

# LoadGuard®



**LoadGuard®**

Special Hoist to BS7906, Part 1:2005: Category A  
Suitable for lifting or suspending loads above  
people without secondary suspension

Hoist Type LG10/1/4H/BS  
Lifting Capacity 1000 kg, Speed 4 m/min  
Supplied by: Lift Turn Move Ltd

LTM - Lift Turn Move Ltd, established in September 2004, is based in Birkenhead, Wirral and is an independent company owned and operated by the people who run the business day by day. This ensures decisions are made swiftly and customer service is top priority.

John Jones, David King and Dave Ward own the business and are joined by Jenny Hobday, Dan Holme, Alison Jones, James Porter, Dawn Gerrard, Carl Hamlet and Peter Ashford in sales and support roles.

Dave Ward is joined in the engineering workshop by Geoff Cromwell, Jim Marshall and 5 other LEEA qualified lifting engineers.

LTM has over 200 man years of Lifting and Handling Equipment experience.

## Markets & Products

Lift Turn Move supply an extensive range of Lifting Equipment for use in the Professional Entertainment Industry. This includes Electric Chain Hoists and other assorted rigging equipment including Hoist Controllers which we build at LTM.

As well as stocking hoists for immediate despatch, we hold an extensive range of spares allowing you to get hoists in working order within the shortest possible timeframe. Access to the knowledge of our engineers is all part of the package we offer.

In addition to standard rigging hoists, we also supply high integrity hoists and control systems for lifting loads without secondary suspension. This includes equipment to BS7906: Part 1-Category A, BGV D8 Plus or BGV C1 German safety standards.

Special features include double brakes, load sensing and multiple limit switches. Variable speed units and manual or computerised controllers are available to monitor safety features and drive the equipment.

Guardian Hoist Controllers are built at LTM to standard and bespoke specifications. Higher integrity control systems from many of the world's leading Controller manufacturers are available.

A full range of rigging accessories, including Steels, Shackles, Roundslings, Softsteels, STAC chain and Beam Clamps are available from stock. Please see our separate literature.

We supply industrial lifting equipment, covering Gis Electric Chain Hoists, track systems and vacuum lifting equipment - we are the UK agents. We also offer Manual and Electric Hoists, Hand & Electric Winches, Materials Handling and Jacking Equipment.

For further information see [www.ltmtrucks.com](http://www.ltmtrucks.com) and [www.winchshop.co.uk](http://www.winchshop.co.uk)

## Services

LTM offers repairs and routine servicing on Electric Chain Hoists. This can either be done at our workshop or alternatively we offer this service at your premises, using our mobile test rig.



We undertake site installation, testing and commissioning work on all of the products we offer for sale. We can also install equipment from other manufacturers.

Our engineering staff, as well as being time served engineers - both Mechanical and Electrical, hold LEAA (Lifting Equipment Engineers' Association) qualifications.

Our processes are audited and checked by LEAA to ensure we undertake our operations to meet the latest regulations and standards.

## Training

LTM continues the work we started in the provision of Chain Hoist Training Schools for owners and users. Training courses take place on a regular basis, both in house and on your premises.

## Why use LTM

We pride ourselves on fast response and delivery; we hold an extensive range of equipment at our premises, orders and repairs are turned around at speed. We believe you will find our service helpful, prompt and efficient.

We give honest opinions on solutions that suit your needs and we feel we offer the right solution

LTM understands the needs of demanding and rapidly moving industries where service is critical.

Members of the LTM sales and workshop team are LEAA (Lifting Equipment Engineers Association) qualified; we hold recognised qualifications relating to the products we sell and service - only a handful of companies in the entertainment sector can say the same!

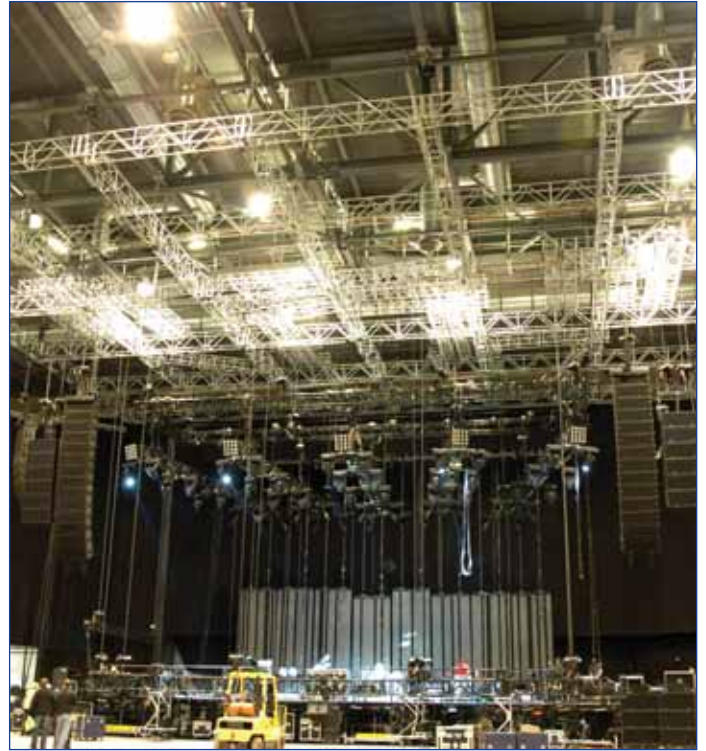
**When you deal with LTM, you get experience, problem solving and most of all flexibility - free of charge.**

**All the best – the Team at LTM**

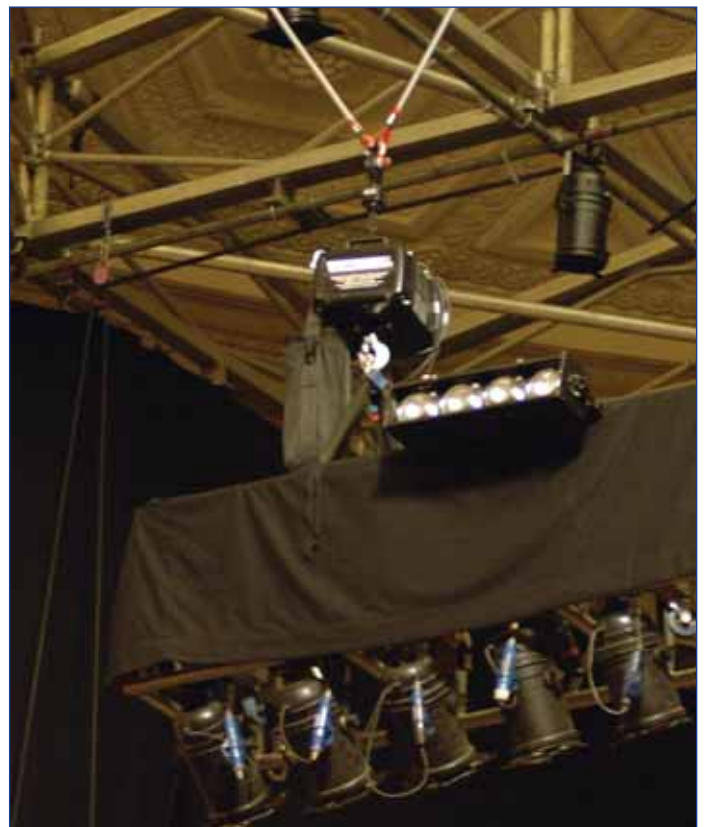
# Production Applications



Mothergrid application at Liverpool Arena and Convention Centre, using 3t LoadGuard® Hoists to BS7906: Part 1, Category A with loadcells for added safety.



