



safety

FOR SAFE  
WORKING LIVES

# LOAD RESTRAINT

2017 EDITION





safety

# Contents

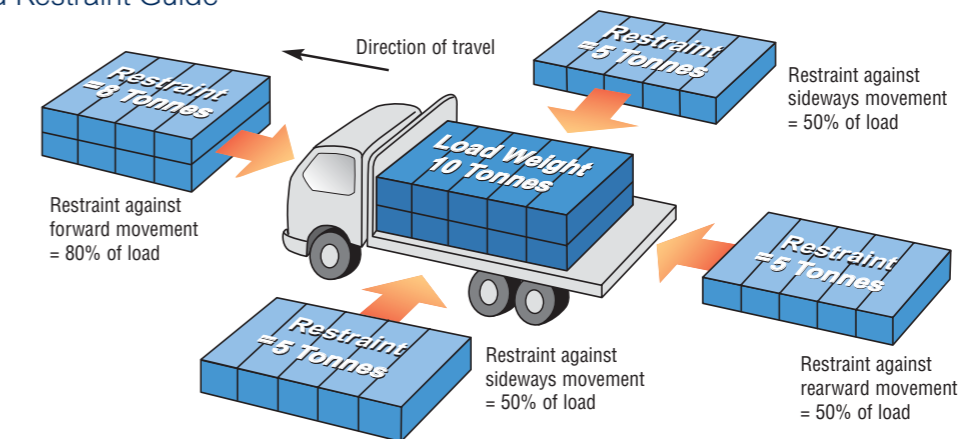
- 3 // **Transport Restraint**
- 3 // Transport Restraint Information
- 4 // Winches
- 5 // Winch Bar
- 6-8 // Ratchet Assemblies
- 9 // **Polyester Replacement Straps**
- 10-15 // **Grade 70 Lashing Chain and Fittings**
- 16 // **Grade 70 Load Equipment**
- 16-19 // Load Binders
- 19 // Web Dog
- 20 // **Grade 100 Lashing Accessories**
- 20 // RUD VIP 100 Tensioners
- 21 // RUD VIP Grade V(100) Chain and Fittings
- 22 // RUD VIP Links and Hooks
- 23 // **Grade 120 Lashing Chains**
- 24 // RUD Lashing Chains
- 26-28 // **Jacks**
- 29-30 // **General Transport Accessories**

# TRANSPORT RESTRAINT

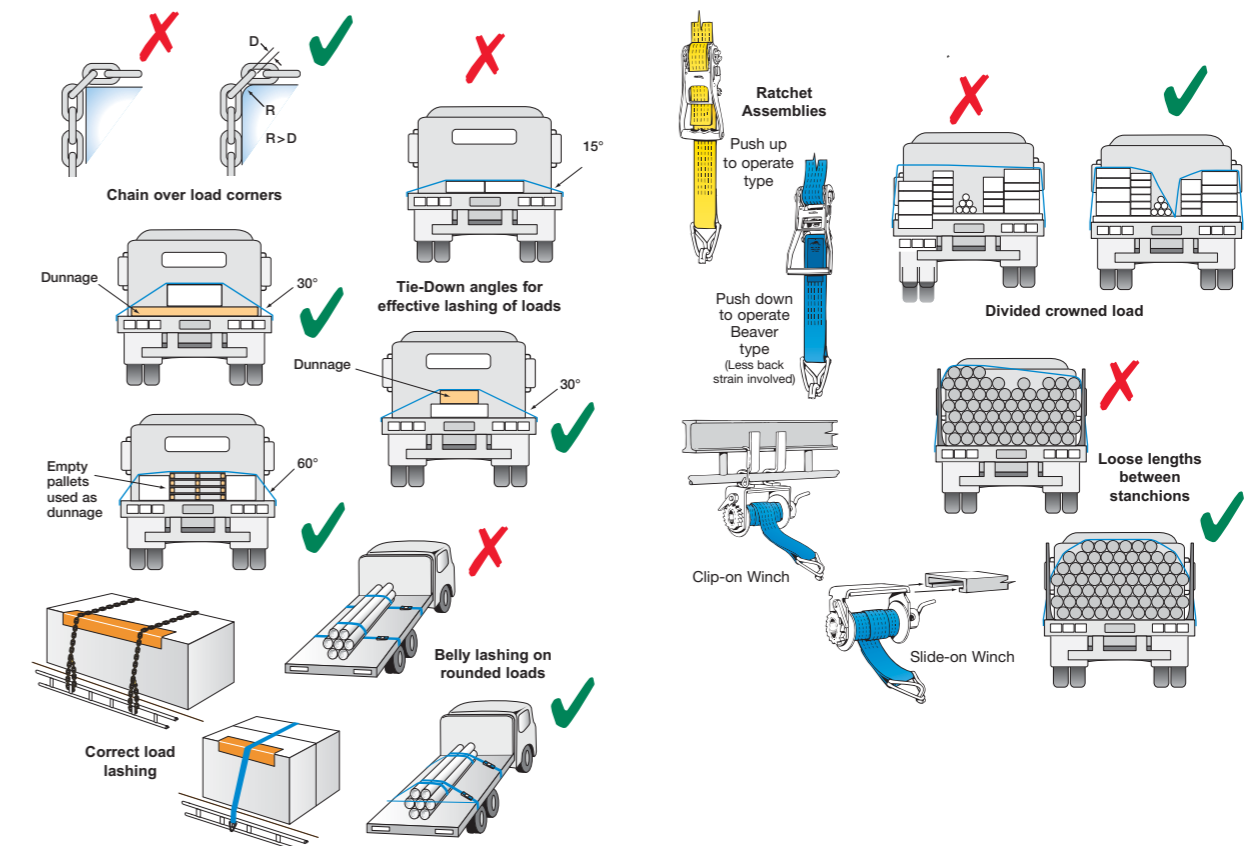
Australian Standards state that lashings must be replaced if they are weakened by 10% or more of their original strength. Therefore all restraint equipment must be inspected regularly and if the components are cracked, broken or worn they must not be used for restraining loads.

## Transport Restraint Product Information

Safe Load Restraint Guide



### Minimum Horizontal Restraint

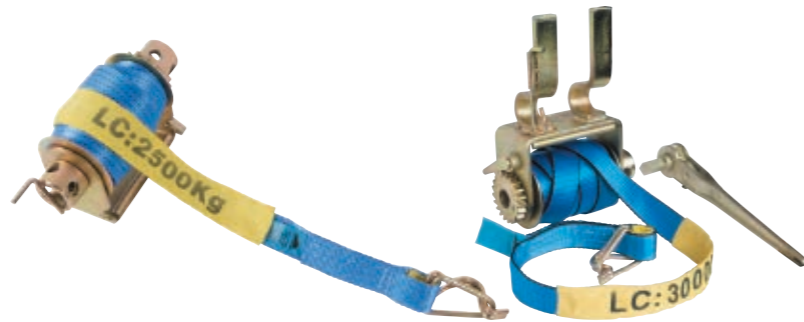


## Truck Winches



### Truck Winch Guidelines

- Keep winch tight - not loose
- Make sure cog teeth are in good working order
- Ensure appropriate winch is used
- If you are using a Clip-on Winch – ensure the arms are straight not bent
- When in use, ensure that at least two loops of webbing remain on winch drum.



### Mark VI Clip-on Truck Winches

Complies to AS/NZS4380

Product Code	Description	Hook Type	Width (mm)	Length (m)	LC (kg)	Weight (kg)	UOM
342109	Clip-on winch (Bare)	n/a	n/a	n/a	2500	5.65	Each
342109-9	Clip-on winch c/w 9m strap	Hook & Keeper	50	9	2500	7.45	Each
342109-12	Clip-on winch c/w 12m strap	Hook & Keeper	50	12	2500	7.85	Each

Compatible with Beaver's Reversible Ratchet Winch Bar (342420)



### Mark VI Slide-on Truck Winches

Complies to AS/NZS4380

Product Code	Description	Hook Type	Width (mm)	Length (m)	LC (kg)	Weight (kg)	UOM
342009	Slide-on winch (Bare)	n/a	n/a	n/a	2500	8.45	Each
342009-9	Slide-on winch c/w 9m strap	Hook & Keeper	50	9	2500	10.25	Each
342009-12	Slide-on winch c/w 12m strap	Hook & Keeper	50	12	2500	10.65	Each

Compatible with Beaver's Reversible Ratchet Winch Bar (342420)



## Reversible Ratchet Winch Bar



To suit Mark VI Truck Winches ONLY

Product Code	Description	Weight (kg)	UOM
342420	Reversible Ratchet Winch Bar	2.1	Each



## Double Ended Slide-on Truck Winches

Complies to AS/NZS4380

Product Code	Description	Hook Type	Width (mm)	Length (m)	LC (kg)	Weight (kg)	UOM
342201B	D/E Slide-on winch (Bare)	n/a	n/a	n/a	2500	5.6	Each
342201	D/E Slide-on winch c/w 9m strap	Hook & Keeper	50	9	2500	7.7	Each



### ⚠ WARNING

- Winches shall not be loaded in excess of lashing capacity.
- A minimum of two layers of polyester webbing must be wound around the winch drum when tensioning.

