

Ko



LOADS better

VEHICLE MOUNTED LIFTING EQUIPMENT

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PH Cranes

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HSE safety statistics... point to the benefits of lifting equipment.

The latest statistics from the HSE expose yet again the need to avoid manual handling and give more credence to calls for wider use of vehicle mounted cranes and other load handling devices. The figures show that across all industries 31% of all fatal, serious and over-three-day injuries during the last reporting year were related to manual handling. This represents 37,000 people whose lives have been directly affected.

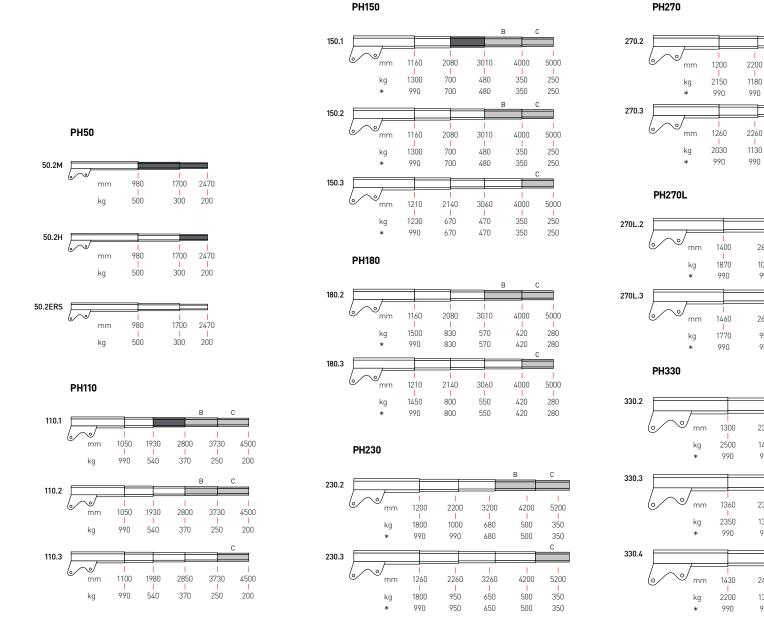
In the motor transport sector the story is even worse, with 38% of all reportable injuries related to manual handling. So while handling related injuries are significant in all industries the road transport sector has even more work to do to improve its safety record. The simplest and most effective way to reduce the risk of this type of injury is to eliminate the need for manual handling by changing the processes involved and providing employees with suitable load handling equipment.

In the road transport industry a further 35% of all reportable injuries were caused by slips, trips and falls from height. This includes falls from delivery and service vehicles. Incidents like this can be avoided by removing the need to approach or climb on a vehicle. Provision of appropriate load handling equipment is one possible solution.

While there may be a temptation to think that injuries are not going to happen there is another way of looking at the HSE figures: an accident or injury caused by manual handling or a slip, trip or fall is much more likely than one caused by fire or electric shock which have historically been taken far more seriously.

Often the simplest way to reduce the risk of an accident and resulting injury is to remove the potential cause. Providing employees with a crane on their vehicles is a good place to start. Manufacturers such as Penny Hydraulics continue to play their part by adding new features that promote safety and make it easier for operators to specify and install their products.

PH Range

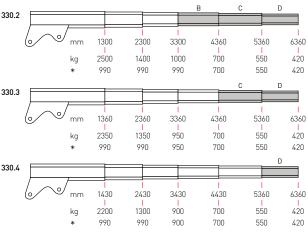


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Hydraulic extension

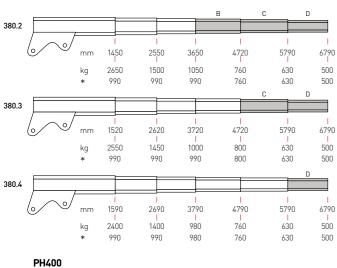
Standard manual extension

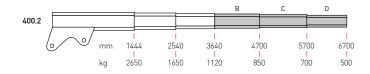
Optional manual extension

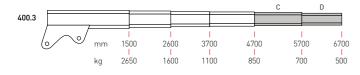
B/C/D

* "D" version



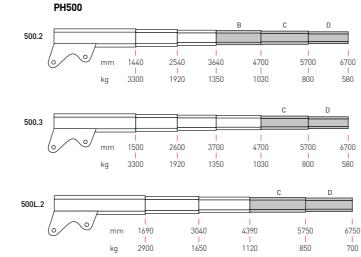


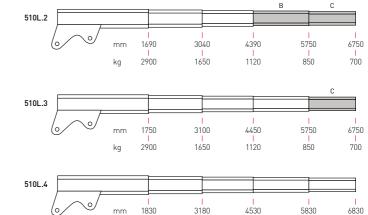










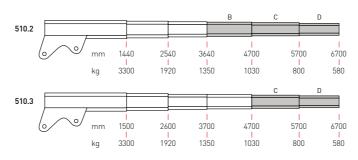


kg

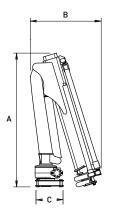
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PH510L



SPECIFICATIONS

					Slewing angle	Basic weight	Weight inc. base		Vei	rsions	
Model	A mm	Bmm	Cmm	kNm	0	kg	kg	D	LLC	LME04	SCU
PH50	1060	510	310	5	330	60-95	-	-	-	-	-
PH110	1210	665	315	10	330	105-175	180-250	-	-	-	-
PH150	1320	690	310	14	330	165-205	240-280	•	•	-	-
PH180	1320	690	310	17	330	180-210	285-315	•	•	•	-
PH230	1420	790	310	22	360	225-275	330-380	•	•	•	•
PH270	1420	790	310	25	360	225-275	330-380	•	•	•	•
PH270L	1510	1130	310	25	360	235-290	340-395	•	٠	•	•
PH330	1550	820	370	32	360	270-345	405-480	0	٠	•	•
PH380	1630	870	370	37	360	310-395	470-555	0	•	•	•
PH400	1830	1280	450	42	360	460-500	-	-	-	•	-
PH400L	1790	1450	450	42	360	490-540	-	-	-	•	-
PH500	1830	1280	450	48	360	470-510	-	-	-	•	-
PH500L	1790	1450	450	48	360	500-550	-	-	-	•	-
PH510	1830	1380	545	48	330	465-500	-	-	_	•	-
PH510L	1790	1510	545	48	330	485-565	-	-	-	•	-

Versions: D = de-rated / LLC = load limiting cell / LM = load limiting device / SC = load limiting device with stability control • = standard / o = optional / - = not applicable

Penny Hydraulics

PH cranes. Safety for the future.

All PH cranes now incorporate full hydraulic control for even the lightest units. Hydraulic control prevents the need to access the bed of the vehicle and helps ensure smooth and precise load handling with reduced risk of the sudden and unexpected movements that can cause accidents to users and bystanders. These features are now widely available on cranes with maximum working loads from just 200kg upwards. The use of proportional controls, another recent innovation on smaller cranes, helps to ensure precise and controlled movements which promotes even greater safety.

Remote controls are also becoming more popular. These are especially useful from a safety point of view because they reduce the need for operators to stand in close proximity of the load thereby increasing operator safety. Two types of control are generally available. The first is attached to the crane by a length of cable known as a wander lead while the second is a wireless device that provides the user with complete autonomy, enabling them to stand in any position with the best all-round view of the working area.

Another trend in crane design is to remove weight without compromising on performance and safety. Penny Hydraulics uses its in-house advanced CAD and finite element analysis tools to re-engineer its range to reduce weight through optimised design and use of alternative materials which replace some steel components with lighter alloys. Operators can now install one of these devices with reduced impact on the overall vehicle weight to leave more carrying capacity for improved operational flexibility and productivity. Although this helps with all types of vehicle it is especially useful for those in the 3.5t and 7.5t classes where remaining within the overall weight and carrying capacity limits are always of concern to operators.

PH cranes are manufactured from the latest high quality steels, including Domex and Weldox. This means that the crane structures are high strength and durable yet lightweight, helping to reduce emissions, maximise fuel economy and maximise payload.

PH50

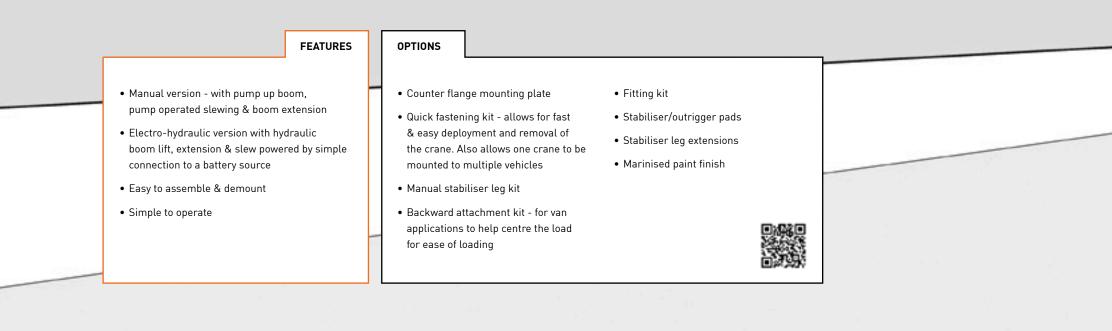


Quick fastening kit



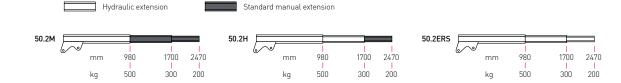
3 function proportional control

A small, lightweight, compact crane with a wide range of variations to suit most applications including pick-ups, vans, ATVs and trailers.





PH50 Weights & measurements All dimensions in millimetres; all weights to the nearest kilogram; E & OE

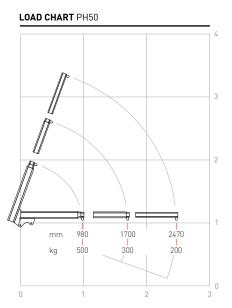


CRANE WEIGHTS	kg (without winch)	kg (with winch)
PH50.2M PLH	74	85
PH50.2H PLH	83	94
PH50.2H ELH	81	92
PH50.2M ERH	78	89
PH50.2H ERH	85	96
PH50.2 ERS	91	-

TECHNICAL DATA		
Lifting capacity	5kNm	
Max. lifting height from crane base	3400mm	
Max. working slope	4°	
Max. working pressure	170bar	
Electro-hydraulic power unit supply voltage	12V/24V	
Max. absorption electro-hydraulic power unit	100A/50A	
Hydraulic oil tank capacity	1.6l	
Max. absorption electrical winch	30A	
ACCESSORIES WEIGHTS	kg	
Stabiliser kit	20	
Counter flange	6	
Quick fitting kit	20	

Back load attachment kit

1.7



LOAD CHART PH50 (with optional winch)

mm 1140 1830 2630

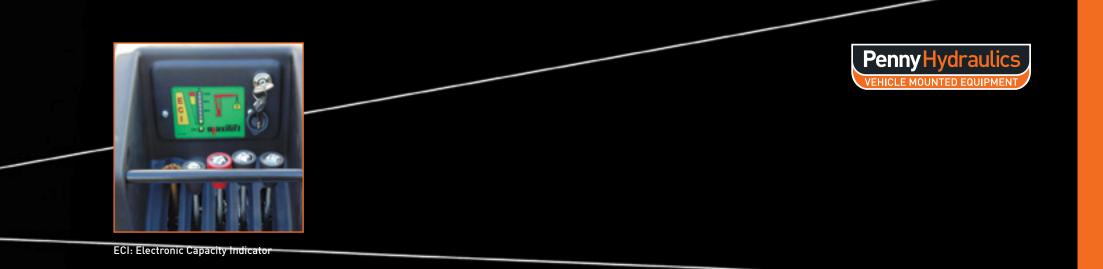
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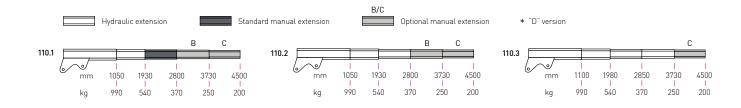




An extremely compact crane with a very low self-weight, from only 105kg. This robust little crane only stands 1.2 metres tall but has a maximum outreach of up to 4.5 metres.