Courtesy of Liverpool ACC and Star Events



LoadGuard® Hoists to BS7906: Part 1, Category A in a production application. Photo courtesy of Adlib Audio



## Brake

- New advanced brake design
- Steel brake discs, guided by internal and external guidance fins, reduce brake wear and resetting requirements. Virtually maintenance free
- Maximum safety- the brake is mounted after the slipping clutch, clutch wear will not affect the integrity of the load
- Double brake assembly available; these can be independently checked for correct operation



## Contactor Control System

- Simple technology (no electronics susceptible to interference)
- Reliable construction using proven components
- Emergency stop with contactor available if required (sometimes needed in permanent installations)
- 42V control system allowing highest safety of operation, (110V or 24V available on request)



## Geared Limit Switch (standard)

- Available with 2 or 4 position limit stops
- Simple adjustment, with positioning and repeatability
- Lifting heights up to 120 m (3 drive ratios are possible)

## Transmission

- Improvements to gear designs reduce noise levels
- Helical first and second gear teeth for quieter running
- Permanent grease lubrication for wear resistant operation, no oil leaks

## Chain Wheel

- Manufactured from hardened steel
- With additional chain pockets, type 25 hoist with 6 pockets, other hoists have 5 pocket load chain wheel- quiet with improved running properties
- Double bearing support, sealed bearings available on request



## Chain Guides

- Replacement can be carried out without stripping the hoist
- 2-part construction to optimize maintenance
- Reinforced glass fibre / plastic material is highly wear resistant
- Wear plate fitted to underside of hoist to aid chain guidance and eliminate chain jamming



## Slipping clutch to prevent overloading

- Simple and precise adjustment at workshop level, no exterior adjustment
- Clutch is located in the rotor shaft, outside the drive train; clutch wear will not affect the integrity of the load
- Maintenance free and highly resistant to wear
- Clutch parts available if required - no need to buy complete assemblies
- Ease of servicing thanks to comfortable access



## Motor

- Designed for tough working conditions
- Single or 2 speeds available in a variety of speeds, normal, fast and super fast to suit your application
- Special power supplies available including some hoists for single phase power supplies
- Options- with thermal cutout device to prevent overheating and anti phase system to prevent mis-phasing

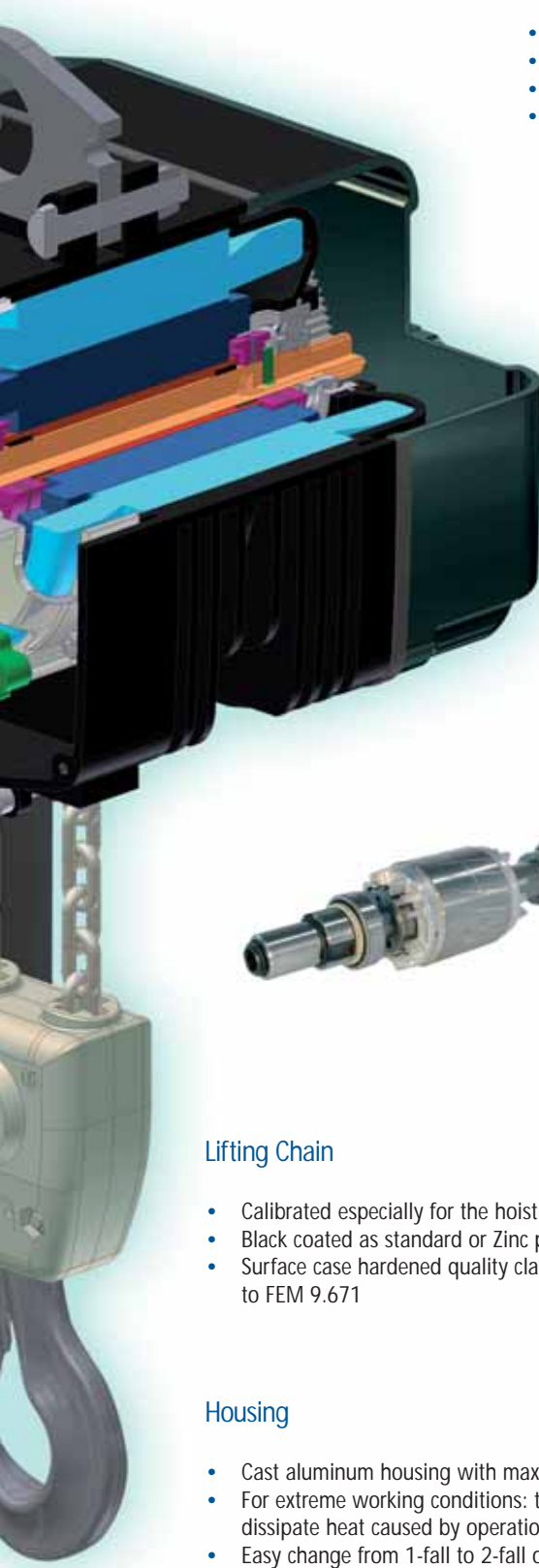


## Lifting Chain

- Calibrated especially for the hoist
- Black coated as standard or Zinc plated if required
- Surface case hardened quality class DAT (8SS) to FEM 9.671

## Housing

- Cast aluminum housing with maximum solidity
- For extreme working conditions: the body has cast cooling fins to dissipate heat caused by operation
- Easy change from 1-fall to 2-fall operation: no need to dismantle the hoist
- Latest Aluminium casting technology used- manufactured by an automotive industry supplier
- Aluminium end covers fitted- sealed to prevent water penetration



## LoadGuard® - Standard Rigging Electric Chain Hoists to BGV D8

- Modern design, manufacturing and assembly
- Modular unit meets all current hoisting regulations for standard rigging hoists to BGV D8 and FEM 9.751 standards, optional extra features allow the hoist to conform to current and future higher integrity standards
- Lifting capacities from 250kg to 5000kg
- Supplied in Direct Control or alternatively Low Voltage Control (42V) with 2 or 4 position geared electrical limit switches. In addition, all hoists are fitted with moveable mechanical stops to prevent over travel in an emergency situation
- Speeds; A range of speeds are available including standard 4 m/ min and many faster speeds, 2 speeds versions are available - generally used for permanent installations
- The clutch overload device is mounted outside the drive train; in the event of clutch problems the load will not be compromised. This is a requirement of many modern safety standards.
- Light in weight, small in size, a 500kg hoist weighs only 18.5kg
- 5 or 6 pocket load chain wheel gives smoother running and quiet operation
- Eye Suspension is standard, hook available on request
- The hoist can be used for either upright/motor up or climbing/motor down applications
- The chain bag is close coupled, available in five sizes. (see page 15 for further information)
- The hoist and chain are black in colour, ideal for entertainment applications, zinc plated chain also available
- Available for 3 phase or single phase power supplies
- Latest technology in design and manufacture means long life and competitive pricing. Quiet, reliable and proven time after time
- Options for higher safety regulations include 2nd independent brake, 4 position limit switches, load sensing eye or hook suspension units, brake monitor and encoders for positional feedback. These can be fitted or retrofitted to the standard modular hoist
- Flight cases have been developed to hold up to 4 x 500kg hoists reducing pack and truck sizes



### Why should I use a LoadGuard® Rigging Hoist?

The modular LoadGuard® meets the requirements of all current hoisting standards. Optional extra features can be added later to allow the hoist to conform to higher integrity standards. Modern design and manufacturing means the hoist is quiet, compact, lightweight and competitively priced. Available in Direct Control or Low Voltage Control with Limit Switches.