**CARGO WINCHES ARE NOT APPROVED FOR OVERHEAD LIFTING**

## Ratchet Assemblies



### Ratchet Assembly Guidelines

- Ratchet with hook and keeper must be fitted correctly, refer to the markings showing the lashing capacity
- The ratchet has a double claw and locking action safety system that prevents it accidentally slipping off the load
- All webbing is treated with polyurethane, to resist grit penetration
- All ratchet assemblies are provided with two protective sleeves
- Reinforced eyes are provided with the hook and keeper to add life to the unit
- Safety and ID labels are sewn into the webbing for traceability with lashing capacity and date of manufacture shown to aid the driver in adhering to his or her OH&S responsibilities.



### Not all Ratchet Tie-down (RTD) Assemblies are the Same!

Our Ratchet Tie-down (RTD) Assemblies, ranging from 25mm to 100mm, have been developed with the following principles:

#### Safety

All Ratchet assemblies comply to Australian and New Zealand Cargo Restraint System Standards AS/NZS 4380.

#### Quality

RTD Straps are 100% polyester which is heat set, stretched and polyurethane (p.u.) impregnated. This results in low strain, long life, wear resistance, and the durability demanded in flatbed tie-down situations.

#### Traceability

All RTD straps come complete with blue polyester safety labels, identifying the manufacturer/ supplier, the material the straps are made from, the standard, the date of manufacture and the length. The serial number together with the date of manufacture is both on the safety label and stitched into webbing, in the event the label is dislodged.

#### Testing

All RTD Assemblies are subject to testing criteria in order to verify their lashing capacities after manufacture/assembly.

#### User friendly visual features

The lashing capacity is stencilled on to the webbing and the two protective sleeves for easy identification. In addition the Maximum Breaking Strain (M.B.S.) (i.e. 4 stripes indicating an M.B.S. of 4,000 Kgs., 5 stripes indicating an M.B.S. of 5,000 Kgs., 10 Stripes indicating an M.B.S. of 10,000 Kgs.) is woven into the webbing.

#### Flexibility

All RTD straps come complete with standard hook and keepers, clearly marked with lashing capacity and I.D. marks. Different widths and lengths of webbing, together with an abundance of various end fittings are available on request.

## Ratchet Assemblies



### 25mm Cam Buckle Assembly

c/w Black vinyl "S" Hooks at each end. Complies to AS/NZS4380

Product Code	Description	Hook Type	Width (mm)	Length (m)	LC (kg)	Weight (kg)	UOM
MBT020	25mm x 2m Motor Bike Tie Down (1 pair)	S	25	2	250	0.8	Each



### 25mm Multi Purpose Ratchet Tie Down Assembly

Complies to AS/NZS4380

Product Code	Description	Hook Type	Width (mm)	Length (m)	LC (kg)	Weight (kg)	UOM
RTD025SD04E	25mm x 4m endless S/Duty	n/a endless	25	4	900	0.6	Each
349025RB	25mm x 5m NEW rubber grip handle c/w hook & keeper	Hook & Keeper	25	5	500	0.8	Each
349025RSB	25mm x 4m NEW rubber grip handle c/w black vinyl "S" hooks	S	25	4	450	0.75	Each



### 35mm Multi Purpose Ratchet Tie Down Assembly

Complies to AS/NZS4380

Product Code	Description	Hook Type	Width (mm)	Length (m)	LC (kg)	Weight (kg)	UOM
RTD035SD06T	35mm x 6m Boat tie down assy. S/Duty	J & S	35	6	500	1.5	Each
RTD035HD06H	35mm x 6m c/w hook & keeper	Hook & Keeper	35	6	1250	1.5	Each
349035RB	35mm x 6m NEW rubber grip handle c/w hook & keeper	Hook & Keeper	35	6	1000	1.6	Each
349035RSB	35mm x 6m NEW rubber grip handle c/w black vinyl "S" hooks	S	35	6	600	1.5	Each



### WARNING

- Winches shall not be loaded in excess of lashing capacity.
- A minimum of two layers of polyester webbing must be wound around the winch drum when tensioning.

**CARGO WINCHES ARE NOT APPROVED FOR OVERHEAD LIFTING**

### 50mm Multi Purpose Ratchet Tie Down Assembly

Complies to AS/NZS4380

Product Code	Description	Hook Type	Width (mm)	Length (m)	LC (kg)	Weight (kg)	UOM
RTD050LD06S	50mm x 6m c/w "S" hooks L/Duty	S	50	6	500	1.5	Each
RTD050LD06H	50mm x 6m c/w hook & keeper L/Duty	Hook & Keeper	50	6	1000	1.6	Each
RTD055PL	50mm x 9m c/w hook & keeper	Hook & Keeper	50	9	2500	3.1	Each
RTD055PL-12	50mm x 12m c/w hook & keeper	Hook & Keeper	50	12	2500	3.4	Each



### 50mm Heavy Duty Ratchet Tie Down Assembly

Rubber Grip Handle Complies to AS/NZS4380

Product Code	Description	Hook Type	Width (mm)	Length (m)	LC (kg)	Weight (kg)	UOM
349053	50mm x 9m c/w hook & keeper	Hook & Keeper	50	9	3000	3.5	Each
349053-12	50mm x 12m c/w hook & keeper	Hook & Keeper	50	12	3000	4.2	Each



### 75mm Heavy Duty Ratchet Tie Down Assembly

Complies to AS/NZS4380

Product Code	Description	Hook Type	Width (mm)	Length (m)	LC (kg)	Weight (kg)	UOM
349075	75mm x 9m c/w hook & keeper H/Duty	Hook & Keeper	75	9	5000	7.5	Each
349075-12	75mm x 12m c/w hook & keeper H/Duty	Hook & Keeper	75	12	5000	8.2	Each



### ⚠ WARNING

- Winches shall not be loaded in excess of lashing capacity.
- A minimum of two layers of polyester webbing must be wound around the winch drum when tensioning.

**CARGO WINCHES ARE NOT APPROVED FOR OVERHEAD LIFTING**

# POLYESTER REPLACEMENT STRAPS

### Cargo Winch Polyester Replacement Straps

c/w 2 x wear sleeves and Hook and keeper (unless otherwise stated) Complies to AS/NZS 4380



Product Code	Description	LC (kg)	Hook Type	Width (mm)	Length (m)	Weight (kg)	UOM
342305WF	50mm x 5m Gate Winch Replacement Strap c/w Double "J" Hook	2000kg	J	50	5	0.76	Each
342313	50mm x 9m Winch Replacement Strap	3000kg	Hook & Keeper	50	9	2	Each
342313-12	50mm x 12m Winch Replacement Strap	3000kg	Hook & Keeper	50	12	2.5	Each
CWS075SD09H	75mm x 9m Strap c/w hook & Keeper S/Duty	3500kg	Hook & Keeper	75	9	3	Each



### Ratchet Tie-down (RTD) Polyester Replacement Straps

c/w 2 x wear sleeves and Hook and keeper (unless otherwise stated)

Complies to AS/NZS 4380

Product Code	Description	LC (kg)	Hook Type	Width (mm)	Length (m)	Weight (kg)	UOM
349303R	50mm x 9m RTD Replacement Strap	3000kg	Hook & Keeper	50	9	2	Each
349303R -12	50mm x 12m RTD Replacement Strap	3000kg	Hook & Keeper	50	12	2.5	Each
349305R	75mm x 9m RTD Replacement Strap	5000kg	Hook & Keeper	75	9	3	Each
349305R-12	75mm x 12m RTD Replacement Strap	5000kg	Hook & Keeper	75	12	3.5	Each



# GRADE 70 LASHING CHAIN & FITTINGS



Transport chain and fittings are manufactured from heat treated carbon steel, in accordance with AS/NZS 4344.

- Transport Chain is primarily used in lashing applications to tie down loads on transport equipment
- Our G70 Chain is high quality and has undergone stringent testing and quality control
- All G70 Chain and Fittings are clearly marked Grade 70 with lashing capacity "LC" and size of chain
- G70 Chain is supplied in convenient resealable poly buckets or tool boxes for immediate use and easy storage
- The yellow chromate (gold) plating makes it easily recognisable even from a distance.



## Transport Chain Fittings Guidelines

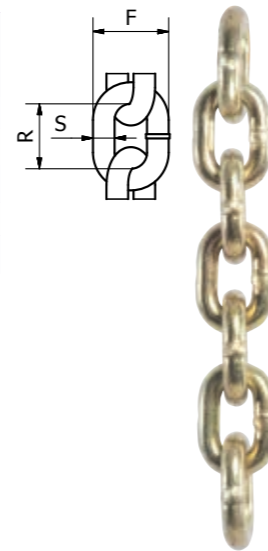
- Transport G70 Chain is NOT to be used for any lifting purpose
- Ensure your G70 Chain is marked showing capacity and Australian Standard for easy viewing and confirmation of load size.