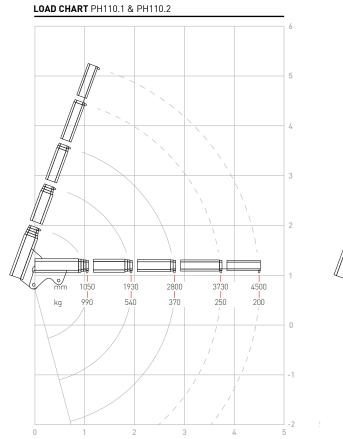
	FEATURES	OPTIONS	
 Standard outreach from 2.80 to 3.73m ECI - Electronic Capacity Indicator 330° slewing rotation 3 function valve bank (4th function for optional winch available on request) Motor pump kit with 5 lt. oil tank for electro-hydraulic versions 12/24V (along with battery connection cables) 	 15 lt. oil tank for H (PTO - Power Take Off) version Fitting kit inc. tie bolts set, nuts & lock nuts, spare grease cartridge for slewing worm gear 	 Manual extension to 4.5m Quick fastening kit with mechanical stabiliser Crane base with hydraulic or mechanical stabilisers (fixed or tilting) Slew limit kit Boom in transit warning kit Micro-switch kit to confirm leg stowage 	 3 function proportional remote control (by cable or radio) 300kg electric winch (for 1 & 2 extension versions only) Stabiliser/outrigger pads Stabiliser leg extensions Marinised paint finish Flashing light kit for remote control

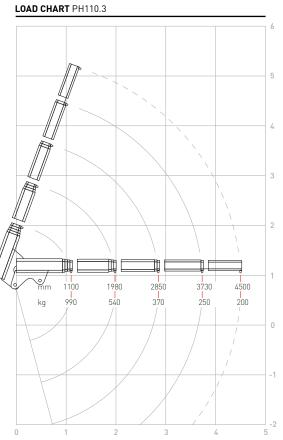
PH110 Weights & measurements All dimensions in millimetres; all weights to the nearest kilogram; E & OE



CRANE WEIGHTS	kg
PH110.1	105-125
PH110.2	125-145
PH110.3	155-175
Base weight with quick fitting kit & 1 mechanical stabiliser	40
Base weight with 2 extendable stabilisers	64-88

TECHNICAL DATA	PH110.1	PH110.2	PH110.3
Lifting capacity	10kNm	10kNm	10kNm
Max. lifting height from crane base	3400mm	3400mm	4400mm
Max. working slope	5°	5°	5°
Max. working pressure	200bar	200bar	200bar
Suggested oil flow	4-6l per min.	4-6l per min.	4-6l per min.
Electro-hydraulic power unit supply voltage	12V/24V	12V/24V	12V/24V
Max. absorption electro-hydraulic power unit (12V)	160A	160A	160A
Max. absorption electro-hydraulic power unit (24V)	75A	75A	75A
Hydraulic oil tank capacity (H version)	15l	15l	15l
Hydraulic oil tank capacity (electric version)	51	51	51





PH150





PH150 in stowed position

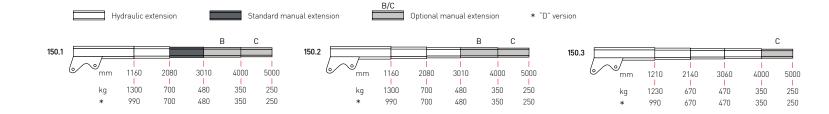
4 function proportional control

A lightweight crane from 165kg that can be supplied with ECI, optional LLC or LME04 to comply with current legislation.

	FEATURES	OPTIONS	
 Standard outreach from 3 to 4m ECI - Electronic Capacity Indicator 330° slewing rotation 4 function valve bank Motor pump kit with 11 lt. oil tank for electro-hydraulic versions 12/24V (along with battery connection cables) 	 15 lt. oil tank for H (PTO - Power Take Off) version Fitting kit inc. tie bolts set, nuts & lock nuts, spare grease cartridge for slewing worm gear 	 Manual extension to 5m Crane base with 1 hydraulic and 1 mechanical stabiliser (fixed or tilting) Crane base with 2 hydraulic stabilisers (fixed or tilting) "D" rated or LLC control system Slew limit kit Boom in transit warning kit 	 Micro-switch kit to confirm leg stowage 3 - 4 function proportional remote control (by cable or radio) 500kg hydraulic winch Stabiliser/outrigger pads Stabiliser leg extensions Marinised paint finish Flashing light kit for remote control

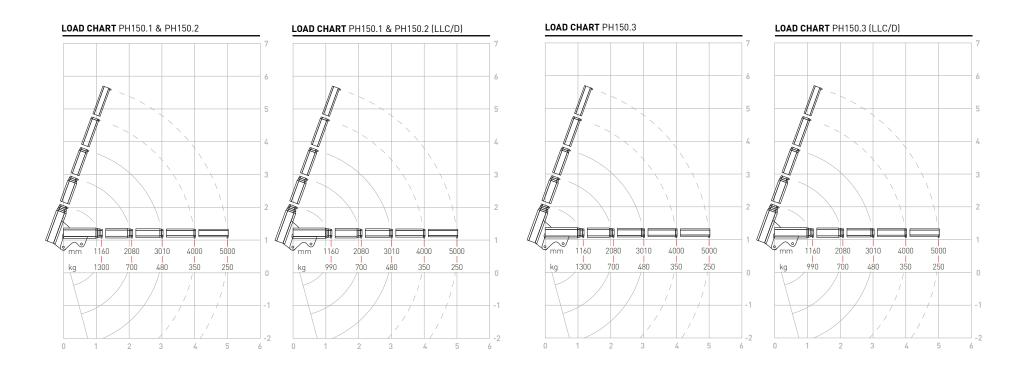


PH150 Weights & measurements All dimensions in millimetres; all weights to the nearest kilogram; E & 0E



CRANE WEIGHTS	kg
PH150.1	165-185
PH150.2	175-195
PH150.3	185-205
Base with extendable stabilisers	64-88
Beam with 2 extendable stabilisers	58-62

TECHNICAL DATA	PH150.1	PH150.2	PH150.3
Lifting capacity	14kNm	14kNm	14kNm
Max. lifting height from crane base	4000mm	4000mm	5000mm
Max. working slope	5°	5°	5°
Max. working pressure	210bar	210bar	210bar
Suggested oil flow	6-8l per min.	6-8l per min.	6-8l per min.
Electro-hydraulic power unit supply voltage	12V/24V	12V/24V	12V/24V
Max. absorption electro-hydraulic power unit (12V)	170A	170A	170A
Max. absorption electro-hydraulic power unit (24V)	85A	85A	85A
Hydraulic oil tank capacity (H version)	15l	15l	15l
Hydraulic oil tank capacity (electric version)	111	111	111



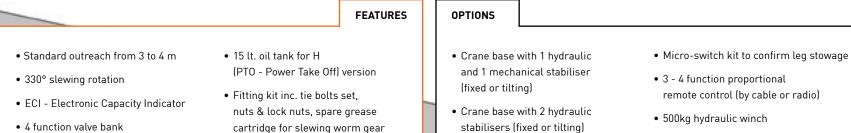






4 function proportional control

The PH180 weighs in at only 180kg and can be supplied with ECI, optional LLC or LME04 and SCU to suit the user's requirements.



- Stabiliser/outrigger pads
- Marinised paint finish
- Flashing light kit for remote control

- Motor pump kit with 11 lt. oil tank for electro-hydraulic versions 12/24V (along with battery connection cables)

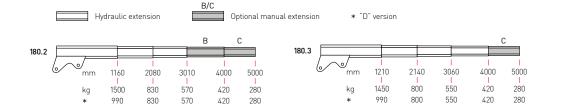
- stabilisers (fixed or tilting)
- "D" rated, LLC or LME04 & SCU monitoring devices
- Slew limit kit
- Boom in transit warning kit

- - remote control (by cable or radio)
- Stabiliser leg extensions



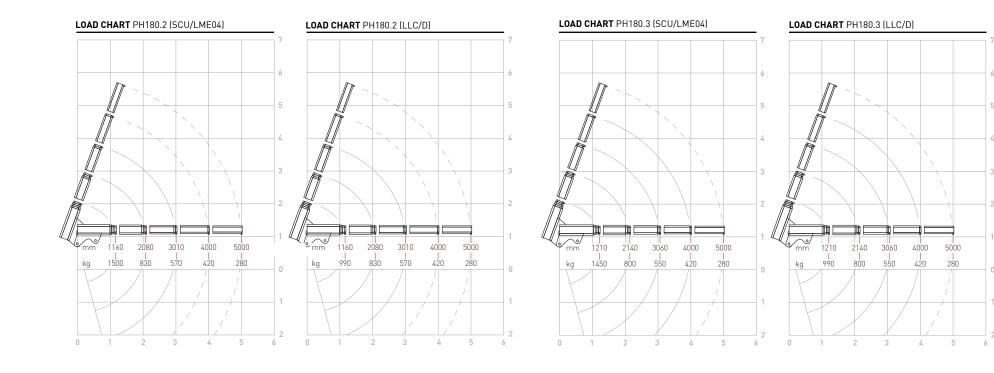
Weights & measurements All dimensions in millimetres; all weights to the nearest kilogram; E & OE

PH180



CRANE WEIGHTS	kg
PH180.2	180-200
PH180.3	190-210
Base with extendable stabilisers	102-109
Beam with 2 extendable stabilisers	69-83

TECHNICAL DATA	PH180.2	PH180.3
Lifting capacity	17kNm	17kNm
Max. lifting height from crane base	4000mm	5000mm
Max. working slope	5°	5°
Max. working pressure	210bar	210bar
Suggested oil flow	6-8l per min.	6-8l per min.
Electro-hydraulic power unit supply voltage	12V/24V	12V/24V
Max. absorption electro-hydraulic power unit (12V)	170A	170A
Max. absorption electro-hydraulic power unit (24V)	85A	85A
Hydraulic oil tank capacity (H version)	151	15l
Hydraulic oil tank capacity (electric version)	111	111



PH230

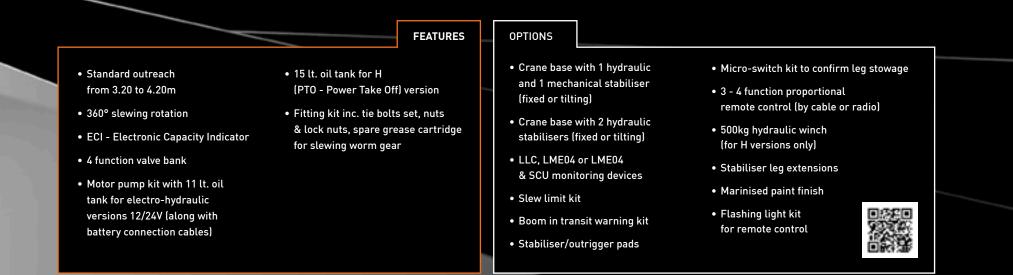




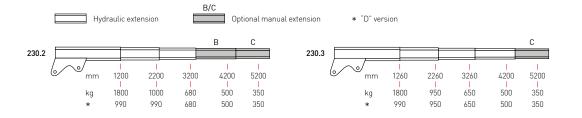


Dumpy bag grab

The PH230 is the lightweight crane that packs a heavyweight punch, with a self-weight from only 225kg and optional boom outreach of 5.2 metres.

