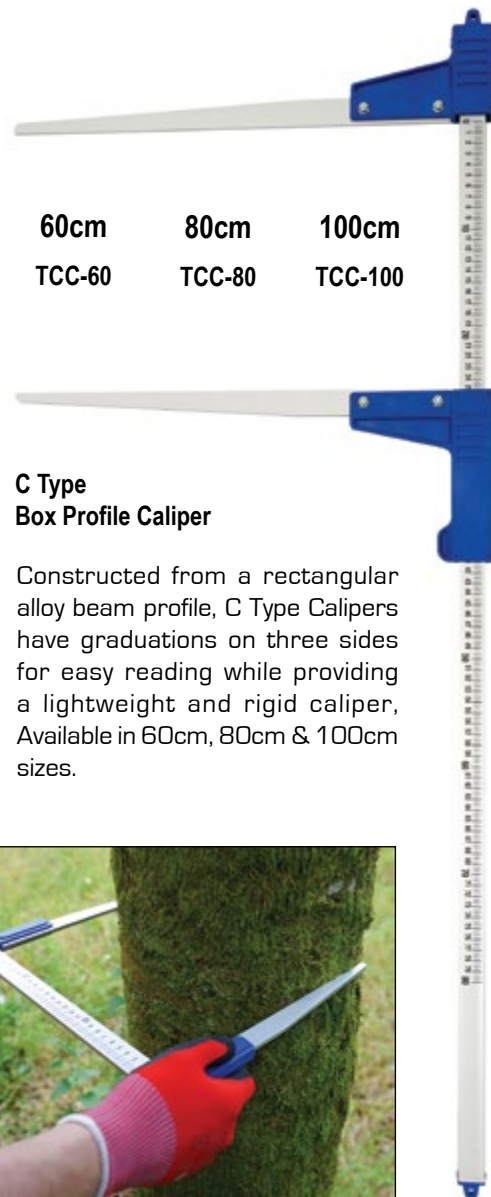
Measurement	Loggers Tape	Tape Refill
15 m only	SP-15M-T	SP-15M-RF
15 m + 50 ft	SP-15M-50FT-T	SP-15M-50FT-RF
20 m only	SP-20M-T	SP-20M-RF
20 m + 66 ft	SP-20M-66FT-T	SP-20M-66FT-RF
25 m only	SP-25M-T	SP-25M-RF
25 m + 75 ft	SP-25M-75FT-T	SP-25M-75FT-RF



50cm      70cm  
TCL-50    TCL-70

### L Type Lightweight Caliper

Constructed from a lightweight flat beam profile, L Type Calipers are available in 50 & 70cm sizes and offer a compact, easy carry caliper option



60cm      80cm      100cm  
TCC-60    TCC-80    TCC-100

### C Type Box Profile Caliper

Constructed from a rectangular alloy beam profile, C Type Calipers have graduations on three sides for easy reading while providing a lightweight and rigid caliper, Available in 60cm, 80cm & 100cm sizes.





# Traction & Transport

Forestry Machine Tracks | Tyre Chains  
Nokian Tyres | ExTe Timber Transport







# CLARK TRACKS

Clark Tracks offer world leading track technology for forest machines with track models suitable for all machine types and sizes and all ground conditions. Clark Tracks are manufactured from special boron alloy steel by advanced manufacturing processes to ensure superior quality.

## Specifying Tracks

When specifying and ordering tracks we require to know the following information to ensure we supply the correct track for your machine...

**MACHINE MAKE & MODEL • TYRE SIZE • TYRE MAKE • TREAD PATTERN • GROUND CONDITIONS**

i.e. soft or steep slopes etc

## Track Selection Guide

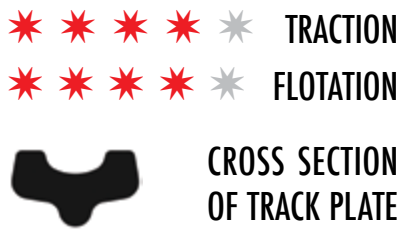
In order to make track selection easier, we have developed a star rating based upon traction and flotation performance relative to other tracks in our range.

★ ★ ★ ★ ★ TRACTION  
★ ★ ★ ★ ★ FLOTATION

This system features side mounted joining links which are positioned at approximately the same level as the tyre surface providing a smoother running track which absorbs much less machine driving power. The track is held onto the tyres by a system of side paws which also offer tyre side wall protection. These features combine to offer a range of tracks which are both kind to the forest floor and forest roads whilst offering excellent grip, traction and flotation.

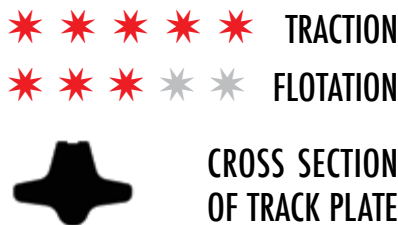
### Terra 'Lite'

Terra Lite tracks feature a unique double grouzer track plate offering exceptional grip and traction in most ground conditions, which combined with the 'lite' link system offer a high performance track with smooth running and minimal ground disturbance. Designed for use on most types and sizes of forest machines.



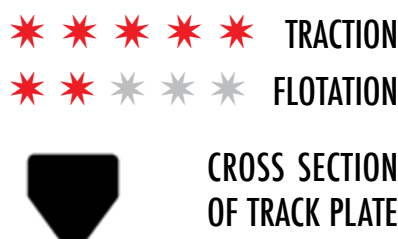
### Grouzer 'Lite'

Grouzer Lite tracks feature a single centre grouzer bar offering exceptional traction and self cleaning. Combined with the 'lite' link system, these tracks offer high performance and minimal ground disturbance.



### Rocky 'Lite'

Rocky Lite tracks feature a wide spaced square section track plate design for superior grip and traction for large machines working on demanding steep and rocky conditions.



## 'F' Series Flotation 'Lite'

'F' Series (Side-Link System) Flotation tracks provide excellent traction whilst reducing machine ground pressure by approximately 50%. Available in two track thickness weights: F15 (15mm) and F10 (10mm), these tracks are available in a wide range of sizes for use on most forest machines, large and small.



## Super Flotation 'Lite'

Super Flotation 'Lite', a further development of the 'F' Series track, is designed for use on large forest machines working in soft ground conditions. The track extends out over either side of the tyre offering increased overall track width, greatly reducing machine ground pressure whilst still providing excellent traction. NB These tracks are not recommended for use in heavy snow conditions.



## Terra-X 'Lite'

An advanced flotation track designed for use on large forest machines, Terra-X offers excellent flotation combined with minimal ground damage. Manufactured from special profile boron steel these tracks can be offered with extended side width for additional flotation and with one or more anti-skid spikes for greater traction. NB These tracks are not recommended for use in heavy snow conditions.



## Terra-X-Combi 'Lite'

Combining the advanced features of the Terra-X Lite track with the performance proven design of the Terra lite track, this combination track offers excellent flotation for larger machines whilst offering improved traction and climbing ability. The wider space between track plates also provides improved cleaning when used in sticky mud conditions. NB These tracks are not recommended for use in heavy snow conditions.





Standard Side Link Tracks have the link system placed to each side of the tyre approximately 80mm down from the tyre surface. These tracks are available in Flotation, Rocky Ground and Combination types.

## Side Link Tracks

**CLARK** TRACKS

### 'F' Series Flotation

'F' Series (Side-Link System) Flotation tracks provide excellent traction whilst reducing machine ground pressure by approximately 50%. Available in two track thickness weights: F15 (15mm) and F10 (10mm), these tracks are available in a wide range of sizes for use on most forest machines, large and small.

★ ★ ★ ★ ★ **TRACTION**  
★ ★ ★ ★ **FLOTATION**



**CROSS SECTION OF TRACK PLATE**



### Rocky Ground

'R' Series (side-link system) Rocky Ground Tracks are designed for use on larger forest machines in demanding, rough and rocky terrain, providing excellent grip and traction.

★ ★ ★ ★ ★ **TRACTION**  
★ ★ ★ ★ ★ **FLOTATION**



**CROSS SECTION OF TRACK PLATE**



### Combination

'R/F' Series Combination Tracks are designed for use on larger forest machines providing excellent traction combined with good flotation and low ground pressure.

★ ★ ★ ★ ★ **TRACTION**  
★ ★ ★ ★ ★ **FLOTATION**



**CROSS SECTION OF TRACK PLATE**



### Single Wheel Grip Tracks

Designed for ultimate traction on large diameter single wheels. Wheel grip tracks are ideal for use on six wheel drive harvesters operating on steep ground conditions and on large skidder tractors. Normally fitted with the 3-2-3 multi grip stud option, wheel grip tracks offer a high traction alternative to tyre chains.

★ ★ ★ ★ ★ **TRACTION**  
★ ★ ★ ★ ★ **FLOTATION**



**CROSS SECTION OF TRACK PLATE**



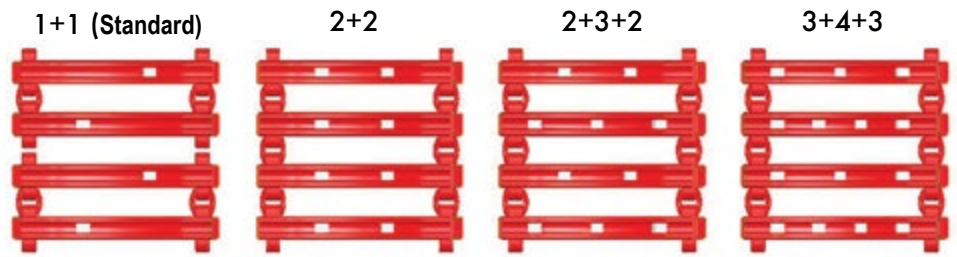
Traction & Transport

## Multi Grip Studs

Multi-Stud is a track option feature which can be offered at the time of manufacture. One stud is normally welded to each track plate, as standard, with the function of preventing lateral side slip of tracks when traversing slopes. However, with multiple studs welded to tracks, the overall traction, grip and hill climbing performance can be greatly increased.

Studs are available in a range of sizes and almost any stud pattern can be offered.

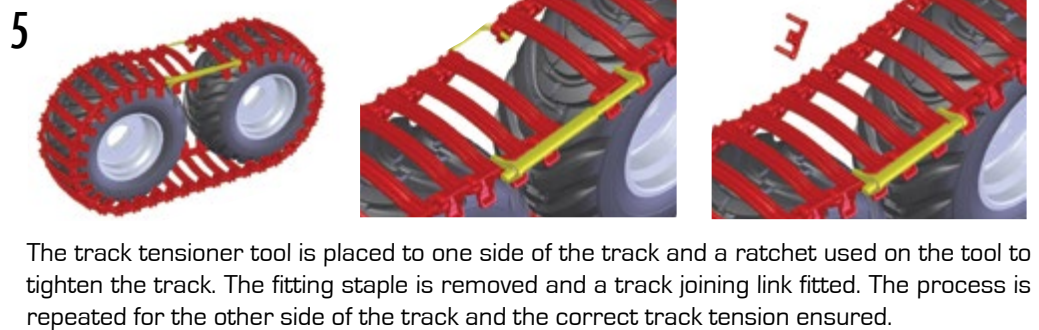
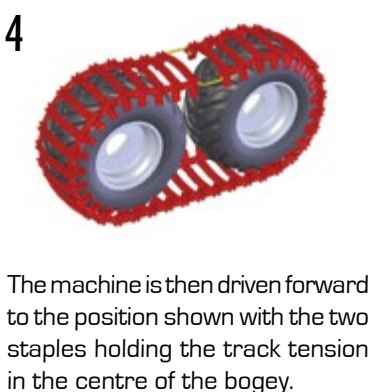
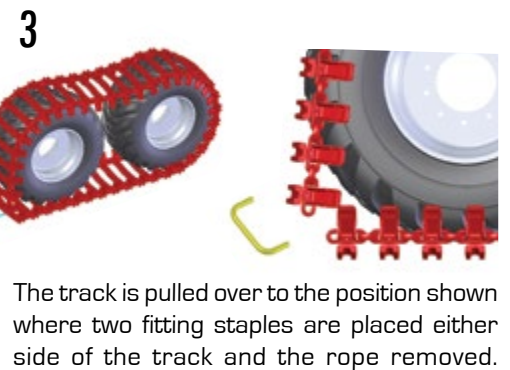
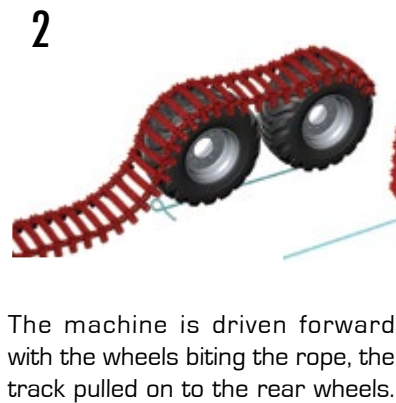
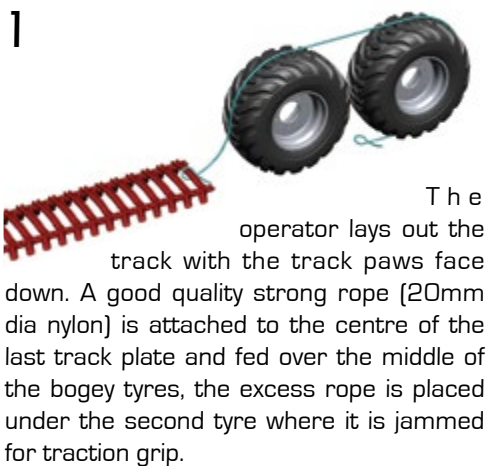
Multi stud should be specified at the time of ordering.