## Grade 70 Transport Chain

"Gold" High Tensile – to AS/NZS4344

Product Code	LC (t)	Size (mm)	S (mm)	R (mm)	F (mm)	Weight per (m)	Finish	UOM	Metres per 100 (kg)
145006	2.3	6	6	18.5	20	0.8	Zinc Di-chromate	Metre	125
145007	3.0	7	7	22	24	1.1	Zinc Di-chromate	Metre	92
145008	3.8	8	8	24	28	1.43	Zinc Di-chromate	Metre	70
145010	6.0	10	10	30	35	2.23	Zinc Di-chromate	Metre	45
145013	9.0	13	13	39	45.5	3.75	Zinc Di-chromate	Metre	26.8

Not to be used for lifting



### GRADE 70 LASHINGS & FITTINGS ARE NOT TO BE USED FOR LIFTING PURPOSES

\* NOTE: The use of some grab hooks or systems incorporating grab hooks cause bending to occur on the link of lashing chain to which the grab hook is engaged. The bending and shearing effect of the hook reduces the strength of the chain by 25 percent and as such, the lashing capacity (LC) of this type of system must be reduced by 25 percent as prescribed in Australian Standard AS/NZS4344:2001

Claw hooks and winged grab hooks supplied on our assemblies, maintain 100% of the rated strength.

**NOT APPROVED FOR OVERHEAD LIFTING**



## Grade 70 Load Chain Kit with Winged Grab Hooks\*

Zinc Di-chromate (Gold Finish) Complies to AS/NZS 4344

Product Code	Chain Size (mm)	Chain Length (m)	Chain Part Number	Grab Hook Part Number	LC (kg)	Weight (kg)	UOM
400603	6	6	145006	354006	2300	5.28	Each
401003	8	6	145008	354008	3800	9.34	Each
406003	10	6	145010	354010	6000	14.32	Each
400903	6	9	145006	354006	2300	7.68	Each
145128	8	9	145008	354008	3800	13.63	Each
408003	10	9	145010	354010	6000	20.98	Each



Note: Some chain lengths are supplied in a resealable bucket.



## Grade 70 Transport Chain with Claw Hooks

Zinc Di-chromate (Gold Finish) Complies to AS/NZS 4344

Product Code	Chain Size (mm)	Chain Length (m)	Chain Part Number	Claw Hook Part Number	LC (kg)	Weight (kg)	UOM
401002	8	6	145008	352008	3800kg	9.68	Each
405002	8	9	145008	352008	3800kg	13.97	Each
406002	10	6	145010	352010	6000kg	14.5	Each
408002	10	9	145010	352010	6000kg	21.16	Each



### GRADE 70 LASHINGS & FITTINGS ARE NOT TO BE USED FOR LIFTING PURPOSES

\* NOTE: The use of some grab hooks or systems incorporating grab hooks cause bending to occur on the link of lashing chain to which the grab hook is engaged. The bending and shearing effect of the hook reduces the strength of the chain by 25 percent and as such, the lashing capacity (LC) of this type of system must be reduced by 25 percent as prescribed in Australian Standard AS/NZS4344:2001

Claw hooks and winged grab hooks supplied on our assemblies, maintain 100% of the rated strength.

**NOT APPROVED FOR OVERHEAD LIFTING**

## “Gold” Drag Chain Kit



Grade 70 Hi Tensile 5m Combo Kit c/w Lug Link, Slip Hook & Grab Hooks\* & 5m of G70 chain.  
Zinc Di-chromate (Gold Finish)

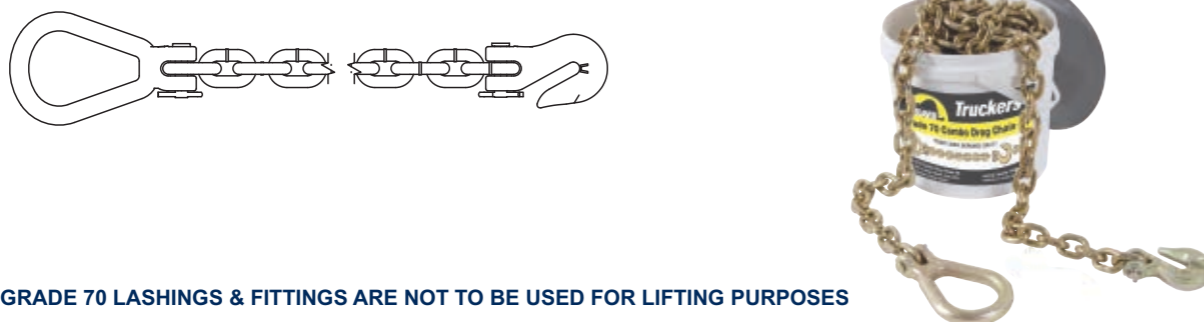
Product Code	Chain Size (mm)	Chain Length (m)	Chain Part Number	Grab Hook Part Number	Lug Link Part Number	Slip Hook Part Number	LC (kg)	Weight (kg)	UOM
412007	7.1	5	145007	354008	353008	356008	3000kg	6.69	Each
412008	8	5	145008	354008	353008	356008	3800kg	8.39	Each
412010	10	5	145010	354010	353010	356010	6000kg	12.8	Each
412013	13	5	145013	354013	353013	356013	9000kg	20.17	Each



## “Gold” Drag Chain Kit

5m of Grade 70 Hi Tensile chain c/w Lug Link & Grab Hook\*  
Zinc Di-chromate (Gold Finish)

Product Code	Chain Size (mm)	Chain Length (m)	Chain Part Number	Grab Hook Part Number	Lug Link Part Number	LC (kg)	Weight (kg)	UOM
410007	7.1	5	145007	354008	353008	3000kg	6.33	Each
410008	8	5	145008	354008	353008	3800kg	8.03	Each
410010	10	5	145010	354010	353010	6000kg	12.2	Each
410013	13	5	145013	354013	353013	9000kg	20.78	Each



### GRADE 70 LASHINGS & FITTINGS ARE NOT TO BE USED FOR LIFTING PURPOSES

\* NOTE: The use of some grab hooks or systems incorporating grab hooks cause bending to occur on the link of lashing chain to which the grab hook is engaged. The bending and shearing effect of the hook reduces the strength of the chain by 25 percent and as such, the lashing capacity (LC) of this type of system must be reduced by 25 percent as prescribed in Australian Standard AS/NZS4344:2001

Claw hooks and winged grab hooks supplied on our assemblies, maintain 100% of the rated strength.

**NOT APPROVED FOR OVERHEAD LIFTING**

## “Gold” Drag Chain Kit



5m of Grade 70 Hi Tensile chain c/w Lug Link & Slip Hook, Zinc Di-chromate (Gold Finish)

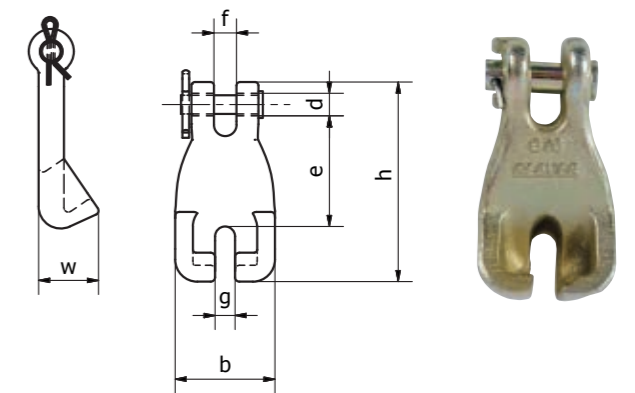
Product Code	Chain Size (mm)	Chain Length (m)	Chain Part Number	Slip Hook Part Number	Lug Link Part Number	LC (kg)	Weight (kg)	UOM
411007	7.1	5	145007	356008	353008	3000kg	6.31	Each
411008	8	5	145008	356008	353008	3800kg	8.01	Each
411010	10	5	145010	356010	353010	6000kg	12.3	Each
411013	13	5	145013	356013	353013	9000kg	21.26	Each



## Clevis Claw Hooks

Complies to AS/NZS 4344

Product Code	Chain Size (mm)	f (mm)	d (mm)	e (mm)	h (mm)	g (mm)	b (mm)	w (mm)	LC (kg)	Weight (kg)	UOM
352008	7-8	12.5	10.2	40	88	9.5	47	32	3800kg	0.55	Each
352010	10	12.5	12.5	46	103	11.5	55	37.5	6000kg	0.59	Each



### GRADE 70 LASHINGS & FITTINGS ARE NOT TO BE USED FOR LIFTING PURPOSES

\* NOTE: The use of some grab hooks or systems incorporating grab hooks cause bending to occur on the link of lashing chain to which the grab hook is engaged. The bending and shearing effect of the hook reduces the strength of the chain by 25 percent and as such, the lashing capacity (LC) of this type of system must be reduced by 25 percent as prescribed in Australian Standard AS/NZS4344:2001

Claw hooks and winged grab hooks supplied on our assemblies, maintain 100% of the rated strength.