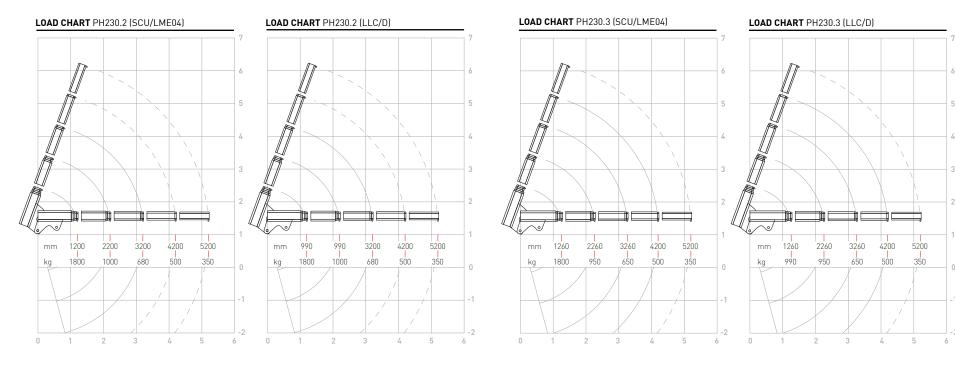


PH230 Weights & measurements All dimensions in millimetres; all weights to the nearest kilogram; E & OE



CRANE WEIGHTS	kg
PH230.2	225-245
PH230.3	255-275
Base with extendable stabilisers	102-109
Beam with 2 extendable stabilisers	69-83

TECHNICAL DATA	PH230.2	PH230.3
Lifting capacity	22kNm	22kNm
Max. lifting height from crane base	4300mm	5200mm
Max. working slope	5°	5°
Max. working pressure	200bar	200bar
Suggested oil flow	8-10l per min.	8-10l per min.
Electro-hydraulic power unit supply voltage	12V/24V	12V/24V
Max. absorption electro-hydraulic power unit (12V)	230A	230A
Max. absorption electro-hydraulic power unit (24V)	120A	120A
Hydraulic oil tank capacity (H version)	15l	15l
Hydraulic oil tank capacity (electric version)	111	111

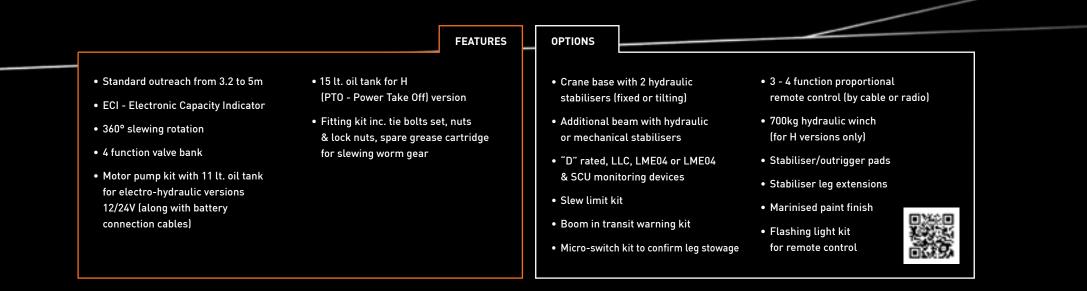


PH270/270L



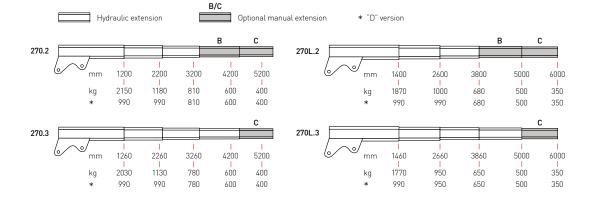
PH270 in stowed position

PH270 has a remarkably low self-weight from only 225kg and fully rated can lift in excess of 2000kg. The 270L.3 has a boom outreach of 6 metres making this a top choice for 3.5t+ vehicles.



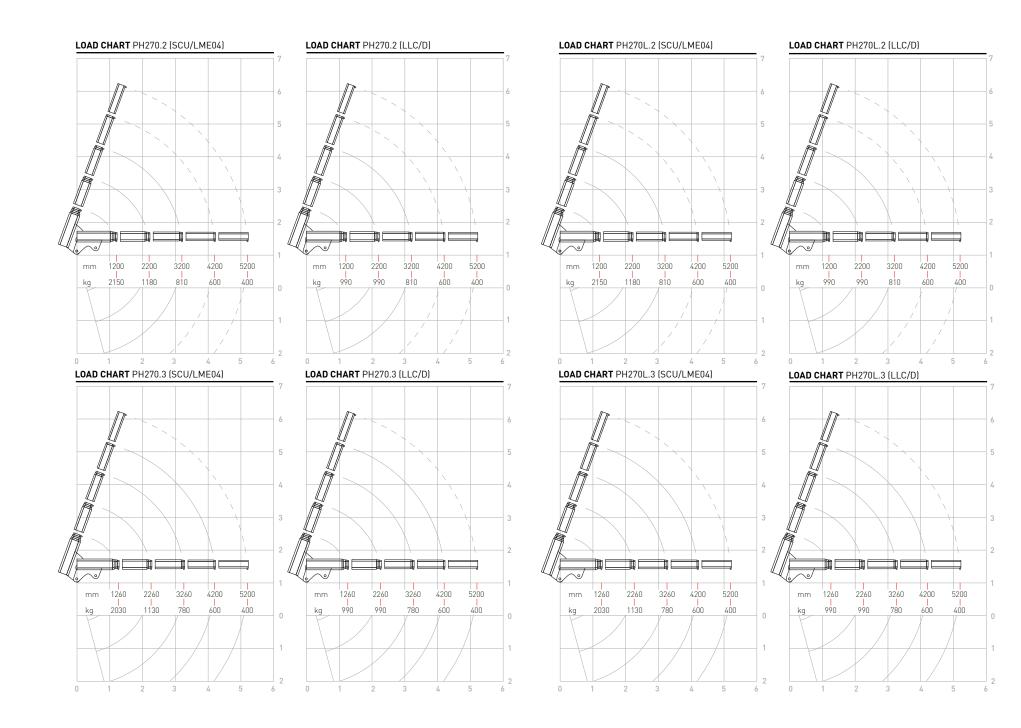


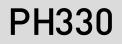
PH270/270L Weights & measurements All dimensions in millimetres; all weights to the nearest kilogram; E & OE



CRANE WEIGHTS	kg
PH270.2	225-245
PH270.3	255-275
PH270L.2	235-255
PH270L.3	270-290
Base with extendable stabilisers	102-109
Beam with 2 extendable stabilisers	69-83

TECHNICAL DATA	PH270.2	PH270.3	PH270L.2	PH270L.3
Lifting capacity	22kNm	22kNm	22kNm	22kNm
Max. lifting height from crane base	4300mm	5200mm	4800mm	5900mm
Max. working slope	5°	5°	5°	5°
Max. working pressure	220bar	220bar	220bar	220bar
Suggested oil flow	10-12l per min.	10-12l per min.	10-12l per min.	10-12l per min.
Electro-hydraulic power unit supply voltage	12V/24V	12V/24V	12V/24V	12V/24V
Max. absorption electro-hydraulic power unit (12V)	240A	240A	240A	240A
Max. absorption electro-hydraulic power unit (24V)	150A	150A	150A	150A
Hydraulic oil tank capacity (H version)	15l	15l	15l	15l
Hydraulic oil tank capacity (electric version)	111	111	111	111









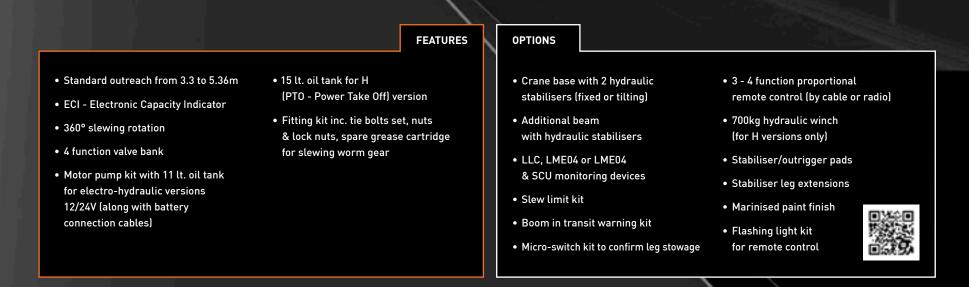
PH330 in stowed position



Stabiliser leg extension



The PH330 weighs from just 270kg. Rated fully the crane can lift 2500kg and with an optional maximum outreach of over 6.3 metres this is a serious contender.



PH330 Weights & measurements All dimensions in millimetres; all weights to the nearest kilogram; E & OE

B/C/D

kg

270-290

295-315

325-345

130-140



CRANE WEIGHTS

Base with extendable

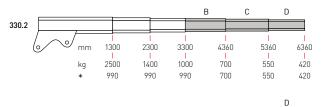
PH330.2

PH330.3

PH330.4

stabilisers

Optional manual extension * "D" version



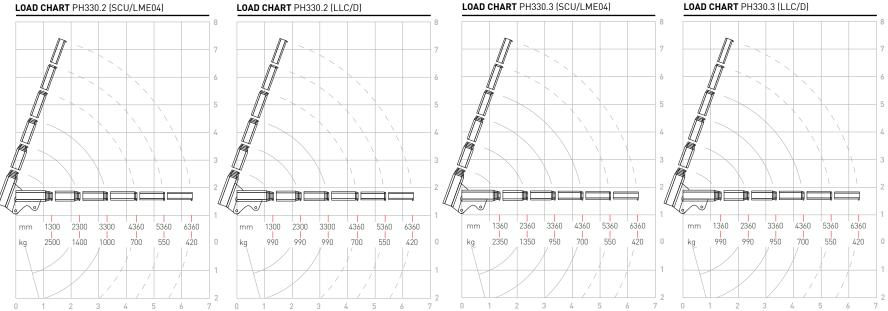




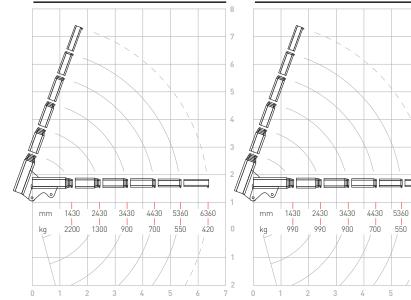
TECHNICAL DATA	PH330.2	PH330.3	PH330.4
Lifting capacity	32kNm	32kNm	32kNm
Max. lifting height from crane base	4500mm	5500mm	6400mm
Max. working slope	5°	5°	5°
Max. working pressure	220bar	220bar	220bar
Suggested oil flow	10-12l per min.	10-12l per min.	10-12l per min
Electro-hydraulic power unit supply voltage	12V/24V	12V/24V	12V/24V
Max. absorption electro-hydraulic power unit (12V)	260A	260A	260A
Max. absorption electro-hydraulic power unit (24V)	160A	160A	160A
Hydraulic oil tank capacity (H version)	15l	15l	15l

Hydraulic oil tank 111 11l capacity (electric version)

11l



LOAD CHART PH330.4 (SCU/LME04)



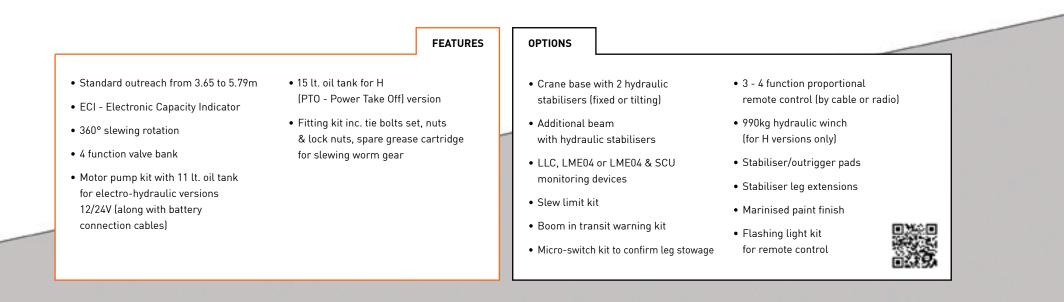
LOAD CHART PH330.4 (LLC/D)



Stabiliser/outrigger pad

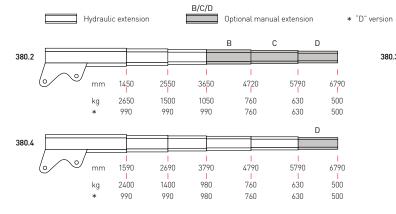
Barrel grab

The PH380 is the largest crane available with 12/24v battery power. This crane has a maximum rated capacity of 2650kg and an optional outreach in excess of 6.7 metres. With a low self-weight from only 310kg, this crane is ideally suited to 5t-7.5t+ vehicles.





