

# 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 Chain Buckets see page 351. Other ratings and lifting heights are available. Please ask for details.



## 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 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



## TRADELINE

Buy 2+ = less 25% off list

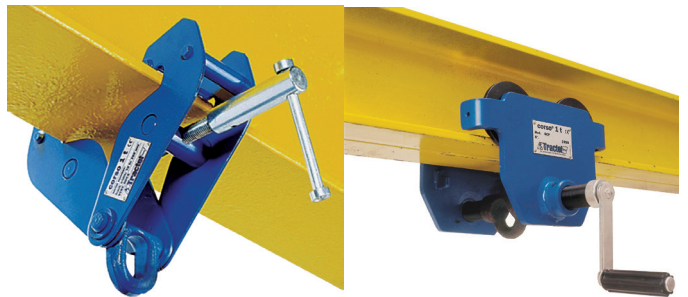
code	Model	WLL	lifting height	chain falls	price
LIF272999	272999	1t	3m	1	£115.34
LIF273269	273269	1t	6m	1	£140.30
LIF280629	280629	1t	9m	1	£184.66
LIF106399	106399	1t	12m	1	£230.69
LIF245339	245339	2t	3m	2	£164.69
LIF245519	245519	2t	6m	2	£238.45
LIF250369	250369	2t	9m	2	£296.67

code	Model	chain type	WLL	lifting height	chain falls	price
LIF35919	35919	4 x 12	250kg	1.5m	1	£83.86
LIF245649	245649	5 x 15	500kg	1.5m	1	£117.56
LIF245659	245659	6 x 18	750kg	1.5m	1	£163.99
LIF245679	245679	7 x 21	1500kg	1.5m	1	£211.16

## 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.



## TIRFORS®

### Tirfor®

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.



code	description	WLL	wire rope ø	list price	Tradeline
WIRT508D	Tirfor® 508D	800kg	8.3mm	£643.80	£598.64
Wires to suit Tirfor 508D		length	price		
WIRT50010		10m	£161.20		
WIRT50015		15m	£197.60		
WIRT50020		20m	£250.64		
WIRT50030		30m	£326.56		
WIRT50040		40m	£410.80		

code	Model	Type	min beam width	max beam width	WLL	price
LIFLT1B	LT-1B	Clamp	75mm	230mm	1000kg	£80.87
LIFLT2B	LT-2B	Clamp	75mm	230mm	2000kg	£94.35
LIF23309	500	Trolley	50mm	220mm	500kg	£103.33
LIF23319	1000	Trolley	58mm	220mm	1000kg	£130.29
LIF23329	2000	Trolley	66mm	220mm	2000kg	£199.93

## 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 179, 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 181]. 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

#### 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.

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



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

code

LIF0271008

price

£219.00

#### 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.

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

A version that uses 20 mm wide webbing is also available.

Please phone our Rigging Manager for more details.



	GOCS100	GOCS300
Working Load Limit [1st layer]	100kg	200kg
Working Load Limit [last layer]	80kg	100kg
Wire rope size	3mm	3 or 4mm
Total wire capacity	9m	4 or 2m
Lift per crank	13mm	7mm
Effort per crank	6kg	6kg
Min load for brake to function	10kg	10kg

code

LIFGOCS100

description

GOCS100

WLL

100kg

price

£91.98

LIFGOCS200

GOCS200

200kg

£99.98

### 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 multicompartment drums, please phone our Rigging Manager for more details. Complies with BS EN 13157.



	LIF02422004	LIF0243000	LIF0244007
Lifting capacity [1st layer]	250kg	500kg	750kg
Lifting capacity [final layer]	210kg	425kg	624kg
Rope diameter	5mm	6mm	8mm
1st layer rope capacity	4.8m	7.9m	9.2m
Total capacity	11.3m	29.1m	49m
Number of layers	2	3	4
Ratio	16:1	16:1	25:1
Lift per crank turn	20mm	26mm	20mm
Effort on crank	9.2kg	14.5kg	16kg
Weight	12.5kg	21kg	42kg

