

WINCHES & LIFTING GEAR

CHAIN HOISTS



Tralift Chain Hoists A hoist that's hand-operated and triple-spur geared, with an automatic brake with double pawls. All steel construction, with steel alloy chains, and high carbon hooks. Simple to install and use. Prices include both the lifting chain and hand chain. The hand chain is one metre shorter than the height of lift.

We also stock a 1t black unit with a 12 m lift. For hire details see page 358 and Chain Buckets see page 308.

Black! With a 12 m lift

Tralift Chain Hoists				code	list	price
model	WLL	lifting height	chain falls			
245319	1t	3 m	1	LIF245319	£161.12	£128.90
245499	1t	6 m	1	LIF245499	£207.76	£166.21
250129	1t	9 m	1	LIF250129	£256.52	£205.22
106399 black	1t	12 m	1	LIF106399	£311.64	£249.32
245339	2 t	3 m	2	LIF245339	£275.60	£220.48
245519	2 t	6 m	2	LIF245519	£315.88	£252.71
250369	2 t	9 m	2	LIF250369	£415.52	£332.42

TRADELINE

Buy 2+= less 20%

Other ratings and lifting heights are available. Please ask for details.

TIRFORS®



Tirfor® machines are portable manual hoists used with Maxiflex wire rope. They can be used to lift, pull, and position loads over great distances determined by the wire rope length. They are the ideal solution for precise location of heavy loads or the setting up of tension wires.

✓ No limitation in terms of wire length ✓ Manageable, lightweight, robust, powerful ✓ Increase load capacity with deflection sheaves ✓ Overload protection ✓ Precise load placement within millimetres. The wires are supplied separately and are fitted with a safety hook on one end. Flints can supply all Tirfor® equipment, please phone our Rigging Manager.

Tirfor®				code	Tradeline
Model	WLL	wire rope Ø	weight		
Tirfor® 508D	800 kg	8.3 mm	6.6 kg	WIRT508D	£384.47

Maxiflex Wire Ropes				code	price
	length				
To suit Tirfor® 508D	10 m		WIRT50010	£78.44	
	15 m		WIRT50015	£101.76	
	20 m		WIRT50020	£125.08	
	30 m		WIRT50030	£170.66	
	40 m		WIRT50040	£214.12	

LEVER HOISTS

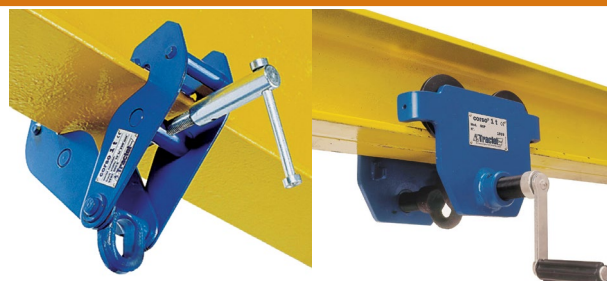


Bravo™ Lever Hoists Ideal for lifting, pulling, positioning, and adjusting heavy weights. Available in sizes from 250 kg up to 6,000 kg. Please phone for details of the larger sizes.

- ✓ Robust design
- ✓ Adjustable lift
- ✓ Can be used in any position
- ✓ Rotates around 360° on swivel hooks
- hooks with overload indicators
- ✓ Automatic brake with double pawls
- ✓ Self-lubricating chain to EN 818
- ✓ Standard lifting heights can be increased to 6 m as an option

Bravo Lever Hoists				code	list	price
model	WLL	lifting height	chain falls/type			
35919	250 kg	1.5 m	1 [4 x 12]	LIF35919	£82.68	£66.15
245649	500 kg	1.5 m	1 [5 x 15]	LIF245649	£132.50	£106.00
245659	750 kg	1.5 m	1 [6 x 18]	LIF245659	£152.64	£122.12
245679	1,500 kg	1.5 m	1 [7 x 21]	LIF245679	£228.96	£183.17

BEAM CLAMPS AND PUSH TROLLEYS



Beam Clamps and Push Trolleys Beam clamps are ideal for securing chain hoists to a wide range of beams [other sizes available, please phone for details]. Push trolleys are fitted with steel wheels with bearings. Longer traverse bars are available to fit wider beams.