# LoadGuard® Standard Rigging Hoists to BGV D8



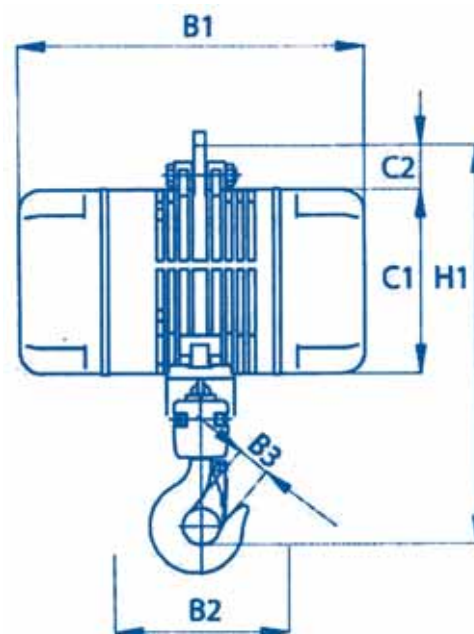
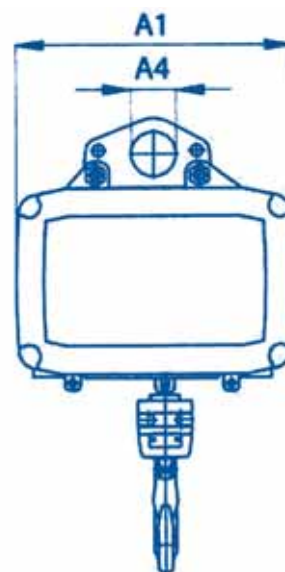
## Specification

Type	Lifting capacity (kg)	Lifting speed (m/min)	Motor power (kW)	No. of chain falls	Chain dimensions (mm)	Chain safety factor	Weight body only (kg)	Weight per metre lift (kg)
LG25/1/4	250	4	0.18	1	4 x 12.3	8.2	18	0.32
LG25/1/8	250	8	0.36	1	4 x 12.3	8.2	18	0.32
LG25/2/2	500	2	0.18	2	4 x 12.3	8.2	20.5	0.64
LG25/2/4	500	4	0.36	2	4 x 12.3	8.2	20.5	0.64
LG50/1/4	500	4	0.36	1	5 x 15.3	6.4	18.5	0.52
LG50/1/8	500	8	0.72	1	5 x 15.3	6.4	18.5	0.52
LG50/2/2	1000	2	0.36	2	5 x 15.3	6.4	21.5	1.04
LG50/2/4	1000	4	0.72	2	5 x 15.3	6.4	21.5	1.04
LG10/1/4	1000	4	0.72	1	7 x 22	6.28	42	1.04
LG10/1/8	1000	8	1.45	1	7 x 22	6.28	42	1.04
LG10/2/2	2000	2	0.72	2	7 x 22	6.28	44	2.08
LG10/2/4	2000	4	1.45	2	7 x 22	6.28	44	2.08
LG16/1/4	1600	4	1.22	1	9 x 27	6.48	58	1.75
LG16/1/8	1600	8	2.44	1	9 x 27	6.48	58	1.75
LG16/2/2	3200	2	1.22	2	9 x 27	6.48	62.5	3.5
LG16/2/4	3200	4	2.44	2	9 x 27	6.48	62.5	3.5
LG20/1/4	2000	4	1.55	1	10 x 28	6.4	58	2.25
LG20/1/8	2000	8	3.05	1	10 x 28	6.4	58	2.25
LG20/2/2	4000	2	1.55	2	10 x 28	6.4	62.5	4.5
LG20/2/4	4000	4	3.05	2	10 x 28	6.4	62.5	4.5
LG250/1/3.2	2500	3.2	1.55	1	10 x 28	5.12	58	2.25
LG250/1/6.4	2500	6.4	3.05	1	10 x 28	5.12	58	2.25
LG250/2/1.6	5000	1.6	1.55	2	10 x 28	5.12	62.5	4.5
LG250/2/3.2	5000	3.2	3.05	2	10 x 28	5.12	62.5	4.5

Faster or dual speed hoists available on request

## Dimensions (mm)

Type	A1	A4	B1	B3	C1	C2	H1 Eye Suspension	H1 Hook Suspension
LG25/1	246	40	309	22	164	53	369	431
LG25/2	246	40	309	22	164	53	408	470
LG50/1	246	40	309	22	164	53	377	439
LG50/2	246	40	309	22	164	53	417	479
LG10/1	321	52	367	32	214	69	482	553
LG10/2	321	52	367	32	214	69	556	627
LG16/1	345	75	389	37	230	135	608	643
LG16/2	345	75	389	37	230	135	690	725
LG20/1	345	75	389	37	230	135	608	643
LG20/2	345	75	389	37	230	135	690	725
LG250/1	345	75	389	37	230	135	608	608
LG250/2	345	75	389	37	230	135	690	690



## LoadGuard® - Electric Chain Hoists to BS7906: Part 1-Category A

A range of high integrity Hoists to BS 7906 Part 1: 2005-Category A - Use of Lifting Equipment for Performance, Broadcast and Similar Applications. This is a British Standard which details an adapted Electric Chain Hoist.

Category A Hoists are declared by the manufacturer as intended for use by the entertainment industry for lifting and suspending loads over people and meeting the requirements of BS 7905-1 or DIN 56925. Category A hoists are suitable for lifting or suspending loads above people without additional safety measures.

The following features are required on the hoist:

- Double Brakes
- Brake Position - Brake acts directly to stop the load - the clutch is outside the drive train
- Limit Switches – normal and emergency are essential
- Mechanical Stops - End of travel stops essential
- Emergency Stop - Essential
- Secondary Suspension - Not necessary
- Controller – Desirable
- Chain Container - 50% fullness maximum

In addition the hoists feature:

- Modern design, manufacturing and assembly; latest technology in design and manufacture means long life and competitive pricing. Quiet, reliable and proven.
- Modular unit; optional extra features can be added to allow the hoist to conform to future higher integrity standards
- Lifting capacities from 250kg– 5000kg
- Low Voltage control as standard incorporates 4 position geared electrical limit switches
- Speeds: a range of speeds are available including standard 4 m/min and many faster speeds, 2 speeds versions are available, these are generally used for permanent installations
- The clutch overload device is mounted outside the drive train; in the event of clutch problems the load will not be compromised. This is a requirement of many modern safety standards
- 5 or 6 pocket load chain wheel gives smoother running and quieter operation than other chain hoists
- The hoist can be used for either upright/motor up or climbing/motor down applications. The chain bag is close coupled and available in 5 sizes.
- The hoist and chain are black in colour, ideal for entertainment applications; zinc plated chain is also available
- Hoists are fitted with moveable mechanical stops as an additional safety feature
- Light in weight, small in size; a 500kg hoist weighs only 18.5kg
- Eye Suspension is standard, hook available on request
- Available for 400V, 3Ph, 50Hz power supply



## Why should I use a LoadGuard® Hoist to BS 7906: Part 1- Category A?

The LoadGuard® meets the requirements of all current hoisting standards.

