



NEW HOIST GENERATION

BORN
FROM
EXPERIENCE





What do you want from a new machine?

- + Safety
- + Reliability
- + Performance
- + Durability
- Maintenance



Frequency inverter for cross travel and hoist motions as standard.

Minimum duty service classification ISO M5.

C-shaped design for better approaches.

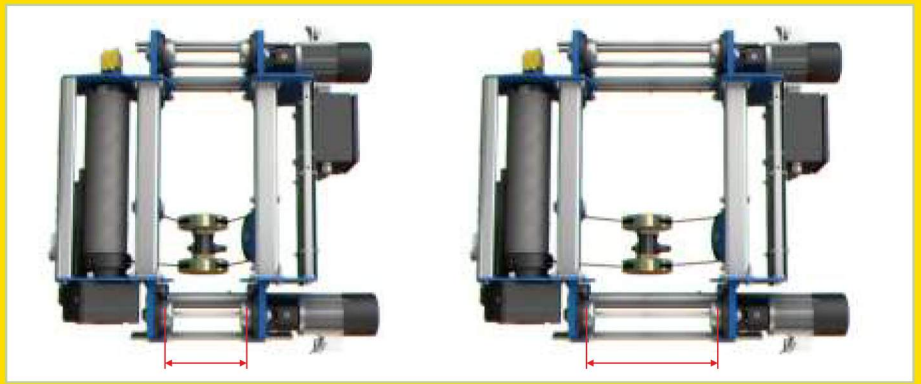
Reduced weight, transmitting less stress to the structure.

Complies with European Machine Directive 2006/42/EC.

Designed for higher productivity and maintenance savings.

Quick connector on motors and cabinets.

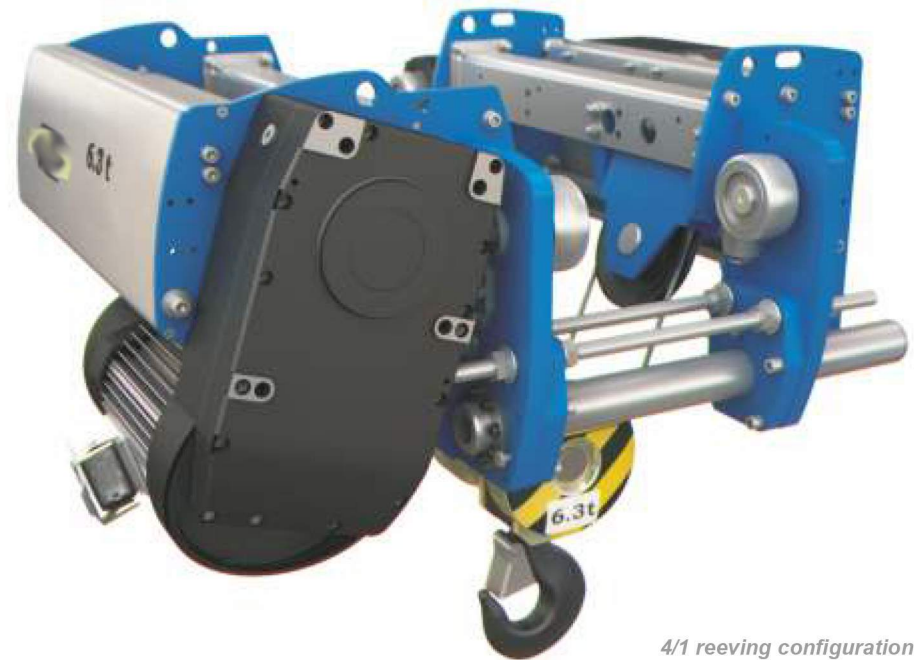
An adaptable, modular hoist



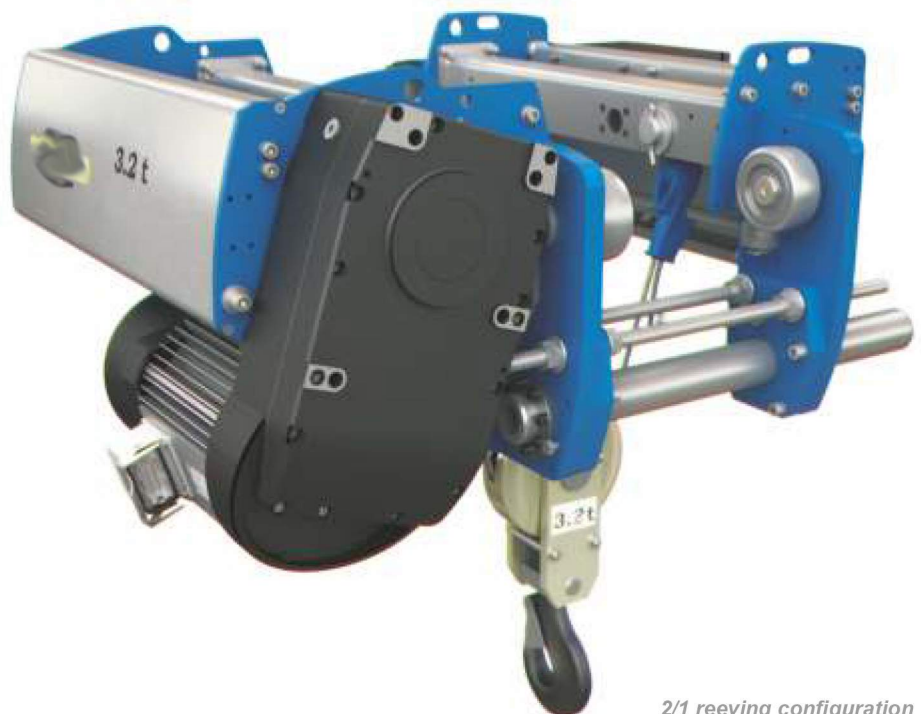
Modular design,
easily adaptable
to different
wire rope
arrangements
and girder widths

The new GHB11 hoist's modular design enables much of the structure to be used for assembling the different hoist configurations, different rope arrangements (4/1, 2/1, 4/2, etc.), drum lengths or installing a second motor.