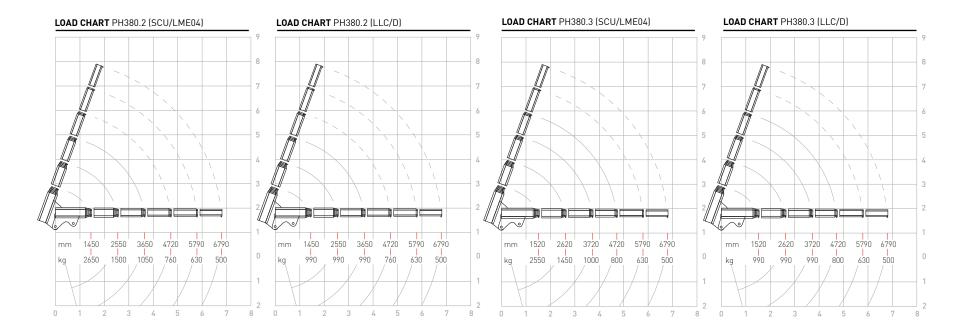
PH380 Weights & measurements All dimensions in millimetres; all weights to the nearest kilogram; E & 0E





CRANE WEIGHTS	kg
PH380.2	310-330
PH380.3	345-365
PH380.4	375-395
Base with extendable stabilisers	158-160

TECHNICAL DATA	PH380.2	PH380.3	PH380.4
Lifting capacity	37kNm	37kNm	37kNm
Max. lifting height from crane base	5000mm	6000mm	7000mm
Max. working slope	5°	5°	5°
Max. working pressure	220bar	220bar	220bar
Suggested oil flow	12-15l per min.	12-15l per min.	12-15l per min.
Electro-hydraulic power unit supply voltage	12V/24V	12V/24V	12V/24V
Max. absorption electro-hydraulic power unit (12V)	260A	260A	260A
Max. absorption electro-hydraulic power unit (24V)	160A	160A	160A
Hydraulic oil tank capacity (H version)	15l	15l	15l
Hydraulic oil tank capacity (electric version)	11l	111	111

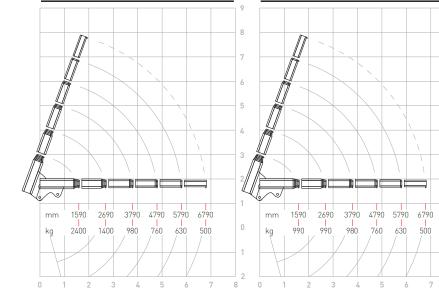


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LOAD CHART PH380.4 (SCU/LME04)

LOAD CHART PH380.4 (LLC/D)



PH510/510L

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fre



The PH range is topped by the PH510. This PTO driven crane has a self-weight from 465kg. It has a maximum rated capacity of 3300kg and optional boom outreach of over 6.8 metres. At 6.8 metres the PH510 is still capable of lifting 700kg.

FEATURES

- Standard outreach from 3.64 to 6.83m
- LME04 Load Limiting Device
- 330° ball bearing slewing rotation
- 4 function valve bank (one free)
- PTO (Power Take Off)
- 30 lt. oil tank
- Fitting kit inc. tie bolts set, nuts & lock nuts, spare grease cartridge for slewing worm gear

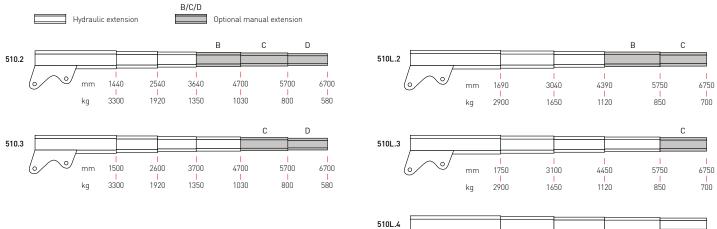
OPTIONS

- Supplementary hydraulic stabiliser legs with manual or hydraulic extension (3300mm - 4400mm spread)
- LME04 Load Limiting Device & SCU Stability Control Unit
- Slew limit kit
- Boom in transit warning kit
- Micro-switch kit to confirm leg stowage

- 3 4 function proportional remote control (by cable or radio)
- 990kg hydraulic winch
- Stabiliser/outrigger pads
- Hydraulic leg extensions
- Marinised paint finish



PH510/510L Weights & measurements All dimensions in millimetres; all weights to the nearest kilogram; E & OE

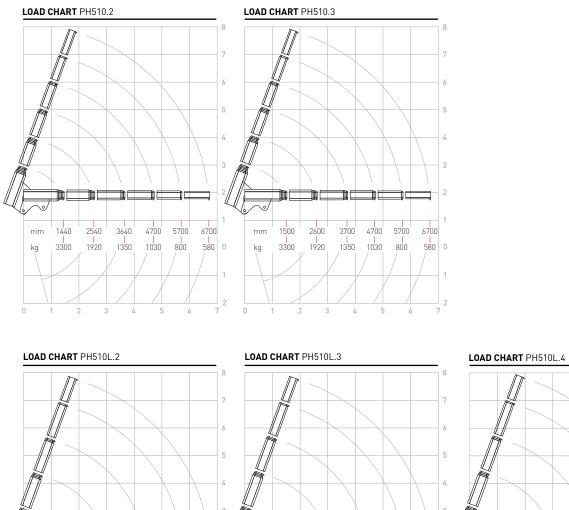


510L.4						
la	mm kg	 1830 2820	1 3180 1 1570	4530 1070	5830 820	 6830 700

CRANE WEIGHTS	kg
PH510.2	465
PH510.3	500
PH510L.2	485
PH510L.3	530
PH510L.4	565
3300mm base weight with extendable stabilisers	240-270
4400mm base weight with extendable stabilisers	305-345

TECHNICAL DATA	PH510.2	PH510.3	PH510L.2	PH510L.3	PH510L.4
Lifting capacity	48kNm	48kNm	48kNm	48kNm	48kNm
Max. lifting height from crane base	5000mm	6000mm	5700mm	7000mm	8.00m
Max. working slope	5°	5°	5°	5°	5°
Max. working pressure	230bar	230bar	230bar	230bar	230bar
Suggested oil flow	15-18l per min.				
Hydraulic oil tank capacity	30l	30l	301	301	301

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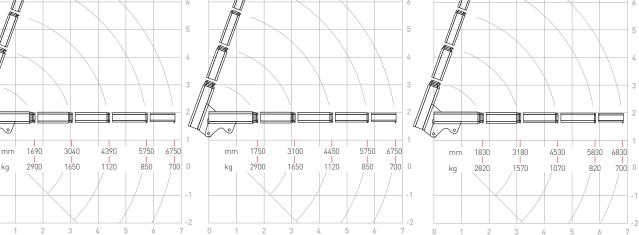
mm

kg

0

1690

2900



PH400/PH400L/MARINE



Tracked vehicle & (right) pay welder

OPTIONS

- 3 4 function proportional remote control (by cable or radio)
- 990kg high speed winch with 30m rope
- Flashing light kit for remote control





The PH400 and PH500 cranes are designed for heavy duty industrial use and for installation on off-road vehicles, pay welders, tracked vehicles and boats. Their unique structural features, including high slewing torque and double rack and pinion rotation system, mean they are able to withstand stronger winds and steeper inclines than standard cranes. They are often incorporated in complex machinery and used without a hook as hydraulic booms in order to meet the specific needs of different industries such as mining, forestry and marine applications. A special corrosion-proof treatment is carried out on the marine version. The PH400 has a 4tm* capacity and an outreach from 3.64 to 5.75 metres.

	FEATURES	MARINE FEATURES	
• Standard outreach from 3.64 to 5.75m	• 30 lt. oil tank	In addition to standard PH400	• Stainless JIC fittings
ECI - Electronic Capacity Indicator	Counter flange	Sand-blasting of structural elements	 Rods - treatment with guarantee
• LME04 - Load Limiting Device	• Fitting kit inc. tie bolts set, nuts	Painting: Organic epoxy galvanizing	of 250 hours in saline fog
• 360° double rack & pinion slewing	& lock nuts, spare grease cartridge	primer 20-30µ	Valves protected by
• Maximum working slope 15°		Bi-component epoxy priming coat 50-60µ	anti-corrosion paintOffshore JIC flexible hoses
• 4 function valve bank (one free)		Bi-component polyurethane final painting 50-60µ	& stainless hose terminals
 Slewing torque 16 kNm 		NITREG treatment oil link pins	Accessories protected by
PTO (Power Take Off)		• Stainless pipes	corrosion proofing treatment

* for static applications or special applications where stability control is not required

PH400/PH400L/MARINE Weights & measurements All dimensions in millimetres; all weights to the nearest kilogram; E & OE





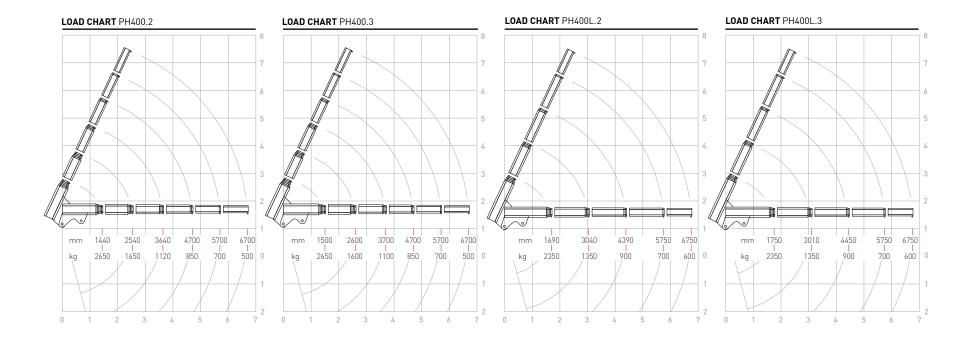




							D	
400L.3	-							
	mm kg	1750 2350	31 13	l	450 900	57 70		6750 600

CRANE WEIGHTS	kg
PH400.2	460
PH400.3	500
PH400L.2	490
PH400L.3	540

TECHNICAL DATA	PH400.2 PH400.3		PH400L.2	PH400L.3	
Lifting capacity	42kNm	42kNm	42kNm	42kNm	
Max. lifting height from crane base	4850mm	5850mm	5600mm	6850mm	
Max. working slope	15°	15° 15°		15°	
Max. working pressure	230bar	230bar	230bar	230bar	
Suggested oil flow	15-18l per min.	15-18l per min.	15-18l per min.	15-18l per min.	
Hydraulic oil tank capacity	30l	301	301	30l	



PH500/PH500L/MARINE

This crane is designed for special or static applications where stability control (SCU) is not required. The PH500 offers a 5tm capacity and an outreach from 3.64 to 5.75 metres.

Standard outreach from 3.64 to 5.75m

- ECI Electronic Capacity Indicator
- LME04 Load Limiting Device
- 360° double rack & pinion slewing
- Maximum working slope 15°
- 4 function valve bank (one free)
- Slewing torque 16 kNm
- PTO (Power Take Off)

FEATURES

- 30 lt. oil tank
- Counter flange
- Fitting kit inc. tie bolts set, nuts & lock nuts, spare grease cartridge for slewing worm gear



MARINE FEATURES

In addition to standard PH500

- Sand-blasting of structural elements
- Painting: Organic epoxy galvanizing primer 20-30µ
 Bi-component epoxy priming coat 50-60µ
 Bi-component polyurethane
- final painting 50-60µ
- NITREG treatment oil link pins
- Stainless pipes

- Stainless JIC fittings
- Rods treatment with guarantee of 250 hours in saline fog
- Valves protected by anti-corrosion paint
- Offshore JIC flexible hoses & stainless hose terminals
- Accessories protected by corrosion proofing treatment



Pay welder

OPTIONS

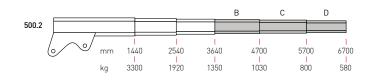
- Proportional radio remote control
- Proportional cable remote control
- 990kg high speed winch with 30m rope
- Flashing light kit for remote control

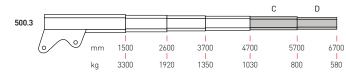
Penny Hydraulics

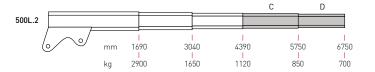
PH500/PH500L/MARINE Weights & measurements All dimensions in millimetres; all weights to the nearest kilogram; E & OE