Optional extra features are added to a basic modular hoist to conform to BS 7906; Part 1- Category A, this allows loads to be lifted above people without secondary suspension, where working at height is either impractical or desirable.

Hoists to this standard are already used widely in theatres, schools, multi-purpose venues, sports centres, arenas and convention centres- they reduce the requirement for users to work at height.

# LoadGuard® Hoists to BS7906: Part 1-Category A For lifting loads above people



## Specification

### Single Speed

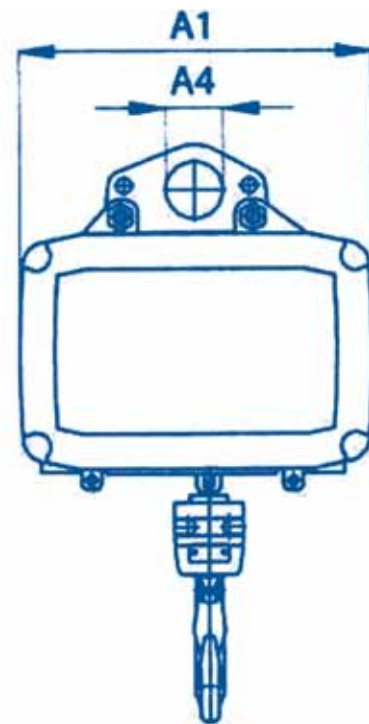
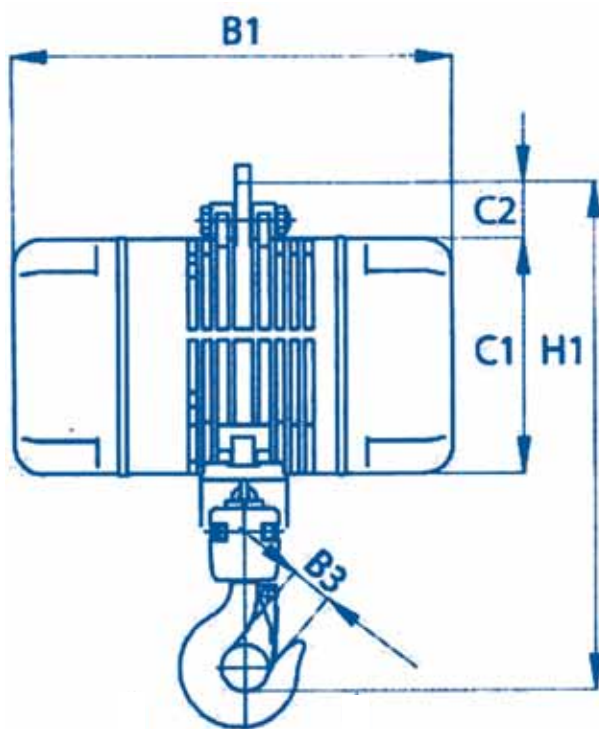
Type	Lifting capacity (kg)	Lifting speed (m/min)	Motor power (kW)	No. of chain falls	Chain dimensions (mm)	Chain safety factor	Weight body only (kg)	Weight per extra metre lift (kg)
LG25/1/4	250	4	0.18	1	4 x 12.3	8.2	18	0.32
LG25/1/8	250	8	0.36	1	4 x 12.3	8.2	18	0.32
LG25/2/2	500	2	0.18	2	4 x 12.3	8.2	20.5	0.64
LG25/2/4	500	4	0.36	2	4 x 12.3	8.2	20.5	0.64
LG50/1/4	500	4	0.36	1	5 x 15.3	6.4	18.5	0.52
LG50/1/8	500	8	0.72	1	5 x 15.3	6.4	18.5	0.52
LG50/2/2	1000	2	0.36	2	5 x 15.3	6.4	21.5	1.04
LG50/2/4	1000	4	0.72	2	5 x 15.3	6.4	21.5	1.04
LG10/1/4	1000	4	0.72	1	7 x 22	6.28	42	1.04
LG10/1/8	1000	8	1.45	1	7 x 22	6.28	42	1.04
LG10/2/2	2000	2	0.72	2	7 x 22	6.28	44	2.08
LG10/2/4	2000	4	1.45	2	7 x 22	6.28	44	2.08
LG16/1/4	1600	4	1.22	1	9 x 27	6.48	58	1.75
LG16/1/8	1600	8	2.44	1	9 x 27	6.48	58	1.75
LG16/2/2	3200	2	1.22	2	9 x 27	6.48	62.5	3.5
LG16/2/4	3200	4	2.44	2	9 x 27	6.48	62.5	3.5
LG20/1/4	2000	4	1.55	1	10 x 28	6.4	58	2.25
LG20/1/8	2000	8	3.05	1	10 x 28	6.4	58	2.25
LG20/2/2	4000	2	1.55	2	10 x 28	6.4	62.5	4.5
LG20/2/4	4000	4	3.05	2	10 x 28	6.4	62.5	4.5
LG250/1/3.2	2500	3.2	1.55	1	10 x 28	5.12	58	2.25
LG250/1/6.4	2500	6.4	3.05	1	10 x 28	5.12	58	2.25
LG250/2/1.6	5000	1.6	1.55	2	10 x 28	5.12	62.5	4.5
LG250/2/3.2	5000	3.2	3.05	2	10 x 28	5.12	62.5	4.5

### Dual Speed

LG25/1/8&2	250	8/2	0.36/0.09	1	4 x 12.3	8.2	21	0.32
LG25/1/12.5&3	160	12.5/3	0.36/0.09	1	4 x 12.3	8.2	21	0.32
LG25/1/20&5	100	20/5	0.36/0.09	1	4 x 12.3	8.2	21	0.32
LG25/2/4&1	500	4/1	0.36/0.09	2	4 x 12.3	8.2	21	0.64
LG25/2/6.25&1.5	320	6.25/1.5	0.36/0.09	2	4 x 12.3	8.2	21	0.64
LG50/1/8&2	500	8/2	0.72/0.18	1	5 x 15.3	6.4	21	0.52
LG50/1/12.5&3	320	12.5/3	0.72/0.18	1	5 x 15.3	6.4	21	0.52
LG50/1/20&5	200	20/5	0.72/0.18	1	5 x 15.3	6.4	21	0.52
LG50/2/4&1	1000	4/1	0.72/0.18	2	5 x 15.3	6.4	22	1.04
LG50/2/6.25&1.5	630	6.25/1.5	0.72/0.18	2	5 x 15.3	6.4	22	1.04
LG10/1/8&2	1000	8/2	1.45/0.36	1	7 x 22	6.28	45	1.04
LG10/1/16&4	800	16/4	1.45/0.36	1	7 x 22	6.28	45	1.04
LG10/2/4&1	2000	4/1	1.45/0.36	2	7 x 22	6.28	47	2.08
LG10/2/8&2	1600	8/2	1.45/0.36	2	7 x 22	6.28	47	2.08
LG16/1/8&2	1600	8/2	2.44/0.61	1	9 x 27	6.48	60	1.75
LG16/1/12.5&3	1000	12.5/3	2.39/0.58	1	9 x 27	6.48	60	1.75
LG16/2/4&1	3200	4/1	2.44/0.61	2	9 x 27	6.48	64.5	3.5
LG16/2/6.25&1.5	2000	6.25/1.5	2.39/0.58	2	9 x 27	6.48	64.5	3.5
LG20/1/8&2	2000	8/2	3.05/0.77	1	10 x 28	6.4	60	2.25
LG20/1/12.5&3	1250	12.5/3	2.98/0.72	1	10 x 28	6.4	60	2.25
LG20/2/4&1	4000	4/1	3.05/0.77	2	10 x 28	6.4	64.5	4.5
LG20/2/6.25&1.5	2500	6.25/1.5	2.98/0.72	2	10 x 28	6.4	64.5	4.5
LG250/1/6.4&1.6	2500	6.4/1.6	3.05/0.77	1	10 x 28	5.12	60	2.25
LG250/1/10&2.5	1600	10/2.5	3.05/0.77	1	10 x 28	5.12	60	2.25
LG250/2/3.2&0.8	5000	3.2/0.8	3.05/0.77	2	10 x 28	5.12	64.5	4.5
LG250/2/5&1.25	3200	5/1.25	3.05/0.77	2	10 x 28	5.12	64.5	4.5