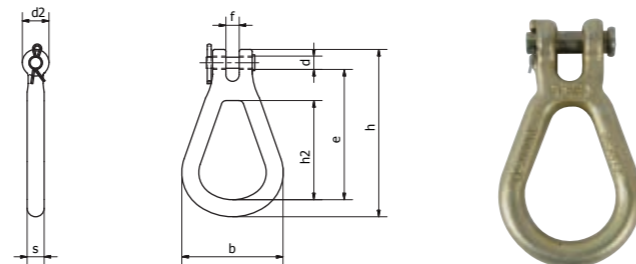
**NOT APPROVED FOR OVERHEAD LIFTING**

## Clevis Lug Links

Complies to AS/NZS 4344



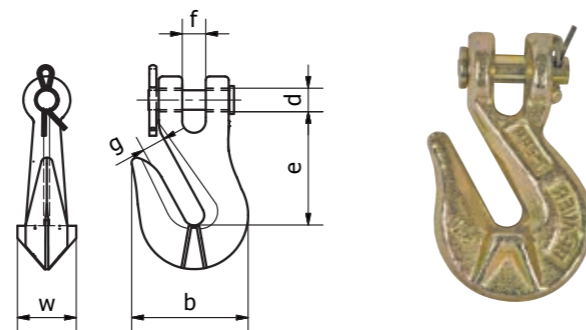
Product Code	Chain Size (mm)	f (mm)	d (mm)	e (mm)	h (mm)	h2 (mm)	b (mm)	s (mm)	d2 (mm)	LC (kg)	Weight (kg)	UOM
353008	7-8	12.5	10	108.5	141.7	78	86.5	16.25	24	3800kg	0.5	Each
353010	10	12.5	12.5	107.25	141.7	78	86.5	16.25	24	6000kg	0.6	Each
353013	13	16.6	16	127.2	169	95.5	100.4	18.6	33	9000kg	1.5	Each



## Clevis Grab Hooks\* w/- Wings

Complies to AS/NZS 4344

Product Code	Chain Size (mm)	f (mm)	d (mm)	e (mm)	b (mm)	g (mm)	w (mm)	LC (kg)	Weight (kg)	UOM
354006	6	9.2	8.5	46.4	49	9.2	22	2300kg	0.24	Each
354008	7-8	10.4	10.5	49	57	10.5	28	3800kg	0.38	Each
354010	10	12.4	12.5	60.5	66.5	13.5	39	6000kg	0.5	Each
354013	13	19.5	16.5	84	88	18	39	9000kg	0.63	Each



### GRADE 70 LASHINGS & FITTINGS ARE NOT TO BE USED FOR LIFTING PURPOSES

\* NOTE: The use of some grab hooks or systems incorporating grab hooks cause bending to occur on the link of lashing chain to which the grab hook is engaged. The bending and shearing effect of the hook reduces the strength of the chain by 25 percent and as such, the lashing capacity (LC) of this type of system must be reduced by 25 percent as prescribed in Australian Standard AS/NZS4344:2001

Claw hooks and winged grab hooks supplied on our assemblies, maintain 100% of the rated strength.

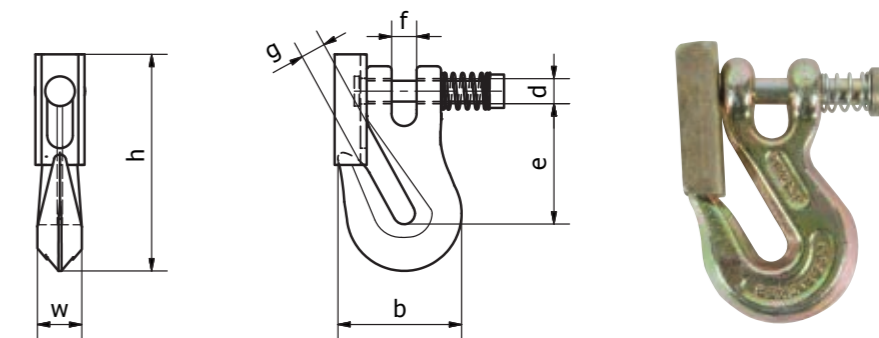
**NOT APPROVED FOR OVERHEAD LIFTING**

## Clevis Safety Grab Hooks\*

Complies to AS/NZS 4344



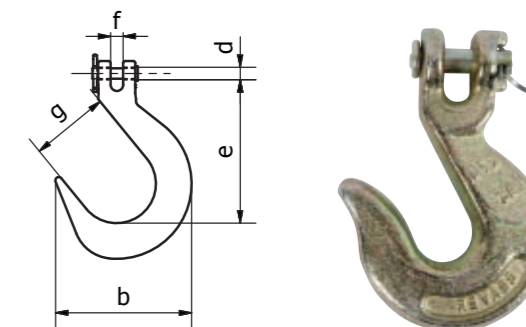
Product Code	Chain Size (mm)	f (mm)	d (mm)	e (mm)	b (mm)	g (mm)	w (mm)	h (mm)	LC (kg)	Weight (kg)	UOM
354008SS	7-8	10	11	57.4	60	11	15	100	3800kg	0.43	Each



## Clevis Slip Hooks

Complies to AS/NZS 4344

Product Code	Chain Size (mm)	f (mm)	d (mm)	e (mm)	b (mm)	g (mm)	LC (kg)	Weight (kg)	UOM
356006	6	9	7.8	63	69	19	2300kg	0.22	Each
356008	7-8	11	9.5	69	80	26	3800kg	0.36	Each
356010	10	12	12	79.5	90	33	6000kg	0.6	Each
356013	13	19	16.3	102	121.5	43	9000kg	1.19	Each



### GRADE 70 LASHINGS & FITTINGS ARE NOT TO BE USED FOR LIFTING PURPOSES

\* NOTE: The use of some grab hooks or systems incorporating grab hooks cause bending to occur on the link of lashing chain to which the grab hook is engaged. The bending and shearing effect of the hook reduces the strength of the chain by 25 percent and as such, the lashing capacity (LC) of this type of system must be reduced by 25 percent as prescribed in Australian Standard AS/NZS4344:2001

Claw hooks and winged grab hooks supplied on our assemblies, maintain 100% of the rated strength.

**NOT APPROVED FOR OVERHEAD LIFTING**



# GRADE 70 LOAD EQUIPMENT

## Grade 70 Loadbinders



### Precautions

- Avoid injury – operate only by hand and always from a standing position
- Use only the appropriate size and grade of chain with the loadbinder
- Do not use handle extension devices, as they may overload the loadbinder and effectively weaken the lashing system
- Always inspect loadbinders before use. Look for signs of wear, bending, cracks or gouges, and replace any damaged units
- Make sure loadbinders are tight before moving. Stop and recheck tightness frequently
- Never discard warning instructions. Keep them and share them with others using the loadbinder.



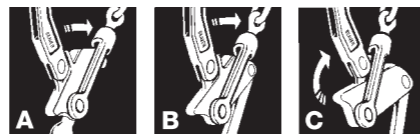
### Grade 70 Safety Release Lever

The Safety Release Handle makes this Loadbinder safer than other lever style loadbinders on the market today.

The centre of the loadbinder rotates independently of the handle, allowing tension to be released smoothly and safely.

The loadbinder design allows the user to release the loadbinder tension without any of the recoil typical of a standard lever type loadbinder.

### Unique Cam Movement



**A**  
The handle of the BX600 moves freely to the beginning of the release point.

**B**  
The body cam centre begins to rotate independently of the handle at this stage.

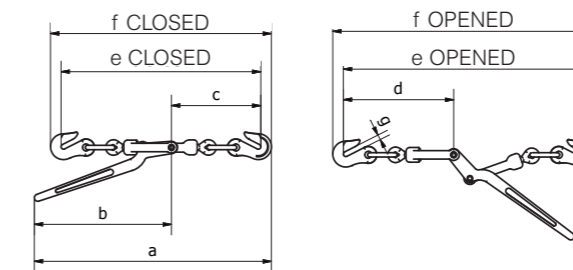
**C**  
As the chain tension is released, the handle will remain almost in the same position.