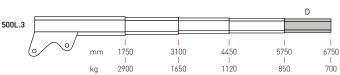


Optional manual extension



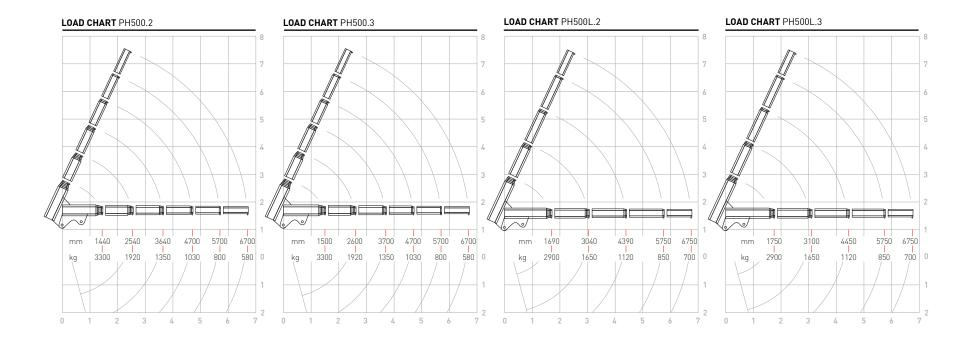






CRANE WEIGHTS	kg
PH500.2	470
PH500.3	510
PH500L.2	500
PH500L.3	550

TECHNICAL DATA	PH500.2 PH500.3		PH500L.2	PH500L.3	
Lifting capacity	48kNm	48kNm	48kNm	48kNm	
Max. lifting height from crane base	4850mm	5850mm	5600mm	6850mm	
Max. working slope	15°	15° 15°		15°	
Max. working pressure	230bar	230bar	230bar	230bar	
Suggested oil flow	15-18l per min.	15-18l per min.	15-18l per min.	15-18l per min.	
Hydraulic oil tank capacity	30l	301	301	301	



Trailer Cranes



F500 special Gas Bottle Trailer



ML500 special

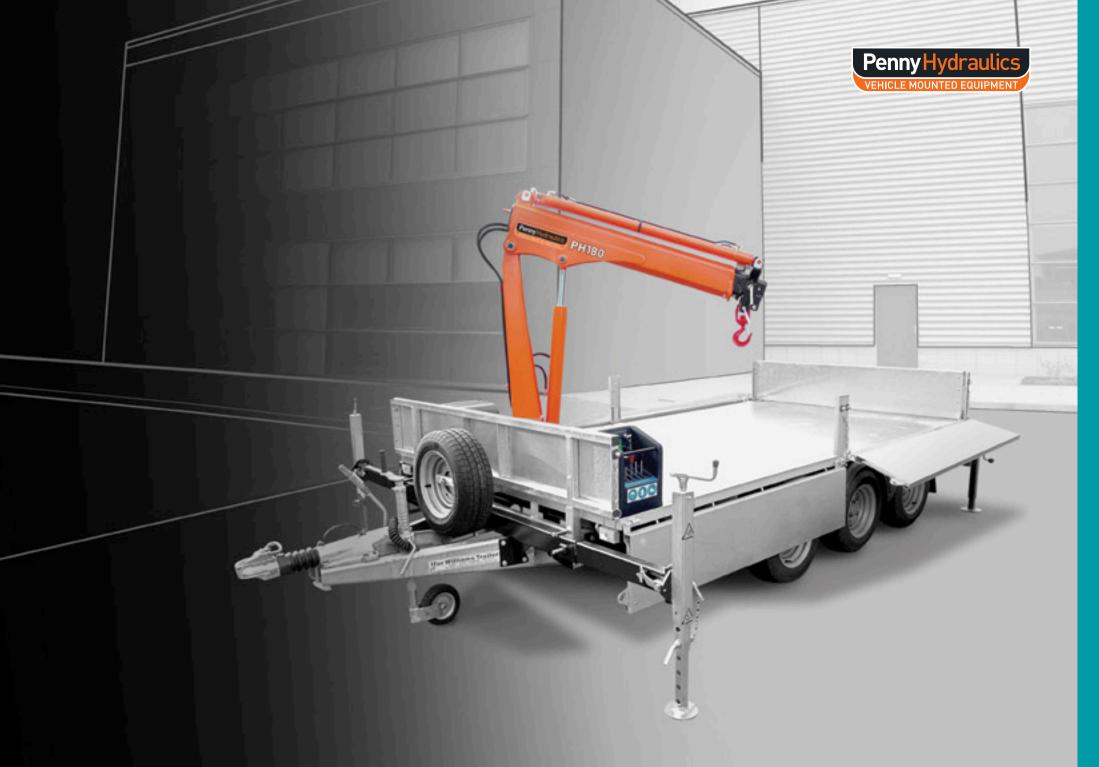
Penny Hydraulics manufactures a wide range of cranes suitable for trailer mounting. Whether it's a special crane for military applications, a bespoke hydraulic crane tailored to your specific requirements or the standard range of electric SwingLifts and hydraulic PH cranes from the product range, we have the right crane for the job.

When specifying a trailer mounted crane, please note that stability calculations will need to be carried out prior to order and installation. A suitable sub-frame will be required for all cranes and multiple support legs may be required. The trailer should be of suitable structure with an adequate capacity for the load and crane installation, taking into account that the crane will be tested at 1.25 x its Maximum Working Load. Care should be given to the number of axles and the position of the crane installation which may alter the nose weight of the trailer.









All Terrain Cranes



PH Crane Unimog



SwingLift ML range special









Kawasaki Mule ML Special

Polaris Quad ML150

Penny Hydraulics design and manufacture a diverse range of cranes to suit both military spec and domestic all terrain vehicles, including Kawasaki Mules, Unimogs, Land Rovers and Polaris Quad Bikes. Crane applications vary from the PH510L with 5.1 t/m capacity and just under 7m boom reach for loading heavy plant, machinery and even tank batteries, to the SwingLift Miniloader 150, fitted to all-terrain quads to aid the repair and service of firing range target motors and gearboxes.

Domestic applications include cranes and winches for farming and forestry activities in remote areas where standard vehicles fitted with lifting and winching equipment would prove inadequate.

Hydraulic cranes can be supplied with fixed proportional controls, wander lead or radio remote control.

Electric cranes can be simply powered via the vehicle's own 12 or 24 volt battery and controlled via a wander lead remote control or optional radio remote.

All Penny Hydraulics cranes can be painted or powder coated to individual customer specifications where required.

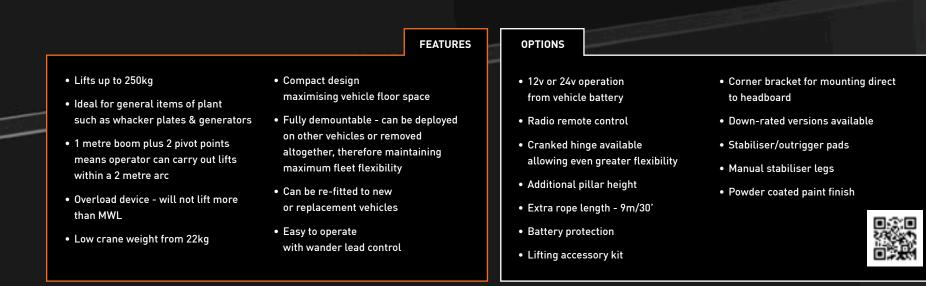
SwingLift KJ250/1





Side & rear door applications

The KJ250/1 is a 250kg capacity knuckle joint crane ideal for handling general items of plant anywhere within a two metre arc.











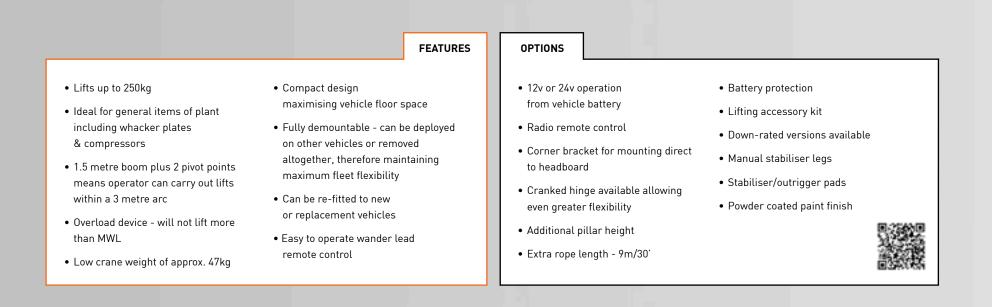




KJ250/1.5 stowed position

Side & rear door applications

The KJ250/1.5 is a one-and-a-half metre knuckle joint crane offering a complete handling solution, combining simplicity, reliability and proven durability. It provides a safe, efficient and cost-effective means of handling loads for all types of vehicle.

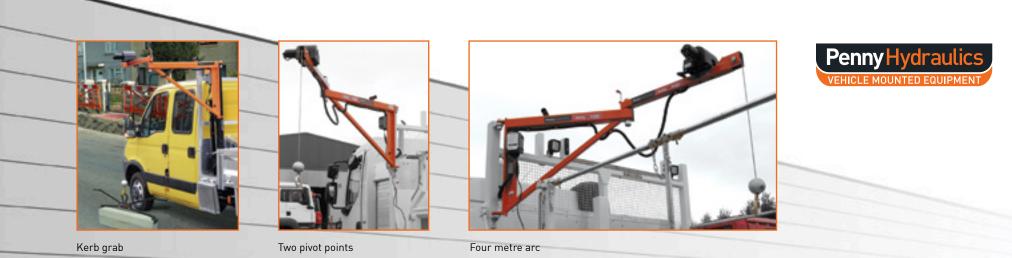


SwingLift KJ250/2GHT

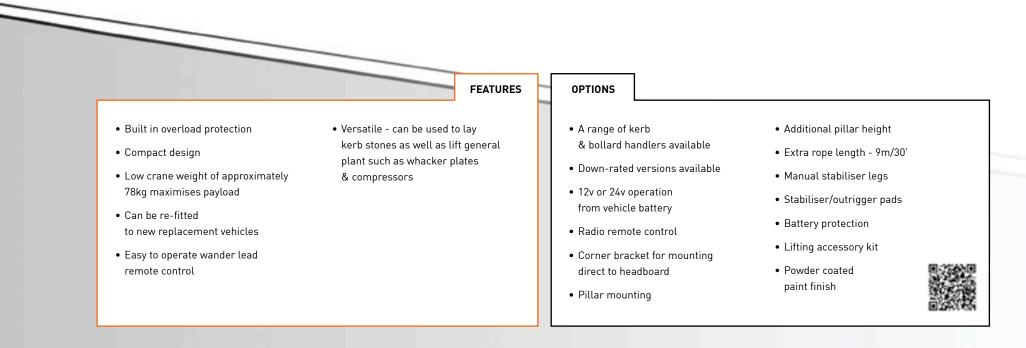
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The KJ250/2GHT can be fitted directly to the vehicle headboard to save floor space and is ideal for tipper vehicles. Its two metre boom and two pivot points mean the operator can carry out lifts within a four metre arc.



SwingLift KJ250/2RPT

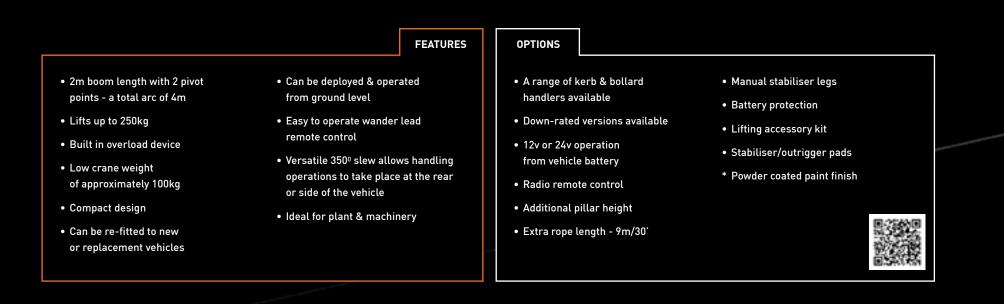




Kerb grab

Use from the side or rear of the vehicle

The KJ250/2RPT is a two metre knuckle-joint crane offering even greater flexibility, reliability and durability. It offers an efficient and cost-effective means of handling loads for pickups, dropsides and larger trucks and can be operated from the ground, eliminating the risks associated with climbing up onto vehicles. 350° slew means the RPT can be fitted at the rear of the vehicle body.