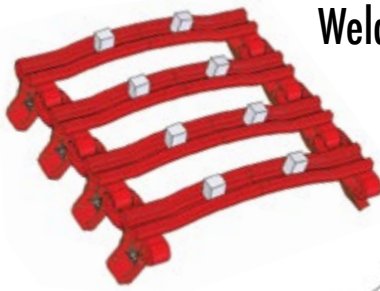


**CLARK** TRACKS

## How To Fit Tracks

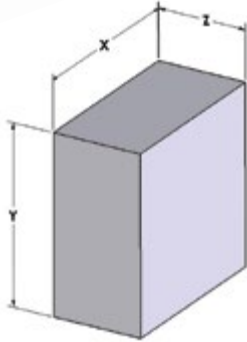
**CLARK** TRACKS





## Weld On Studs

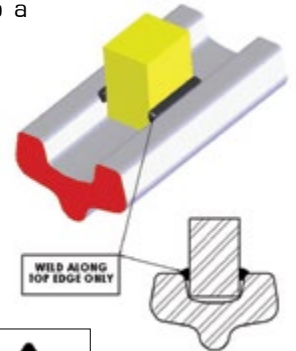
Studs are available in a range of sizes for welding to tracks. Manufactured from heat treated boron alloy steel which is easily welded, these spikes combine hardness with strength.



Stud Dimensions		
X	Y	Z
50mm	40mm	17mm
50mm	50mm	17mm
50mm	40mm	20mm
50mm	50mm	20mm
50mm	40mm	25mm
50mm	50mm	25mm
50mm	60mm	25mm
50mm	40mm	32mm
50mm	50mm	32mm
50mm	60mm	32mm
50mm	70mm	32mm

## Welding Procedure

Boron steel can easily be welded like any high strength alloy steel. Material must be clean and dry for welding. Preheating to 100°C is desirable. Low hydrogen welding procedures are recommended. Welding heat input to the track plate should be kept to a minimum and no welding should be done across the grain of the track plate. Weld only down the sides of the stud.



Tracks must only be fitted by trained operators. Assess all risks and ensure personal safety prior to track installation. Full fitting and safety instructions are supplied with tracks.



## Track Joining Links

Available in 18mm, 24mm and 28mm diameter sizes, Clark Track Joining Links are designed for ease of use. Forged from heat treated boron alloy steel for maximum hardness and strength, these links offer smooth, tyre-friendly profiles. Links combine bolt head locking, for single spanner tightening, with a tapered locking tongue design.

Part Number	Pin Diameter	Pin Centre
JL-18-95	18mm	95mm
JL-18-160	18mm	160mm
JL-24-95	24mm	95mm
JL-24-160	24mm	160mm
JL-28-105	28mm	105mm
JL-28-160	28mm	160mm



**CLARK** TRACKS



Long Forged Link



Short Forged Link



Track Plate End Link



## 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. Manufactured from heat treated boron alloy steel for ease of welding whilst combining strength with hardness.

**CLARK** TRACKS

## Track Tensioning & Fitting Equipment

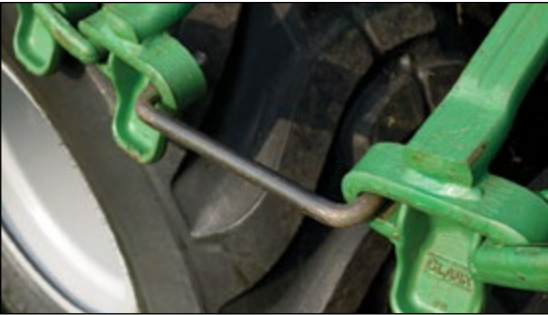


Manufactured from high strength alloy steel with an acme screw thread these tools provide a fast, efficient method of fitting tracks, powered only by a socket and wrench. The Side Mounted model incorporates drop forged alloy steel end forks to fit securely into the track links and can be used either singly or in pairs - one each side for increased tension.

## Fitting Staples



Designed for use with most track types in conjunction with track tensioners, these fitting staples offer a fast and simple method of track installation.



**CLARK**™



# OFA Tyre Chains



As the world's largest manufacturer of forest machine tyre chains, OFA offer the widest range of chains for all forest machine types and applications. Manufactured from special heat treated boron alloy steel OFA lead the market with chain quality, offering hardness with strength, ensuring long working life with low maintenance. As the UK distributor, we stock a wide range of OFA chains in many tyre sizes and chain patterns to suit UK forest conditions.

## OFA Forest Machine Tyre Chains



### Tapio 13

A single diamond twisted chain for smaller forest machines and for use on narrower tyres.



TRACTION  
PROTECTION



Tyre Size	13mm Chain
600/50-22.5	✓
600/50-26.5	✓
650/50-26.5	✓
700/45-22.5	✓
700/50-26.5	✓
16.9-30	✓
16.9-34	✓
16.9-38	✓
18.4-26	✓
18.4-30	✓
18.4-34	✓
18.4-38	✓
23.1-26	✓



# OFA Forest Machine Tyre Chains

## Matti W 2T

A double diamond chain offering excellent grip and a good wear resistance. Available in 13mm or 16mm.

\* \* \* \* \* TRACTION  
\* \* \* \* \* PROTECTION



Tyre Size	13mm Chain	16mm Chain
500/60-22.5	✓	X
500/60-26.5	✓	X
600/50-22.5	✓	X
600/55-26.5	✓	✓
600/65-34	✓	✓
700/45-22.5	✓	X
700/50-26.5	✓	✓
700/55-34	X	✓
700/70-34	X	✓
800/40-26.5	X	✓
18.4-34	X	✓
20.5-25	X	✓
23.1-26	X	✓

## Matti Protec 16mm

A further development of the Matti W chain design, the Protec chain offers a wider pattern extending down the tyre side wall to the side chain, offering greater side wall tyre protection and an excellent tyre hugging chain.

\* \* \* \* \* TRACTION  
\* \* \* \* \* PROTECTION



Tyre Size	16mm Chain
600/55-26.5	✓
700/50-26.5	✓
710/45-26.5	✓
750/55-26.5	✓
700/55-34	✓



## Paragon V3 16mm

A new concept in forestry tyre chains. The dual link longitudinal pattern offers smooth driving combined with exceptional grip and reduced wear. The new Paragon V3 offers the ultimate solution for driving and traction on large forestry machines.

\* \* \* \* \* TRACTION  
\* \* \* \* \* PROTECTION



Tyre Size	16mm Chain
700/50-26.5	✓
710/45-26.5	✓
750/55-26.5	✓
700/55-34	✓
700/70-34	✓



### OFA LS/LS NK8 Tyre Chains

Optimised pattern of cross chains ensures that at all times, a proportion of the chain is between the dual tyres and the terrain. The wear chain has unstudded links from 8mm and/or 9mm square wire, depending on tyre size.



### OFA LS/SS NK8 Tyre Chains

Particularly designed for log-hauling trucks and in general for terrains demanding improved lateral grip. The wear chain has unstudded links from 8 and/or 9mm square wire, depending on tyre size.



## Truck Chains

### OFA LS NK8 Tyre Chains

General purpose chain for both the front tyres and the outer tyre of dual tyres. The wear chain has unstudded links from 8 and/or 9mm square wire, depending on tyre size.



### 'Speedy' Tyre Chain Tensioning Tool

The screw type Speedy Chain Tensioner tool combines compact design with light weight and ease of use. Incorporating a special acme screw thread which offers excellent tensioning combined with fast operation, the new tool is operated via a standard 1/2" drive ratchet and socket. The new tensioner has two chain fitting options - chain hooks to grip inside the link or chain grabs to grip on the end of the link.



STT350

### Weld Repair Links

- 8mm WRL8
- 9mm WRL9
- 11mm WRL11
- 13mm WRL13
- 16mm WRL16
- 19mm WRL19



### Chain Coupling Link

- 7mm K0501
- 10mm K0502
- 13mm K0503
- 16mm K0504



### X Type Joining Links

- 11mm X-TJL11
- 13mm X-TJL13
- 16mm X-TJL16
- 19mm X-TJL19



### Plug Coupling Links

- 5mm PCL5
- 6mm PCL6
- 8mm PCL8
- 10mm PCL10
- 13mm PCL13
- 16mm PCL16



### Stamped Alloy D Shackles

- Pin
- 5/8" B0551
- 3/4" B0104



### Galvanised D Shackles

- 10mm C0104
- 13mm C0106
- 16mm C0108
- 19mm C0109





At the forefront of forestry tyres, Nokian Tyres has decades of experience in designing and manufacturing tyres in close cooperation with forestry machine manufacturers.

Nokian Tyres are renowned for their superb quality in extremely demanding logging and harvesting conditions - this high quality primarily means functionality, reliability and high service hours.



A photograph of a forest path with sunlight filtering through the trees. In the foreground, a large, treaded tire is visible, partially covered in mud. A red metal railing is on the left side.

# **nokian<sup>®</sup>** **TYRES**



Traction &  
Transport


# Logger King LS-2

Nokian Product Code	Dimension	PR	Rim	Section mm	Diameter mm	Static Load Radius mm $\pm 2.5\%$	Rolling Circ mm $\pm 2.5\%$	30km/h Load kg	Inf Pres bar	10km/h Load kg	Inf Pres bar
T445616	23.1-26 TL	16 SF	DW20B	587	1632	736	4857	4500	2.4	6300	2.8
T445516	28L-26 TL*	26 SF	DW25A	714	1644	733	4945	6550	2.4	9200	4.0
T445615	28L-26 TL	20 SF	DW25B	714	1644	733	4945	5750	2.4	7250	2.8
T445614	24.5L-32 TL	20 SF	DH21	622	1831	825	5397	5850	2.8	8200	3.1
T445621	30.5L-32 TL	20 SF	DH27A	775	1853	836	5542	6000	2.1	8200	2.4
T445613	30.5L-32 TL	26 SF	DH27	775	1853	823	5510	7100	2.8	10000	3.1
T445620	35.5L-32 TL	26 SF	DH31	902	2011	901	6062	8750	2.4	12250	2.8



\* Forest King TRS LS-2 Tread Pattern


# Forest King TRS L-2

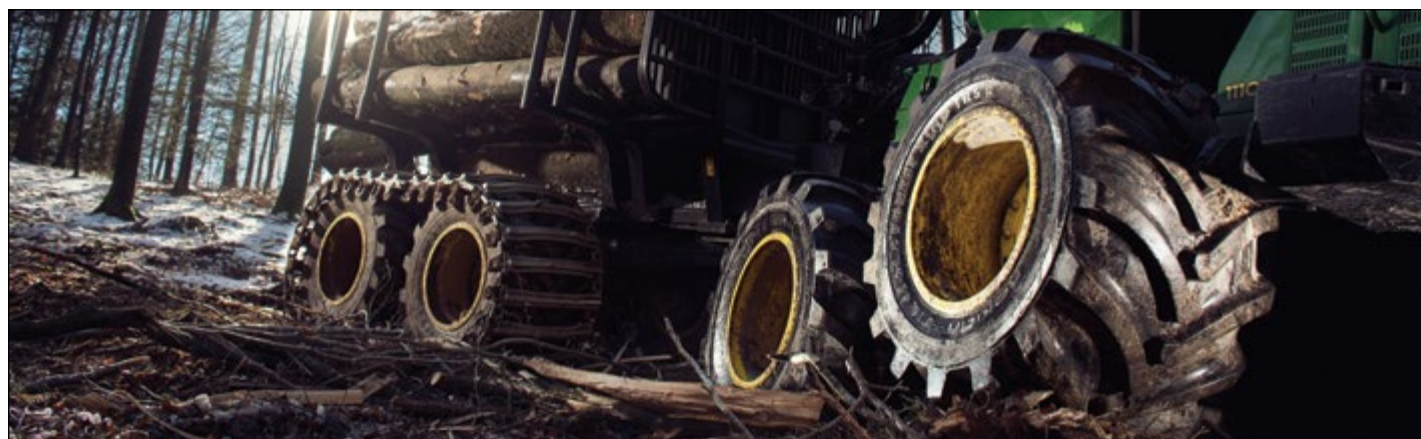
Nokian Product Code	Dimension	PR	Rim	Section mm	Diameter mm	Static Load Radius mm $\pm 2.5\%$	Rolling Circ mm $\pm 2.5\%$	30km/h Load kg	10km/h Load kg	Inflation Pressure bar
T445477	 600/50-22.5 TT	20 SF	20.00	600	1171	535	3573	4680	5450	5.5
T445395	650/60-26.5 TT	20 SF	20.00	650	1485	676	4467	6740	7750	5.5
T445225	 750/55-26.5 TT	20 SF	24.00	750	1485	672	4461	7810	9000	5.0

 **NORDMAN** Alternative Available See Page 160

# Forest King TRS 2

Nokian Product Code	Dimension	PR	Rim	Section mm	Diameter mm	Static Load Radius mm $\pm 2.5\%$	Rolling Circ mm $\pm 2.5\%$	40km/h Load kg	10km/h Load kg	Inflation Pressure bar
T445618	600/50-22.5 TT	20 SF	AG 20.00	600	1170	TBA	TBA	4375	5450	5.5
T445607	710/40-22.5 TT	20 SF	AG 24.00	710	1170	535	3569	4625	5600	5.5
T445568	710/40-24.5 TT	20 SF	AG 24.00	710	1230	570	3757	4875	6000	5.5
T445567	 600/55-26.5 TT	20 SF	AG 24.00	600	1340	619	4096	5150	6300	5.5
T445566	 710/45-26.5 TT	20 SF	AG 24.00	710	1340	618	4103	5600	6900	5.5
T445602	750/55-26.5 TT	24 SF	AG 24.00	750	1485	674	4499	8500	10000	6.0
T445612	710/55-28.5 TT	24 SF	AG 24.00	710	1525	693	4618	8000	9750	6.0
T445581	780/50-28.5 TT	24 SF	AG 28.00	780	1525	691	4611	8500	10600	6.0
T445594	800/40-26.5 TT	20 SF	AG 28.00	800	1340	619	4096	6000	7300	5.0

 **NORDMAN** Alternative Available See Page 160





## **nokian** *LOGGER KING LS-2*

A traction tyre with excellent grip for demanding conditions

- A low-profile, wide forestry machine traction tyre with high lugs, which endure the most difficult conditions
- Tough special rubber compound and steel fortification
- Outstanding Grip



## **nokian** *FOREST KING TRS L-2*

Reliable grip & traction

- Wide, high lugs for good moving properties and driving comfort
- Lug angle and sharp shoulder ensure excellent lateral lug
- Normally used without tracks






## **nokian** *FOREST KING TRS 2*


Wide tread for low ground pressure & excellent traction.