## Grade 70 Loadbinders

Grade 70 Double Swivel (over centre loadbinder)

Lever Loadbinders with Grab Hooks (Forged) AS/NZS 4344

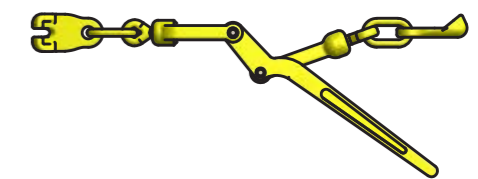
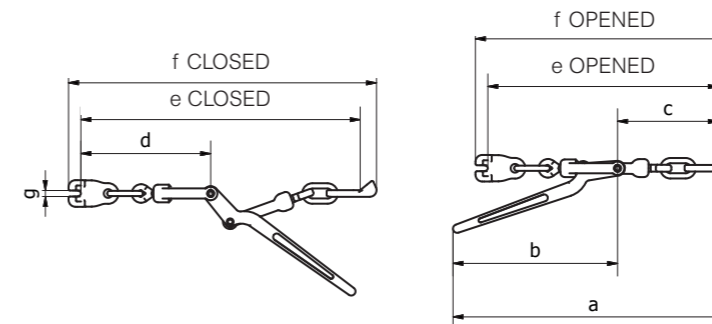
Product Code	Chain Size and Description	f Closed (mm)	e Closed (mm)	d (mm)	b (mm)	a (mm)	f Opened (mm)	e Opened (mm)	c (mm)	LC (kg)	Weight (kg)	UOM
345006A	6mm c/w winged eye grab hooks*	409	365	215	293	470	484	440	164	2300	1.68	Each
348000	7-8mm c/w winged eye grab hooks*	558	503	287	383	600	662	607	217	3800	3.7	Each
348010	10mm c/w winged eye grab hooks*	638	570	325	420	760	758	690	250	6000	5.7	Each
348013	13mm c/w winged eye grab hooks*	747	661	375	490	819	876	790	285	9000	10.5	Each



Grade 70 Double Swivel (over centre loadbinder)

Claw Lever Loadbinders with Claw Hooks (Forged) AS/NZS 4344

Product Code	Chain Size and Description	f Closed (mm)	e Closed (mm)	d (mm)	b (mm)	a (mm)	f Opened (mm)	e Opened (mm)	c (mm)	LC (kg)	Weight (kg)	UOM
348000EC	7-8mm c/w eye claw hooks	529	489	280	400	601	633	593	208	3800	3.9	Each



### GRADE 70 LASHINGS & FITTINGS ARE NOT TO BE USED FOR LIFTING PURPOSES

\* NOTE: The use of some grab hooks or systems incorporating grab hooks cause bending to occur on the link of lashing chain to which the grab hook is engaged. The bending and shearing effect of the hook reduces the strength of the chain by 25 percent and as such, the lashing capacity (LC) of this type of system must be reduced by 25 percent as prescribed in Australian Standard AS/NZS4344:2001

Claw hooks and winged grab hooks supplied on our assemblies, maintain 100% of the rated strength.

**NOT APPROVED FOR OVERHEAD LIFTING**



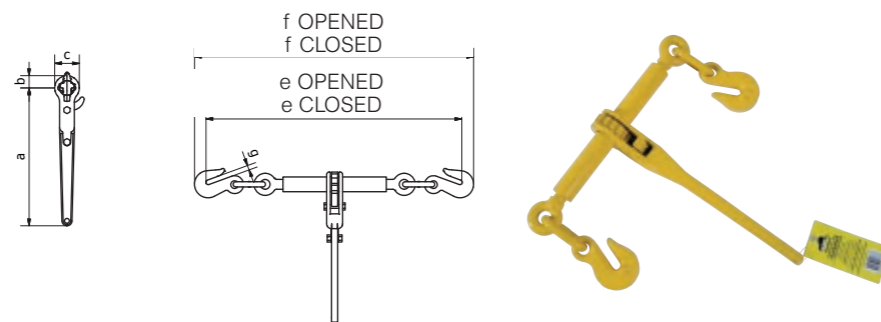
## Grade 70 Ratchet Type Loadbinders

Yellow Painted Finish – to AS/NZS 4344

With Grab Hooks



Product Code	Chain Size and Description	f Closed (mm)	e Closed (mm)	g (mm)	b (mm)	a (mm)	f Opened mm	e Opened (mm)	c (mm)	LC (kg)	Weight (kg)	UOM
344006	6mm c/w winged eye grab hooks*	459	415	10	21	205	572	528	42	2300	1.69	Each
344008	7-8mm c/w winged eye grab hooks*	638	583	12.7	32.5	350	799	744	65	3800	4.7	Each
344010	10mm c/w winged eye grab hooks*	671	603	16.5	32.5	350	836	768	65	6000	5.1	Each
344013	13mm c/w winged eye grab hooks*	776	690	18.5	32.5	350	946	860	65	9000	7.18	Each

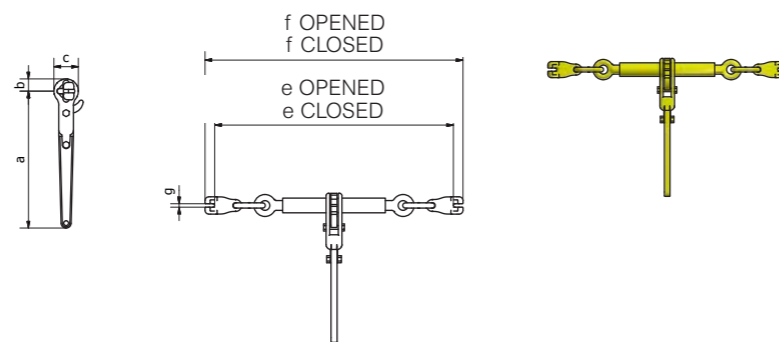


## Grade 70 Ratchet Type Loadbinders

Yellow Painted Finish – to AS/NZS 4344

With Claw Hooks

Product Code	Chain Size and Description	f Closed (mm)	e Closed (mm)	d (mm)	b (mm)	a (mm)	f Open (mm)	e Open (mm)	c (mm)	LC (kg)	Weight (kg)	UOM
344108	7-8mm c/w eye claw hooks	667	609	9.5	32.5	355	831	773	65	3800	4.9	Each
344110	10mm c/w eye claw hooks	712	644	11.5	32.5	355	877	809	65	6000	5.3	Each



### GRADE 70 LASHINGS & FITTINGS ARE NOT TO BE USED FOR LIFTING PURPOSES

\* NOTE: The use of some grab hooks or systems incorporating grab hooks cause bending to occur on the link of lashing chain to which the grab hook is engaged. The bending and shearing effect of the hook reduces the strength of the chain by 25 percent and as such, the lashing capacity (LC) of this type of system must be reduced by 25 percent as prescribed in Australian Standard AS/NZS4344:2001

Claw hooks and winged grab hooks supplied on our assemblies, maintain 100% of the rated strength.

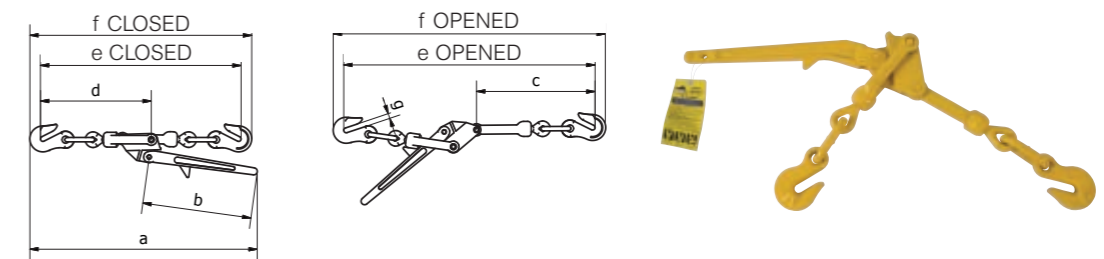
**NOT APPROVED FOR OVERHEAD LIFTING**

## Grade 70 Safety Release Lever BX600 Type

Recoilless Loadbinders AS/NZS 4344



Product Code	Chain Size and Description	f Closed (mm)	e Closed (mm)	d (mm)	b (mm)	a (mm)	f Opened (mm)	e Opened (mm)	c (mm)	LC (kg)	Weight (kg)	UOM
344208	7-8mm c/w winged eye grab hooks*	555	500	280	320	603	665	610	280	3800	4.4	Each
344210	10mm c/w winged eye grab hooks*	663	595	335	390	703	773	705	335	6000	6.6	Each



## Grade 70 Web Dog

Complies to AS/NZS 4344 and AS/NZS 4380

Product Code	Chain Size and Description	Width (mm)	Length (m)	LC (kg)	Weight (kg)	UOM
348000WF	50mm Ratchet assembly fitted with 8mm grab hooks* & 1m of 50mm heavy duty webbing	50	1	3800	3.8	Each



### GRADE 70 LASHINGS & FITTINGS ARE NOT TO BE USED FOR LIFTING PURPOSES

\* NOTE: The use of some grab hooks or systems incorporating grab hooks cause bending to occur on the link of lashing chain to which the grab hook is engaged. The bending and shearing effect of the hook reduces the strength of the chain by 25 percent and as such, the lashing capacity (LC) of this type of system must be reduced by 25 percent as prescribed in Australian Standard AS/NZS4344:2001

Claw hooks and winged grab hooks supplied on our assemblies, maintain 100% of the rated strength.