Beam Clamps and Push Trolleys				code	list	price
type	model	WLL	weight beam widths			
Clamp	LT-1B	1,000 kg	4.8 kg 75 - 235 mm	LIFLT1B	£86.92	£69.54
Clamp	LT-2B	2,000 kg	5.6 kg 75 - 230 mm	LIFLT2B	£113.42	£90.74
Trolley	500	500 kg	8.5 kg 50 - 220 mm	LIF23309	£103.88	£83.11
Trolley	1000	1,000 kg	10.5 kg 58 - 220 mm	LIF23319	£132.50	£106.00
Trolley	2000	2,000 kg	18 kg 66 - 220 mm	LIF23329	£165.36	£132.29

Choosing a hand winch

Hand winches are economical to purchase and very reliable. Some of the winches that we list in this catalogue are quiet in operation but others will make a slight clicking noise. Apart from the truck winches [featured on page 140, and the Line Driver which is not self-sustaining in the "Down" mode] they are all self-sustaining so if the handle slips from your hand they will hold the load. When choosing a winch try to choose one with plenty of spare capacity. As a rule of thumb, the working load should be reduced by 10% for each extra layer of rope on the drum so if you are lifting weights near the winch load capacity try to keep the wire to a single layer. There should always remain three full turns of wire on the drum in its maximum out dead [see also "Attaching wire to a plain drum winch" on page 143]. Please be aware that the speed of hand winches may make them an unsuitable choice for items which need to move in front of an audience – or to put it another way – they can be very slow.

SMALL HAND WINCHES AND LINE DRIVERS



HA-AG45 Hand Winch [45 kg]

A small winch designed for raising blinds, shutters and small chandeliers [see also Line Driver]. It is a die cast construction with corrosion resistant internal parts and a powder coated paint finish. Suitable for wall mounting. The baseplate dimensions are 142 x 103 mm. The distance out from the wall to the end of the crank handle is 170 mm. This winch

is designed for light operations, is not supplied with test certification and is not recommended for industrial applications. It makes a fairly loud clicking noise during the hoist which might be covered in a rock musical but sadly wouldn't be acceptable in an opera house.

HA-AG Hand Winch 45 kg

Working Load Limit [1st layer]	45 kg	Wire rope size	2 mm
Total Wire Capacity	12 m	Lift per crank	96 mm
Effort on crank	8 kg	Weight	1 kg

A full data sheet with dimensioned technical drawings can be downloaded from flints.co.uk

HA-AG Hand Winch 45 kg

code	Tradeline
LIF0241000	£93.30



SG Hand Winch [125 kg] This small aluminium spur gear hand winch is suited for scenic applications such as raising shutters or small drawbridges. Also handy for stowing light but bulky items in roof voids. They are silent in operation and have a self-locking spring operated load pressure brake. The handle is removable. Size 130 x 130 x 116 mm out [270 mm with the handle in place]. Other sizes are available, please phone our Rigging Manager for more details.

SG Hand Winch 125 kg

Working Load Limit [1st layer]	125 kg	[last layer]	125 kg
Wire rope size	3 mm	Capacity 1st layer	2 m
Total Capacity	20 m	Lift per crank	135 mm
Effort on crank	12 kg	Weight	3 kg

A full data sheet with dimensioned technical drawings can be downloaded from flints.co.uk

SG Hand Winch 125 kg

code	Tradeline
LIF0271008	£333.00



Line Driver This neat and very well designed unit will drive 10 mm braided ropes in either direction. It can be used to raise and lower shutters and heavy blinds. Its smart appearance and compact size allow it to be used in public environments such as auditoriums and schools. This winch does make a soft clicking noise when being used. Constructed of black anodized aluminium and 316-grade stainless steel. Tip: Please ensure the top fixing bolt does not expose any sharp threads to the rope. This winch is not self-sustaining when moved to the "Down" mode. Suitable for light loads only. 8:1 ratio. Length: 128 mm. Width: 90 mm. Height: 58 mm. Fixings: 3 off 8 mm Ø.