- Use with or without tracks
- New shoulder design - improved lateral grip
- New SUPER SHOVEL lug design - improved traction
- New bead area - high resistance to rim slip
- Wider lugs - enhanced support to track paws
- Straight walls - improved sidewall puncture resistance





# Forest Rider

Nokian Product Code	Dimension	Load Index	Rim	Section mm	Diameter mm	Static Load Radius mm $\pm 2.5\%$	Rolling Circ mm $\pm 2.5\%$	40km/h Load kg	10km/h Load kg	Inflation Pressure bar
T445472	600/50 R 24.5 TL	164 A8	20.00	600	1230	563	3726	5000	6150	5.5
T445436	650/45 R 24.5 TL	161 A8	22.00	650	1230	566	3732	4625	5600	5.00
T445466	600/60 R 28 TL	159 A8	DW18B	600	1431	653	4323	4375	5450	4.00
T445461	600/70 R 30 TL	165 A8	DW20B	600	1602	730	4869	5150	6300	4.00
T445460	600/65 R 34 TL	165 A8	DW20B	600	1644	763	5008	5150	6300	4.00
T445455	710/55 R 34 TL	171 A8	24.00	710	1640	755	4977	6150	7500	4.00
T445517	 710/70 R 34 TL	176 A8	DW24B	710	1844	841	5592	7100	8750	4.00
T445464	 650/65 R 38 TL	171 A8	DW20B	650	1811	834	5517	6150	7500	4.00
T445457	 650/85 R 38 TL	179 A8	DW20B	650	2071	960	6321	7750	9500	4.00

 **NORDMAN** Alternative Available See Page 160

# Forest King F2

Nokian Product Code	Dimension	PR	Rim	Section mm	Diameter mm	Static Load Radius mm $\pm 2.5\%$	Rolling Circ mm $\pm 2.5\%$	40km/h Load kg	10km/h Load kg	Inflation Pressure bar
T445619	600/50-22.5 TT	20 SF	20.00	600	-	-	-	-	-	-
T445608	 710/40-22.5 TT	20 SF	24.00	710	1170	537	3550	4625	5600	5.5
T445572	 710/40-24.5 TT	20 SF	24.00	710	1230	570	3738	4875	6000	5.5
T445573	 600/55-26.5 TT	20 SF	20.00	600	1340	618	4071	5150	6300	5.5
T445571	 710/45-26.5 TT	20 SF	24.00	710	1340	622	4084	5600	6900	5.5
T445589	710/45-26.5 TT	24 SF	24.00	710	1340	621	4084	6500	8000	6.0
T445574	 750/55-26.5 TT	24 SF	24.00	750	1485	674	4486	8500	10000	6.0
T445570	710/55-28.5 TT	24 SF	24.00	710	1525	696	4618	8000	9750	6.0
T445537	780/50-28.5 TT	24 SF	26.00	780	1525	697	4618	8500	10600	6.0
T445603	800/40-26.5 TT	20 SF	28.00	800	1340	620	4084	7100	8750	5.5

 **NORDMAN** Alternative Available See Page 160

# ELS L-2

Nokian Product Code	Dimension	PR	Rim	Section mm	Diameter mm	Static Load Radius mm $\pm 2.5\%$	Rolling Circ mm $\pm 2.5\%$	30km/h Load kg	10km/h Load kg	Inflation Pressure bar
T486034	600/50-22.5 TT	16 SF	20.00	600	1171	531	3522	3480	4000	4.3
T486066	650/65-26.5 TT	20 SF	20.00	650	1485	674	4461	7170	8250	5.5



# **nokian**

## **FOREST RIDER**



Driving comfort - absolute traction

- The first functional radial forestry tyre for professional use on the market. Designed for CTL forestry machines, the Forest Rider wins users over with its unique driving properties and supreme traction abilities
- Wide contact area provides supreme moving properties and is gentle on the surface
- Radial construction guarantees excellent driving comfort and minimises vibration
- Patented side puncture protection
- Low rolling resistance resulting in lower fuel consumption
- Excellent traction - tracks not necessary

# **nokian**

## **FOREST KING F2**



For the heaviest forest machines

- Track grip like never before
- Improved puncture resistance
- Entirely new size 780/50-28.5 PR24
- Increased diameter allows for a high load-bearing capacity and improved traction / off-road ability
- Expanded rim diameter to 28.5 inches
- Reliable solution for the heaviest forestry machines weighing over 20 tonnes

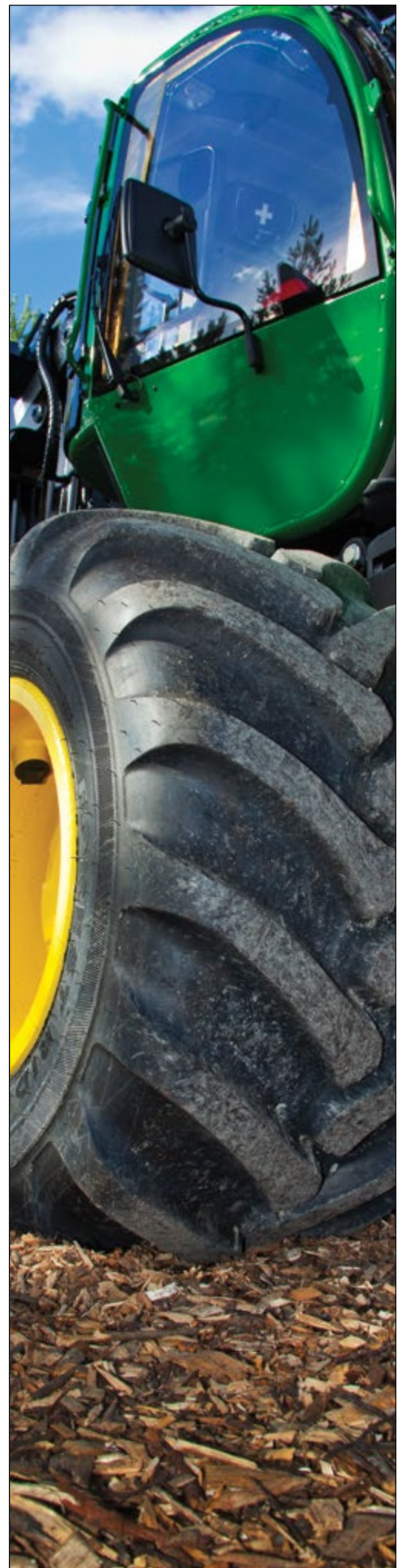
# **nokian**

## **ELS L-2**



Efficient operating hours

- Reliable low-profile tyre
- High rubber content in the tread compound ensures extensive operating hours
- Durable sidewalls with efficient steel fortification



Traction & Transport

# Tough Tyres - Tractor Forest King 'T'

Nokian Product Code	Dimension	Load Index	Rim	Section mm	Diameter mm	Static Load Radius mm $\pm 2.5\%$	Rolling Circ mm $\pm 2.5\%$	50km/h Load kg	10km/h Load kg	Inflation Pressure bar
T445365	620/75-26 TT	159A8/167A2	DW20B	625	1590	723	4763	3980	5450	2.8
T445314	540/70-30 TT	152A8/159A2	DW16L	540	1515	705	4505	3230	4375	2.8
T445313	650/75-38 TT	168A8/175A2	DW20A	650	1965	900	5890	5100	6900	2.8

# TR Forest Standard Range - Series 80

Nokian Product Code	Dimension	PR	Load Index	Rim	Section mm	Diameter mm	Rolling Circ mm $\pm 2.5\%$	40km/h Load kg	Inf Pres bar	10km/h Load kg	Inf Pres bar
T482192	12.4-24 TT	12	128 A8	W11	315	1160	3443	1800	3.50	1820	2.4
T482198	13.6-24 TT	10	128 A8	W12	345	1210	3512	1800	2.50	1790	2.3
T482220	14.9-24 TT	14	138 A8	W13	378	1265	3707	2360	3.00	2375	2.3
T483150	13.6-28 TT	10	130 A8	W12	345	1310	3934	1900	2.70	1910	2.3
T445409	14.9-28 TT	14	140 A8	W13	378	1365	4065	2500	3.00	2530	2.3
T483301	16.9-28 TT	14	145 A8	DW15	429	1435	4280	2900	2.60	2860	2.4
T483810	16.9-30 TT	14	144 A8	W15L	429	1485	4361	2800	2.60	2850	2.0
T484390	16.9-34 TT	14	146 A8	W15L	429	1585	4599	3000	2.60	3025	2.0
T484420	18.4-34 TT	14	154 A8	W16	467	1650	4825	3750	2.60	3730	1.8
T485430	18.4-38 TT	14	155 A8	W16L	467	1750	5150	3875	2.60	3890	1.8
T485450	20.8-38 TT	14	159 A8	W18L	528	1840	5510	4375	2.30	4340	1.8

# TR Multiplus Radial - Series 65

Nokian Product Code	Dimension	Load Index	Rim	Section mm	Diameter mm	Rolling Circ mm $\pm 2.5\%$	40km/h load kg	50km/h load kg	Inflation Press. bar
T445410	500/65 R 24 TL	139 B	W15L	480	1244	3735	2650	2430	3.2
T445411	500/65 R 28 TL	141 B	W15L	492	1345	4055	2360	2120	3.2
T445412	540/65 R 28 TL	146 B	DW16	530	1413	4255	2650	2430	3.2
T445413	600/65 R 34 TL	154 B	DW18L	575	1644	4930	4125	3750	3.2
T445414	600/65 R 38 TL	156 B	DW18L	591	1745	5280	3650	3350	3.2
T445415	650/65 R 38 TL	160 B	DW20A	645	1811	5490	4125	3750	3.2





# **nokian**

## *FOREST KING T*

Heavyweight professional

- The only special tyre for heavy tractor-based forestry machines on the market - also for skidders
- In addition to normal wood harvesting, this tyre is suitable for tasks involving the clearing and scarifying of forest terrain
- Good cleaning properties and friendly to the terrain
- Due to its large lug angle, it is well suited for transportation on roads



# **nokian**

## *TR FOREST*

Reliable choice for tractors in forestry use

- A special tyre for versatile forestry use of agricultural tractors
- Strong cross-ply construction and tread pattern with good cleaning properties
- Tread rubber compound designed particularly for forestry use



# **nokian**

## *TR MULTIPLUS RADIAL*

Tyre for light forestry use

- Strong, multi-purpose radial tyre from the 65 series
- Good grip and self-cleaning tread pattern
- Due to its radial construction, it is quick and comfortable in transportation
- Suitable for light forestry, agriculture and earth-moving



# NOKIAN<sup>®</sup> TYRES NORDMAN

The Nordman product family was initiated in 2011 with the introduction of the Nokian Nordman Forest range. Nokian Heavy Tyres wanted to offer an alternative choice to their premium range of tyres for the replacement market whilst still maintaining the Nokian brand quality. This quality also makes Nokian Nordman tyres suitable for original equipment use if that is the customer's preference - Nokian always ensure that the expectation of the customer is met.

## NORDMAN FOREST TRS L-2

Developed as a cost effective alternative for replacement tyres in the market, the Nordman Forest range employs Nokian's tried and tested crossply construction with a similar tread pattern and tyre profile to the TRS L-2, making it compatible with existing TRS tracks.



## NORDMAN FOREST F

A cost effective alternative for replacement tyres - ideal for forestry machines being overhauled. The Nordman Forest F is based on the popular Nokian Forest King F.