**NOT APPROVED FOR OVERHEAD LIFTING**

# GRADE 100 LASHING ACCESSORIES

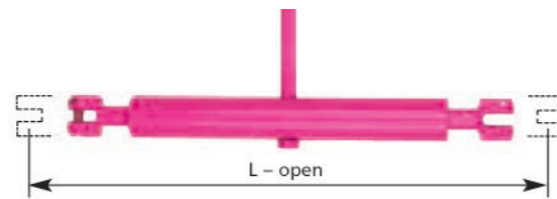
## Tensioner according to (DIN-EN-12195-3) standards



VKSPS VIP compact spindle tensioner with a tensioning lever

Special robust design due to a solid threaded pipe. Resistant to dirt ingreess. Threads are protected by solid sleeves and can thus not be easily damaged. Safety device to prevent unthreading and a clevis connection are available on both sides. Connecting bolt and securing stud are pre-assembled. Pink powder coated with an axial tensioning lever. No securing chain is necessary.

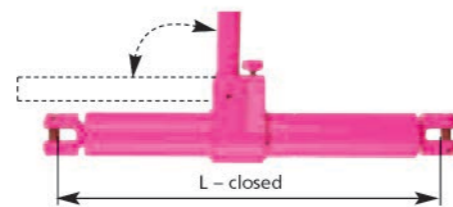
Product Code	Chain Size (mm)	L Open (mm)	L Closed (mm)	Adjustment (mm)
VKSPS 6	6	323	204	120
VKSPS 8	8	518	308	210
VKSPS 10	10	533	324	210
VKSPS 13	13	787	487	300
VKSPS 16	16	807	507	300



VKSPS-R VIP compact spindle with a ratchet

Improved safety due to the foldable ratchet. Pink powder coated. No securing chain is necessary.

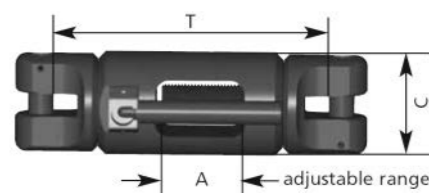
Product Code	Chain Size (mm)	L Open (mm)	L Closed (mm)	Adjustment (mm)
VKSPS-R 6	6	323	204	120
VKSPS-R 8	8	518	308	210
VKSPS-R 10	10	533	324	210
VKSPS-R 13	13	787	487	300
VKSPS-R 16	16	807	507	300



## Length adjustment

Length adjustment only possible under low pretensioning resp. in unloaded condition.

Chain Dia.	Type	WLL (kg)	Adjustable Range A	C	Tmin (mm)	Ref. No.
20	VLE 20	16	140	110	363	79 97 322
22	VLE 22	20	140	110	363	79 94 668
28	VLE 28	31.5	175	138	475	79 00 772



## RUD VIP Grade V(100) Chain & Fittings



VIP Chain Grade V(100): Unit of Measure - Metre

The most technologically advanced alloy sling chain system available - with 25% higher working load capacity and greater wear resistance than Grade T(80) (T) chain. This system comes with an extensive range of fittings, to offer the most innovative chain sling system available. Full range of components available.

- Available in sizes 4mm through to 28mm
- Every chain link is stamped with VIP
- Serial and batch numbers are stamped every running metre
- A highly visible colour which discolours under high temperatures and a dual process surface coating for increased corrosion resistance
- Due to special heat treatment developed by RUD, the high-dynamic VIP chains are more resistant to external mechanical wear friction and to damage, therefore, longer service is guaranteed
- All RUD-VIP chains and components are electromagnetically crack detected to ensure greater safety.

## VIP Overheating Indication

Special fluorescent pink powder coating permanently changes colour at increased temperatures.

Black signifies an application at more than 400°C and further use is then prohibited.

Product Code	WLL (tonnes)	Size D (mm)	Pitch P (mm)	W1 (mm)	Weight (kg/m)
VIP 6	1.5	6.0	18.0	7.8	0.85
VIP 8	2.5	8.0	24.0	10.4	1.5
VIP 10	4.0	10.0	30.0	13.0	2.4
VIP 13	6.7	13.0	39.0	17.0	4.0
VIP 16	10.0	16.0	48.0	21.0	6.0
VIP 20	16.0	20.0	60.0	26.0	9.5
VIP 22	20.0	22.0	66.0	28.6	12.3
VIP 28	31.5	28.0	84.0	36.4	18.6

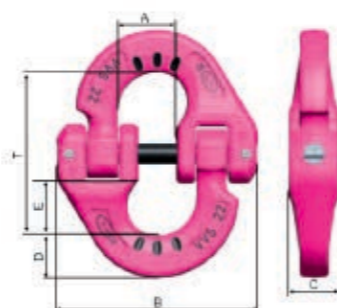


## VIP-Connecting Link - vvs-Patent

- The all-purpose robust connecting link
- Lifting points, shackles and plate clamps can be attached into the halves of the connecting link
- Form and kinking free function are patent pending
- No kinking of pre-assembled chain possible
- The halves are exchangeable between each other
- No movement of securing pin and therefore no damage of the common securing springs or sleeves
- Patented wear markings.



Product Code	WLL (t)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	T (mm)	Weight (kg/pc.)	Ref. No.
VVS 6	1.5	18	55	13	11	17	46	0.12	79 01 438
VVS 8	2.5	24	70	18	14	23	61	0.29	79 01 439
VVS 10	4.0	28	88	22	17	27	74	0.57	79 01 440
VVS 13	6.7	34	111	28	23	33	93	1.2	79 01 441
VVS 16	10.0	39	130	33	27	37	108	2.0	79 01 442
VVS 20	16.0	42	154	41	34	41	124	3.7	79 01 443
VVS 22	20.0	48	172	44	37	46	138	4.8	79 01 444
VVS 28	31.5	69	228	58	47	67	189	10.6	79 01 445



## VIP Master Link for single leg VBK1 - For smaller hooks

VBK 1 master link with an in all multi-directional movable welded VRG connector. Thus ensuring that the correct chain diameter and number of legs can be connected. Complete identification tag with an integrated testing guage. Connecting bolt and tensioning sleeve are pre-assembled.

Chain	Type	A (mm)	B (mm)	C (mm)	T (mm)	Weight (kg/pc.)	Ref. No.
6	VBK 1 - 6 (VB 1 - 6)	13	25	54	82	0.5	71 00 675 (71 00 220)
8	VBK 1 - 8 (VB 1 - 8)	16	34	70	107	0.7	71 00 676 (71 00 221)
10	VBK 1 - 10 (VB 1 - 10)	18	40	85	131	1.1	71 00 677 (71 00 222)
13*	VBK 1 - 13 (VB 1 - 13)	22	50	115	174	2.0	71 00 678 (71 00 223)
16*	VBK 1 - 16 (VB 1 - 16)	26	65	140	211	3.3	71 00 679 (71 00 224)
20*	VBK 1 - 20 (VB 1 - 20)	32	75	170	264	7.6	71 04 092 (71 04 093)
22*	VBK 1 - 22 (VB 1 - 22)	36	110	200	294	9.0	71 00 680 (71 02 060)
28**	- (VB 1 - 28)	62	130	150	215	13.7	- (79 00 641)**



## VIP Cobra Hooks

VCGH: Unit of Measure - Each

- Extremely robust all-purpose hook
- Non-protruding tip
- Forged safety latch engages in hook tip.

Product Code	Chain Size (mm)	WLL (tonnes)
VCGH 6	6	1.5
VCGH 8	8	2.5
VCGH 10	10	4.0
VCGH 13	13	6.7
VCGH 16	16	10.0
VCGH 20	20	16.0
VCGH 22	22	20.0
VCGH 28	28	31.5



# GRADE 120 LASHING CHAINS



## Selection of Lashing Chain

### Selection of the lashing chain

1.1 The lashing capacity of the restraint system will be as dependent on the application and environment as the type of equipment selected.

i.e. The Size, Shape and Weight of the load must all be considered to determine the correct selection. See 'Safe Load Restraint Guide' on page 223.

Calculate the number of lashing chains according EN 12195-3 and VDI 270-2.

1.2 Due to varying reactions under load, different components, such as: lashing chains; synthetic lashing systems and; wire ropes are not commonly used together to secure the same load in the same lashing direction, unless they have been specifically designed for the purpose. Products such as the 'Web-Dog' for example, are specifically designed to work with Grade 70 chain.

1.3 Of particular importance when using chain is to ensure that all the chains used are of the same grade, (e.g. Grade 70 or Grade 100), and that any fittings or attachments are of equal or greater strength.

### Use

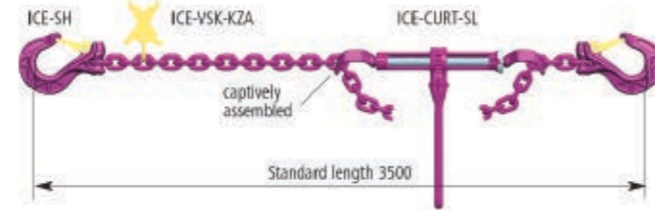
- 2.1 Inspect all equipment prior to use. If any sign of nicks, cuts, excessive wear or stretched links are found the equipment should not be used. Australian Standards state that lashings must be replaced.
- 2.2 Before tightening, ensure that the lashing is not twisted or knotted.
- 2.3 Protect lashing equipment from sharp edges with the use of sleeves or corner protectors.