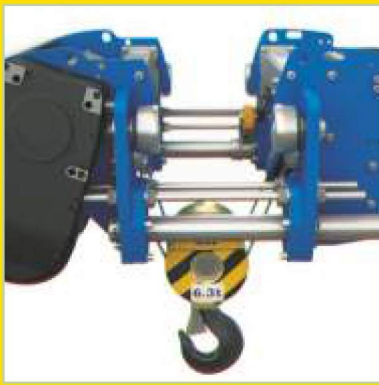
This design makes our new hoist competitive and quick to manufacture.



4/1 reeving configuration



2/1 reeving configuration

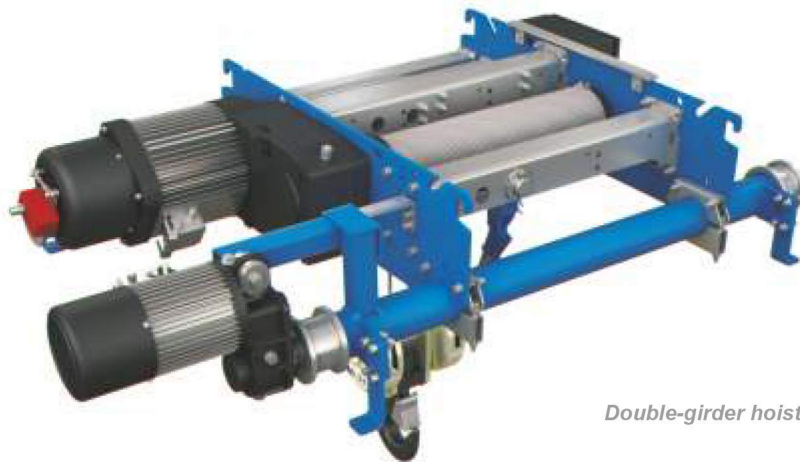


A robust, reliable range of hoists



Single-girder suspended hoist

Specific
solutions
for each type
of work and
working
environment



Double-girder hoist with tubes

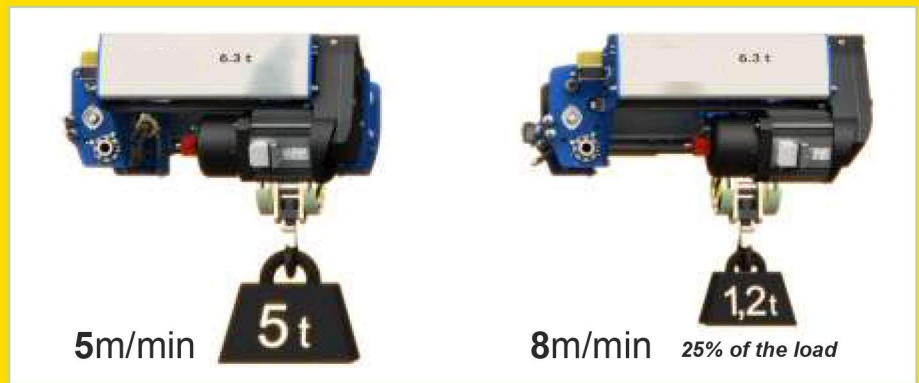
- Aeronautics
- Shipbuilding
- Automotive
- Metal fabrication
- Wind power
- Railway
- Casting
- Container cranes
- Steel handling
- Stone handling
- Boat handling
- Public works
- Paper mills
- Precast concrete
- Urban solid waste
- Steel industry



Double-girder hoist with end carriages

Our products for all sectors are designed with a view to offering our customers the best performance at the lowest cost, based on reliability, safety, durability, affordability and minimum maintenance.

Speed control by frequency inverter, for higher productivity



Features

Speed selection.

Smooth running. Acceleration/deceleration control to prevent dangerous swing.

Electric braking, allowing the service brake to work as a safety brake in practice.

More durable mechanisms.

Compact design for the closest approaches, making efficient use of available space.

Light weight, with no counterweight, reducing stress to the structure.

Energy savings.

No counterweights

- Lower moments of inertia.

Cross travel motor

- Speed regulation by frequency inverter.
- Direct drive, with two wheels on each side of the girder.

Hoisting motor

- Encoder safety.
- IP-55 protection as per DIN 40050.
- Duty cycle 60% ED.

Helical gears

- Smooth running.
- Excellent lubrication.
- All gears in closed housing with oil bath.

Wire rope guide

- Latest-generation materials.
- Longer wire rope life with less wear.

Safety

Frequency inverter for cross travel and hoist motions as standard.

Wire rope safety factor as per EC directive (Min 5).

Two steps limit switch for lifting.

Safe Operating Period Control.

Load swing control.

Operating and maintenance control.

Load slip safety system.

Optional loose wire rope indication.

Phase reversal/phase loss protection.

Motor overheating protection.

Overload limiter.

Reliable load clamping with safety Latch.

Reliability

All components are highly robust.

Longer working life of all components.

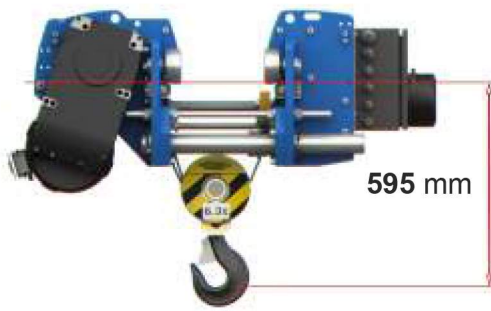
New materials for longer machine working life.

Modular design.

Lower machine downtime costs.

Lower maintenance costs during the hoist's working life.





State-of-the-art technology, adapted to the customer's needs

Load control

All our hoists come equipped with the model ALE-100/TN electronic limiter, with record and control function. Designed for overload, loose wire rope and motor overheating control. also records the load spectrum of the hoist as per UNE 58 919 standard.

In combination with the overload cell, it enables optional viewing of hanged load and Safe Operating Period control:

- Number of lifting manoeuvres.
- Number of inching manoeuvres.
- Lifting manoeuvre time.
- Number of overloads.
- Number of trolley manoeuvres.
- Number of bridge manoeuvres.
- Activation of next inspection alert by number of hours and/or date.

This data can be viewed on the remote control.