Dimensions (mm)

Type	A1	A4	B1	B3	C1	C2	H1 Eye Suspension	H1 Hook Suspension
LG25/1	246	40	380	22	164	53	362	424
LG25/2	246	40	380	22	164	53	395	457
LG50/1	246	40	380	22	164	53	377	439
LG50/2	246	40	380	22	164	53	417	479
LG10/1	321	52	465	32	214	69	482	553
LG10/2	321	52	465	32	214	69	556	627
LG16/1	345	75	487	37	230	135	608	643
LG16/2	345	75	487	37	230	135	690	725
LG20/1	345	75	487	37	230	135	608	643
LG20/2	345	75	487	37	230	135	690	725
LG250/1	345	75	487	37	230	135	608	608
LG250/2	345	75	487	37	230	135	690	690



# LoadGuard® Hoists to BGV D8 Plus German safety regulation

LoadGuard®

## LoadGuard® - Electric Chain Hoists to BGV D8 Plus

A range of high integrity hoists to BGV D8 Plus, this is a German safety regulation (published by VPLT) for a hoist with the special characteristic of being able to hold loads at rest above people without using a secondary safety component.

These hoists allow Load holding when loads are static, i.e. when a truss is in a fixed position

The hoists do not allow (in Germany, when people are present below the load): assembly/ disassembly during set up or Staging processes involving movement.

The following features are required on the hoist.

- 2 separate brakes
- Limit switches not required (but fitted on these hoists)
- Overload monitoring – shutdown. A friction clutch is permitted if it is not within the load path when the Electric Chain Hoist is disconnected from the power supply.
- Underload monitoring- not required
- Factor of Safety – 10:1. The lifting capacity is de-rated.

In addition the hoists feature:

- Modern design, manufacturing and assembly; The latest in design and manufacture means long life and competitive pricing. Quiet, reliable and proven
- Lifting capacities from 200kg – 2500kg
- Low Voltage control as standard; incorporates geared electrical limit switches. Direct Control available on request
- Speeds: a range of speeds are available including standard 4 m/ min and many faster speeds, 2 speeds versions are available, these are generally used for permanent installations
- The clutch overload device is mounted outside the drive train; in the event of clutch problems the load will not be compromised. This is a requirement of many modern safety standards
- 5 or 6 pocket load chain wheel gives smoother running and quieter operation than other chain hoists
- The hoist can be used for either upright/motor up or climbing/motor down applications; The chain bag is close coupled and available in 5 sizes.
- The hoist and load chain are black in colour, ideal for entertainment applications; zinc plated chain also available
- Hoists are fitted with moveable mechanical stops as an additional safety feature
- Light in weight, small in size, a 200kg hoist weighs only 18.5kg
- Available for 400V, 3 Ph, 50Hz power supply



### Specification

#### Single Speed

Type	Rated capacity (kg)	Lifting speed (m/min)	Motor power (kW)	No. of chain falls	Chain dimensions (mm)	Chain safety factor	Weight body only (kg)	Weight per extra metre lift (kg)
LG25/1/4	200	4	0.18	1	4 x 12.3	10.25	18	0.32
LG25/1/8	200	8	0.36	1	4 x 12.3	10.25	18	0.32
LG25/2/2	400	2	0.18	2	4 x 12.3	10.25	20.5	0.64
LG25/2/4	400	4	0.36	2	4 x 12.3	10.25	20.5	0.64
LG50/1/4	320	4	0.36	1	5 x 15.3	12.81	18.5	0.52
LG50/1/8	320	8	0.72	1	5 x 15.3	12.81	18.5	0.52
LG50/2/2	630	2	0.36	2	5 x 15.3	12.81	21.5	1.04
LG50/2/4	630	4	0.72	2	5 x 15.3	12.81	21.5	1.04
LG10/1/4	630	4	0.72	1	7 x 22	12.55	42	1.04
LG10/1/8	630	8	1.45	1	7 x 22	12.55	42	1.04
LG10/2/2	1250	2	0.72	2	7 x 22	12.55	44	2.08
LG10/2/4	1250	4	1.45	2	7 x 22	12.55	44	2.08
LG16/1/4	1000	4	1.22	1	9 x 27	10.38	58	1.75
LG16/1/8	1000	8	2.44	1	9 x 27	10.38	58	1.75
LG16/2/2	2000	2	1.22	2	9 x 27	10.38	62.5	3.50
LG16/2/4	2000	4	2.44	2	9 x 27	10.38	62.5	3.50
LG20/1/4	1250	4	1.55	1	10 x 28	10.25	58	2.25
LG20/1/8	1250	8	3.05	1	10 x 28	10.25	58	2.25
LG20/2/2	2500	2	1.55	2	10 x 28	10.25	62.5	4.50
LG20/2/4	2500	4	3.05	2	10 x 28	10.25	62.5	4.50