# ICE-VSK-CURT lashing chains – Grade-120



Chain Ø (mm)	Type	Lashing cap. LC (daN)	Tensioner Type	Tensioner		L min (mm)	Weight (kg)	Ref. no.
				Pre-tension STF (daN)	Adjustm. (mm)			
6	ICE-VSK-6-CURT-IVH	3600	ICE-CURT-6-GAKO	in preparation – available soon				
8	ICE-VSK-8-CURT-IVH	6000	ICE-CURT-8-GAKO	2800	170	1040	13.2	7901129
10	ICE-VSK-10-CURT-IVH	10000	ICE-CURT-10-GAKO	2800	170	1210	20.1	7901130
13	ICE-VSK-13-CURT-IVH	16000	ICE-CURT-13-GAKO	in preparation – available soon				
16	ICE-VSK-16-CURT-IVH	25000	ICE-CURT-16-GAKO	in preparation – available soon				



Chain Ø (mm)	Type	Lashing cap. LC (daN)	Tensioner Type	Tensioner		L min (mm)	Weight (kg)	Ref. no.
				Pre-tension STF (daN)	Adjustm. (mm)			
6	ICE-VSK-6-CURT-SL	3600	ICE-CURT-6-SL	in preparation – available soon				
8	ICE-VSK-8-CURT-SL	6000	ICE-CURT-8-SL	2800	170	817	12.6	7900026
10	ICE-VSK-10-CURT-SL	10000	ICE-CURT-10-SL	2800	170	935	18.1	7900027



Chain Ø (mm)	Type	Lashing cap. LC (daN)	Tensioner Type	Tensioner		L min (mm)	Weight (kg)	Ref. no.
				Pre-tension STF (daN)	Adjustm. (mm)			
6	ICE-VSK-6-CURT-SL-IVH	3600	ICE-CURT-6-SL-GAKO	in preparation – available soon				
8	ICE-VSK-8-CURT-SL-IVH	6000	ICE-CURT-8-SL-GAKO	2800	170	956	12.9	7901131
10	ICE-VSK-10-CURT-SL-IVH	10000	ICE-CURT-10-SL-GAKO	2800	170	1105	19.1	7901132

Note: 1000 daN is equivalent to approximately 1 tonne or 1000kg.

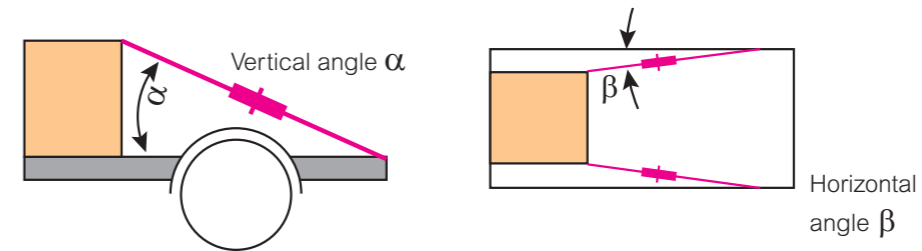
# Which lashing chain for which load?



Up to 60% more lashing capacity than Grade 80

## Diagonal Lashing

Lashing Chain	LC (daN)	Max. load weight [t] (horizontal angle b: 20°-45°; 2 lashing chains per direction)											
		Vertical angle a: 0°-30°						Vertical angle a: 30°-60°					
		μ=0.1	μ=0.2	μ=0.3	μ=0.4	μ=0.5	μ=0.6	μ=0.1	μ=0.2	μ=0.3	μ=0.4	μ=0.5	μ=0.6
ICE-VSK 6	3600	6.2	8.4	10.4	13.0	17.4	26.2	4.5	6.3	9.0	12.8	19.2	32.0
VIP-VSK 6	3000	5.2	7.0	8.7	10.9	14.5	21.9	3.8	5.3	7.5	10.7	16.0	26.7
ICE-VSK 8	6000	10.5	14.0	17.4	21.8	29.1	43.9	7.6	10.7	15.0	21.4	32.0	53.4
ICE-VSK 10	10000	17.5	23.4	29.0	36.4	48.6	73.1	12.8	17.9	25.0	35.6	53.4	89.0
ICE-VSK 13	16000	28.0	37.5	46.4	58.2	77.8	117.0	20.5	28.6	40.0	57.1	85.5	142.4
VIP-VSK 16	20000	35.0	46.9	58.1	72.8	97.3	146.3	25.6	35.8	50.0	71.3	106.9	178.0



## Frictional Lashing

RUD Lashing Chain	STF (daN)	= required number of VIP + ICE lashing chains (number of lashing chains = factor from Table x load weight (t))											
		Vertical angle a: 60°-90°						Vertical angle a: 30°-60°					
		μ=0.1	μ=0.2	μ=0.3	μ=0.4	μ=0.5	μ=0.6	μ=0.1	μ=0.2	μ=0.3	μ=0.4	μ=0.5	μ=0.6
VIP-VSK 6	1500	3.6 x	1.6 x	0.9 x	0.6 x	0.4 x	0.2 x	6.3 x	2.7 x	1.5 x	0.9 x	0.6 x	0.3 x
VIP-VSK 8	2500	2.2 x	1.0 x	0.6 x	0.4 x	0.2 x	0.2 x	3.8 x	1.6 x	0.9 x	0.6 x	0.4 x	0.2 x
VIP-VSK 10	2800	2.0 x	0.9 x	0.5 x	0.3 x	0.2 x	0.1 x	3.4 x	1.5 x	0.8 x	0.5 x	0.3 x	0.2 x
ICE-VSK 8/10/13	2800	2.0 x	0.9 x	0.5 x	0.3 x	0.2 x	0.1 x	3.4 x	1.5 x	0.8 x	0.5 x	0.3 x	0.2 x
VIP-VSK 13/16	3600	1.5 x	0.7 x	0.4 x	0.3 x	0.2 x	0.1 x	2.6 x	1.2 x	0.7 x	0.4 x	0.3 x	0.2

Values of both tables refer to: stable load, road transport, no combination with other lashing or securing methods!

Materials	Slide-coefficient of friction μ to VDI 2700-2		
	dry	wet	greasy
Wood/wood	0.20-0.50	0.20-0.25	0.05-0.15
Metal/wood	0.20-0.50	0.20-0.25	0.02-0.10
Metal/metal	0.10-0.25	0.10-0.20	0.01-0.10

If there is a clear deviation from the indicated lashing angles, it is necessary to add some safety measures (e.g. larger chain diameter, and/ or chocks – friction increasing elements).

Heavy construction machinery should be positioned bucket first, tight against the step frame of the low loader.

Handbrake must be engaged and the vehicle left in gear.

Note: 1000 daN is equivalent to approximately 1 tonne or 1000kg.

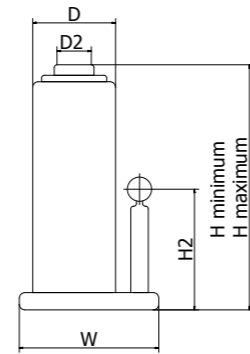
# JACKS

## Royal Black Jax Series Bottle Jacks

Complies to AS/NZS 2693



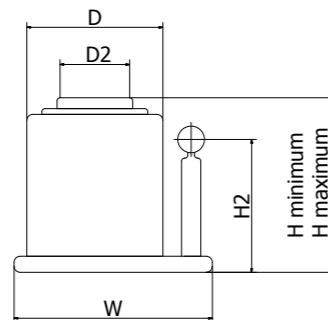
Product Code	Description	Capacity (t)	D (mm)	D2 (mm)	H2 (mm)	W (mm)	Screw Adjusting Height (mm)	Lift Height (mm)	Minimum Height H minimum (mm)	Maximum Height H maximum (mm)	Weight (kg)	UOM
Jax00186	Bottle Jack	1.86	60	30	76	109	60	125	200	385	3.8	Each
Jax004	Bottle Jack	4	70	32	79	109	80	125	200	405	4.8	Each
Jax006	Bottle Jack	6	70	29	81	109	70	127	216	413	4.6	Each
Jax008	Bottle Jack	8	85	40	83	135	80	160	240	480	7.3	Each
Jax010	Bottle Jack	10	95	43	84	148	80	160	245	485	9.3	Each
Jax015	Bottle Jack	15	102	45	85	158	85	170	245	500	12.6	Each
Jax020	Bottle Jack	20	114	54	86	165	90	192	278	560	16.4	Each



## Royal Squat Jax Series Bottle Jacks

Complies to AS/NZS 2693 – Designed for use where 12 – 20 tonne lift is required, but ground clearance does not exceed 195mm