Electronic load limit device (ALE-100/TN)

Hoist versions

We adapt the features of our products to meet our customers' needs.

- Hoist for curves.
- Cradled double-girder trolley.
- Hoist with console trolley.
- Motorised rotary trolley.
- Dual hoist double-girder trolley.
- Dual hook double-girder trolley.
- Trolley with hoist parallel to end carriages.
- Double-girder tube trolley with platform.
- Winder trolley.
- Hoist between girders.
- Recess-mounted double-girder trolley with 2 cable exits and rack conveying.



Other options

- Anti-collision photocells.
- Weighing display.
- Safety brake on drum.
- Hook blocking system.
- Remote control.
- Data displayed on remote control.
- Data displayed on radio remote control.



Radio remote control with display (on the radio)

Frequency inverter for hoist and cross travel motions



A wide range is available

Standard: Frequency inverter on hoisting

Models GHA12, GHB11 and GHD13

- Nominal speed at full load 5m/min.
- Overspeed at 1/4 load 8m/min.

Optional: 2-speed motor

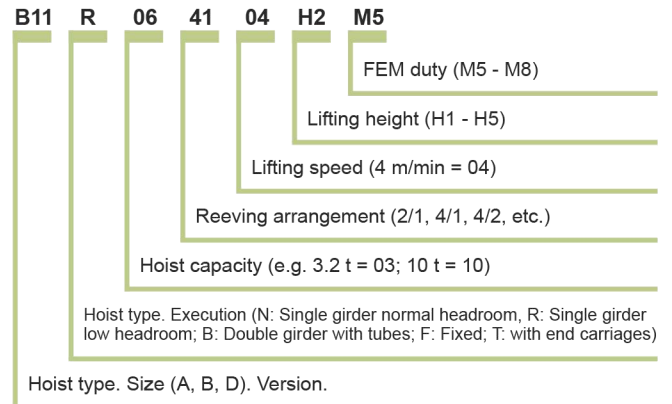
Hoisting speed

- 5/0.8 m/min. GHB11, GHD13

Hoisting speed

- 5/1.25 m/min. GHA12

Other options available.



kg.	Hoist	Speed m/min	Falls	Duty FEM	HOL (Height Of Lift) (m)			
					H1	H2	H3	H4
1.000	GHA12_014105M7	5	4/1	M7	4.5	8	10.8	
	GHA12_012110M6	10	2/1	M6	9	16	21.6	
	GHB11_011116M7	16	1/1	M7	14.5	27.1	37.2	47.3
	GHB11_012216M7	16	2/2	M7	4	10.3	15.4	20.5
	GHB11_011120M6	20	1/1	M6	14.5	27.1	37.2	47.3
	GHB11_012220M6	20	2/2	M6	4	10.3	15.4	20.5
1.600	GHA12_014105M7	5	4/1	M7	4.5	8	10.8	
	GHA12_012110M5	10	2/1	M5	9	16	21.6	
	GHB11_012216M5	16	2/2	M5		10.3	15.4	20.5
	GHB11_011116M5	16	1/1	M5	14.5	27.1	37.2	47.3
	GHD13_012220M7	20	2/2	M7		15.9		31
	GHD13_011120M7	20	1/1	M7	15.2	28.8		51
2.000	GHA12_024105M7	5	4/1	M7	4.5	8	10.8	
	GHB11_022108M7	8	2/1	M7	7.26	13.55	18.6	23.6
	GHB11_024208M7	8	4/2	M7		5	7.5	10
	GHB11_022110M6	10	2/1	M6	7.26	13.55	18.6	23.6
	GHB11_024210M6	10	4/2	M6		5	7.5	10
	GHD13_022216M7	16	2/2	M7		15.9		31
	GHD13_021116M7	16	1/1	M7	15.2	28.8		51
	GHD13_022220M6	20	2/2	M6		15.9		31
	GHD13_021120M6	20	1/1	M6	15.2	28.8		51
	2.500	GHA12_024105M6	5	4/1	M6	4.5	8	10.8
GHB11_022108M6		8	2/1	M6	7.26	13.55	18.6	23.6
GHB11_024208M6		8	4/2	M6		5	7.5	10
GHB11_022110M5		10	2/1	M5	7.26	13.55	18.6	23.6
GHB11_024210M5		10	4/2	M5		5	7.5	10
GHD13_022110M7		10	2/1	M7	7.6	14.4		25.5
GHD13_024210M7		10	4/2	M7		7		14.7
GHD13_022216M6		16	2/2	M6		15.9		31
GHD13_021116M6		16	1/1	M6	15.2	28.8		51
GHD13_022220M5		20	2/2	M5		15.9		31
GHD13_021120M5		20	1/1	M5	15.2	28.8		51

