

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	Lifting Capacity	Lifting Speed	Motor Power	No. Of chain falls	Chain dimensions	Chain Safety factor	Number of poles on Motor	FEM Classification
	(kg)	(m/min)	(kW)		(mm)			
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

Hoists to BGV C1 German safety regulation

LoadGuard 

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

Type	Lifting 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

Chain Containers

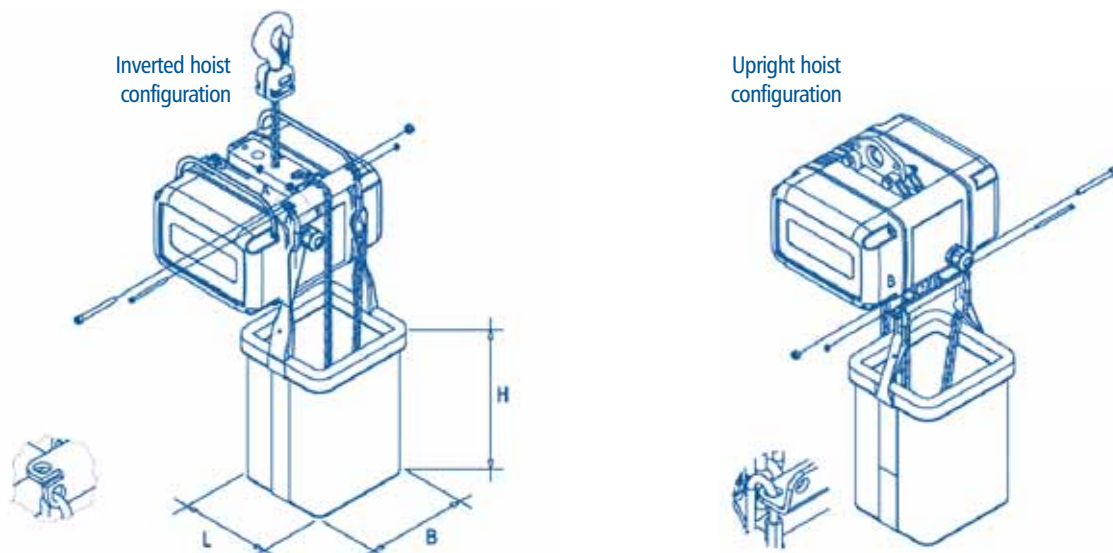
LoadGuard 

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

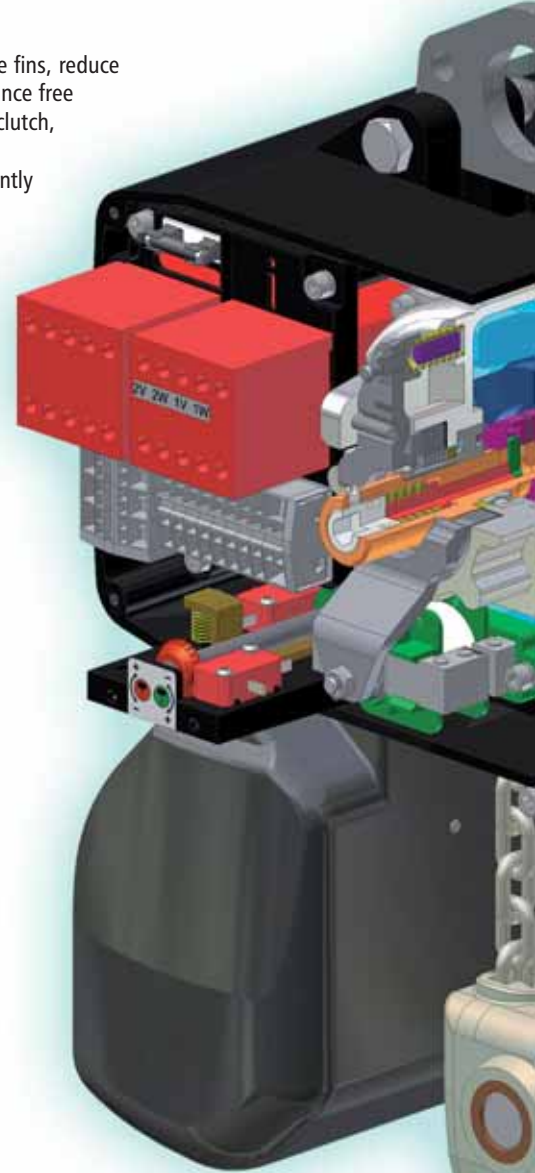


Brake

- 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