## Nordman Forest TRS L-2

Nordman Product Code	Dimension	LI PR	Rim	Section mm	Diameter mm	Static Load Radius mm $\pm 2.5\%$	Rolling Circ mm $\pm 2.5\%$	40km/h Load kg	10km/h Load kg	Inf Pres bar
T445622	600/50 -22.5 TT	/ 16 SF	AG 20.00	600	1150	525	3471	3480	4000	3.2
T445527	600/55-26.5 TT	165 A8 / 20 SF	AG 20.00	600	1340	616	4065	5150	6300	5.5
T445624	710/45-22.5 TT	/ 16 SF	AG 24.00	710	TBA	TBA	TBA	TBA	TBA	TBA
T445541	710/45-26.5 TT	161 A8 / 20 SF	AG 24.00	710	1340	608	4077	5600	6900	5.5
T445528	750/55-26.5 TT	177 A8 / 20 SF	AG 24.00	750	1485	672	4461	7300	9000	5.5
T445475	600/65-34 TT	163 A8 /20 SF	DW20B	600	1644	755	4964	4875	6000	3.6
T445476	700/55-34 TT	166 A8 /20 SF	DW24B	700	1640	751	4938	5300	6500	3.6
T445596	700/70-34 TT	173 A8 / 20 SF	DW20B	700	1844	840	5542	6500	8000	3.2

## Nordman Forest F

Nordman Product Code	Dimension	LI PR	Rim	Section mm	Diameter mm	Static Load Radius mm $\pm 2.5\%$	Rolling Circ mm $\pm 2.5\%$	40km/h Load kg	10km/h Load kg	Inf Pres bar
T4455625	710/40-22.5 TT	/ 16 SF	24.00	710	1171	537	3579	3550	4375	3.2
T445599	710/40-24.5 TT	163 A8 / 20 SF	24.00	710	1230	573	3729	4875	6000	5.5
T445598	600/55-26.5 TT	165 A8 / 20 SF	20.00	600	1340	624	4065	5150	6300	5.5
T445565	710/45-26.5 TT	168 A8 / 20 SF	AG 24.00	710	1340	622	4046	5600	6900	5.5
T445597	750-55-26.5 TT	177 A8 / 20 SF	AG 24.00	750	1485	680	4467	7300	9000	5.5

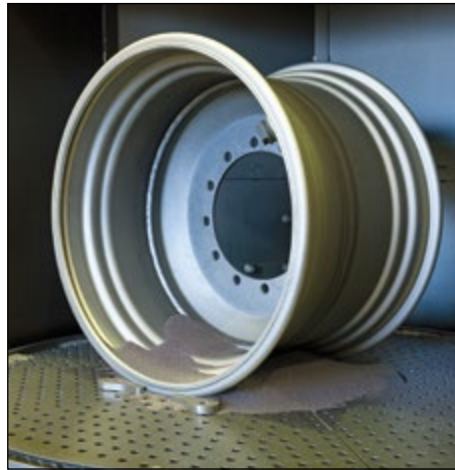


# Wheel Repair - We Can Repair Worn And Damaged Wheels

## New Wheel Rims



## Centre Flange Plates



## Weld In Repair Discs



## Shotblasting & Painting



A frequent problem when wheel studs break or run slack is damaged or worn stud holes in the centre flange plate. We can cut out and replace damaged centre flanges and weld in a new alloy steel repair disc.



We can supply new reinforced forestry specification wheels with standard or special offset to fit most tyre sizes. We also offer a wheel modification service where centre flanges can be modified or re-positioned within the wheel to increase or decrease wheel offset and machine width. Wheels can then be shotblasted and painted. We can also supply wheel spare parts... bare rims, centre flanges, repair discs and valve guards.

### Rim Size Availability

20.00 - 22.5

24.00 - 22.5

20.00 - 26.5

24.00 - 26.5

28.00 - 26.5

DW20A

DW24A

## New Wheels & Wheel Modifications



## Nokian Tyre Tubes



Part Number	Tyre Size
T 55094	400/55-22.5
T 55096	500/60-22.5
T 55089	600/50-22.5
T 55092	700/45-22.5
T 55097	500/60-26.5
T 55098	600/55-26.5
T 55099	700/50-26.5
T 55099	710/45-26.5
T 55102	650/65-26.5
T 55102	750/55-26.5
T 545312	800/40-26.5
T 55388	700/70-34
T 55394	700/55-34
T 55394	600/65-34

We Hold Extensive Stocks Of Nokian Forestry Tyre Tubes In Most Popular Sizes



## Nokian Valve Guards

We Stock Nokian Heavy Duty Nylon Screw-In Valve Protection Guards



Traction & Transport

# ExTe

Securing cargo. We invented the Concept.

Exte are Europe's largest manufacturer of bunks, having specialised exclusively in this field for over 50 years, they have concentrated on developing superior products for a wide range of applications. ExTe produce bunks of minimal weight, maximum strength and enviable safety - not only to vehicle operators, but to other road users as well.



Exte stakes are available in one piece or two piece telescopic. The unique cam locking adjustment of telescopic stakes ensures secure height adjustment with a fast action. Load heights up to 3.2m are available. Exte stakes are available with standard bolt locking or a quick lock fixing for fast removal.



ExTe

D5

ExTe

# ExTe Type 144 Timber Transport System Provides Maximum Flexibility

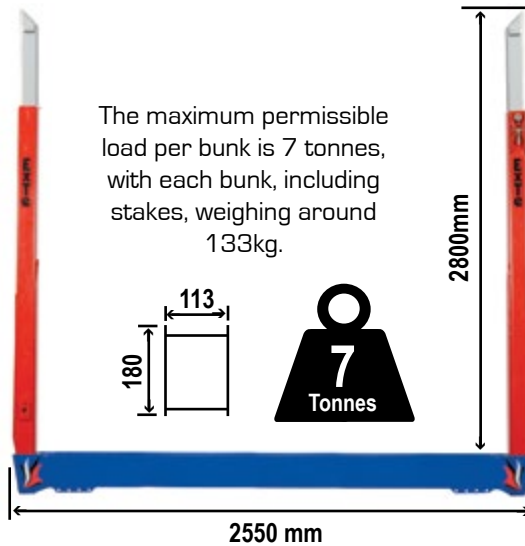
System 144 combines a steel cross member with steel and alloy stakes making it ideally suited to transporting round hardwood timber and other high stress loads. The heavy duty design and construction provides superior resistance to shock loads during loading and unloading.



Type 144 Quicklock Telescopic Stake

# ExTe

**New Type 144 Design Introduced 2014**

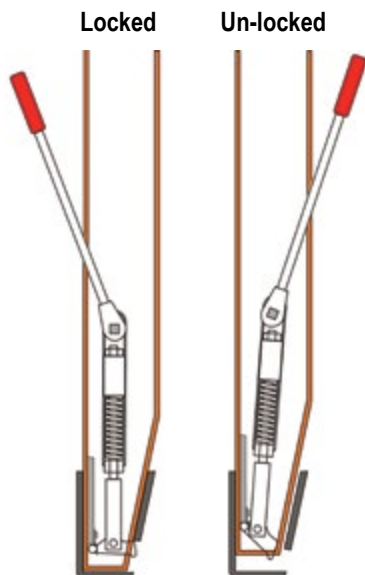


The maximum permissible load per bunk is 7 tonnes, with each bunk, including stakes, weighing around 133kg.

Type 144 Telescopic Stake

Type 144 One Piece Euro Stake

## Type 144 Quicklock



Type 144 Quicklock stakes are available to fit standard sockets. Designed for use on flatbed trucks, Quicklock stakes employ a secure spring loaded camlock design for fast installation and removal.

## Type 144 Socket



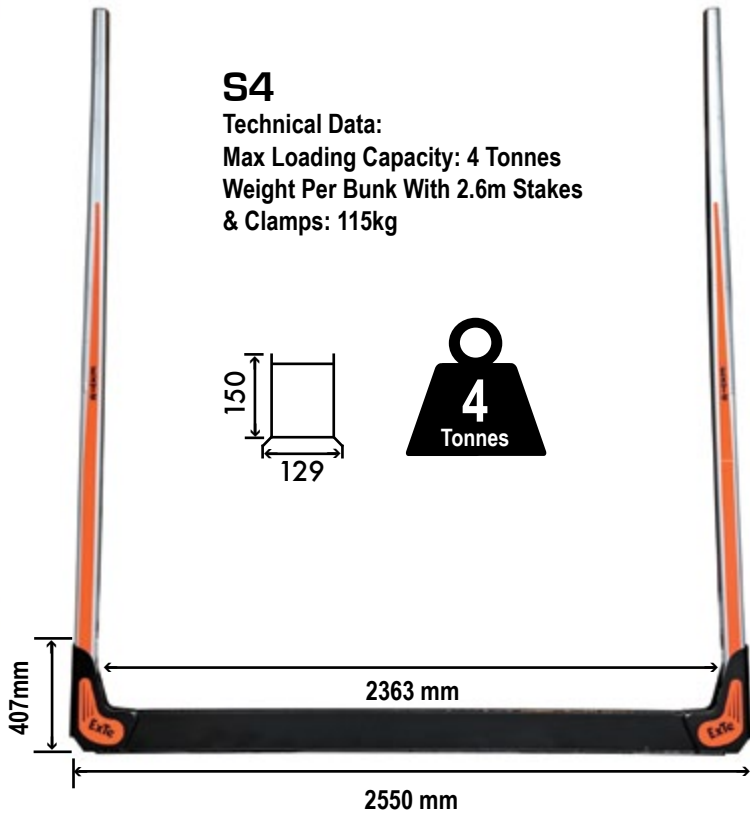
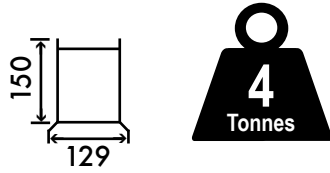
144 Weld on socket for truck chassis mounting

**Traction & Transport**

**Exte S Series** The Economical Bunk from ExTe

**S4**

Technical Data:  
 Max Loading Capacity: 4 Tonnes  
 Weight Per Bunk With 2.6m Stakes  
 & Clamps: 115kg



**S4**

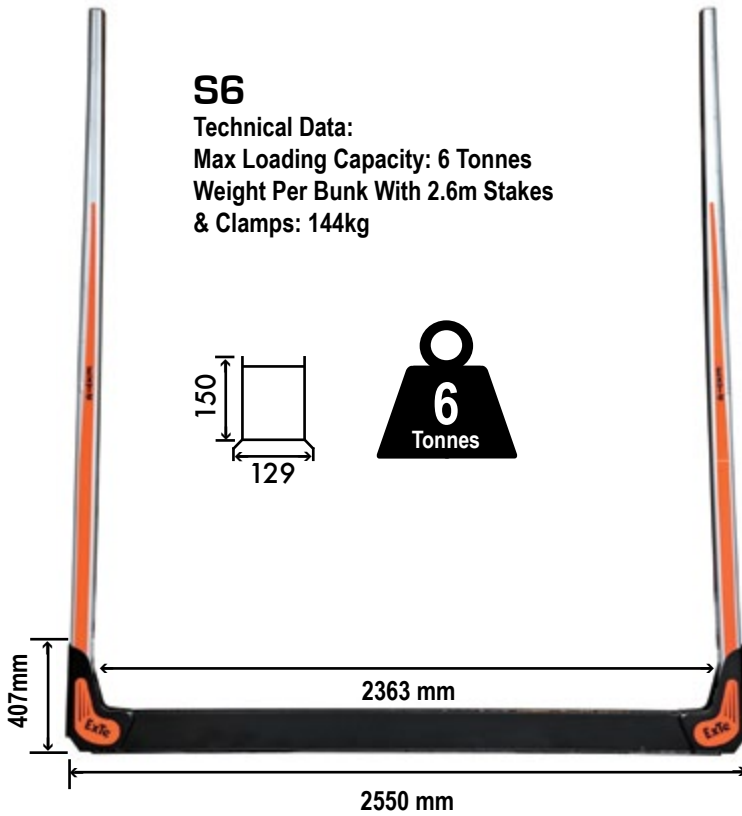
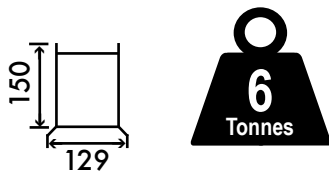
One Piece Stakes Available with  
 Loading Heights 2.5m & 2.6m



Bunks  
 Supplied  
 Complete  
 with Clamps

**S6**

Technical Data:  
 Max Loading Capacity: 6 Tonnes  
 Weight Per Bunk With 2.6m Stakes  
 & Clamps: 144kg



**S6**

One Piece Stakes Available with  
 Loading Heights 2.6m, 2.7m &  
 2.8m



Bunks  
 Supplied  
 Complete  
 with Clamps



# ExTe A Series

A Unique Innovation:  
25% Lighter



## Bunks That Load More Timber

A-series is Exte's third generation of aluminium bunks and the lightest on the market. A-series is designed to meet the demand for extremely lightweight bunks, which make it possible to load more timber and increase profitability for the haulier. A-series was introduced in 2005 and has been a total success.

## Smart Use Of Material

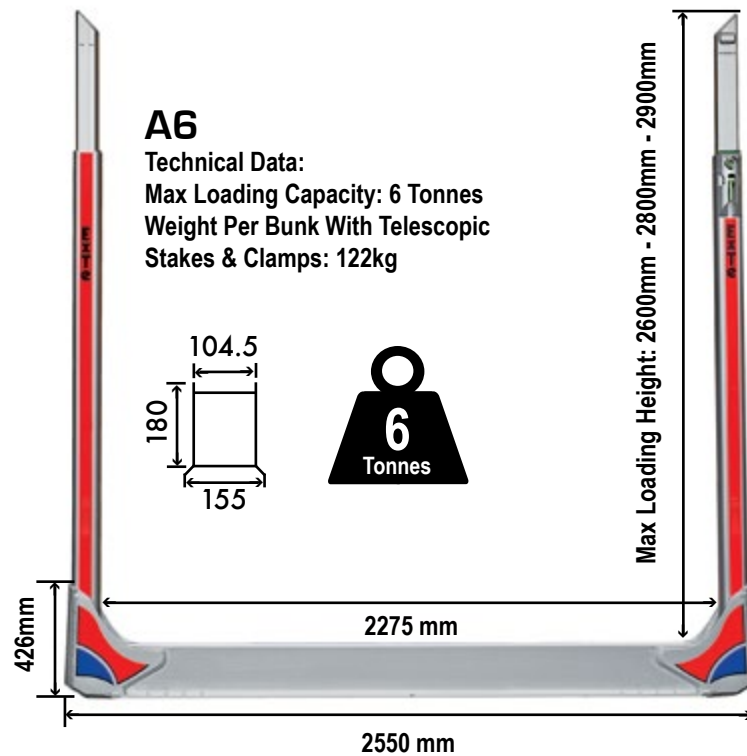
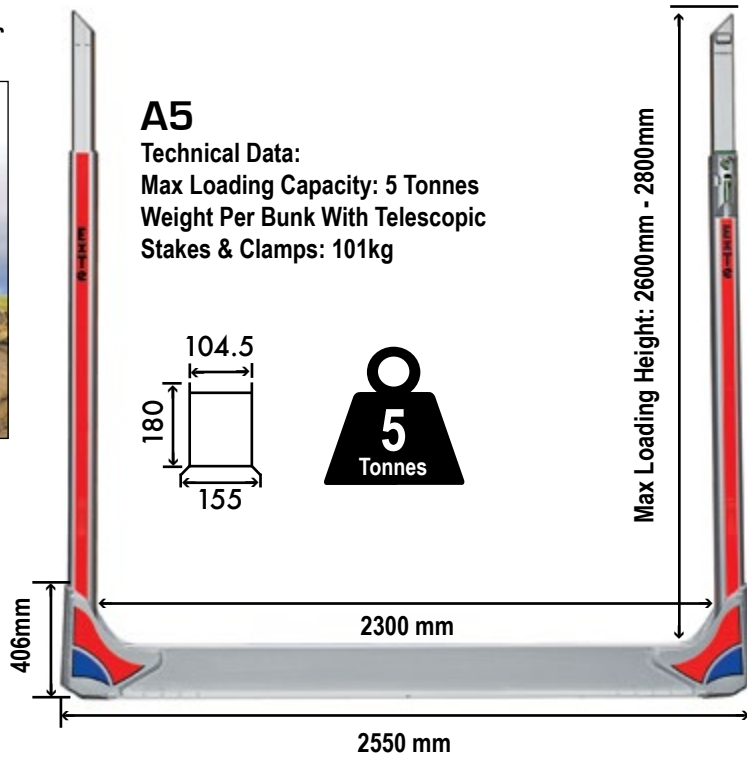
The profiles of the bunks have been optimised so that more material is placed where the load is greatest. This increases safety and decreases weight.