#### Dual Speed

LG25/1/8&2	200	8/2	0.36/0.09	1	4 x 12.3	10.25	21	0.32
LG25/1/12.5&3	160	12.5/3	0.36/0.09	1	4 x 12.3	10.25	21	0.32
LG25/1/20&5	100	20/5	0.36/0.09	1	4 x 12.3	10.25	21	0.32
LG25/2/4&1	400	4/1	0.36/0.09	2	4 x 12.3	10.25	21	0.64
LG25/2/6.25&1.5	320	6.25/1.5	0.36/0.09	2	4 x 12.3	10.25	21	0.64
LG50/1/8&2	320	8/2	0.72/0.18	1	5 x 15.3	12.81	21	0.52
LG50/1/12.5&3	320	12.5/3	0.72/0.18	1	5 x 15.3	12.81	21	0.52
LG50/1/20&5	200	20/5	0.72/0.18	1	5 x 15.3	12.81	21	0.52
LG50/2/4&1	630	4/1	0.72/0.18	2	5 x 15.3	12.81	22	1.04
LG50/2/6.25&1.5	630	6.25/1.5	0.72/0.18	2	5 x 15.3	12.81	22	1.04
LG10/1/8&2	630	8/2	1.45/0.36	1	7 x 22	12.55	45	1.04
LG10/1/16&4	500	16/4	1.45/0.36	1	7 x 22	12.55	45	1.04
LG10/2/4&1	1250	4/1	1.45/0.36	2	7 x 22	12.55	47	2.08
LG10/2/8&2	1000	8/2	1.45/0.36	2	7 x 22	12.55	47	2.08
LG16/1/8&2	1000	8/2	2.44/0.61	1	9 x 27	10.38	60	1.75
LG16/1/12.5&3	1000	12.5/3	2.39/0.58	1	9 x 27	10.38	60	1.75
LG16/2/4&1	2000	4/1	2.44/0.61	2	9 x 27	10.38	64.5	3.5
LG16/2/6.25&1.5	2000	6.25/1.5	2.39/0.58	2	9 x 27	10.38	64.5	3.5
LG20/1/8&2	1250	8/2	3.05/0.77	1	10 x 28	10.25	60	2.25
LG20/1/12.5&3	1250	12.5/3	2.98/0.72	1	10 x 28	10.25	60	2.25
LG20/2/4&1	2500	4/1	3.05/0.77	2	10 x 28	10.25	64.5	4.5
LG20/2/6.25&1.5	2500	6.25/1.5	2.98/0.72	2	10 x 28	10.25	64.5	4.5

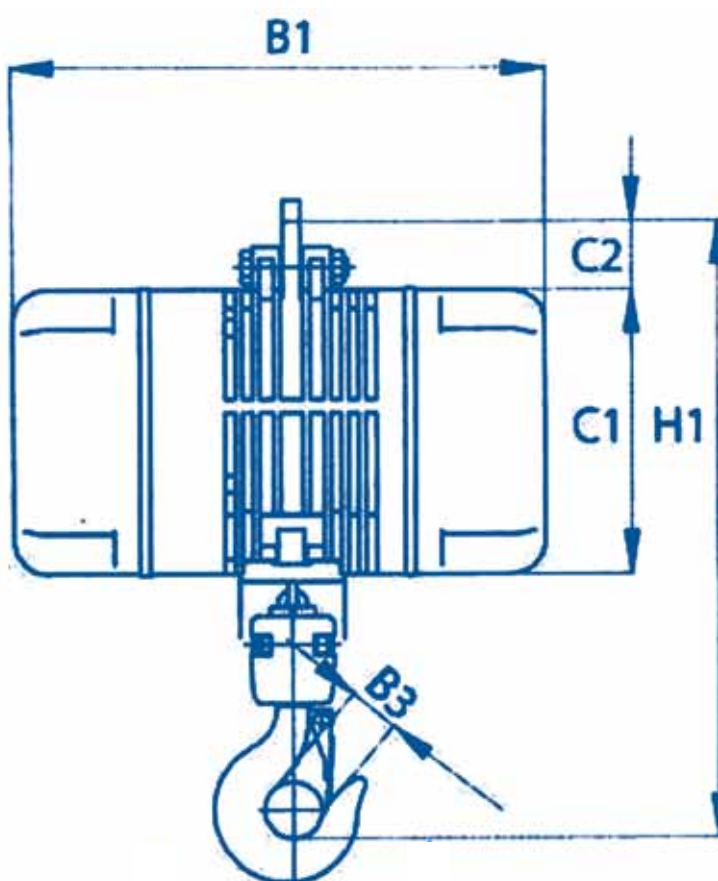
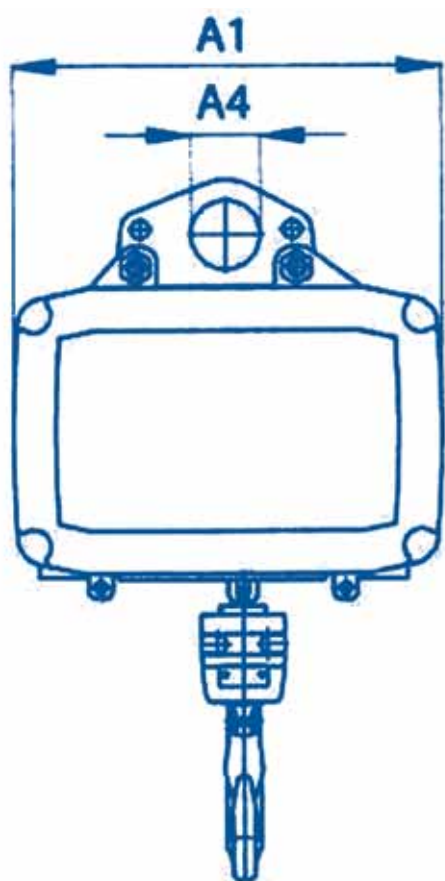
The maximum rated capacity is the result of the lifting capacity divided by the dynamic factor (DIN 56950/3.2.3)

# LoadGuard® Hoists to BGV D8 Plus German safety regulation



## Dimensions (mm)

Type	A1	A4	B1	B3	C1	C2	H1 Eye Suspension	H1 Hook Suspension
LG25/1	246	40	380	22	164	53	362	424
LG25/2	246	40	380	22	164	53	395	457
LG50/1	246	40	380	22	164	53	377	439
LG50/2	246	40	380	22	164	53	417	479
LG10/1	321	52	465	33	214	69	482	553
LG10/2	321	52	465	33	214	69	556	627
LG16/1	345	75	487	33	230	135	608	643
LG16/2	345	75	487	33	230	135	690	725
LG20/1	345	75	487	33	230	135	608	643
LG20/2	345	75	487	33	230	135	690	725



## LoadGuard® - Electric Chain Hoists to BGV C1

A range of high integrity Hoists to BGV C1, this is a German safety regulation (published by VPLT) for a hoist capable of moving loads above people without using a secondary suspension system

These hoists allow the following - when people are present below the load:

- Assembly/ disassembly in set up
- Load holding when loads are static i.e. when a truss is in a fixed position
- Staging processes involving movement

These hoists are adapted to have the following features:

- 2 separate brakes
- Limit switches – normal & emergency limit switches
- Overload monitoring, Shutdown at 120% of rated load (using a built in loadcell)
- Under load monitoring (using a built in loadcell)
- A friction clutch is permitted if it is not within the load path when the hoist is disconnected from the power supply
- Factor of safety 10:1. The capacity is de-rated

Special control systems are required which monitor the safety features and in the event of one of the safety parameters being breached, the system shuts down

Control systems can operate manually or by computerised control using encoders which monitor positions of the hoists/ load. We can fit absolute and/or incremental encoders with very high accuracy

When hoists to BGV C1 are used, no secondary suspension such as load arresters or safety steels are needed and people can safely work below a raised or moving load



Although this is a German regulation, there should be no doubting its safety. The standard is not officially approved for use in the UK and its selection has to be subject to a suitable risk assessment being carried out

Systems to this standard are not required in normal UK truss lifting applications. Generally hoists to BS 7906: Part 1, Category A or BGV D8 Plus would be sufficient