SwingLift ML250

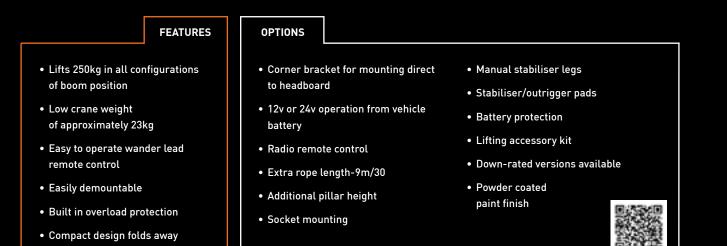
when not in use

Pickup Type



ML250 stowed position

The ML250 is a lightweight, demountable crane for pickups and box bodies. Its compact size is ideal where space is limited and with a 250kg capacity it can lift heavy items quickly and easily off and onto vehicles.









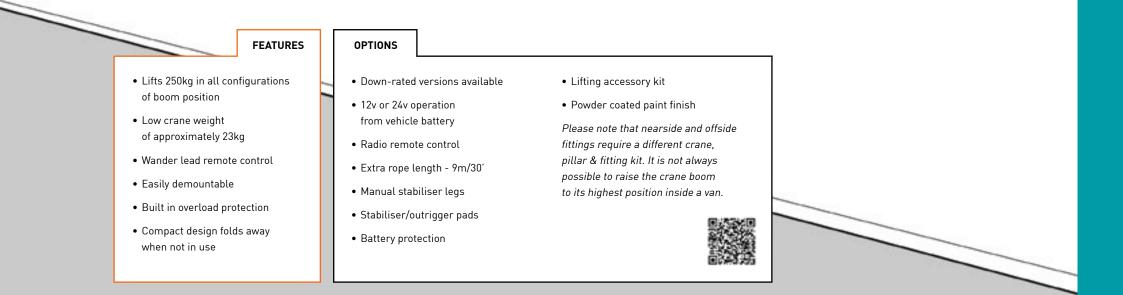




ML250 stowed position

Special applications available

This is the van type version of the ML250. Its fully demountable design and wide range of options make it a versatile and cost-effective load handling solution.







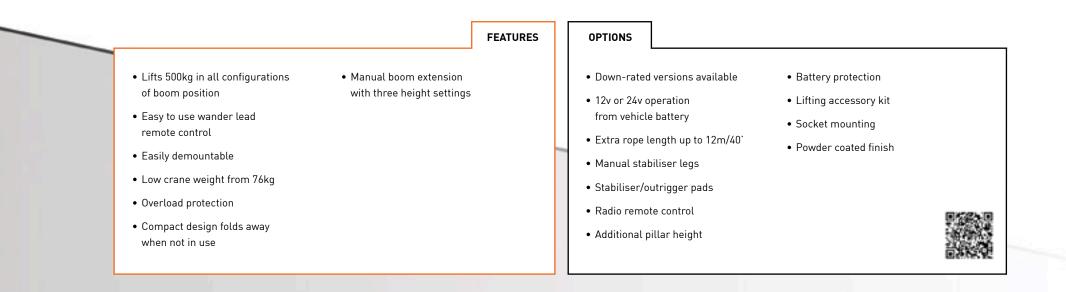




Three boom height settings

Wireless remote control option

Its extra boom reach and heavy duty winch make this the ideal crane for pickups, flatbeds and dropsides - perfect for loading items of plant such as motors, pumps and compressors.



SwingLift ML500LB

Van Type



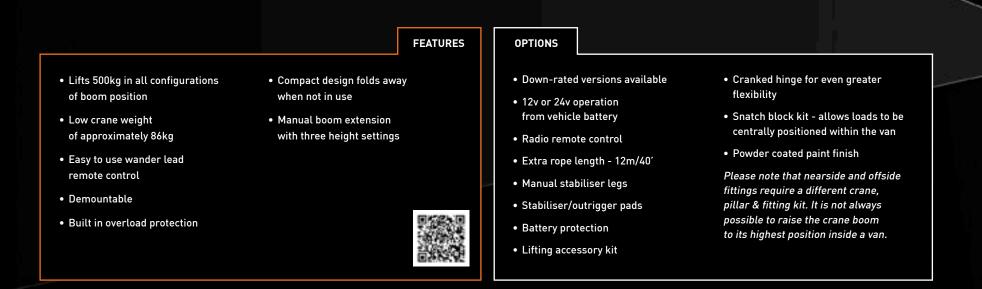
Manual slew

ML500 stowed position



1.5m manual boom extension

The ML500LB is a demountable 500kg Swing Lift for lifting goods into vans. Its extra boom reach and heavy duty winch make it the perfect tool for cost-effective below ground handling for the utility and construction industries.





SwingLift ML500SB

Van Type



Ideal for oil barrels...



...& items of plant

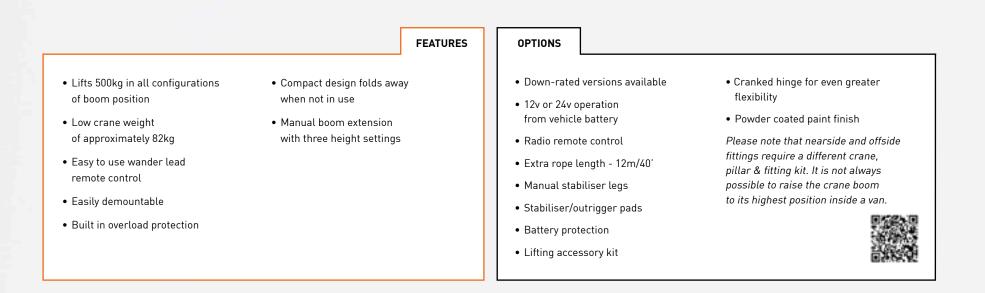


Side door applications also available





A demountable 500kg Swing Lift for lifting goods into vans. The heavy duty winch ensures reliability and extended duty cycle making it the ideal choice for multi-drop applications.



SwingLift F500





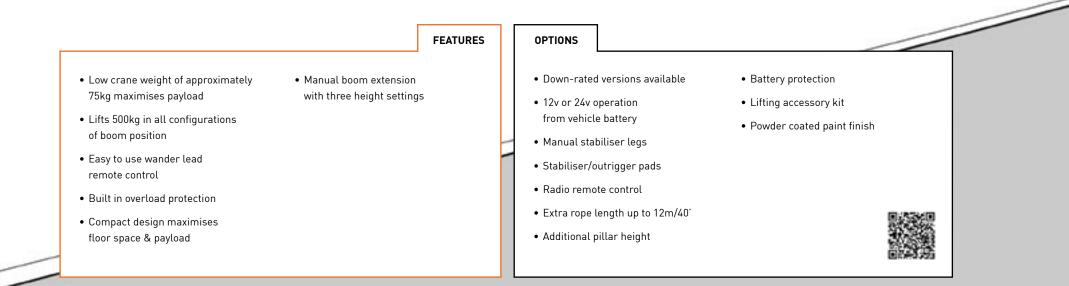


1.5m manual extension

F500 stowed position

Manual slew

An extremely compact, 500kg capacity electric crane for pickups, dropsides and box bodies, ideally suited where space and payload are at a premium. The heavy duty winch ensures reliability and extended duty cycle.















Hydraulic boom extension

FV500 stowed position

Hydraulic boom lift

The SwingLift FV500 removes the risks associated with climbing on and off vehicles. Its remote control and hydraulic operation offer precise and safe handling. The heavy duty 500kg capacity hoist allows vertical below ground handling making it the ideal solution for local authorities, highways and utilities.



SwingLift FV500

Van Type



The van type FV500 is a fully hydraulic 500kg capacity vehicle mounted crane. Our latest model incorporates hydraulic slew, boom raise, lower and extension for controlled, precise and safe handling. Designed for a wide range of applications including service, engineering and deliveries, its compact design, robust construction and light weight ensure the FV500 can be installed on a wide range of commercial vehicles to provide reliable and flexible load handling capabilities. Its 500kg capacity hoist allows vertical below ground work, making it the ideal solution for local authorities, highways and utilities.

Left: FV500 hydraulic extension Middle: FV500 stowed position Right: Hydraulic slew & boom lift

- Suitable for most van applications
- Low crane weight, maximising payload
- Compact design, integral oil tank & motor pump unit maximises load space
- Easy to use wander lead remote control
- Fully hydraulic operation boom raise, lower, extension & slew

- FEATURES
- Electric winch for below ground applications
- Built in overload protection
- Lifts 500kg in all boom positions

OPTIONS

- Down-rated versions available
- Manual stabiliser legs
- Stabiliser/outrigger pads
- 12 or 24v operation from standard vehicle battery
- Extra rope length up to 40'/12m
- Crane slew stops
- Battery protection

- Lifting accessory kit
- Powder coated paint finish

Please note that nearside and offside fittings require a different crane, pillar and fitting kit. It is not always possible to raise the crane boom to its highest position inside a van.





SwingLift CC250 LB/CC250 SB

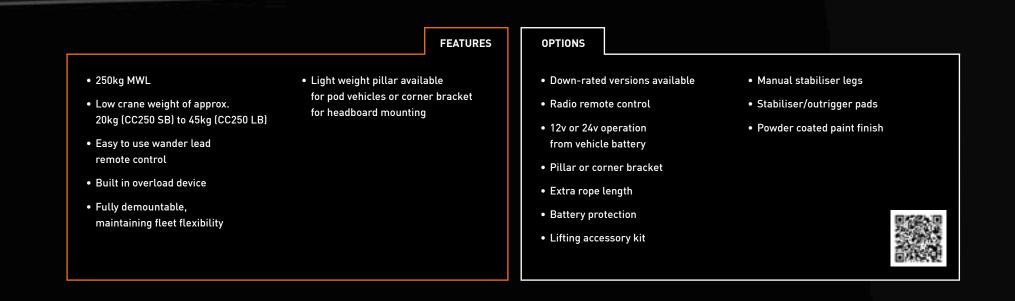




Pod mounted CC250 SB

Corner crane short boom

A lightweight, corner mounted crane for loading plant, signage or chemical drums where space is at a premium. Ideal for mounting inside pod style mobile workshops or on headboards between the cab and the body.













Height to suit tallest cylinders

Overwind cut out

Designed specifically for the gas bottle industry this crane provides a fast, efficient and safe solution for handling gas bottles. Gas bottle cranes reduce the risk of injury to employees, improve productivity by speeding up deliveries and collections allowing one man operation.

	FEATU	RES OPTIONS
 100kg MWL Specially designed "fast" up & down action Overwind cut-out allowing safe, speedy operation Easy swing action utilising precision bearings Height to suit tallest cylinders Easy to use wander lead remote contract 	 Low crane weight of approximately 43kg Built in overload protection 	 Radio remote control 12v or 24v operation from vehicle battery Extra rope length Battery protection Lifting accessory kit Powder coated paint finish

SwingLift DC500/DC995

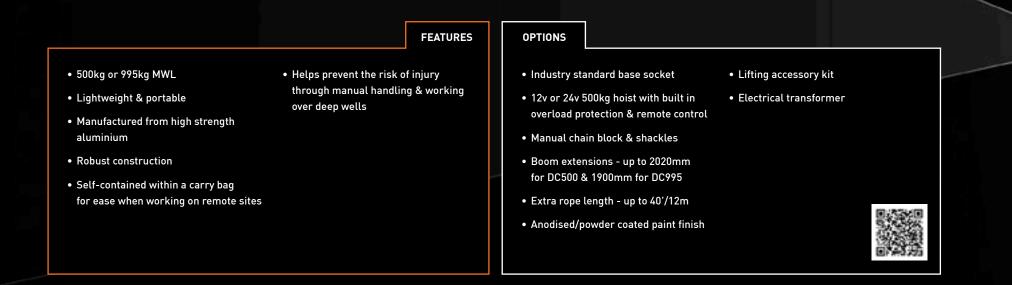




500kg davit winch

Easy to assemble

Light weight, robust construction and ease of use combine to provide users with a portable, effective and versatile load handling tool. Choose either 500kg or 995kg capacity, both available with electric hoists that simply plug into the vehicle or pump control box and additional boom extensions. A davit crane is the perfect choice for below ground handling when vehicle access is impractical.