Product Code	Description	Capacity (t)	D (mm)	D2 (mm)	H2 (mm)	W (mm)	Screw Adjusting Height (mm)	Lift Height (mm)	Minimum Height H minimum (mm)	Maximum Height H maximum (mm)	Weight (kg)	UOM
BJS012	Squat Bottle Jack	12	95	43	84	136	65	105	191	361	7.6	Each
BJS016	Squat Duty Bottle Jack	16	110	45	85	150	65	110	191	356	9.4	Each
BJS020	Squat Duty Bottle Jack	20	114	45	92	166	72	113	191	376	11.3	Each

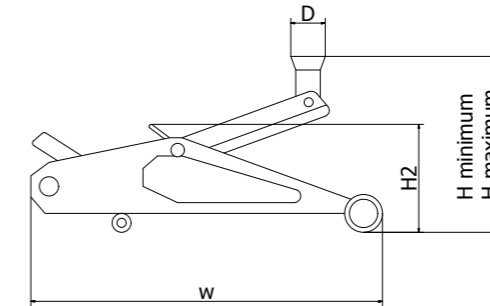


## Royal Trolley Jack Suitable for D.I.Y. Home Mechanic

Complies to AS/NZS 2615



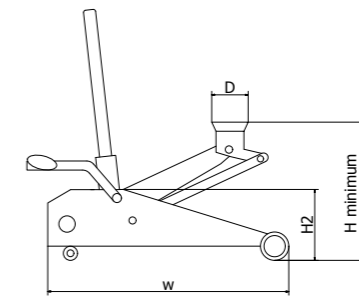
Product Code	Description	Capacity (t)	D (mm)	H2 (mm)	W (mm)	Wheelbase Length (mm)	Minimum Height H minimum (mm)	Maximum Height H maximum (mm)	Nett Weight (kg)	UOM
TJK014	Trolley Jack	1.4	50	132	492	410	130	350	11	Each



## Royal Trolley Jack Garage With Quick Lift Pedal

Complies to AS/NZS 2615

Product Code	Description	Capacity (t)	D (mm)	H2 (mm)	W (mm)	Wheelbase Length (mm)	Minimum Height H minimum (mm)	Maximum Height H maximum (mm)	Nett Weight (kg)	UOM
GJK022	Trolley Jack c/w quick lift pedal	2.25	120	155	685	520	145	490	39.5	Each

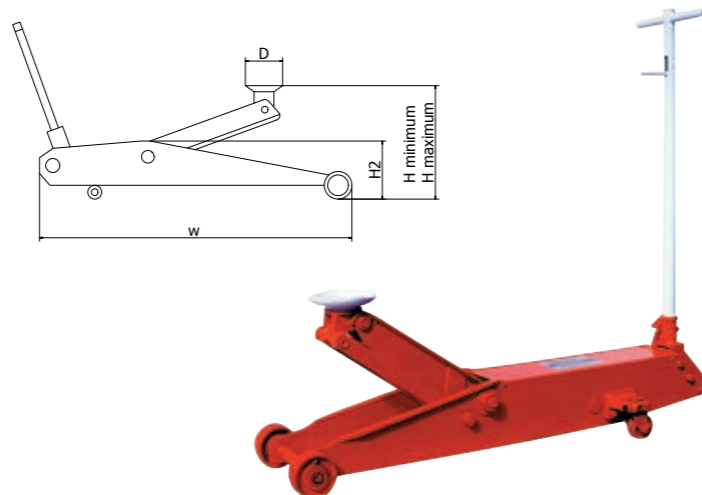


## Royal Heavy Duty Professional Floor Jack

Complies to AS/NZS 2615



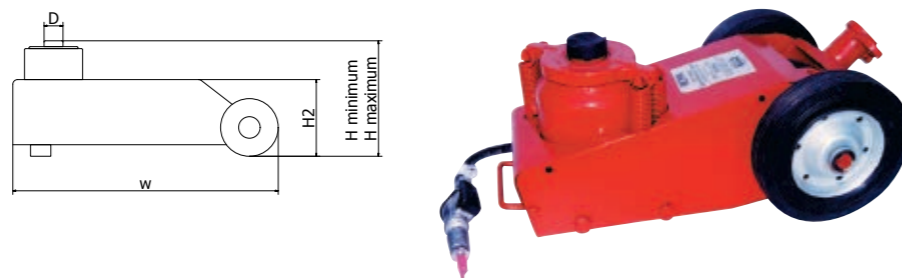
Product Code	Description	Capacity (t)	D (mm)	H2 (mm)	W (mm)	Minimum Height H minimum (mm)	Maximum Height H maximum (mm)	Nett Weight (kg)	UOM
GJK045	Heavy Duty Professional	4.5	210	380	1510	150	560	92	Each



## Royal Air / Hydraulic Trolley Jack

Complies to AS/NZS 2615

Product Code	Description	Capacity (t)	D (mm)	H2 (mm)	W (mm)	Minimum Height H minimum (mm)	Maximum Height H maximum (mm)	Nett Weight (kg)	UOM
GJK200	TQ22001 Air/Hydraulic Trolley Jack	20	280	360	660	265	510	46	Each



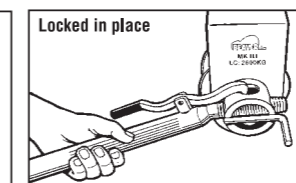
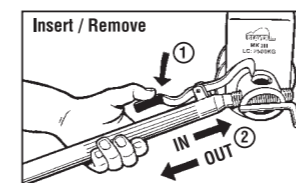
# GENERAL TRANSPORT ACCESSORIES



## Truckers Winch Bar

Winch bar comes complete with safety trigger and knurled non-slip handle for easy grip (all steel construction and chrome plated) for use with all Mark IV winches

Product Code	Description	Weight (kg)	UOM
343400S	Winch bar, chrome plated with safety retaining device	2.5	Each



**WARNING**

**Safety and Operating Instructions**

- Never release the winch bar Safety Retaining Device without checking that the ratchet pawl is fully engaged between the ratchet gear teeth.
- Releasing a winch bar without the ratchet pawl being fully engaged can cause serious injury to the user or bystanders.
- "Cheater Bars" (extenders) should not be used with winch bars.
- To prevent the winch bar from slipping out and overloading the tip and / or end cap, the tip of the winch bar shall be inserted through both opposing slotted holes on the winch drum end cap of the Beaver Mark III Truck Winches.

## Transport General

### Corner Protector

Product Code	Description	Pack Qty	Weight (kg)	UOM
340000	Corner Protector 140 x 140 x 1040mm	1	2	Each
340010	Corner Protector 85 x 85 x 300mm	10	0.022	Each



### EPM Rubber Tie Downs for tarps

Product Code	Strap Length (mm)	Max. Safe Stretch (mm)	Qty Per Bag	Weight Each (kg)	UOM	Bags Per Carton
340721	533	812	10	0.12	Each	10
340731	787	1168	5	0.16	Each	20



## Royal Truck Wheel Wrenches



Product Code	Description	Weight Each (kg)	UOM
TWB032	32mm x 17mm x 300mm	2.375	Each
TWB035	35mm x 17mm x 300mm	2.375	Each
TWB038	38mm x 21mm x 395mm	3.667	Each
TWB041	41mm x 21mm x 395mm	4.000	Each
TWB041A	41mm x 19mm x 395mm	3.833	Each
TWB114A	32mm x 27mm x 395mm	3.500	Each
TWB118	28mm x 33mm x 395mm	3.500	Each
TWB516	33mm x 21mm x 395mm	3.500	Each
TWB516A	33mm x 32mm x 395mm	3.500	Each
BARTWW040	400mm Wrench Bar Only	0.920	Each
BARTWW050	500mm Wrench Bar Only	1.917	Each



## Friction Mats

Product Code	Description	Thickness (mm)	Length (mm)	Width (mm)	Weight (kg)	UOM
350000	Friction Mat 1000 x 1000 x 8mm	8	1000	1000	5	Each



## Cargo Nets – 0.5 tonne to 2 tonne



Made from 100% polyester webbing, our nets are ideal to move cargo, smaller vehicles and for under helicopter use.

### Features

- Lifting eyes have pad protection
- Designed for marine, industrial and under-slung helicopter use
- Slotted construction for maximum length and durability
- High strength to weight ratio
- Certificates of Conformance available
- Complies with AS1353.1.



#### Standard Duty Lifting Nets\*

Code	SWL	Mesh Pitch	Web Size	Description	Dimensions
LN500-2	500kg	125mm	25mm	4 Lifting Eyes	2m
LN500-3	500kg	125mm	25mm	4 Lifting Eyes	3m
LN500-4	500kg	125mm	25mm	4 Lifting Eyes	4m

#### Heavy Duty Lifting Nets\*

Code	SWL	Mesh Pitch	Web Size	Description	Dimensions
LN2000-2	2000kg	253mm	50mm	4 Lifting Eyes	2m
LN2000-3	2000kg	253mm	50mm	4 Lifting Eyes	3m
LN2000-4	2000kg	253mm	50mm	4 Lifting Eyes	4m

\* Net dimensions are approximate only