## Quick Fit

The pre-drilled frame and specially developed attachments allow the bunks to be fitted very quickly. This saves time and reduces costs. No welding is required. Consequently, the bunks can be easily moved between different frame widths.

## Stabilising Flange

The frame flanges ensure the stability of the bunks.



Traction & Transport

# ExTe D Series The Lightest Combination Bunks On The Market

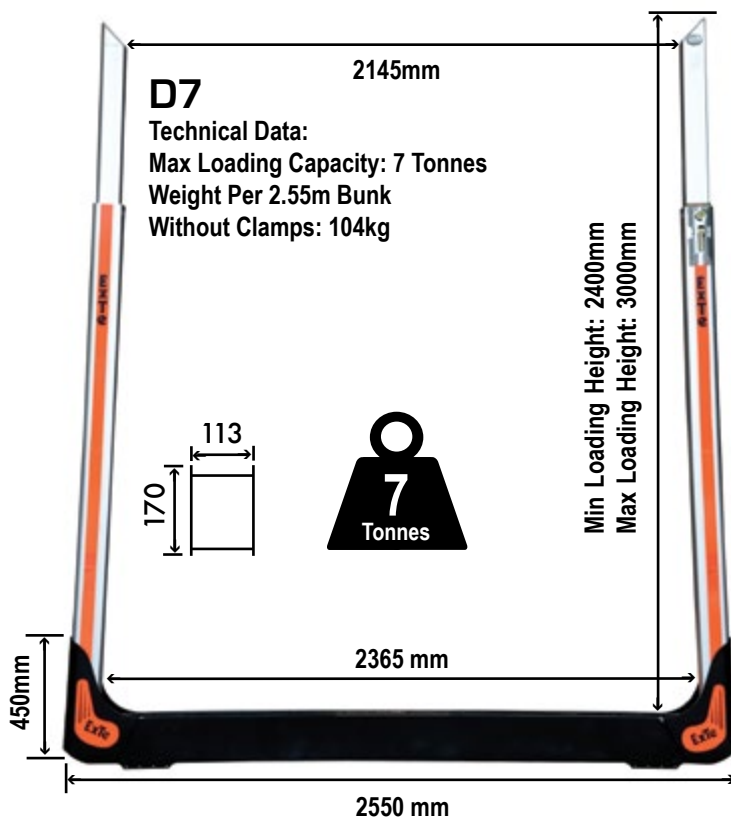
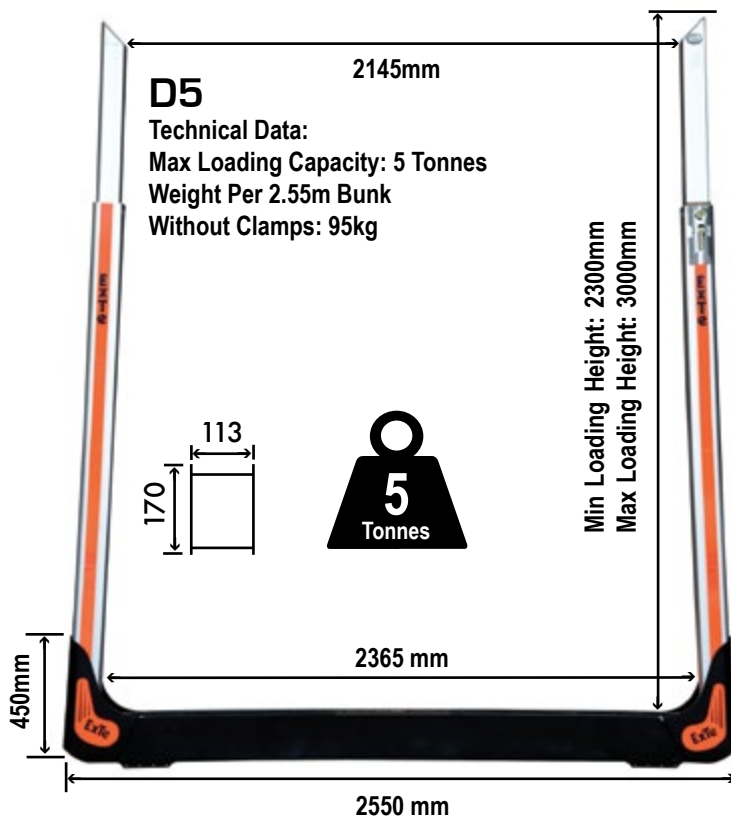
D Series One Piece Euro Stake



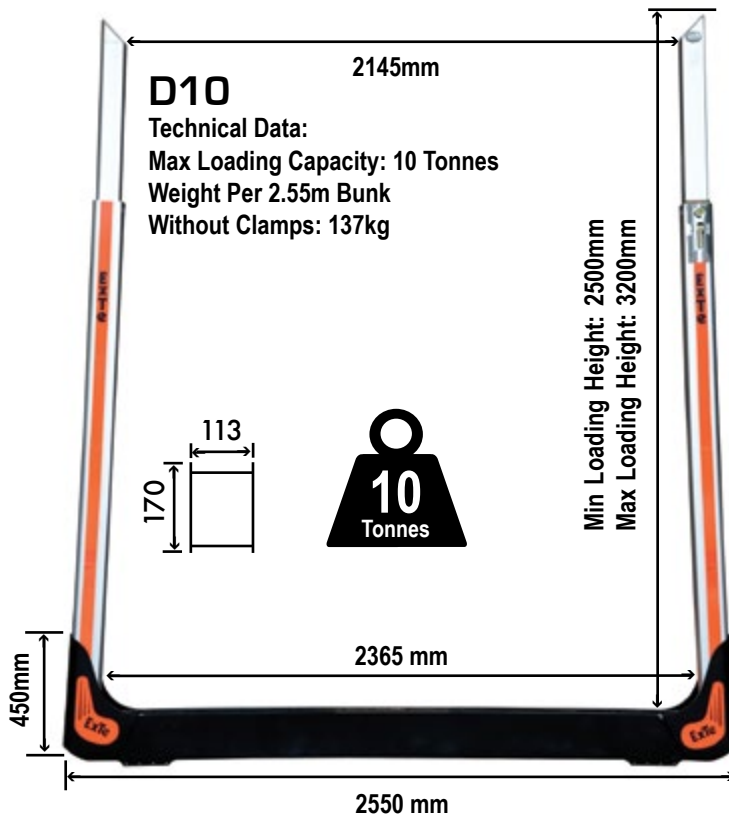
## D-Bunks For All Applications

The combination of steel frames and aluminium stakes make the D-series combination bunks the most popular on the market. All the bunks are lightweight relative to their loading capacities.

D-bunks give hauliers unlimited opportunity to select just the right bunk for the job, from the easily handled 4 tonne bunks to the robust and extremely heavy-duty 12 tonne variants. Low weight means easier handling, greater loading capacity and improved profitability. Available with telescopic or one-piece stakes.



# The Most Advanced Timber Transport System



**D12**  
 12 Tonne Bunks  
 Also Available



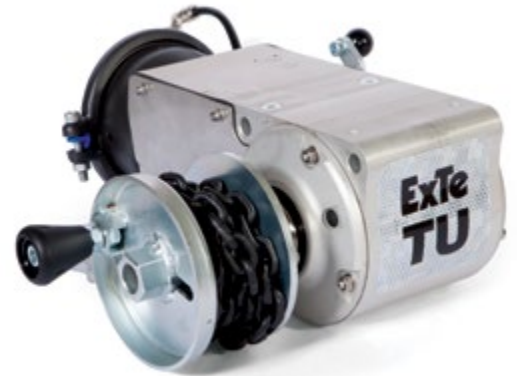
Traction &  
 Transport

For  
 Full Clamp  
 Range  
 See Page 170

## D Series Weld On Sockets

Weld-On sockets are available for platform bodied vehicles, where stakes are to be fitted. The sockets are manufactured from steel and in the same quality as the sockets in the bolster frames. The material is heat treated and well suited for welding without the need for preheating.





# ExTe

## Secure Timber Transport At The Touch Of A Button

Available with a range of mounting options for bolster or chassis attachment, the TU is also available with a range of strap or chain spool options.

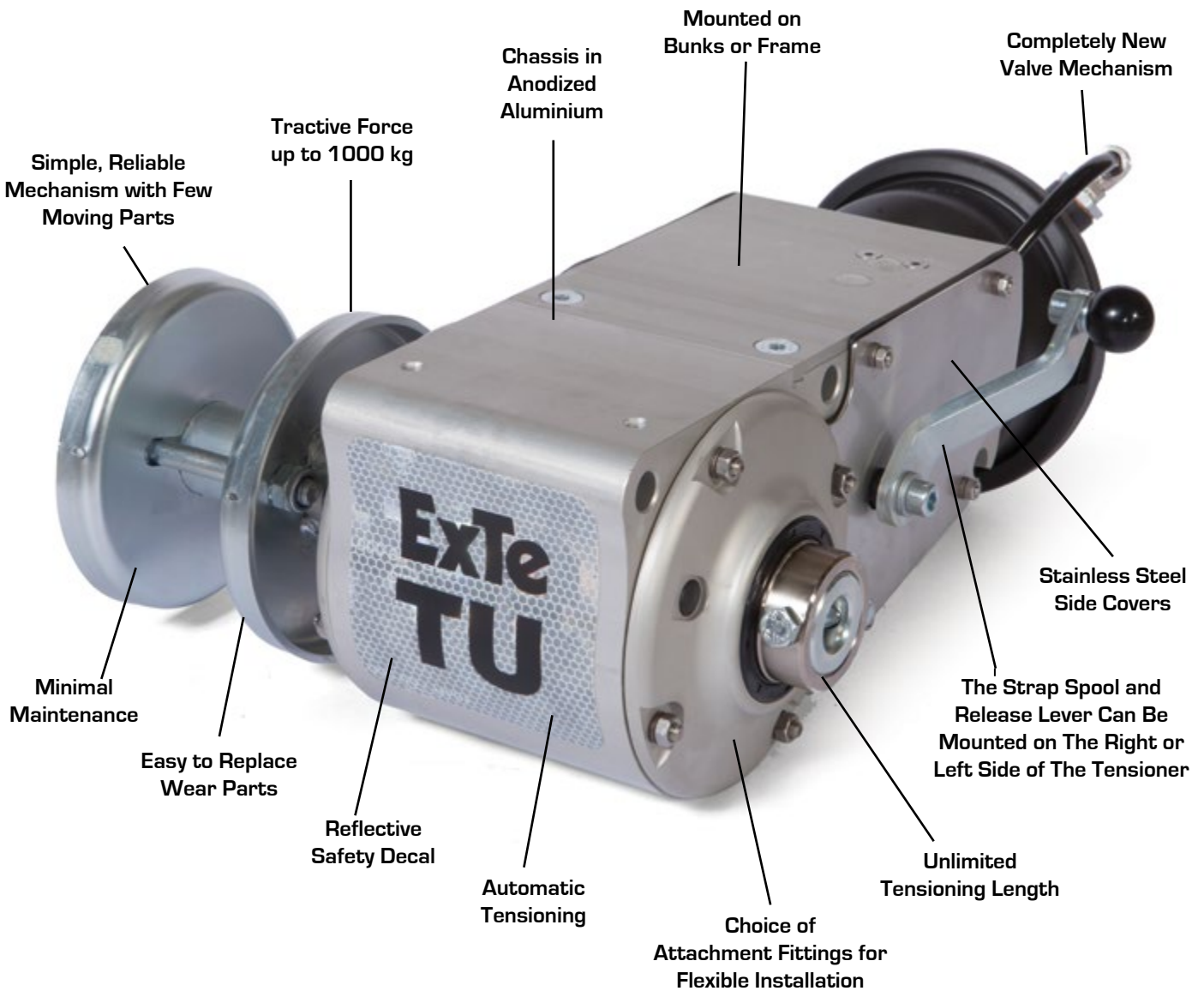
The TU Tensioner can be combined with 'grapple hook over strap' and wire rope pull strap release mechanism for ease of use.

## TU The New Compact Pneumatic Tensioner For Secure Load Control





# ExTe TU Load Tensioner



Without spool & attachments the tensioner weighs 11 kg.