SwingLift Weights & measurements All dimensions in millimetres; all weights to the nearest kilogram; E & OE

SwingLift KJ250/1

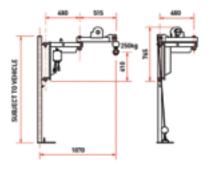
Rating	0.25 tenne metres
Crane section	27kg
Van pillar	25kg
Corner bracket	5.5kg
Van support leg	8.5kg
Rope diameter/length	5mm/15" standard

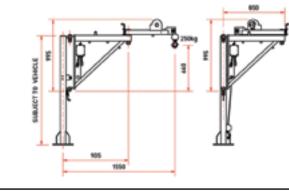
SwingLift KJ250/1.5

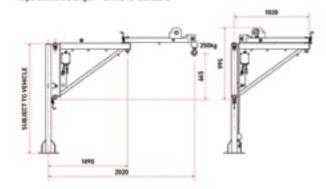
Rating Crane section	0.375 tonne metres 22kg
Van pillar	25kg
Corner bracket	5.5kg
Van support leg	8.5kg
Rope diameter/length	5mm/15' standard

SwingLift KJ250/2 GHT

Rating	0.5 tonne metres
Crane section	50kg
Van combi pillar	32kg
Pickup combi pillar	28kg
Corner bracket	5.5kg
Van support leg	8.5kg
Kerbgrab	8kg
Rope diameter/length	5mm/15' standard





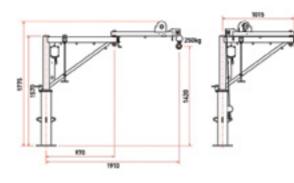


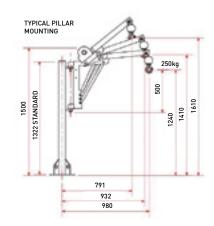
SwingLift KJ250/2 RPT

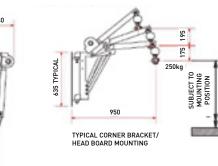
Rating	0.5 tonne metres
Crane section	100kg Eincluding rotating pillar)
Van support leg	8.5kg
Kerbgrab	8kg
Rope diameter/length	5mm/15' standard

SwingLift ML250 Pickup Type

Rating	0.25 tonne metres
Crane section	23k g
Pickup combi pillar	28kg (with base plate)
Corner bracket	5.5kg
Pickup support leg	11.5kg
Rope diameter/length	5mm/15' standard

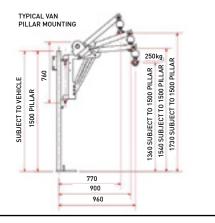


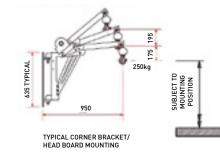




SwingLift ML250 Van Type

Rating	0.25 tonne metres	
Crane section	23k g	
Van pillar	25kg	
Corner bracket	5.5kg	
Van support leg	8.5kg	
Rope diameter/length	5mm/15' standard	

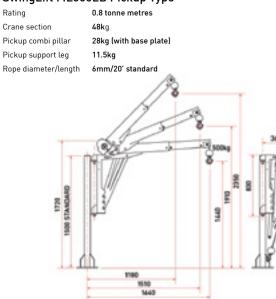




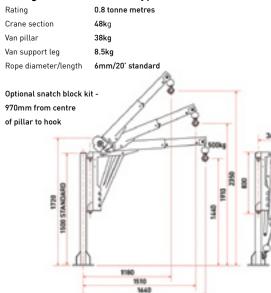
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SwingLift ML500LB Pickup Type

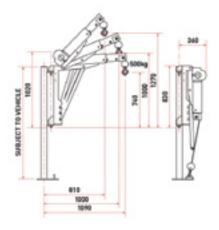


SwingLift ML500LB Van Type



SwingLift ML500SB Van Type

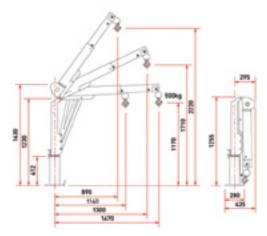
Rating	0.8 tonne metres
Crane section	44k g
Van pillar	38kg
Van support leg	8.5kg
Rope diameter/length	6mm/20' standard



SwingLift Weights & measurements All dimensions in millimetres; all weights to the nearest kilogram; E & OE

SwingLift F500

Rating	0.75 tonne metres
Crane section	75k g
Pickup support leg	11.5kg
Rope diameter/length	6mm/20' standard

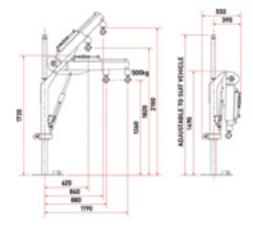


SwingLift FV500 Pickup TypeRating0.75 tonne metresCrane119kgPickup support leg11.5kg

Rope diameter/length 6mm/20' standard

SwingLift FV500 Van Type Rating 0.75 tonne metres

Crane section	95k g
Van support leg	8.5kg
Rope diameter/length	6mm/20' standard



SwingLift CC250LB

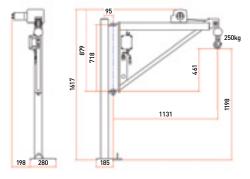
Rating	0.28 tonne metres
Crane	45k g
Pickup combi pillar	30kg (with base plate)

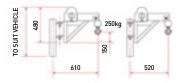
SwingLift CC250SB Rating 0.15 tonne metres

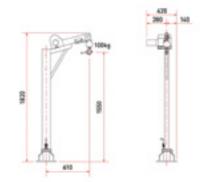
Crane 20kg

SwingLift Gas Bottle Crane Rating 0.06 tonne metres

Crane 43kg

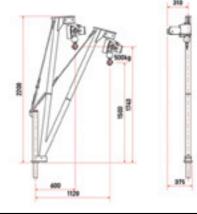






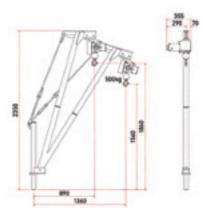
SwingLift DC500

Upper crane section	8kg
Base (incl. turnbuckle)	16.5kg
Winch	20.5kg



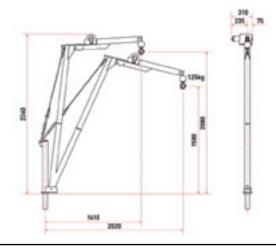
SwingLift DC995

Boom section (incl. turnbuckle)	10kg
Pillar	5kg
Base	20kg
Winch	20.5kg



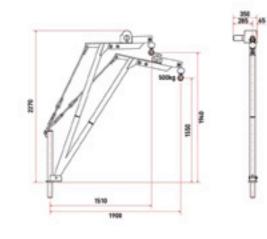
SwingLift DC500BE	
Upper crane section	11.5kg
Base (incl. turnbuckle)	16.5kg
Winch	20.5kg

. . . .



SwingLift DC995BE

Boom section (incl. turnbuckle)	13.5kg
Pillar	5kg
Base	20kg
Winch	20.5kg



Winches







Warn H800 DC winch

Warn H1200 DC winch

Warn H1600 DC winch

We hold a large stock of both electric and hydraulic winches from our own PH Range as well as from leading manufacturers such as Warn and Superwinch.



Warn 2000DC winch



Warn 4000DC winch

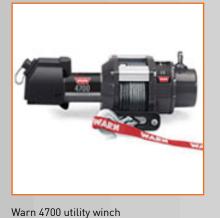


PH6000FWE Winch Pack





PH3000/6000FW Winch Pack



Our cost effective electric winches are ideal for light duty applications, while our hydraulic winches offer controlled power and are especially suited to arduous and heavy duty applications.

A full range of winch spares and winching accessories is available from our e-shop.



TYPICAL APPLICATIONS

• Commercial vehicles • Static applications • Garages/workshops

• ATV's • Boats • Trailers • 4 x 4's

24/7 online ordering for vehicle mounted lifting equipment, spare parts & winches.

Discounts on all orders placed online.

LoadLift Standard



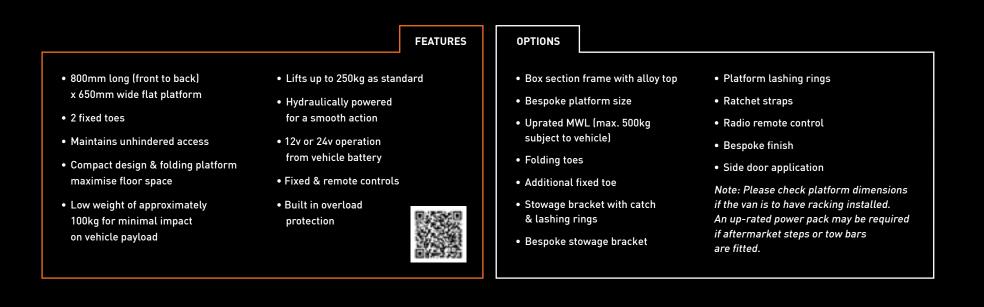
Side door application

Model shown with additional fixed toe





A unique, lightweight and compact lifting platform for loading vans quickly and efficiently via the rear or side cargo doors.



LoadLift 250 Oil Drum Type



GN

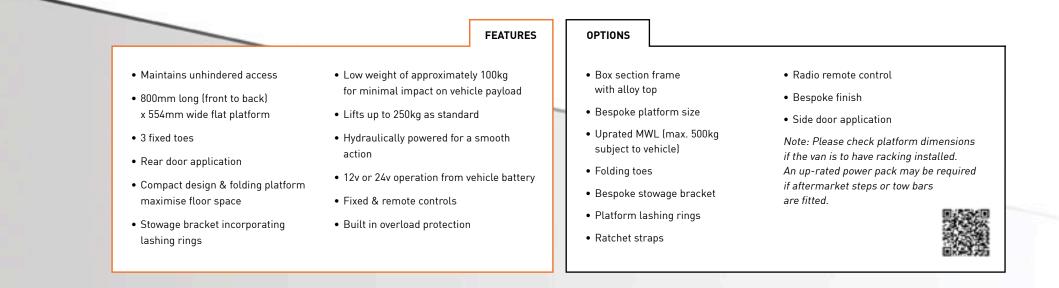




Sidedoor box section frame with alloy top

Rear door box section frame with alloy top

The unique folding action of this lift means It can be stowed without obstructing access and with minimal impact on the vehicle's payload. We often collaborate with our customers to develop industry specific lifts, this version has been adapted specifically to handle oil barrels.

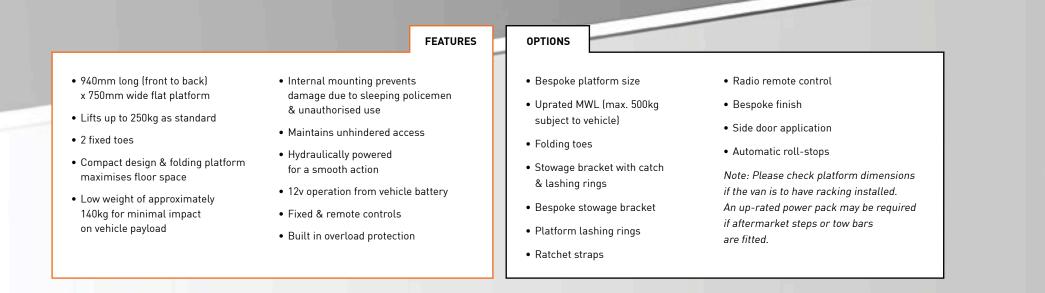


LoadLift 250 Trolley Type



Trolley type with manual folding toes

The trolley type lift is a compact and lightweight lifting platform specifically designed for loading trolleys. A number of options are available including automatic roll-stops to ensure the load remains secure on the platform during the lift cycle. Additional lashing rings can be specified to secure the load during transit.











Automatic flaps ensure the load remains secure on the platform

The York adaptation LoadLift as used by Royal Mail is a lightweight and compact lifting platform for loading containerised goods via the rear doors. It is especially useful for handling roll cages and similar items that can be rolled on and off its platform.

When mounted next to the side door of a delivery vehicle our other LoadLift Specials offer an excellent alternative where a tail lift would be unsafe or impractical such as congested urban areas or when parking spaces are too small for convenient access to the rear doors.

Deliveries can be made directly to the kerbside to reduce the space required to park and enter the vehicle. This also reduces waiting time which helps to promote better relationships with authorities.

LoadLift SWL



LoadLift SWL125

SWL125 stowed

LoadLift SWL125/250/500 solves lifting and re-treading problems associated with large vehicle tyres. This lightweight yet powerful lift manages super singles with ease, and the roll-on/ roll-off platform with easy to operate locking device creates the ideal tool for re-grooving tyres. Tasks can now be handled inside or outside the vehicle away from the elements.