Hoist selection chart

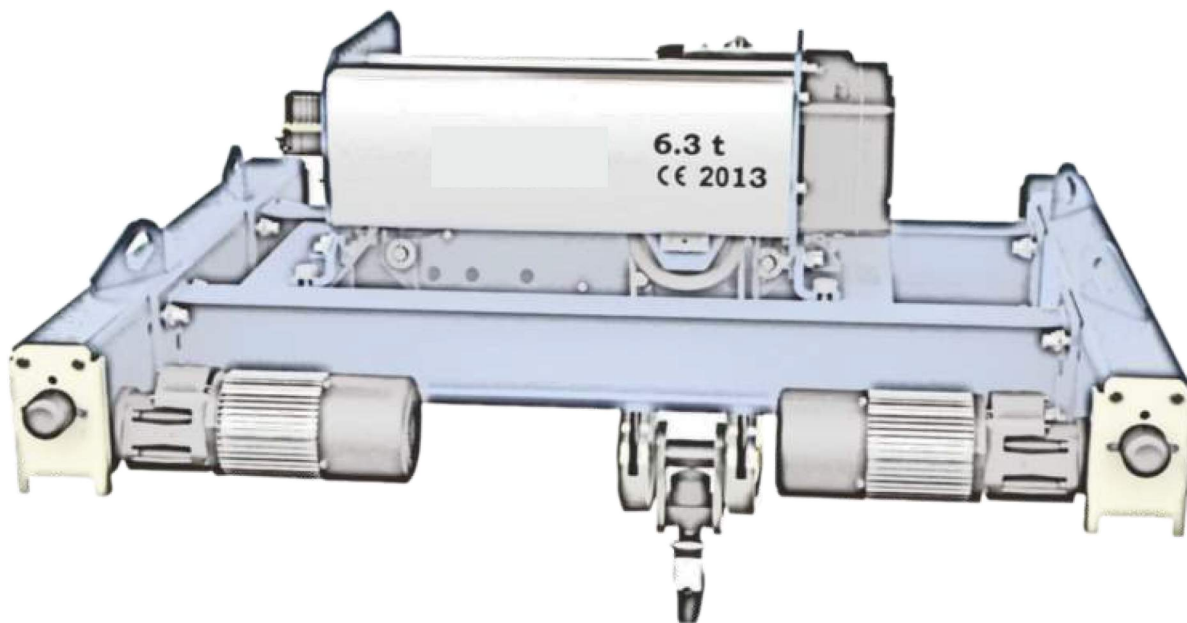
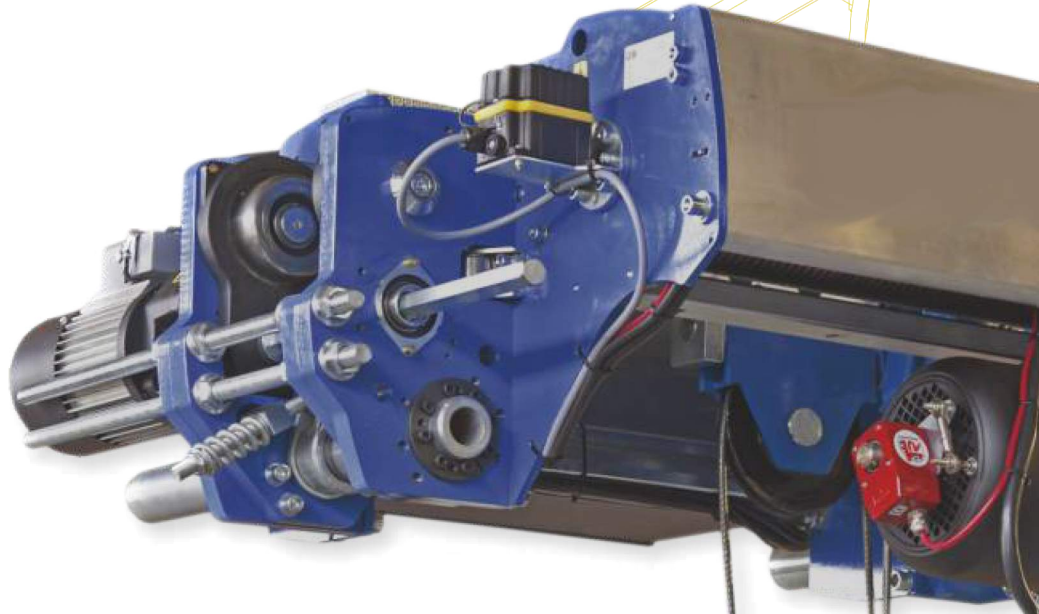
kg.	Hoist	Speed m/min	Falls	Duty FEM	HOL (Height Of Lift) (m)			
					H1	H2	H3	H4
3.200	GHA12_034105M5	5	4/1	M5	4.5	8	10.5	
	GHB11_034105M7	5	4/1	M7	3.6	6.8		10
	GHB11_032108M5	8	2/1	M5	7.26	13.55	18.6	23.6
	GHB11_034208M5	8	4/2	M5		5	7.5	10
	GHD13_032110M7	10	2/1	M7	7.6	14.4		25.5
	GHD13_034210M7	10	4/2	M7		7		14.7
	GHD13_032216M5	16	2/2	M5		15.9		31
4.000	GHB11_044104M7	4	4/1	M7	3.6	6.8		10
	GHB11_044105M6	5	4/1	M6	3.6	6.8		10
	GHD13_042108M7	8	2/1	M7	7.6	14.4		25.5
	GHD13_044208M7	8	4/2	M7		7		14.7
	GHD13_042110M6	10	2/1	M6	7.6	14.4		25.5
	GHD13_044210M6	10	4/2	M6		7		14.7
5.000	GHB11_054104M6	4	4/1	M6	3.6	6.8		10
	GHB11_054105M5	5	4/1	M5	3.6	6.8		10
	GHD13_054105M7	5	4/1	M7	3.8	7.2		10
	GHD13_052108M6	8	2/1	M6	7.6	14.4		25.5
	GHD13_054208M6	8	4/2	M6		7		14.7
	GHD13_052110M5	10	2/1	M5	7.6	14.4		25.5
	GHD13_054210M5	10	4/2	M5		7		14.7
6.300	GHB11_064104M5	4	4/1	M5	3.6	6.8		10
	GHD13_064105M7	5	4/1	M7	3.8	7.2		10
	GHD13_062108M5	8	2/1	M5	7.6	14.4		25.5
	GHD13_064208M5	8	4/2	M5		7		14.7
8.000	GHD13_084104M7	4	4/1	M7	3.8	7.2		10
	GHD13_084105M6	5	4/1	M6	3.8	7.2		10
10.000	GHD13_104104M6	4	4/1	M6	3.8	7.2		10
	GHD13_104105M5	5	4/1	M5	3.8	7.2		10
12.500	GHD13_124104M5	4	4/1	M5	3.8	7.2		10