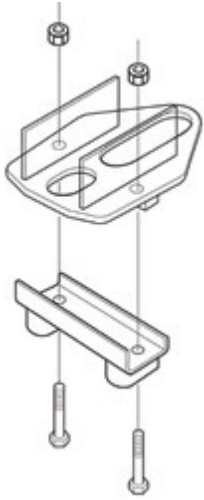
Traction & Transport



# Clamping Attachments for Bolsters of Steel

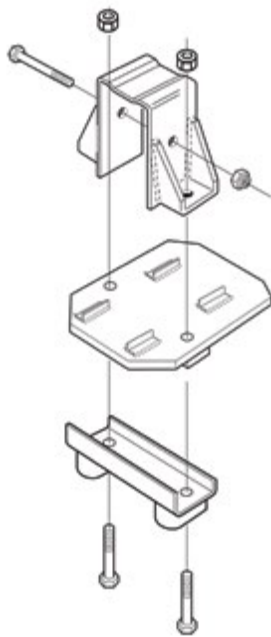


A range of clamping attachments are available for use with bunks including standard bolted types, nylon pad sliding types and cam lock roller sliding clamps for fast movement of bunks.



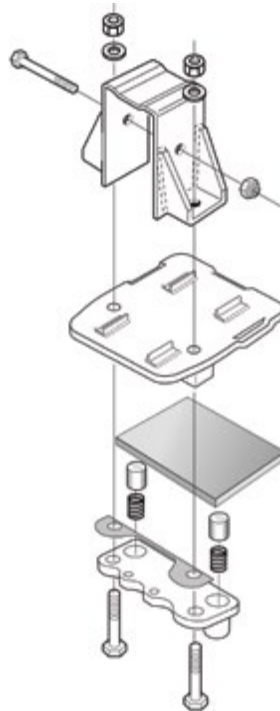
**Weld On  
Clamp**

800670



**Bolt On  
Clamp**

800760



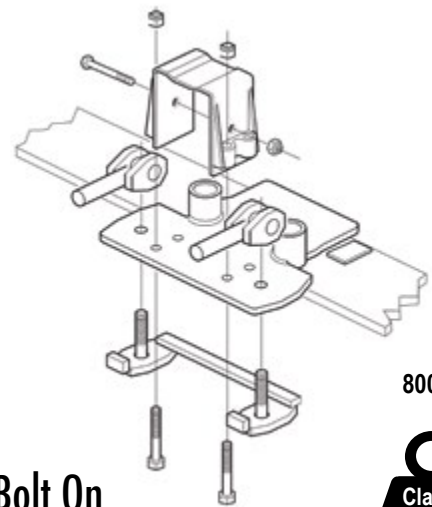
**Bolt On  
Nylon Slide Clamp**

800780



800705

**Weld On  
Cam Lock Roller Clamp**



**Bolt On  
Cam Lock Roller Clamp**

800789



## Clark Bolster Rams

### Standard Bolster Ram Dimensions

We can manufacture moveable bolster rams to order, in stroke lengths up to 4 metres. Normally supplied complete with pivot lugs and bolts and centre tie down U bolt.

Stroke	Open Centres	Closed Centres	Cyl. Dia	Shaft Dia	Part No
2.0m	4287mm	2287mm	100mm	60mm	BLR20
2.5m	5287mm	2787mm	100mm	60mm	BLR25
3.0m	6287mm	3287mm	100mm	60mm	BLR30
3.5m	7287mm	3787mm	100mm	60mm	BLR35
4.0m	8287mm	4287mm	100mm	60mm	BLR40



Other Stroke Lengths  
And Ram Dimensions  
Can Be Made To Order

Pivot Pin diameter 40mm

Pivot Eye Width • Shaft 60mm • Cyl Base 120mm



## Load Binder Chain



Load binder chain is available in Grade 80 in 10mm and 13mm sizes.



## Screw Turnbuckle Chain Binder

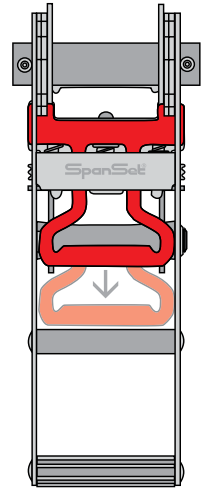


10mm 8-10-P0301  
13mm 10-13-P0302

The Screw Turnbuckle Chain Binder offers a safe, secure tensioning of heavy load restraint chains. Available for 10mm and 13mm chains.



## Ratchet Straps



**5000 kg**  
Min Break Strength

Push Up For Tensioning  
Ratchet Lashing Strap According To EN 12195-2  
Maximum Lashing Capacity 5000kg  
Ratchet With Robust Epoxy Resin Coating

8m Long With Claw Hooks  
10m Long With Claw Hooks

RS-50-8-C-ABS  
RS-50-10-C-ABS



# Ground Preparation & Cultivation Equipment





Manufactured by Cranab Slagkraft in the North of Sweden, the Slagkraft mower has been in production for over 30 years and today is used extensively throughout Scandinavia.

The Slagkraft chain mower is designed for use in rough terrain and is ideal for crane or excavator mounting. Manufactured from high strength Hardox steel, it is capable of cutting through trees and shrubs of up to 100mm stem diameter, whilst operating at a driving speed of up to 15km/h. Ideal for grass and scrub cutting on road verges and railway bankings as well as for land clearance.

Working at over 100m/sec chain tip speed, Slagkraft employ a specially developed heat treated alloy chain which combines hardness for long working life, with ductility to prevent cracking, ensuring a safer, faster operation. Mowers are supplied with 10mm dia. chain for grass and light vegetation cutting and 13mm chain for heavy scrub clearance cutting. The steel hub unit is fully balanced and is heat treated for optimum hardness. A unique chain magazine system allows the release of chain from the magazine as the chain end links wear. This allows a long length of chain to be loaded and released as required for the optimum chain usage and a fast, efficient operation. Easily replaceable wear skids, manufactured from hardened alloy steel ensure no wear to the main chassis while heavy duty rubber flaps and guard chains ensure debris is contained during cutting.

When fitted to excavators, the unit incorporates a floating mounting bracket for smooth operation and can be powered by the standard hammer line hydraulic feed on the boom. Excavator units employ a double ended opening, allowing the unit to be used in a side-to-side sweeping motion - ideal for clearing areas of scrub and dense vegetation. Crane mounted units employ a specially designed hood arrangement for fast linear operation at high cutting speed.

A range of Cranab cranes for mower mounting, with cutting reach from 5.5 to 12.5 metres is available. Cranes can be mounted to front loader tractors, road graders, agricultural tractors, forest machines and other bespoke tractor units. Complete units powered by diesel engine / hydraulic power unit are also available as a full machine mounting package.

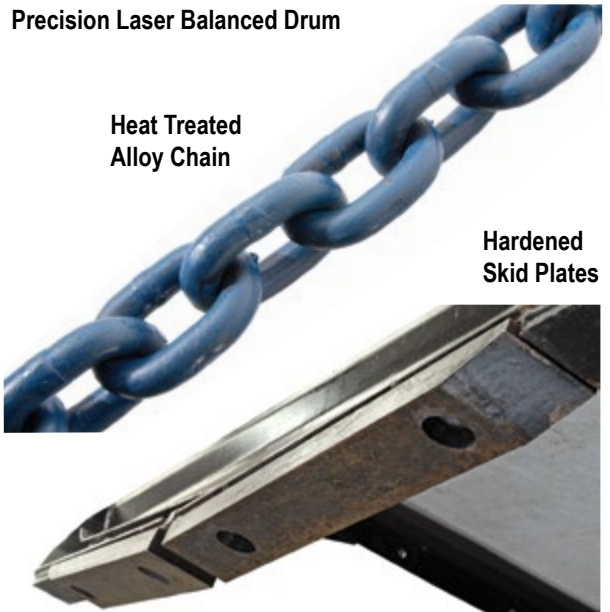


# Slagkraft Chain Swipe Mower

- Low Maintenance and Running Costs
- Ease of Installation
- Will Cut Through 100mm Stems
- Constructed From High Strength Alloy Steel
- Unique Chain Magazine System
- Special Case Hardened Alloy Cutting Chain For Long Life
- Works Over Rocks, Logs & Other Obstacles
- Fast Cutting



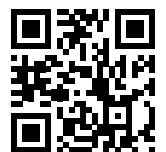
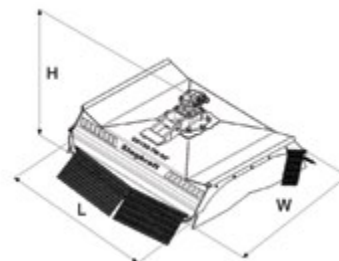
Precision Laser Balanced Drum



Heat Treated Alloy Chain

Hardened Skid Plates

Technical Data	SH150-60-TW	SH150-80-TW
Working Width	1500mm	1500mm
Weight	530kg	540kg
Hydraulic Motor	60cc	80cc
Excavator Size Recommendation	12-18 tonnes	15-25 tonnes
Hydraulic Pressure	Minimum 210bar (3045psi) / Max 380bar (5510psi)	
Flow Rate Min	80Lmin	100Lmin
Flow Rate Ideal	95Lmin	130Lmin
Flow Rate Maximum	110Lmin	150Lmin



SCAN FOR VIDEO



# Bracke C16.c Silviculture & Bioenergy Head

The Bracke C16.c bioenergy harvesting head for rapid cutting and collecting of stems from 10mm to 260mm diameter, incorporates an accumulating system with a unique, patented circular saw. Designed for use on excavators, harvesters and forwarders, the C16.c offers a superior system for bioenergy harvesting. The C16.c head is ideally suited for precision clearing, corridor clearing, pre-commercial & first thinning plus clearing along roadsides, field edges and power lines.



For use on  
Excavators, Harvesters  
& Forwarders



SCAN FOR VIDEO

Technical Data	Bracke C16.c
Weight	610 kg
Saw Disc Dia.	795 mm
Capacity	260 mm
Saw Chain	3/4"
Hydraulic Pressure	170 bar
Hydraulic Flow	140 Lmin
Electrical System	24 V



**Ground Cultivated For Tree Planting With The R200/T40 Dollop Plough**

For over 60 years William Clark & Son has been at the forefront of plough technology, producing cultivation equipment used in many applications around the world.

Our largest market has been for ploughs used for the cultivation of forest plantations in the UK and overseas. All Clark ploughs are designed and manufactured to the specific requirements of each customer.

Three main types of plough are manufactured: direct tractor mounted, three point linkage mounted and trailed. All can be manufactured in a range of sizes with a working depth down to 900mm.

We have manufactured ploughs for applications including: Forest Plantation Cultivation, Land Reclamation, Deep Cultivation, Ditching for Irrigation, Ditching for Drainage, Subsoiling, Mole Ploughing, Soil Mixing, Erosion Control, Fire Trace Cultivation, Pipe & Cable Laying and Ridging & Mounding.

Please contact Douglas Clark to discuss your requirements.

## **Ploughs Manufactured For Specialist Applications**

**Forest Cultivation**

**Drainage**

**Irrigation**

**Deep Cultivation**

**Land Reclamation**

**Erosion Control**

**Soil Mixing**

**Subsoiling**

**Ridging & Mounding**





SCAN FOR VIDEO

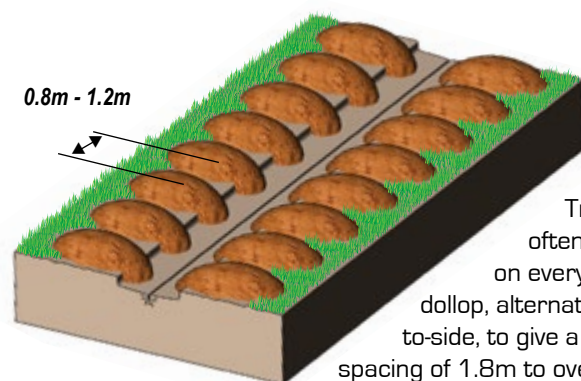
## Clark R200/T40 Rotary Dollop Plough Innovative Plough Technology

Offering a superior tree planting mound over standard ploughs, the Dollop Plough creates a series of upturned turfs or 'dollops' of soil, ready for direct tree planting.

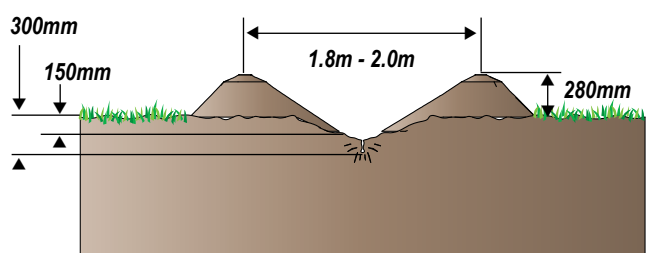
The plough consists of a centre plate with front mounted subsoiler point and short mouldboard section, combined with two helical rotary mouldboards which rotate as the plough is pulled through the ground. The plough creates continuous discrete mounds and a shallow furrow.

The potential benefits of this plough are more symmetrical tree rooting, with the possibility of significant root growth across the furrow, whilst combining the proven advantages of plough cultivation - weed suppression, soil aeration and site drainage.

The R200/T40 plough is a robust, simple design, offering reliability with a low maintenance requirement. The rotary motion of the helical mouldboards is achieved without hydraulic motors, simply by the forward motion of the plough. A simple towing tractor is the only prime mover requirement. This plough can be fitted to trailed or mounted plough systems.



Trees are often planted on every second dollop, alternating side-to-side, to give a planting spacing of 1.8m to over 2.0m.

