

### 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.

# Hoists to BS7906: Part 1-Category A

## For lifting loads above people

LoadGuard 

### Specification

#### Single Speed

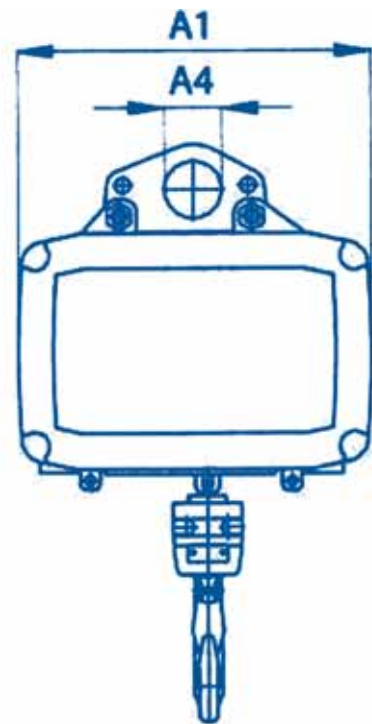
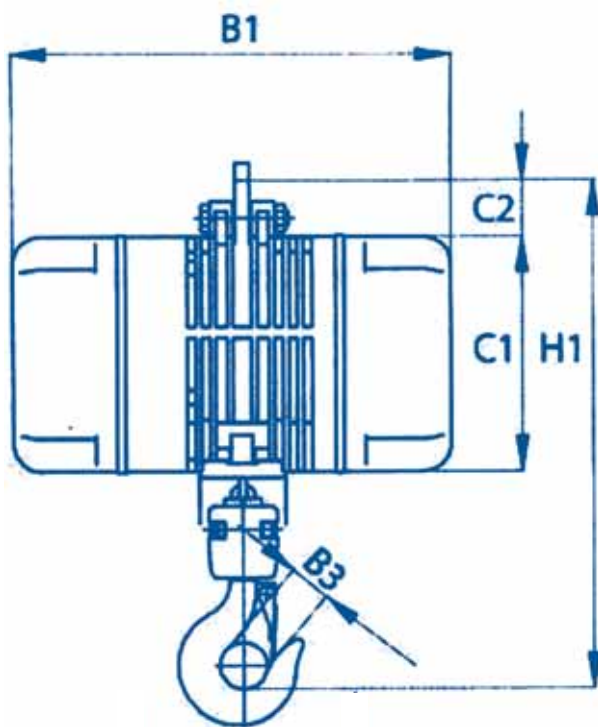
Type	Lifting capacity (kg)	Lifting speed (m/min)	Motor power (kW)	No. of chain falls	Chain dimensions (mm)	Chain safety factor	Weight body only (kg)	Weight per extra metre lift (kg)
LG25/1/4	250	4	0.18	1	4 x 12.3	8.2	18	0.32
LG25/1/8	250	8	0.36	1	4 x 12.3	8.2	18	0.32
LG25/2/2	500	2	0.18	2	4 x 12.3	8.2	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



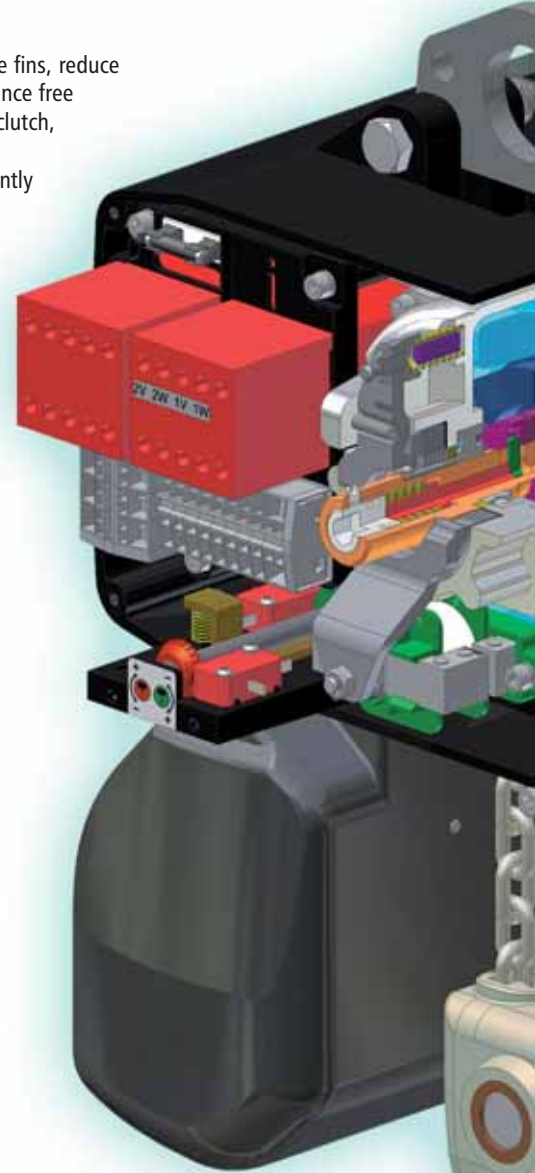


## Brake

- 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