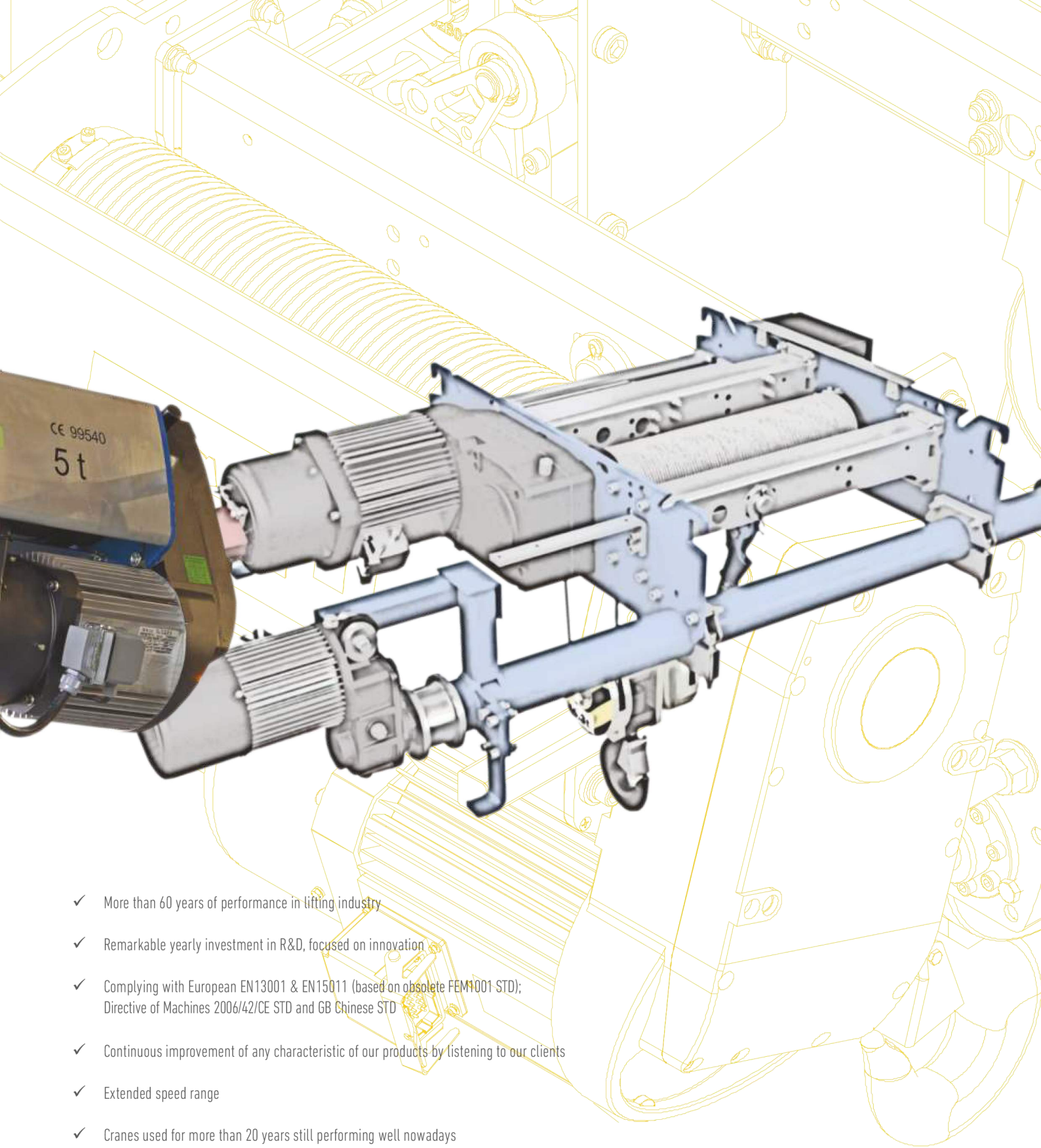
The Result Of The Experience

INNOVATION WHICH DELIVERS VALUE

WHICH OF THE BELOW CHARACTERISTICS WOULD YOU REQUIRE FOR A NEW MACHINE YOU ARE ABOUT TO BUY?

Experienced Manufacturer
Vanguard technology
The highest Safety standards
Extended Reliability
Maximum Efficiency
Proven Robustness
Modern and compact design
Minimum Maintenance
User friendliness





- ✓ More than 60 years of performance in lifting industry
- ✓ Remarkable yearly investment in R&D, focused on innovation
- ✓ Complying with European EN13001 & EN15011 (based on obsolete FEM1001 STD); Directive of Machines 2006/42/CE STD and GB Chinese STD
- ✓ Continuous improvement of any characteristic of our products by listening to our clients
- ✓ Extended speed range
- ✓ Cranes used for more than 20 years still performing well nowadays
- ✓ State of the art materials used for each component
- ✓ Elements tested for 100,000 hours under the worst conditions
- ✓ Latest technologies applied to improve the user experience in any industry

WHY BOTHER CHOOSING IF YOU CAN HAVE THEM ALL?

The New Generation

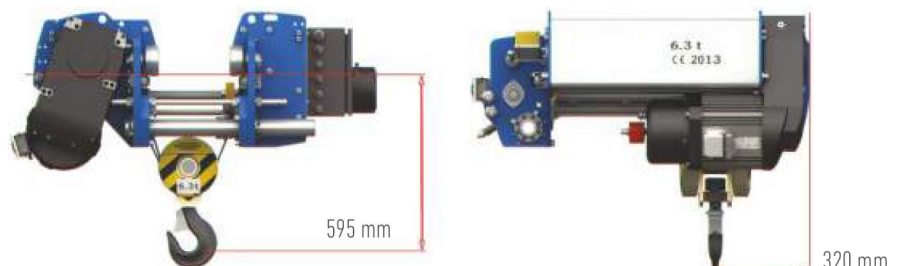
NEW HOIST SERIES: GHA12 (UP TO 3.2T), GHB11 (UP TO 6.3T) & GHD13 (UP TO 12.5T)



- **Totally modular**, screwed mounting: easy maintenance.
- **Design in C** decreasing side approaches in single girder versions.
- **Improved materials used** increasing hoist life span.
- **Frequency inverters as standard on all movements** (2 speeds in lifting optional).
 - Increased life of mechanical components.
 - Speed control by inverter, selectable speeds.
 - Precise handling and smoothness in movement.
 - Easier dual hoists lifting speeds synchronization.
- **No counterweights** in Low headroom version as standard:
 - Less moments of inertia.
 - Less weight, less power consumption.
- **Polymer rope guide**: increased rope life span with less wear.
- **M5 (min) – M7 working groups** in all its versions.
- **ALE 100T Load limiter**: Display of load and SWP (Safe Working Period) on the remote (optional).
- **Flange width**: Smoothly adjustable.
 - Easier dual hoists lifting speeds synchronization.