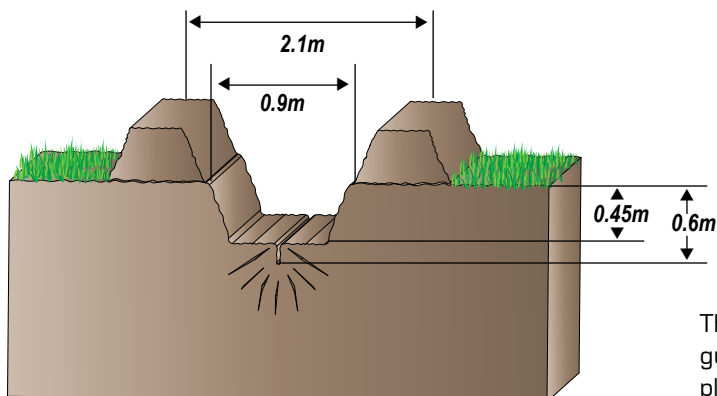


The cultivation dimensions detailed are offered only as a guide and can vary depending on ground conditions and plough settings.



## Clark D45/T60 Double Throw Tine Mouldboard

The D45/T60 mouldboard is of all welded construction, consisting of a main landside plate with a mouldboard share attached to either side. The front point of the centre plate has a replaceable tine subsoiling point, common to all Clark Tine Mouldboards, producing a soil loosening subsoiling effect below the working level of the mouldboard. For use with mounted or trailed plough systems. The D45/T60 can be used in most soil types for a wide range of applications including land reclamation, deep cultivation, erosion control, ditching and channelling.



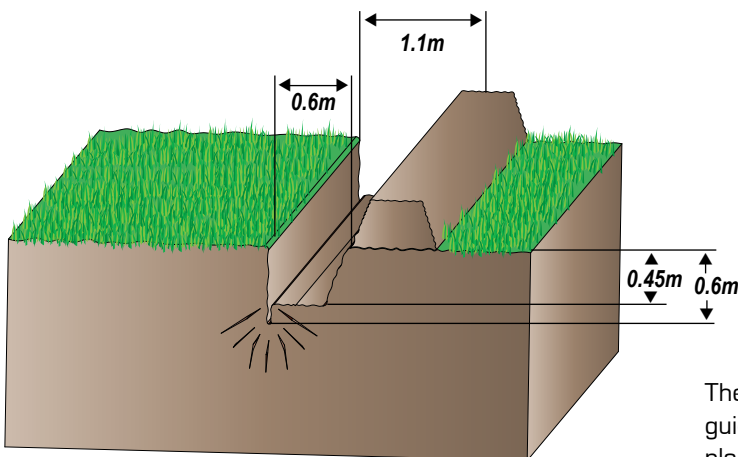
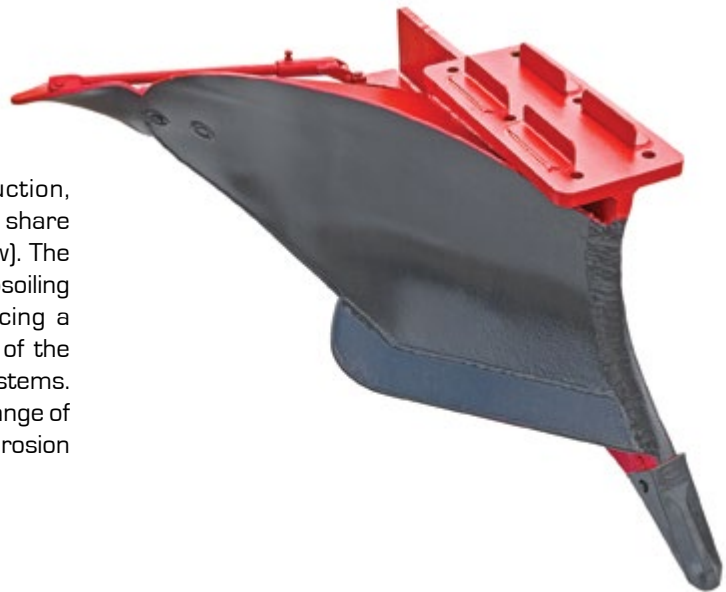
The cultivation dimensions detailed are offered only as a guide and can vary depending on ground conditions and plough settings. Larger and smaller models are available to suit different ploughing requirements.

### Maximum Cultivation Depths



## Clark S45/T60 Single Throw Tine Mouldboard

The S45/T60 mouldboard is of all welded construction, consisting of a main landside plate with a mouldboard share attached to one side (available in left or right hand throw). The front point of the centre plate has a replaceable tine subsoiling point, common to all Clark Tine Mouldboards, producing a soil loosening subsoiling effect below the working level of the mouldboard. For use with mounted or trailed plough systems. The S45/T60 can be used in most soil types for a wide range of applications including land reclamation, deep cultivation, erosion control, ditching and channelling.



Maximum Cultivation Depths



The cultivation dimensions detailed are offered only as a guide and can vary depending on ground conditions and plough settings. Larger and smaller models are available to suit different ploughing requirements.

# PFANNER®

*For the most extreme challenges*



Pfanner and Protos are world leaders in the design and manufacture of chainsaw protective clothing and head protection. Clark are the UK & Ireland Distributor for Pfanner and Protos and offer the full range of products for both companies.



## PROTOS®

integral

Protos® Integral is designed for professionals working in the most demanding industries and in the most extreme conditions and provides a completely new concept in head protection. Protos® offers unparalleled comfort and the highest standards in safety. Every aspect of comfort has been addressed and the wearer benefits from the many comfort features including the active ventilation system, keeping the head cool and dry in all weather conditions; the internal comfort padding with KlimaAIR technology, giving optimum perspiration control and the unique neck cradle, which helps to keep Protos in place, at all times and prevents the helmet from falling off the head. Safety has never been compromised with Protos® Integral, the wearer can be assured of ultimate protection from the 360° shock absorption, experience greater field of vision and have increased protection in the vulnerable neck area from the neck protector. The special design of head bands and the neck cradle ensures that Protos gives a perfect fit and stays where it should, on the head, no matter how challenging the situation! Protos Integral Forest is certified to EN397, EN352-3 & EN1731.

The full Protos range is available from Clark Forest  
[www.clarkforest.com](http://www.clarkforest.com)



Red / Yellow

PTS-204000-10-12



Orange / Yellow

PTS-204000-10-62



Green / Yellow

PTS-204000-10-82



Blue / Yellow

PTS-204000-10-42



Red / Grey

PTS-204000-10-13



Orange / Grey

PTS-204000-10-63



Green / Grey

PTS-204000-10-83



Yellow / Grey

PTS-204000-10-53



Protos Arborist, Protos Climber (EN12492) and Protos Industry (EN397) are also available.

### Pfanner Nexus Safety Glasses



Clear

Yellow

Amber

Grey Mirror



PTS-204090-11-0

PTS-204090-11-50

PTS-204090-11-60

PTS-204090-11-30

Pfanner Nexus Safety Glasses provide a great fit and do not exert any pressure on the face due to the Quattroflex earpiece and the soft components fitted around the sensitive areas of the nose, forehead and ears. The lenses are extremely scratch proof and are highly resistant to chemicals. They also provide 100% protection from ultraviolet rays. Angle and length of the legs can be adjusted to provide optimal fit. (Replacement lenses are available).



**PROTOS**  
integral

# 3M™ Peltor™ Communication Solutions For Protos® Integral

A selection of 3M™Peltor™ Communication solutions is available for Protos® Integral, giving the best possible communication. 3M™Peltor™ Communication Solutions offer various options depending on the equipment with features such as Bluetooth communication, radio reception, external microphones, as well as countless communication channels. Please speak to our sales team to find the best solution for your Protos® Integral.

## 3M Peltor LiteCom

### Radio Communication



PTS-204100

- Range up to 3km
- Hands-free sending
- Noise-compensating Electret microphone
- Radio Communication on 8 channels with 38 sub channels
- Compatible with PMR446 handheld radios
- Auto power off

## 3M Peltor LiteCom Plus

### Radio Communication Playback of ambient sounds



- Range up to 3km
- Handsfree sending
- Noise-compensating dynamic microphone
- Compatible with PMR446 handheld radios
- Active ear protection with playback of ambient noise
- 8 channels with 121 sub-channels
- Automatically switches off when not in use
- Connector for external devices

PTS-204101



## 3M Peltor WS LiteCom

### Radio Communication and Bluetooth Playback of ambient sounds



- Range up to 3km
- Compatible with PMR446 handheld radios
- Bluetooth interface
- Radio messages and phone calls are possible simultaneously
- 8 channels with 38 sub-channels
- Playback of ambient sounds
- Noise-compensating microphone

PTS-204102



# Protos Integral Bluetooth Radios



**White**  
PTS-204200-10-70



**Green**  
PTS-204200-10-80



**Red**  
PTS-204200-10-10



**Yellow**  
PTS-204200-10-20



**Orange**  
PTS-204200-10-60



**Blue**  
PTS-204200-10-40



Protos® have set the next milestone in the field of occupational safety. With the wireless Protos® Integral Bluetooth radio, the most innovative head protection is now complimented with another ground-breaking feature. The Protos® Bluetooth technology provides, even under extreme use, stable and interference-free communication.

The Protos® Bluetooth Radio capsule connects into the existing Protos® ear defender bracket and with only a single multifunction button and two volume buttons, the Bluetooth radio can be easily operated with just one finger. All the technical components are incorporated in the ear muff capsule and with no cables and connectors, this guarantees maximum comfort with no risks of snagging. With only 110g total weight, including the battery, the Protos® Bluetooth radio is lightweight and the comfortable parking of ear muffs function remains unlimited.

Bluetooth wireless Protos® Integral allows the connection of two Protos® Bluetooth radio units providing uninterrupted intercom connection between two operators. There is also the ability for each unit to be connected simultaneously, each with a mobile phone. Accepting phone calls can be done hands-free by pressing the multifunction button with no need to remove the phone from a pocket. Once an outgoing phone call is executed

from the hand-held device, the conversation can be carried out hands-free via the Bluetooth Radio. The conference function allows another participant to be added and the distance can be extended as long as a mobile network is available.

With a range of up to 1 km [clear field] and a battery operating time of up to 12 hours, the Protos® Integral Bluetooth radio will go through one working day without problems. Recharging the battery is easily done via the USB on the Protos® charging bracket.

The Protos® electret microphone diminishes unnecessary background noises by up to 20 dB whilst always guaranteeing clearly understandable voices. Background noises remain perceptible, allowing any external danger situations to be recognised.

Bluetooth allows interference-free communication in areas where there are strong radio frequencies and Bluetooth connection does not incur any licence charges.

Included: One Protos® Integral Bluetooth Radio capsule c/w Protos® electret microphone (left side).  
One Protos® Integral Charging Bracket c/w USB connector  
\*Protos Integral helmet not included

# Protos Integral Accessories

## Klima-AIR Headband

Headband made of Cocona functional fibres for high wearer comfort and quick drying. With rail to clip-on. Machine washable at 30C.



PTS-204070

## Protos Neck Cape

Clip-on neck protector against dirt and rain. Made of 3 layers of high quality Sympatex functional fabric.

Red  
PTS-204065-10



Yellow  
PTS-204065-20



Orange  
PTS-204065-60



## Klima-AIR Set

PTS-204060

Complete set of pads for Protos Integral. Made of Cocona functional fibres. Machine washable at 30C.



Standard  
16 Notches  
cm<sup>2</sup>

## Protos Visor G16

Facial protective visor with 16 notches cm<sup>2</sup>. Special coating protects from sun glare and freezing in winter. Supplied as standard with Protos Integral.

PTS-204064



Fine  
39 Notches  
cm<sup>2</sup>

## Protos Visor F39

Facial protective visor with 39 notches cm<sup>2</sup> for better protection from fine sawdust. Special coating protects from sun glare and freezing in winter.

## Protos Clear Visor



Clear  
Visor

The Protos Integrated Clear Visor can be attached to Protos to provide excellent wide field of vision and protection against water, dust and other low impact particles. Material: Polycarbonate. Tested and Approved in accordance with EN166, protection class 1 FT.

PTS-204071



Protos  
Replacement Insert Pads

PTS-204059



Protos  
Hygiene Set  
PTS-204062

**PROTOS**  
integral



Replacement Ear Protectors  
for Protos Integral

PTS-204067 +

13	72	82
21	13	83
42	62	53
43	63	

Clip into the Protos Integral. Position and contact pressure adjustable. SNR 26dB



# Pfanner Work Jackets

## Klima Air® Forest Jacket

The Pfanner KlimaAIR Jackets bring together the Stretch-AIR and Klima-AIR technologies, creating durable, water and dirt repellent jackets that are suitable for all seasons and features. The Stretch-AIR fabric gives great freedom of movement and breathability and plenty of ventilation can be gained through the zip openings in the arms and the vented area in the back. The arms can also be removed turning the Pfanner KlimaAIR Jackets into functional gilets on warmer days. The special Klima-AIR lining keep the body cool in warm weather and warm in cooler weather, as it helps regulate body temperature and reduces heat accumulation. The shoulders have waterproof, abrasion resistant shoulder panels and the outer fabric features water resistant and dirt repellent properties. These jackets are lower at the back to provide protection to the back and kidney area. Two breast pockets and two front pockets provide ample storage.



PFR-804163-40

KlimaAIR Forest Jacket: In high visibility Red and Yellow for greater visibility in the forest.

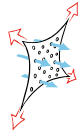
KlimaAIR Reflex Jacket - special integrated reflective stripes in the grey fabric on the front and back making you more visible in the dark.



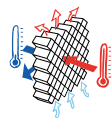
PFR-804163-90

Available in sizes XS-3XL

stretchAIR



KlimaAIR

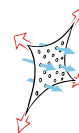


## Klima Air® EN20471 Work Jacket

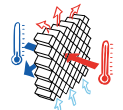
For work in areas where high visibility is important, EN20471 Class 2 compliant with reflective stripes.