## Specification Single Speed Hoists to BGV C1

Type	Rated Capacity (kg)	Lifting Speed (m/min)	Motor Power (kW)	No. Of chain falls	Chain dimensions (mm)	Chain Safety factor	Number of poles on Motor	FEM Classification
LG25/1/4 C1	200	4	0.15	1	4 x 12.3	10.25	4	1Am
LG25/1SL C1	160	6.25	0.18	1	4 x 12.3	10.25	4	1Bm
LG50/1/4 C1	250	4	0.18	1	5 x 15.3	12.81	4	3m
LG50/1SL C1	250	6.25	0.28	1	5 x 15.3	12.81	4	2m
LG10/1/4 C1	500	4	0.72	1	7 x 22	12.55	8	3m
LG10/1/8 C1	500	8	1.45	1	7 x 22	12.55	4	3m
LG16/1/4 C1	1000	4	1.53	1	9 x 27	10.38	4	2m
LG16/1/8 C1	1000	8	2.44	1	9 x 27	10.38	2	2m
LG16/2/4 C1	2000	4	1.53	2	9 x 27	10.38	2	2m

The maximum rated capacity is the result of lifting capacity divided by the dynamic factor (DIN 56950 / 3.2.3)

# LoadGuard® Hoists to BGV C1 German safety regulation



## Specification- Hoists to BGV C1, designed for use with Frequency Inverter

Type	Rated Capacity kg	Lifting Speed Standard (m/min)	Speed at 87Hz with frequency inverter (m/min)	No of Chain falls	Chain Dimensions (mm)	Chain Safety factor	Number of poles on Motor	Fem Classification
LG25/1/10 C1 FU	100	10	17.4	1	4 x 12.3	20.5	4	2m
LG50/1/10 C1 FU	200	10	17.4	1	5 x 15.3	16.01	4	2m
LG10/1/12.5 C1 FU	500	12.5	21.7	1	7 x 22	12.55	4	2m
LG16/1/5.25 C1 FU	1000	5.25	10.88	1	9 x 27	10.38	4	2m

The maximum rated capacity is the result of lifting capacity divided by the dynamic factor (DIN 56950 / 3.2.3)

# LoadGuard® Chain Containers

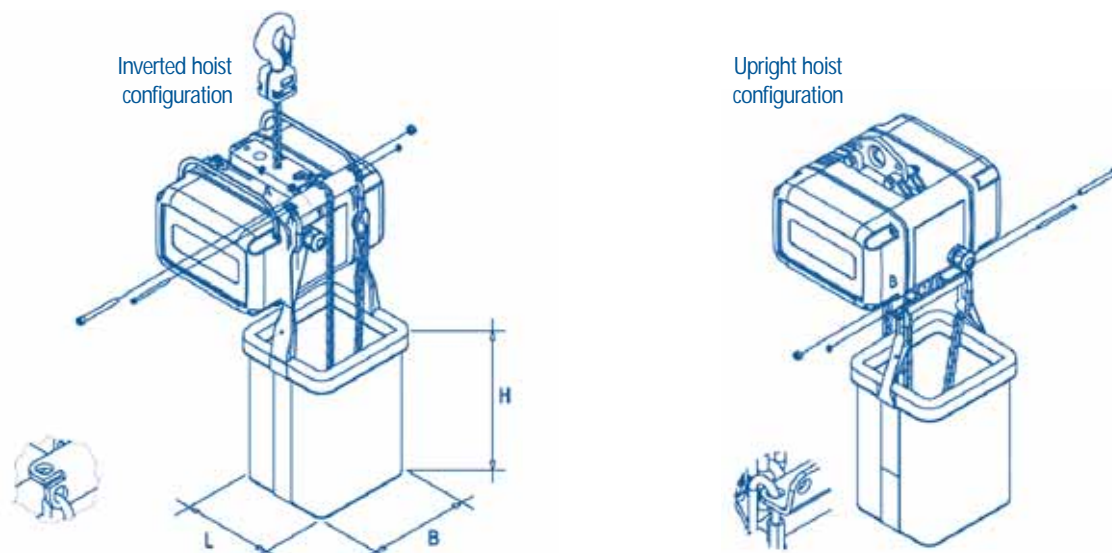


We offer a range of chain bags for LoadGuard® chain hoists.

We fit a special bracket to the hoist to locate the bag using rapid links with screw gate closures for added safety.

The bags are available in five sizes between 300 and 1000mm long. The bags have two straps on each side; the shorter straps are used when the hoist is in its upright/motor up position, the longer straps are used when the hoist is in its inverted/motor down configuration.

The bags are close coupled and allow the hoist to be used in either upright or climbing configurations with correct feeding and retention of the chain. We can also embroider bags with your logos etc.

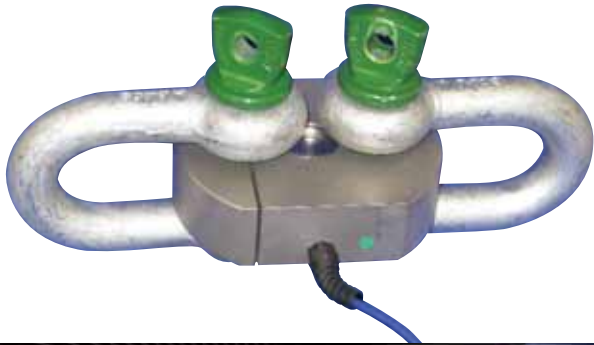


## Specifications

Size of Bag	XS	S	M	L	XL
Bag Frame Size (mm)	200 x 180	200 x 180	200 x 180	200 x 180	200 x 180
Bag Length (mm)	300	450	650	850	1000
Hoist type, chain diam (mm)	Capacity (m)	Capacity (m)	Capacity (m)	Capacity (m)	Capacity (m)
LG 25- 4 mm	30	70	100	---	---
LG 50- 5 mm	20	40	67	100	---
LG 10- 7mm	15	24	40	55	72
LG 16- 9mm	9	19	55	40	47
LG 20/250- 10mm	8	14	72	28	36

## Load Cells for use with Electric Hoists

Load cells can be added into a LoadGuard® Electric Hoist; these are required for under and overload monitoring on BGV C1 hoists, these are generally built into the suspension hook or eye assembly. This can be a more expensive system than having separate load cells which are featured here



These load cells feature:

- Capacities from 2- 20t
- Simplified installation
- Fully sealed, manufactured from plated tool steel and protected to IP66
- Extremely robust
- With shackle mounting for tension applications
- We can supply a stainless steel version if required

We normally fit XLR 4 pin connectors to enable load cells to be connected into an outside control system. In multiple load cell systems the cables are daisy chained

We can supply control systems to show loading information on a computer screen. See below.

## Fully embedded design Load Cell monitoring system No reliance on PC technology or operating systems Automatic monitoring of up to 100 digital Load Cells

The Load Cell Monitor 100 is a fully featured digital load cell monitoring system, combining powerful setup and reporting features with ease of use.

Using fully embedded processors for ultimate reliability the Load Cell Monitor 100 constantly reads the live weight from each connected load cell.

As well as displaying the weights on its front panel LCD screen, and optionally via a PC full screen display, it also compares the individual weights to user defined maximum weights.

Should any load cell exceed its maximum weight setting an alarm is immediately triggered and a log of the overload event is stored.

In addition to the front panel sounder and indicator, a relay output provides alarm condition signaling to an external system or high volume sounder.