COMPACT DESIGN

Reduced approaches



Configurations Covering Any Need



Foot mounted hoist



Low headroom single girder hoist



Single girder hoist



Standard double girder hoist (tubes)

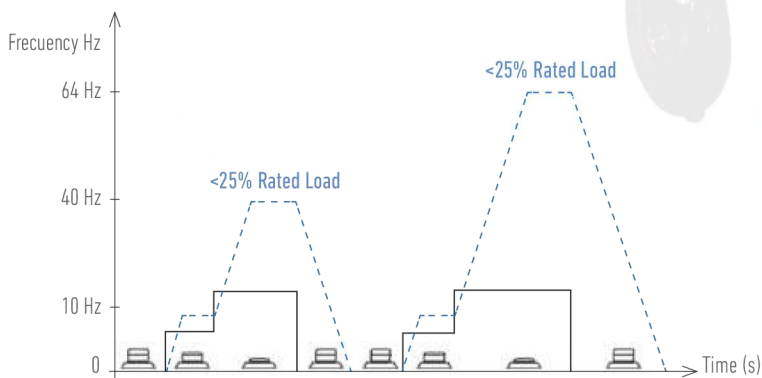


Double girder crab with end carriages



Single girder slewing hoist

SPEED INCREASED



When load is < 25% of the nominal one, the fast speed increases by 60%



5t



12t

8m/min

Characteristics

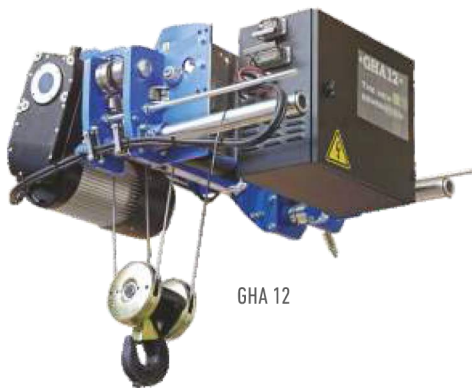
SAFETY

- Rope safety factor ≥ 5 in accordance with Directive of Machines 2006/42/CE STD.
- Double limit switch on lifting.
- Safe working period control.
- Load swing control.
- Operation and maintenance monitoring.
- Load slip preventing feature.
- Slack rope indication.
- Protection against phase inversion or phase loss.
- Motor overheating protection.
- Overload limit device.
- Reliable load clamping by safety latch.

FEATURES

- Modular design, allowing flexibility on falls interchange (4/1, 2/1, 4/2, etc.).
- Lightweight, no counterweight reducing stress on the structure.
- Brake just used as parking brake, by controlling acceleration and deceleration by inverters, increasing the lifespan of the components.

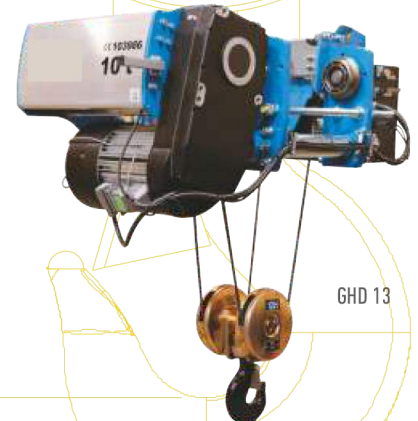
HOIST	FALLS	Capacity	HOL
GHA12	2/1	up to 1.6t	21.6 m
	4/1	up to 3.2t	10.8 m
GHB11	2/1	up to 3.2t	23.6 m
	4/1	up to 6.3t	10.0 m
GHD13	2/1	up to 6.3t	36.5 m
	4/1	up to 12.5t	15.6 m



GHA 12

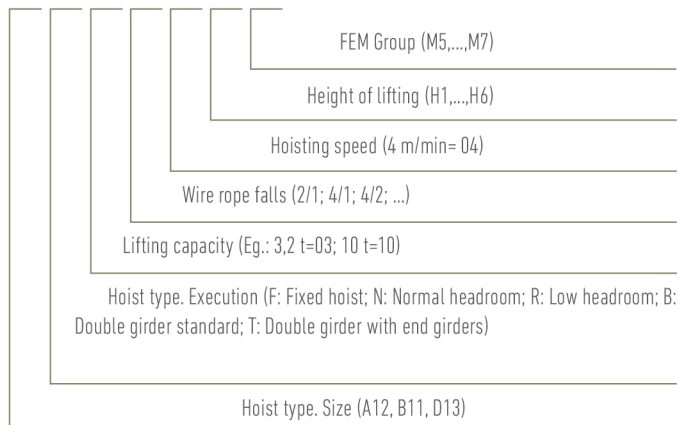


GHB 11



GHD 13

A12 R 6 41 4 H2 M5



STANDARD HOIST

- Frequency inverter in hoisting motion.
- Rated hoisting speed increased 60% when Load $\leq 25\%$ Rated.

OPTIONALS

- Pole-changing hoisting motor.
- Second brake in drum.
- Double girder trolley cover.
- Double girder trolley maintenance platform.
- Other options available.