Available in sizes XS-3XL

stretchAIR



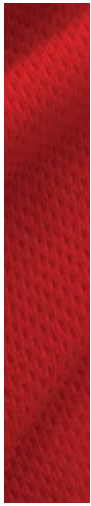
KlimaAIR



PFR-804163-25

**PFANNER®**

# Pfanner Functional Clothing



**Pfanner Zip Neck Shirt Short Sleeves  
Hi-Vis Neon Yellow / Red**

**PFR-104059-60**

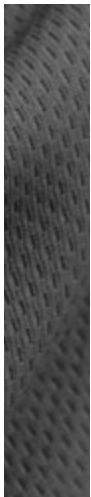


**Pfanner Zip Neck Shirt Long Sleeves  
Hi-Vis Neon Yellow / Red**

**PFR-104060-60**



Base layers are the most important layer of clothing and Pfanner Shirts, which incorporate Stretch AIR technology, are extremely functional base layers. The Stretch AIR fabric minimises moisture accumulation, keeping the body temperature regulated during activity and with odour inhibiting and antibacterial properties, Pfanner shirts keep you feeling, and smelling, fresher. The soft, low weight fabric is comfortable against the skin and the fabric's elasticity adds to the comfort of these shirts during activity. Front zip is finished off with a fabric tab for added comfort at the neck area and a convenient zipped chest pocket provides handy storage. Colours have a high resistance to sunlight. Easy to clean and quick drying.



**Pfanner Zip Neck Shirt  
Short Sleeves Steel Grey**

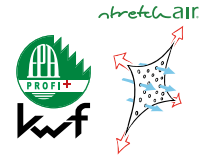
**PFR-104059-90**



**Pfanner Zip Neck Shirt  
Long Sleeves Steel Grey**

**PFR-104060-90**

Available in  
sizes: XS-3XL



Zip-Neck Shirts	Chest cm	Chest inches
S	96	38
M	102	40
L	108	44
XL	116	46
XXL	124	50



**Pfanner Zip Neck Shirt  
Short Sleeves  
Hi-Vis Orange EN20471**

**PFR-104059-25**

## PFANNER®

### Pfanner Wash Power Intensifier

Pfanner Wash Power Intensifier is a highly concentrated liquid which aids the cleaning of polluted protective clothing, removing tough stains. Pre-treat your clothes with the spray bottle and then washed as normal with colour detergent, to help remove the toughest of stains even at 30-40°C. 1 litre.



**PFR-100770**

# Pfanner Ventilation Chainsaw Trousers

Pfanner Ventilation chainsaw trousers are light in weight and with breathable fabric and added ventilation through the mesh tissue on the waist area, they are a great choice when you are working in warmer conditions. The trusted Gladiator fabric on the front is extremely tear resistant and the StretchAIR fabric on the back gives great stretch qualities making them ideal for working either on the ground or in the tree. With pre-shaped knee reinforcements giving you added protection to the areas where you need it the most and removable internal gaiters, the Ventilation trousers are tough, comfortable and cool to wear. Pfanner's cut protection fibre ensures high cut protection even with the lower weight fabric.



Red

**A** PFR-101761-40

**C** PFR-102078-40



Grey

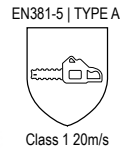
**A** PFR-101761-90

**C** PFR-102078-90

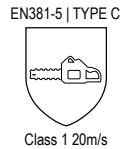


Pfanner Belts

Pfanner  
Gladiator  
Braces  
PFR-100240



Class 1 20m/s



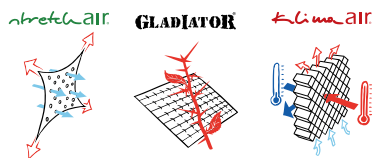
Class 1 20m/s

Available in three leg lengths:  
Standard (80cm inside leg)  
Long (87cm inside leg)  
Short (75cm inside leg)  
Sizes: XS to 3XL



Hi-Vis Orange EN20471

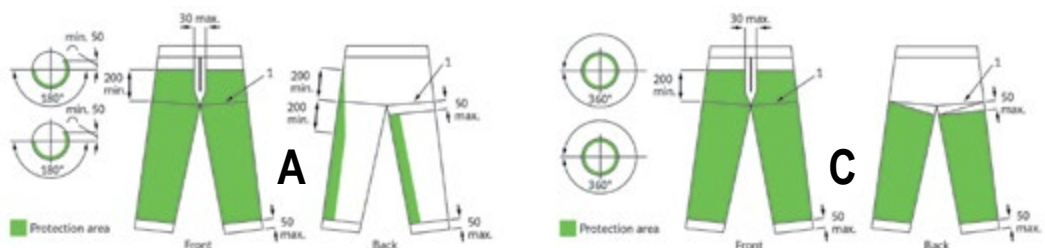
**A** PFR-101761-25



**PFANNER**

## Chainsaw Protective Trousers

There are two standard types of protective chainsaw trousers, Type A and Type C. Type A chainsaw trousers provide chainsaw protection only to the front of the legs and Type C chainsaw trousers give protection all round the legs.



# GLADIATOR® EXTREME



Red



PFR-102192-40



Grey



PFR-102192-90

EN381-5 | TYPE A



Class 1 20m/s



## Pfanner Gladiator Extreme Chainsaw Trousers

Pfanner's Gladiator Extreme Chainsaw trousers live up to their name! The outer fabric is reinforced with Gladiator Extreme threads giving these trousers water, abrasion, oil and heat resistant qualities with excellent durability. Ideal for work in dense woodland and overgrown thorn environments. Knee areas are also protected with Keprotect knee reinforcements. The combination of Pfanner's StretchAIR and KlimaAIR fabric technology and the functional lining made from gentle-on-the-skin Cocona fibre, provide the highest wearing comfort. Ventilation zips at the back of the knees allow for further wearing comfort.

Upper Material:

Gladiator Extreme: 60% polyamide, 20% VE yarn, 20% polyurethane

Stretch Fabric: 90% polyamide, 10% elastane

Lining: 100% polyester Cocona

Chain Protection: Dyneema

Cut Protection: EN381-5

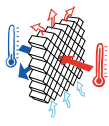
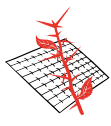
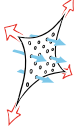
Type A Class 1 20m/s

Sizes: XS-2XL

stretchAIR

GLADIATOR

KlimaAIR



PFANNER®

## Pfanner Grizzly Jacket

The Grizzly Jacket is made from knitted fleece which gives great wearing comfort and super insulation and is ideal for outdoor work, especially in very cold weather. The reinforced shoulder area provides water repellent qualities, keeping the shoulder area dry and the snug fitting cuffs help to keep arms warm, whilst the neck area is kept warm due to the high collar. The neck zip is also finished off with a comfort cover, so no jaggging from the zip as it is concealed under the soft cover. The zipped sleeve pocket is also a handy feature where small items can be easily stored and accessed. All in all, the Pfanner Grizzly Jacket is a real bear of a fleece! [Also available as a sweater with a short zip].



Jacket PFR-101318-90

Sweater PFR-101110-90

PFANNER®

## Pfanner Matterhorn Chainsaw Boots

The Pfanner Matterhorn Chainsaw Boots incorporate the unique Vario Support System (VSS) in the heel area providing excellent support and shock absorption, especially when walking on steep terrain. When walking on even ground or driving a vehicle, the VSS insert in the heel can easily be removed.

Manufactured using the highest quality leather, the durability of this exceptional boot is further enhanced with the application of ceramic coated discs on the front surface area. The ceramic discs provide protection against wear and abrasion and are highly heat resistant.

The Vibram mountaineering sole provides excellent grip, with the narrow outer sole aiding effortless walking. Nano-active soles and shock absorbing mid soles make the Matterhorn extremely comfortable to wear throughout the whole working day.

The boot seams are double stitched and riveted at the most wear and scrub prone areas and an all-round rubber edge gives buffer protection. A Gore-Tex membrane is also incorporated to provide waterproof qualities.

Roller eyelets make lacing up quick and easy.

Aluminium protection toe cap.

EN17249, Class 1 20m/s

Material:

Upper: Leather/Micro-fibre, Ceramic

Lining: 100% polyamide Cordura

Sole: VIBRAM

Available in sizes: 39-47

PFR-106835



product of  
**AUSTRIA**



## Pfanner Chainsaw Protective Boots



Also available with Crampon version  
Part No. PFR-107015 (special order)

**PFANNER**

Slip Proof and  
Durable VIBRAM  
Mountaineering Sole



Reinforcement through  
screwed front sole

Aluminium  
Protective Toecap



Double Stitched  
Sole



Only One Seam  
Three Times Riveted  
and Four Times  
Stitched

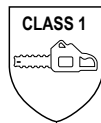


Functional Lacing  
with Roller Eyelets



Klima Air Fabric

- No Heat Blockade
- No Moisture Reservoir
- No Pressure Place
- Extra Lightweight
- Cool In Summer
- Warm In Winter



product of  
**AUSTRIA**



### Klima-Air Tyrol Fighter Chainsaw Boots

The Tyrol Fighter is light in weight but its top quality construction makes it one of the toughest boots available. Manufactured from 3mm strong Swiss-military leather, it offers both quality and comfort for the most demanding of environments. EN345S3 and Class 1 (20m/s) protection. KWF approved.

PFR-103185

Conforms to EN17249 + EN345 SB-WRU-E-P

Height: 22cm

Weight per boot: 1.35kg

Colour: Black/Red

Sizes: 36-46 and 47-52 by special order

**PFANNER**

## Pfanner Nexus Safety Glasses



Clear  
PFR-101903-87



Smoke Grey  
PFR-101903-88



Amber  
PFR-101903-89

Pfanner Nexus Safety Glasses provide a great fit and do not exert any pressure on the face due to the Quattroflex earpiece and the soft components fitted around the sensitive areas of the nose, forehead and ears. The lenses are extremely scratch proof and are highly resistant to chemicals. They also provide 100% protection from ultraviolet rays. Angle and length of the legs can be adjusted to provide optimal fit. Available in Clear, Yellow and Smoke Grey lenses. (Replacement lenses are available)

### Spare Nexus Lenses



## Pfanner Work Gloves



PFR-100003-10

### Pfanner Stretchflex Thermo Gloves

Pfanner's Stretchflex Thermo Gloves are designed to keep hands warm and dry whilst working in winter conditions. Palm and fingers are made from flexible, soft goatskin, whilst the back of the hand uses Stretch-Flex technology to provide a perfect fit and great flexibility. Fleece lined for additional warmth. No seams on the palm make the gloves very durable. Elasticated wrist cuff and velcro fastening. Material: goatskin/nylon. Available in sizes Medium (8), Large (9), XLarge (10) and 2XL (11)



PFR-100050-11

### Pfanner Stretchflex Fine Grip Gloves Red

Pfanner Ice Grip gloves give excellent grip with the added benefit of a thermal liner. These are a sturdy winter knit glove with acrylic coating for really cold days. The shrink roughened coating on the palm and fingers provides great grip even in wet conditions. Fleece internal lining helps to keep hands warm in sub-zero temperatures. Velcro wrist fastening ensures comfortable fit. Made from Polyamide with acrylic coating. Available in sizes, Medium (8), Large (9), XLarge (10) and 2XL (11)

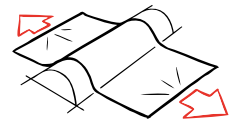


PFR-100241

### Pfanner Stretchflex Ice Grip Gloves

Made from knitted nylon with an oil-resistant nitrile foam coating which gives excellent grip even in oily/wet conditions. The Stretchflex technology on the back of the hand makes the glove highly flexible and gives a perfect fit whilst the dotted pattern on the palms and fingers offers maximum grip and control. Material: Nylon/Nitrile Foam. Available in sizes: Small (7), Medium (8), Large (9), X-Large (10) and 2XL (11)

**PFANNER**



**STRETCHFLEX**

## Pfanner Function Boot Laces

Pfanner Function Boot Laces are specially designed to stay firmly in the tied position and not slip open. 210cm laces to fit Pfanner Boots Available in Red or Black. Material: Polyamide

PFR-100044-210

Other lengths are available to order



## Pfanner Leather Balm for Boots

Traditional organic leather balm. Keeps leather smooth and water resistant.

PFR-100025

320ml Tub



## Pfanner Gladiator Outdoor Work Trousers



Manufactured from the same robust outer fabric used in Gladiator Chainsaw Trousers, providing a tough solution for those working in forestry, horticulture and other outdoor activities that don't require chainsaw protection. The Gladiator fabric used in the front of these trousers is tough and durable and is water, oil and dirt repellent as well as being abrasion resistant. On the back of the trousers, the Stretch-AIR fabric provides wearing comfort and the zips at the back of the knees allows for additional ventilation when required. The lining, made from a functional material is comfortable against the skin. The knee reinforcements, which can be fitted with knee pads, and the inside leg cuffs are made from Kevlar giving greater protection at these vulnerable areas. Detachable internal gaiters, with boot gripper, provide protection from ticks and stop dirt, snow and other particles from getting into boots.

## Pfanner Functional Work Trousers



Pfanner Functional Work trousers are not only a hard-wearing work trouser but they also provide exceptional freedom of movement and comfort due to the use of a bi-elastic material in the seat area and at the back of the legs. Produced from Satin fabric with a high cotton content for best breathability, the outer fabric is tearproof and dirt-repellent. (65% polyester, 35% cotton). The knees are reinforced with Kevlar for greater durability and knee pads can be inserted if required. Reflective strips on back to increase visibility. Two front pockets and thigh pocket.

**PFANNER**



## Forestry Equipment Supplied Worldwide



Large Stocks Held In Our Warehouse

With over 90 years of experience in offering products from the world's leading manufacturers as well as specialised forestry and materials handling equipment from our own factory, you can be confident we can offer the quality of service and products you require. Our export department is experienced in shipping orders worldwide, making the transportation arrangements and taking care of the necessary export documentation for you.



Our Factory and Workshops

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