code

LIF02422004

lifting capacity

250kg

price

£620.19

LIF0243000

500kg

£969.21

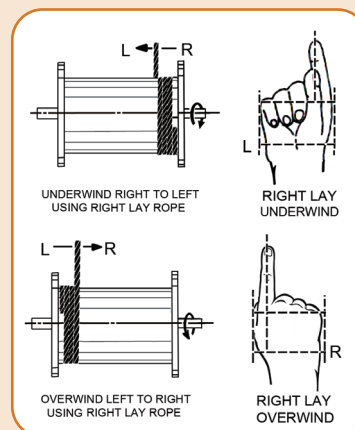
LIF0244007

750kg

£1,414.89

### 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.



### 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?

# WINCHES & LIFTING GEAR / ROUND & SEWN SLINGS

## 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 211. \*Refer to page 194 regarding "dead horses"



code	Type	SWL	price
LIFT41300	Three-Way Swivel	500kg	£68.66
LIFT41400	Four-Way Swivel	500kg	£71.60
LIFT41500	Five-Way Swivel	500kg	£74.60
LIFT41600	Three-Way Swivel	1000kg	£74.60
LIFT41700	Four-Way Swivel	1000kg	£78.69

## 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.

## 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 404.

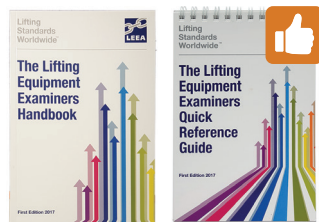


code	price
WB2000KG	£687.95

## LIFTING ENGINEER'S HANDBOOK

### The Lifting Engineer's Handbook & Quick Reference Guide

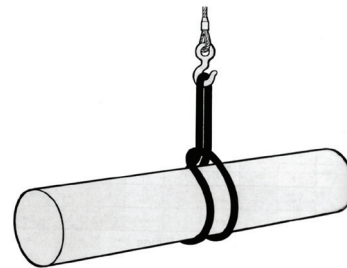
[LEEA] A pocket reference and working tool for competent engineers or riggers to carry around for immediate use when required. Covers technical data and legislation concerning lifting equipment. Updated Version for 2017. Also available is the Lifting Equipment Examiners Quick Reference Guide. A pocket sized flip book designed for use on site. Barry thinks it is brilliant!



code	description	price
BKSLEHN	Handbook	£15.00
BKSLEEQRG	Quick Reference Guide	£7.50

## ROUND & SEWN SLINGS

### ROUND SLINGS



ROUND SLING CHART	straight pull	choke hitch	basket hitch	
			parallel	90°
Violet	1t	0.8t	2t	1.4t
Green	2t	1.6t	4t	2.8t
Yellow	3t	2.4t	6t	4.2t

### SAFETY

Working Load Limits

### Round Slings

Also known as Strops and Span Sets They consist of a continuous loop of polyester yarn encased in a double thickness polyester fabric sleeve. This easy to use lifting sling is extremely lightweight and versatile. Higher ratings and longer circumferences are also available. Only to be used for temporary installations. Very competitively priced. Never use a sling with damaged stitching or with a tear in the cover which exposes the core. NB: We sell the slings by their Effective Working Length [EWL] which is half the circumference.



EWL	circum.	violet	1t price	green	2t price	yellow	3t price
500mm	1m	SAF609	£3.92	SAF610	£5.24	SAF611	£6.13
1m	2m	SAF612	£5.01	SAF622	£6.29	SAF632	£8.35
1.5m	3m	SAF613	£6.64	SAF623	£8.19	SAF633	£11.49
2m	4m	SAF614	£7.88	SAF624	£10.63	SAF634	£14.65
2.5m	5m	SAF615	£8.98	SAF625	£12.58	SAF635	£17.70
3m	6m	SAF616	£10.54	SAF626	£14.62	SAF636	£20.98
4m	8m	SAF617	£13.09	SAF628	£18.99	SAF637	£24.10

### Black Theatre Slings

The sizes below are supplied in theatre black for inconspicuous rigs. Be sure to carefully read the label attached to each sling to determine the correct loading. NB: We sell the slings by their Effective Working Length [EWL] which is half the circumference.



EWL	circum.	code	1t price	code	2t price
500mm	1m	SAF609B	£3.68	SAF610B	£5.75
1m	2m	SAF612B	£5.79	SAF622B	£6.71
2m	4m	SAF614B	£9.15	SAF624B	£10.40
3m	6m	SAF616B	£11.36	SAF626B	£14.35
4m	8m	SAF617B	£14.65	SAF628B	£17.62