New Series Selection Table

Capacity [kg]	Hoist type	FEM Group	Reeving	Fl Lifting [m/min]		Rated power [Kw]		Height of lifting HOL [m]					
				V	P	H1	H2	H3	H4	H5	H6		
1000	GHA12_014105M7	M7	4/1	5	3,1	4,5	8	10,8					
	GHA12_012110M6	M6	2/1	10		9	16	21,6					
	GHB11_012216M7	M7	2/2	16	5	4	10,3	15,4	20,5				
	GHB11_012220M6	M6		20									
	GHB11_011116M7	M7	1/1	16		14,5	27,1	37,2	47,3				
	GHB11_011120M6	M6		20									
1600	GHA12_014105M7	M7	4/1	5	3,1	4,5	8	10,8					
	GHA12_012110M5	M5	2/1	10		9	16	21,6					
	GHB11_012216M5	M5	2/2	16	5		10,3	15,4	20,5				
	GHB11_011116M5	M5	1/1	16		14,5	27,1	37,2	47,3				
	GHD13_012220M7	M7	2/2	20	9,5		15,9		31	38,5	46		
	GHD13_011120M7	M7	1/1	20		15,2	28,8		51	61,9	72,8		
2000	GHA12_024105M7	M7	4/1	5	3,1	4,5	8	10,8					
	GHB11_024208M7	M7	4/2	8		5		5	7,5	10			
	GHB11_024210M6	M6		10									
	GHB11_022108M7	M7	2/1	8		7,26	13,55	18,6	23,6				
	GHB11_022110M6	M6		10									
	GHD13_022216M7	M7	2/2	16	9,5		15,9		31	38,5	46		
	GHD13_022220M6	M6		20									
	GHD13_021116M7	M7	1/1	16		15,2	28,8		51	61,9	72,8		
	GHD13_021120M6	M6		20									
2500	GHA12_024105M6	M6	4/1	5	3,1	4,5	8	10,8					
	GHB11_024208M6	M6	4/2	8		5		5	7,5	10			
	GHB11_024210M5	M5		10									
	GHB11_022108M6	M6	2/1	8		7,26	13,55	18,6	23,6				
	GHB11_022110M5	M5		10									
	GHD13_024210M7	M7	4/2	10	9,5		7		14,7	18,5	22,3		
	GHD13_022110M7	M7	2/1	10		7,6	14,4		25,5	31	36,5		
	GHD13_022216M6	M6	2/2	16			15,9		31	38,5	46		
	GHD13_022220M5	M5		20									
	GHD13_021116M6	M6	1/1	16		15,2	28,8		51	61,9	72,8		
GHD13_021120M6	M5		20										
3200	GHA12_034105M5	M5	4/1	5	3,1	4,5	8	10,8					
	GHB11_034105M7	M7	4/1	5		5	3,6	6,8		10			
	GHB11_034208M5	M5	4/2	8				5	7,5	10			
	GHB11_032108M5	M5	2/1	8		7,26	13,55	18,6	23,6				
	GHD13_034210M7	M7	4/2	10	9,5		7		14,7	18,5	22,3		
	GHD13_032110M7	M7	2/1	10		7,6	14,4		25,5	31	36,5		
	GHD13_032216M5	M5	2/2	16			15,9		31	38,5	46		
	GHD13_031116M5	M5	1/1	16		15,2	28,8		51	61,9	72,8		
	GHB11_044104M7	M7	4/1	4	5	3,6	6,8		10				
GHB11_044105M6	M6		5										
GHD13_044208M7	M7	4/2	8	9,5		7		14,7	18,5	22,3			
GHD13_044210M6	M6		10										
GHD13_042108M7	M7	2/1	8		7,6	14,4		25,5	31	36,5			
GHD13_042110M6	M6		10										
5000	GHB11_054104M6	M6	4/1	4	5	3,6	6,8		10				
	GHB11_054105M5	M5		5									
	GHD13_054105M7	M7	4/1	5	9,5		3,8	7,2		10	12,8	15,6	
	GHD13_054208M6	M6	4/2	8				7		14,7	18,5	22,3	
	GHD13_054210M5	M5		10									
	GHD13_052108M6	M6	2/1	8		7,6	14,4		25,5	31	36,5		
GHD13_052110M5	M5		10										
6300	GHB11_064104M5	M5	4/1	4	5	3,6	6,8		10				
	GHD13_064105M7	M7	4/1	5		9,5	3,8	7,2		10	12,8	15,6	
	GHD13_064208M5	M5	4/2	8				7		14,7	18,5	22,3	
	GHD13_062108M5	M5	2/1	8		7,6	14,4		25,5	31	36,5		
8000	GHD13_084104M7	M7	4/1	4	9,5	3,8	7,2		10	12,8	15,6		
	GHD13_084105M6	M6		5									
10000	GHD13_104104M6	M6	4/1	4	9,5	3,8	7,2		10	12,8	15,6		
	GHD13_104105M5	M5		5									
12500	GHD13_124104M5	M5	4/1	4	9,5	3,8	7,2		10	12,8	15,6		

* GHA12 only available in single girder low headroom version.

* 1/1 and 2/2 falls only available in 2 speeds version.

* Bigger HOL or lifting speeds available for each model under request.

Big Capacity Hoists 16t-100t

SERIES: GHE, GHF, GHG



FOOT MOUNTED



SG TROLLEY

SWL ≤ 20t as STD,
HOL ≤ 57.8 m
SWL ≤ 40t on request



DG STD TROLLEY

SWL ≤ 32t
HOL ≤ 28m



DG EC TROLLEY



DG DUAL EC TROLLEY

SWL ≤ 100t
HOL ≤ 69 m

FEATURES



GEARBOX

Robust and compact, situated on the exterior, allowing ease of access, gears in oil bath. The helical teeth in all the gears are cut with great precision, in cemented steel, assuring silent running, great reliability and long life. The drive from the motor to the gearbox is direct, avoiding coupling devices which have a tendency to fail.

LIFTING MOTOR

The hoist has a cylindrical short circuit motor with an incorporated electromagnetic brake. The motor and brake have been designed for continuous service with high duty factors and cycles. The brakes are electromagnetic disc. They offer great reliability and automatic braking in the event of power failure. The friction linings are long lasting and the brake is easy to regulate. Protection IP-55 to DIN 40050.



WHEELS

Dependant on the hoist model, the wheel material can be GG 60 for monorail hoists and GGG 70 (nodular cast iron with graphite structure) for birrail crabs. As shown, drive is via a direct splined axle.



TRAVELLING GEARED MOTORS

Are specially designed for crane application. Low torque high inertia drives, provide gradual acceleration and smooth deceleration without excessive swing.



DRUM & CABLE GUIDE

Constructed from a seamless steel tube with grooves machined according to DIN15061. The groove is machined dependant on the wire rope exits i.e. 1 or 2 exits. The drum is fitted to the hoist frame using high quality, self lubricating, commercial bearings. The drive from the gearbox to the drum is via a direct splined shaft. The rope guide is manufactured from GGG70 nodular cast iron with self lubricating graphite, which also gives particular resistance to wear.