- Monitoring of up to 100 digital load cells, with maximum weight monitoring
- Log history of alarm events and automatic daily weight readings
- Daisy chain connection of Load Cells using a single cable, with power provided by the Load Cell Monitor.
- Live load cell weight display on the front panel LCD screen
- Two volt free relay outputs to provide external alarm signaling
- Optional password protection to stop unauthorised users altering settings
- Optional full screen weight display using a PC connected to the Ethernet port. One or more PC's running the IBEX Hoist-Net PC application may be used to view all channels at once, with user configurable screen layout.

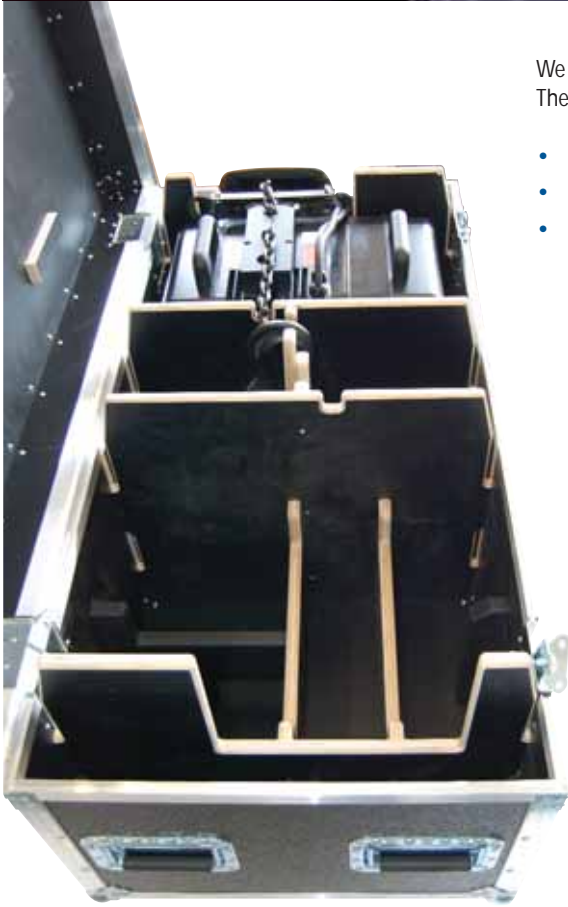
## Optional features:

- Automatic alarm event notification via the internet to a user defined email address
- Automatic periodic sending of the log history over the internet via email
- Remote request for live weights and log data over the internet via email



We offer a range of heavy duty flight cases specially designed for LoadGuard® hoists. The cases are purpose built.

- We offer cases for the 250/500kg hoists which hold 2 or 4 hoists
- For the larger capacity hoists, we offer cases for 1 or 2 hoists
- Cases can be easily altered to accept standard rigging hoists and longer, higher specification hoists



## Specifications

Case Type	Hoist Type	Capacity	Length (mm)	Width (mm)	Height of Case (mm)	Height with Wheels (mm)	Weight (kg)
LG 25/50	Standard / BS / D8 Plus	2 hoists	835	580	402	552	41
LG 25/50	Standard	4 hoists	1200	580	402	552	53
LG 10	Standard / BS / D8 Plus	1 hoist	700	580	502	652	38
LG 10	Standard / BS / D8 Plus	2 hoists	1200	580	502	652	58
LG 16	Standard / BS / D8 Plus	1 hoist			Information on request		
LG 16	Standard / BS / D8 Plus	2 hoists			Information on request		

LTM started building hoist controllers in 2005, the range started with simple flight cased units. We now manufacture rack and wall mounted controllers and build specials to suit your exact requirements. We build everything from simple handsets to complex multi channel control systems.

## Guardian Handsets



- These units come complete with up and down buttons, a metre of cable and a CEE 4 pin yellow, 16A connector. Note: we also offer double pickles to operate 2 hoists from one handset



## Guardian Hoist Controllers Briefcase Type

- These are available in 4, 6 or 8 channel for Direct Control Hoists and 4 channel for Low Voltage controlled Hoists
- Local control as standard with the controls mounted on the front face of the Controller
- Built into polypropylene briefcase
- CEE outlets as standard, Socapex available on request
- Available for 400V, 3Ph or 220V, 1Ph power supplies



## Guardian Flight Cased Controller

- These are available in 4, 6, 8 or 12 channel as standard but we manufacture in most variations
- Local or remote controls
- Built into flight cases
- CEE or Socapex outlets
- We offer Controllers for Direct or Low Voltage controlled Hoists and for 400V, 3Ph or 220V, 1Ph power supplies

## Guardian Hoist Controllers - Rack Mounted

- These are available in 4, 6, 8 or 12 channel as standard but we manufacture in most variations
- Local or remote controls
- Built into rack mounted enclosures
- CEE or Socapex outlets
- We offer Controllers for Direct or Low Voltage controlled Hoists and for 400V, 3Ph or 220V, 1Ph power supplies



## Guardian Hoist Controllers - Wall Mounted

- These are available in 4, 6, 8 or 12 channel as standard but we manufacture in most variations.
- Local or remote controls
- Built into wall mounted enclosures
- Hard wired outlets to hoists
- We offer Controllers for Direct or Low Voltage controlled Hoists and for 400V, 3Ph or 220V, 1Ph power supplies

# IBEX Programmable Hoist Controller Plus

LoadGuard®



Front panel



Rear panel

The IBEX Programmable Hoist Controller Plus is a state of the art motion control system providing fully computerised control of single speed hoists combined with the simplicity and versatility of a traditional manual hoist controller. It provides as little or as much functionality as required. With its dedicated toggle switches and select buttons for every channel, no other hoist controller can match its live performance capabilities pound for pound.

Connecting to the controller is simple. It acts as an intelligent rigger's hand control, with 'up' and 'down' relay outputs for each channel, and is connected to any standard hoist controller rack using a cable wired to suit the pinout of the handset.

Each channel may be set up as either manual control only, timed computer positioning, or encoded computer positioning (single or dual phase encoders possible). The Ibex also features a port for connection to digital load cells. Each channel may be configured to read its assigned load cell and shut down movement if the defined minimum or maximum weight is exceeded.

Weights may also be read via the LCD screen.

An Ethernet port on the rear of the unit allows optional connection to a PC or Laptop for full screen display of the status of all channels and the linking of up to 10 controllers to provide up to 240 channels of control.

## Features:

The Programmable Hoist Controller Plus provides the following powerful features:

- Easy to use - no complex programming techniques to learn
- Programme sequences with manual, timed and positional links, for easy playback of complex moves
- Run sequences, multiple cues and manual moves all at the same time
- Set up groups of hoists so that if one should fail the others automatically halt
- Connect digital load cells for automatic weight monitoring, with overload and underload protection functions
- Automatic movement with group halt in the event of any error
- Encoder positioning using single or dual phase encoders  
Time based positioning  
This feature mode is a very useful backup in the event of encoder failure during a live show.
- Optional password protection to stop unauthorised users moving hoists or altering settings
- Ethernet port allowing up to 10 PHC plus controllers to be linked together providing up to 240 channels of control, plus full screen monitoring of all channels.
- Easy channel setup via motor libraries



**LoadGuard®** 

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Opening Hours: Monday - Friday 9.00am - 5.00pm the office is normally open outside these times

We use various methods of delivery and can deliver more or less whenever you need.

LoadGuard® - A Lift Turn Move Product