Line Driver

code	list	Tradeline
Driver	PUL240010	£429.90
Winch handle 250 mm Aluminium	PUL2021	£58.64



GO-CS Hand Winches [100 kg or 200 kg]

A range of worm geared small winches which can be base- or wall-mounted. Ideal for short movement strokes such as ramps and draw bridges.

Compact, self-sustaining and quiet in operation with no brake ratchets. Meets the requirements of BS EN 13157.

Both winches are 109 mm high x 91 mm wide x 100 mm out [251 mm with shaft and handle in place]. Weight: 1.8 kg.

GO-CS Hand Winches

	GOCS100	GOCS200
Working Load Limit [1st layer]	100 kg	200 kg
Working Load Limit [Last layer]	80 kg	100 kg
Wire rope size	3 mm	3 or 4 mm
Total Wire Capacity	9 m	4 or 2 m
Lift per crank	13 mm	7 mm
Effort on crank	6 kg	6 kg
Min load for brake to function	10 kg	10 kg

A full data sheet with dimensioned technical drawings can be downloaded from flints.co.uk

GO-CS Hand Winches

WLL	code	Tradeline
GOCS100	LIFGOCS100	£58.80
GOCS200	LIFGOCS200	£63.00

A version that uses 20 mm wide webbing is also available. Please phone our Rigging Manager for more details.

Don't forget that most orders over a value of £50 get economy delivery free of charge! Most orders over a value of £325.00 go carriage free with next day delivery!

Can't find what you want?

There is almost certainly a winch available to suit your needs, we just don't have the space to list them all here. Flints can supply Loadstars, Tiraks, Pilewinds, capstans and multiple-wire grooved drums. If we can't supply what you need we can probably advise on a company that can. Why not tap into our knowledge and give us a ring?

MEDIUM TO HEAVY-DUTY WINCHES



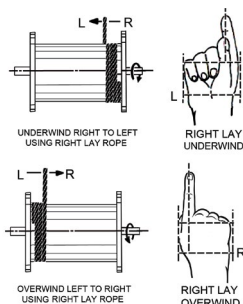
K-WB Hand Winches [250 kg - 750 kg] A worm gear winch of cast iron construction with the gears enclosed in an oil bath for smooth operation. It will make a clicking noise when hauling but is silent lowering. Features a self-locking friction type brake, hardened worm shaft, and adjustable crank radius. A good choice for flying bars which need occasional access for maintenance but it is normally too slow for use during performance. For transport reasons these winches are supplied dry. You will need SAE80 oil to fill the oil bath. Also available with grooved or multi-compartment drums, please phone our Rigging Manager for more details. Complies with BS EN 13157.

K-WB Hand Winches	250 kg	500 kg	750 kg
Lifting capacity [1st layer]	250 kg	500 kg	750 kg
Lifting capacity [final layer]	210 kg	425 kg	624 kg
Rope diameter	5 mm	6 mm	8 mm
1st layer rope capacity	4.8 m	7.9 m	9.2 m
Total capacity	11.3 m	29.1 m	49 m
Number of layers	2	3	4
Ratio	16:1	16:1	25:1
Lift per crank turn	20 mm	26 mm	20 mm
Effort on crank	9.2 kg	14.5 kg	16 kg
Weight	12.5 kg	21 kg	42 kg

K-WB Hand Winches	code	Tradeline
250 kg	LIF02422004	£370.00
500 kg	LIF0243000	£550.00
750 kg	LIF0244007	£830.00

Attaching wire to a plain drum winch

Most wire ropes [all the ropes we sell] are right-hand lay. The rope certificate may just use the abbreviation RHRL [right-hand regular lay]. If the RHRL wire is to be fed down the back of the drum [under wind] then it should be attached on the right-hand side so it works across towards the left hand side. If the RHRL wire needs to be fed down the front of the drum then it should be attached on the left-hand side and feeds towards the right. Always ensure that at least three full turns of wire remain on the drum at all times.