PUSH BUTTON PENDANT

Is manufactured from high impact polypropylene and provides double insulation. The various motions are controlled by push-buttons which are colour coded as well as being identified by internationally recognised symbols. Low dead weight and ergonomically styled housing reduces operator's fatigue.



OVERLOAD LIMIT DEVICE

All of our hoists are fitted with an electro-mechanical load cell as standard (electronic control). This load cell consists mainly of 2 parts:

- A electronic cell pin
- Load cell unit (to be installed in the electric panel).



LIMIT SWITCH

Is located in the drum axle. It limits hook movement in the up and down motions.



ELECTRICAL CABINET

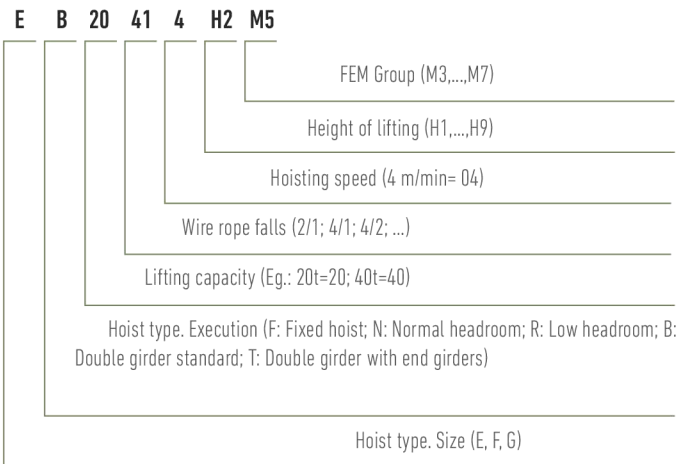
A white metallic box located on the hoist frame, allowing easy access to the electrical control components.



BOTTOM HOOK BLOCK

The sheaves' groove is made according to DIN 15061. The cross pin and nut are machined according to DIN 15412 & 15413. The hooks are selected according to DIN154000 and machined to DIN 15401 & 15402, depending on whether they are single or double.

Big Capacity Hoists Selection Table



* Bigger HOL or lifting speeds available for each model on request.

- Robustness as main characteristic.
- Small crab approach to enlarge the working area.
- Tailor made solutions on request: rotatory, turning, cradled, over-running, cantilever, etc.

Capacity [kg]	Hoist type	FEM Group	Reeving	Pole-changing	Lifting [m/min]	FI Lifting [m/min]	Rated power [Kw]	Height of lifting HOL [m]											
								P	H1	H2	H3	H4	H5	H6	H7	H8	H9		
16000	GHE16_4104M6	M6	4/1		4/0.67		15/2.5	4.5	7.3	10.2	13	18.6							
	GHE16_4104M4	M4																	
	GHE16_4208M6	M6	4/2		8/1.33		25/4.17	8.7	12.3	15.8	19.3	22.8	26.3	35					
	GHE16_2108M5	M5	2/1		8/1.33			21.6	27.5	33.3	39.1	44.9	50.7	65.2					
	GHE16_4212M7	M7	4/2			1.2-12	45	8	11.6	15.2	22.4	26	35	43	53	62			
	20000	GHE20_4104M5	M5	4/1		4/0.67		15/2.5	4.5	7.3	10.2	13	18.6						
GHE20_4104M4		M4																	
GHE20_4104M6		M6	4/1		4/0.67		19/3.17	9	11.9	14.8	17.7	20.6	27.8	35					
GHE20_4208M5		M5	4/2		8/1.33		30/5	8.7	12.3	15.8	19.3	22.8	26.3	35					
GHE20_2108M5		M5	2/1		8/1.33			19	24	29.2	34.4	39.6	44.8	57.8					
GHE20_4212M6		M6	4/2			1.2-12	45	8	11.6	15.2	22.4	26	35	43	53	62			
25000	GHE25_8204M6	M6	8/2		4/0.67		19/3.17	8.5	14	18.5	23	27.3	31.8						
	GHE25_4104M6	M6	4/1		4/0.67			9	11.9	14.8	17.7	20.6	27.8	35					
	GHE25_4104M4	M4																	
	GHE25_4212M5	M5	4/2			1.2-12	55	8	11.6	15.2	22.4	26	35	43	53	62			
32000	GHE32_8204M5	M5	8/2		4/0.67		25/4.17	8.5	14	18.5	23	27.3	31.8						
	GHE32_4104M5	M5	4/1		4/0.67			9	11.9	14.8	17.7	20.6	27.8	35					
	GHE32_4104M4	M4																	
	GHE32_8206M7	M7	8/2			0.6-6	45	13.2	17.7	22.2	26.7	31.2							
	GHE32_4208M5	M5	4/2			0.8-8	55	8	11.6	15.2	22.4	26	35	43	53	62			
40000	GHE40_12203M6	M6	12/2		3.2/0.53		30/5	9.3	12.3	15.3	18.3	21.3							
	GHE40_8204M5	M5	8/2		4/0.67			8.5	14	18.5	23	27.3	31.8						
	GHE40_8204M4	M4																	
	GHE40_4104M4	M4	4/1		4/0.67			8.3	11	13.6	16.3	18.9	25.5	32					
	GHE40_8206M6	M6	8/2			0.6-6	55	13.2	17.7	22.2	26.7	31.2							
50000	GHE50_12203M4	M4	12/2		3.2/0.53		30/5	9.3	12.3	15.3	18.3	21.3							
	GHE50_12204M7	M7	12/2			0.4-4	45	8.8	11.8	14.8	17.8	20.8							
	GHE50_8204M5	M5	8/2			0.4-4		13.2	17.7	22.2	26.7	31.2							
63000	GHE63_12202M3	M3	12/2		2.6/0.43		30/5	9.3	12.3	15.3	18.3	21.3							
	GHE63_12204M6	M6	12/2			0.4-4	55	8.8	11.8	14.8	17.8	20.8							
	GHE63_8204M4	M4	8/2			0.4-4		13.2	17.7	22.2	26.7	31.2							
80000	GHE80_12203M5	M5	12/2			0.33-3.3	55	8.8	11.8	14.8	17.8	20.8							
100000	GHE100_12202M4	M4	12/2			0.26-2.6	55	8.8	11.8	14.8	17.8	20.8							