- Maintains unhindered access
- Hydraulically powered for a smooth, controlled operation
- Minimal impact on vehicle payload
- Fixed & remote controls
- Roll-on/roll-off platform
- Hydraulic overload protection

OPTIONS

- Up-rated MWL 250kg-500kg (subject to vehicle)
- Radio remote control
- Additional top re-grooving clamp
- Battery protection





Side door application



Lockable rollers for use when re-grooving

LoadLift Specials





Cable drum handling equipment for Siemens

We have been designing and manufacturing bespoke lifting solutions since 1978. In this time we have developed a wide range of award winning vehicle mounted lifting equipment, much of which was the result of direct consultation with our customers.



Oil/chemical barrels - Vauxhall & VW



Side door applications



Lightweight pump & boat safety kit - Shropshire Fire



Cryogenic & medical gas - BOC



Special lift for refrigerated goods, stowed - Palmer & Harvey

6

Main image: Tomra pallet lift

Penny Hydraulics

LoadLift Specials

If you have a load handling problem please get in touch as our LoadLift Specials range demonstrates, we can usually come up with a solution.



Externally mounted for trucks & pickups

.



Bespoke folding toes



Cable, drums, tools & equipment

Outboard motor lift



TailLift EL4x4 AP1/AP2



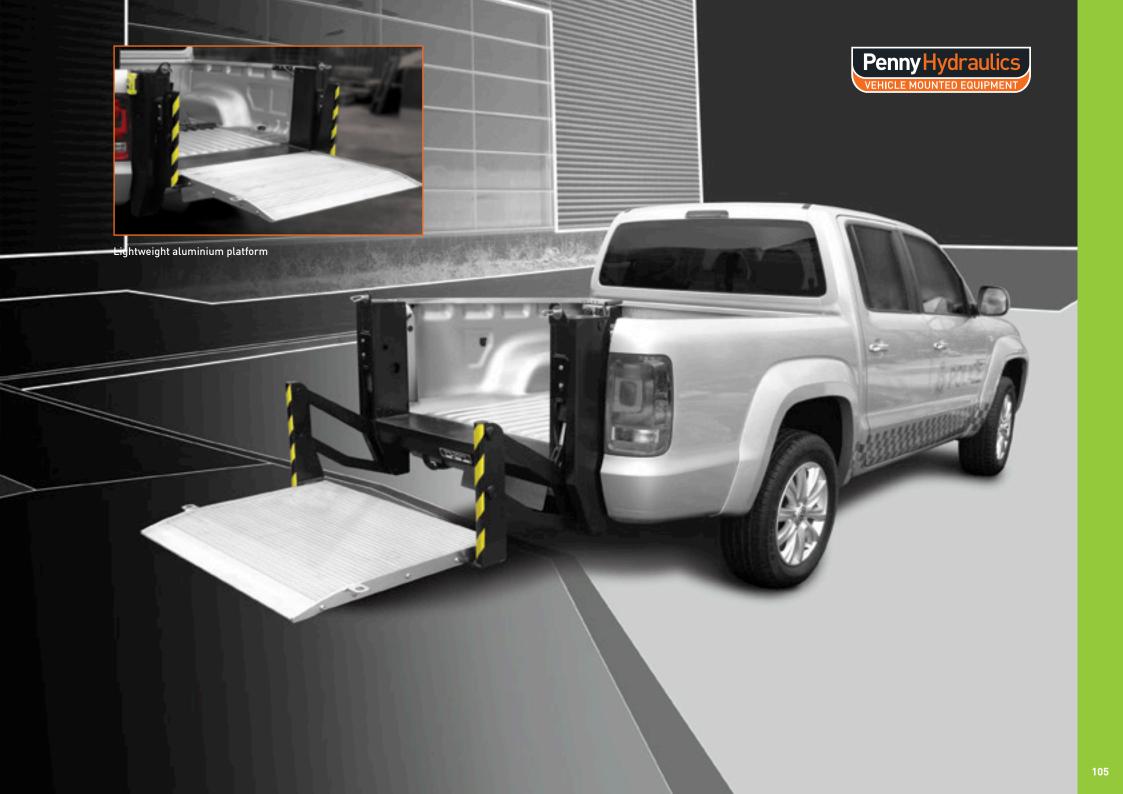
EL 4 x 4 stowed position; excellent ground clearance

The TailLift EL4x4 is specially designed for 4x4 pickups and other off-road vehicles. It has a compact cantilever action and pillar-free design - the lift has no components underneath the vehicle which reduces the risk of damage when driving off-road. The EL4x4 allows operators to access jobs no other TailLift can reach. The AP1 model has a platform depth of 600mm with an additional 200mm toe. The AP2 measures 800mm plus a 200mm toe.



OPTIONS

- Radio remote control
- Folding or drop-in guard frames
- Battery protection
- A wide range of platform sizes including folding platforms
- Note: It may be necessary to obtain WVTA IVA if additional lighting is required on un-registered vehicles.

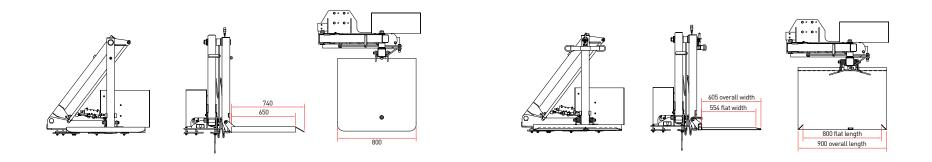


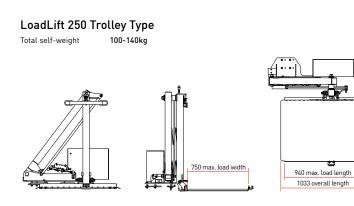
LoadLift/TailLift Weights & measurements All dimensions in millimetres; all weights to the nearest kilogram; E & OE

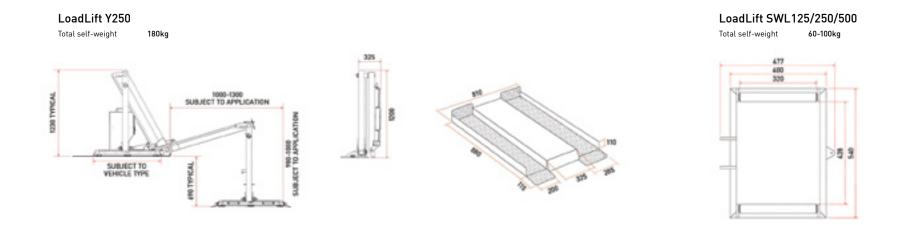
LoadLift 250 Standard Total self-weight

100-140kg

LoadLift Oil Drum Type 100-140kg Total self-weight

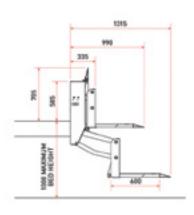






TailLift EL4x4 AP1

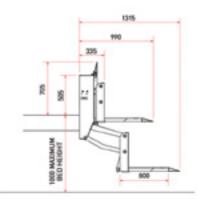
Weight approx.110-125kgWidth to suit application2020mm (max.)





TailLift EL4x4 AP2

Weight approx.115-130kgWidth to suit application2020mm (max.)





Lifting Accessories

Penny Hydraulics supply a wide range of lifting accessories including slings, shackles and special attachments such as kerb grabs, barrel slings and dumpy bag lifters.

We stock a comprehensive range of spare parts for our range of cranes and loading platforms everything from wire ropes, solenoids and winch motors to complete boom assemblies.



Kit bags & straps



Crane hoists



Shackles & chain blocks

Davit hoists



Slings & strops



Stabiliser/outrigger pads



Barrel chains



Cooler lifts



Barrel grabs

Main image: dumpy bag attachment on PH180 crane

Planned maintenance & installation



Penny





Planned maintenance

Current legislation requires that each item of lifting equipment be thoroughly examined at least once in every 12 month period by a competent person. Our planned maintenance programmes will ensure continued, safe, reliable use of the equipment and full compliance with current legislation.

Key benefits of a Penny Hydraulics planned maintenance programme include...

- Combined maintenance & statutory inspection saves time & money
- Nationwide coverage
- Dedicated service engineers
- Statutory inspections completed
- OEM spares available ex-stock
- High first time fix rate
- Reduced vehicle downtime

Installation

Penny Hydraulics offer a full and comprehensive fitting service at their purpose built facility in Clowne, Derbyshire. Not only does this ensure the correct and safe installation of your lifting equipment it minimises vehicle movement and downtime. Thank you for taking the time to look through this brochure we hope it has been of interest and that you have found a product that will meet your needs.

Remember, as well as offering unbeatable features and superb value for money, every one of our products also delivers...

- Increased productivity
- Increased efficiency
- Increased flexibility of labour
- Reduced injury claims
- Reduced damage to equipment & property
- Reduced vehicle down time
- Full compliance with manual handling regulations & current HSE guidelines

We look forward to being of service.

WHAT WE DO

Our key services include:

- Statutory Examinations & Testing
- Inspection
- Service
- Test Certificates
- Quality Reports & Surveys





Glossary

BS: EN: 12999:2011 + A1:2012

5.6.1.8 For cranes with a rated capacity of 1000 kg or above, the stability of the vehicle shall be included in the safety function of the rated capacity limiter.

Note: Stability in this case means: Deployment of every stabiliser is monitored by the rated capacity limiter and the rated capacity is reduced or the crane is stopped, if not fully deployed.

Safety System Options

ECI: Electronic Capacity Indicator

The ECI unit is a device displaying the lifted load capacity by means of an LED scale. The lower green LED shows that power is ON. Five further green LED's show a range from 30% - 70% of the maximum rated capacity permissible. Two yellow LED's indicate 80% and 90% while the final red LED (100%) shows that the maximum rated capacity has been reached or "exceeded".

Note: The operator should at all times prevent lighting up the red LED (OVERLOAD) whilst using the crane.

LLC: Load Limiting Cell

The LLC system is a safety device for the lifted load, with a limitation of 990kg and an LED scale indicating the rated capacity. The LED scale ranges from 30% - 100% (OVERLOAD) similar to the ECI. However, in the case of the LLC the system intervenes and locks the crane functions when the load applied to the hook, sensed by a load cell, reaches the set value of 990kg, which is the maximum lifting capacity for an LLC rated crane. In this condition all LED's flash and it is not possible to carry out any manoeuvre except for the boom lowering function.

Note: The operator should at all times prevent lighting up the red LED (OVERLOAD) whilst using the crane.

LME04: Load Limiting Device

The LME04 load limiting device locks the crane when overload occurs. This system only has two LED's, a yellow LED which indicates 90% of the rated capacity and a red LED which indicates 100% (OVERLOAD). A constant monitoring device senses the pressure in the lift ram and compares this with the "nominal lifting moment" of the crane or the load being lifted compared to the position of the boom outreach. When the pre-set value is reached LME04 will prevent an overload condition occurring by locking all functions except for the "boom in" function, at the same time the red LED will illuminate. When retracting the boom, the red LED will go off and the yellow LED lights up. In order to continue work without locking the crane again it is necessary to retract further extensions until the yellow LED goes off.





ECI: Electronic Capacity Indicator

LLC: Load Limiting Cell

SCU: Load Limiting Device including Stability Control Unit

The SCU system is a device that monitors the stability of the vehicle and interacts with the LME04 load limiting device to warn of and prevent an overload situation.

The SCU has two alarm thresholds. When turning the system ON from the LME04 control panel, any of the functions are allowed but only in a "low threshold" condition. This is signalled by the yellow LED on the SCU panel. The low threshold is set to prevent the vehicle overturning if the stabilisers are not deployed.

In order to achieve the full lifting capacity or "high threshold mode", it is necessary to set all stabilisers in their full operating position, completely extended and lowered to the ground until all of the stability sensors are activated. This is achieved and indicated when the "low threshold" yellow LED goes OFF. All activated sensors show up as illuminated green LED's on the SCU display.

All stability sensors are constantly monitored and the system will return to low threshold mode when:-

- One or more of the extension sensors are de-activated.
- If one leg beam is fitted, when two ground sensors are de-activated.
- If two leg beams are fitted, when three ground sensors are de-activated.

Note: If the crane is being used in the low threshold mode and effort is made to lift a greater load which may cause the intervention of the load limiter, the crane will lock. If this occurs, the only function available is "boom lower".





LME04: Load Limiting Device

SCU: Stability Control Unit with LME04

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