SWIVEL CLEWS



Swivel Clews are used to convert one wire from a winch or cradle to several drops for hauling bars. Swivel clews can occasionally tend to twist under load despite the swivel fitting. Flints is able to arrange for guide tubes or track runners to be fitted to the clew to help prevent this. Please ask for details. Spot the "deliberate" mistake in the picture*. See also Delta Rings on page 170.

*Refer to page 154 regarding "dead horses"

Swivel	price	code	Clews	price	code
type		500 kg			1,000 kg
Three-Way Swivel	LIFT41300	£48.11	LIFT41600	£52.49	
Four-Way Swivel	LIFT41400	£50.17	LIFT41700	£55.14	
Five-Way Swivel	LIFT41500	£52.40	LIFT41800	£58.07	

A Note on Newtons

Technically a newton is the SI unit of force [symbol: N]. It is defined as the amount of force required to accelerate a mass of one kilogram at a rate of one metre per second squared. The newton is also the unit of weight. A mass of one kilogram near the earth's surface has a weight of approximately 9.81 newtons. One newton has the mass of a small apple! Throughout this catalogue reference is made to "kN" or kiloNewtons. To convert kN to kgf [kilogram-force] firstly multiply by 1,000 to get newtons then divide by 9.81. Therefore a sling tested to 25 kN could be converted to kgf by the following method: 25 x 1,000 = 25,000. Then divide by 9.81 = 2,548 kgf.

LOAD CELLS



Dynafor® LLZ-2 Digital Weigher [2 t] This is an extremely well-priced unit capable of checking loads and tensile forces up to 2 t. The meter is compact and strong, rated to IP65 and usable from -10°C to +40°C. It has a high overload coefficient of 2:1 with an overload indicator. It will display in mass or force. The smallest load increment is 5 kg.

Operating battery life: 850 hrs. [3 batteries LR6] Accuracy: +/- 0.8%. On/Off plus taring across the whole load range. Display in kg or N. Weight: 1.3 kg.

☐ Supplied in cardboard carton box with calibration certificate.

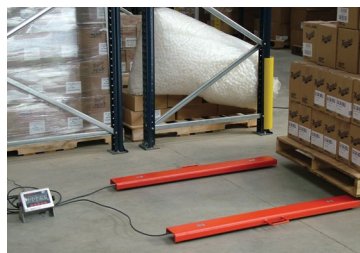
Why not invest in a Festool storage box [page 307] to look after your meter?



HIRE Our hire unit is model LLX 2.5 and is supplied with a copy of the current calibration certificate. See page 358 for hire details.

LLZ-2 Digital Weigher	code	list	Tradeline
Capacity 2 t	LIF29758	£1,036.68	£933.02
Suitable shackle [Crosby] 3.25 t	CRO21307		£13.20
Suitable shackle [Green Pin] 3.25 t	WIR2097GP		£8.06
Festool storage box 396 x 296 x 105 mm	FES497563	£45.40	£40.86

WEIGHING BEAMS



Load Beams It is now a prerequisite to mark the weight of scenery before it is flown. These beam scales are ideal for weighing large pieces of scenery up to 2 t. The beams are 1.2 m long and supplied with 4 m long cables to a remote digital indicator unit. Free UK mainland delivery. For hire details go to page 358.

Load Beams	code	price
	WB2000KG	£649.00

See the Lifting Engineers Handbook on page 353.