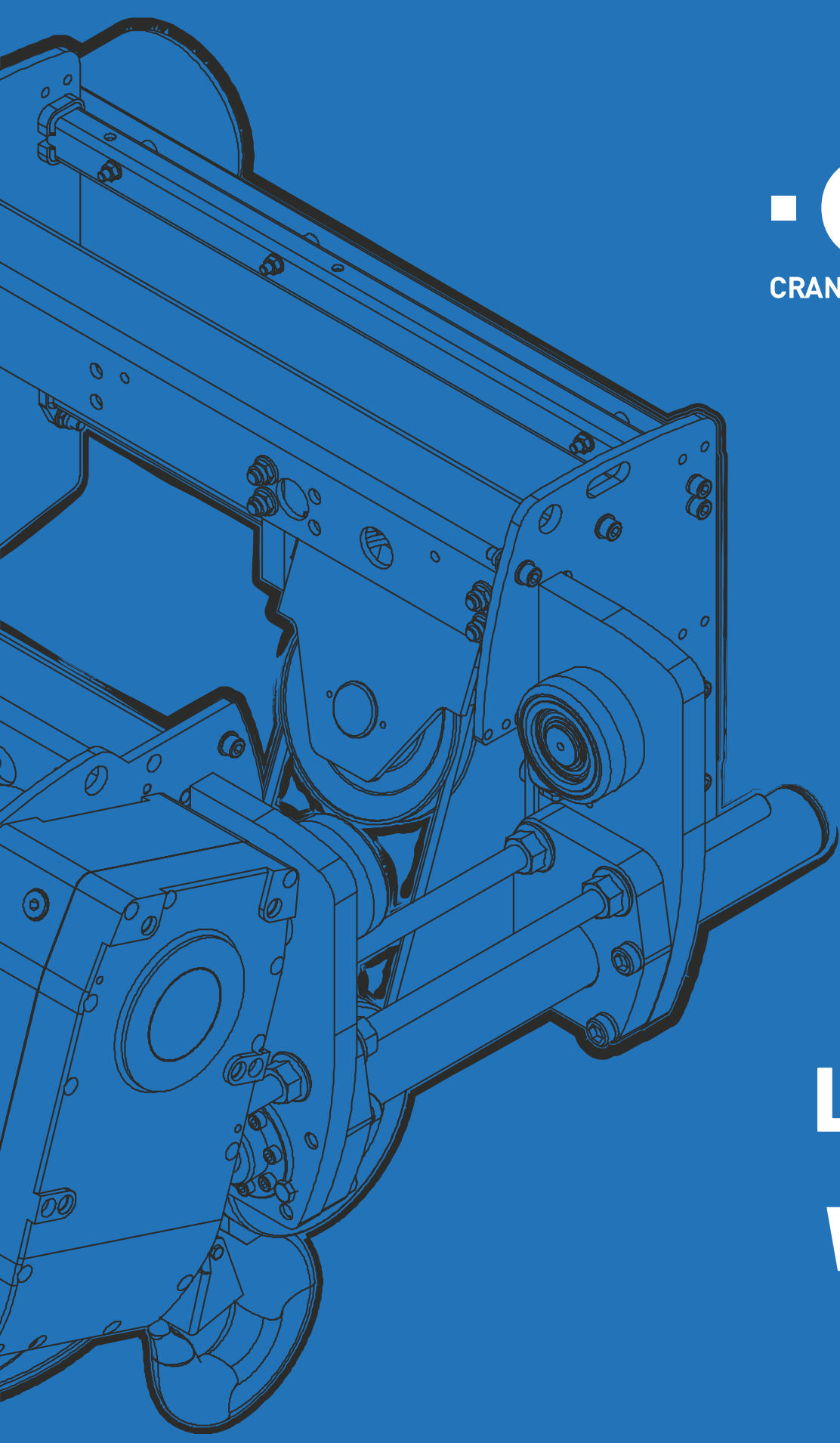




- GH -
CRANES & COMPONENTS

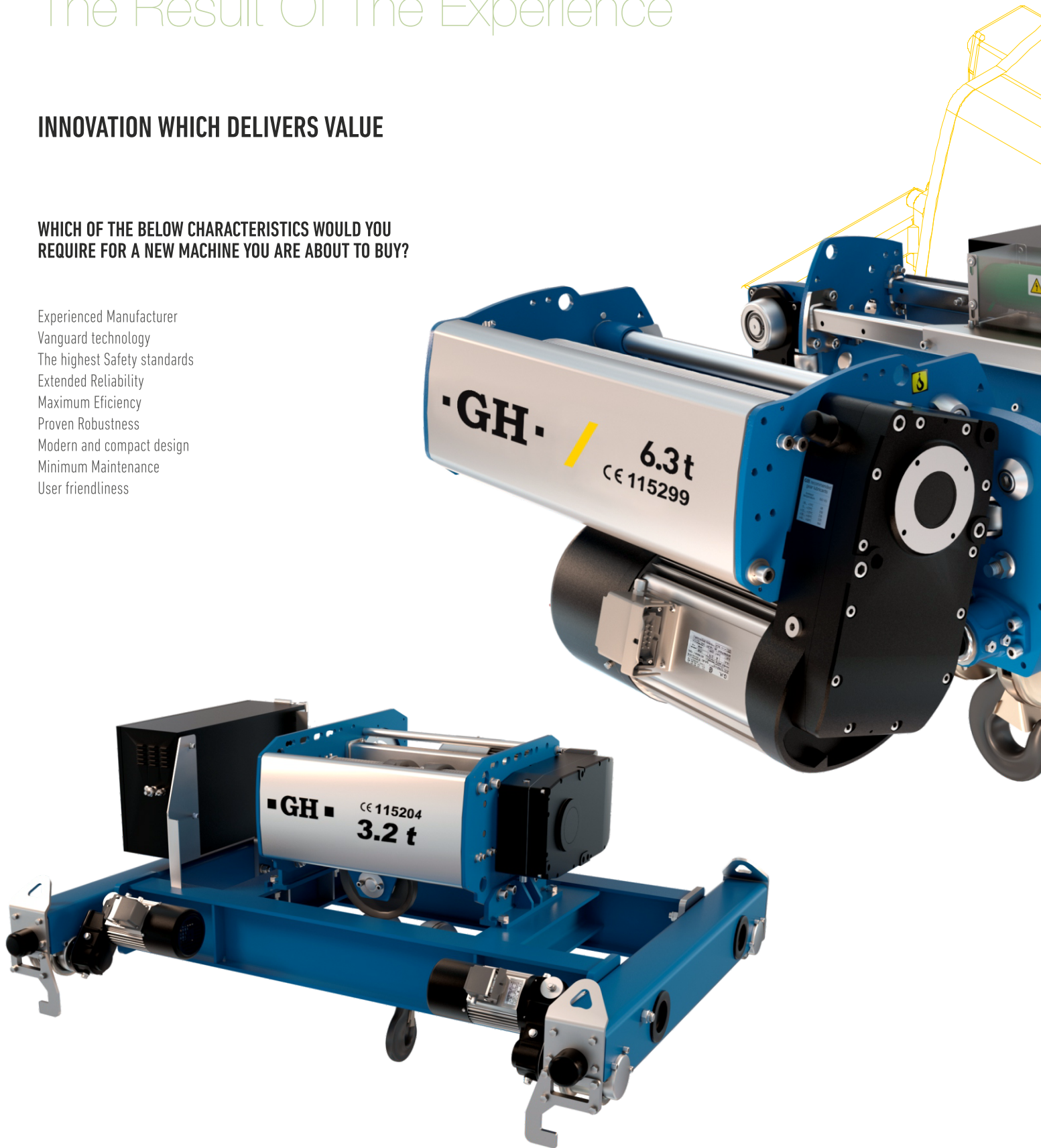
**LIFTING
YOUR
WORLD**

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



GH MAIN MILESTONES

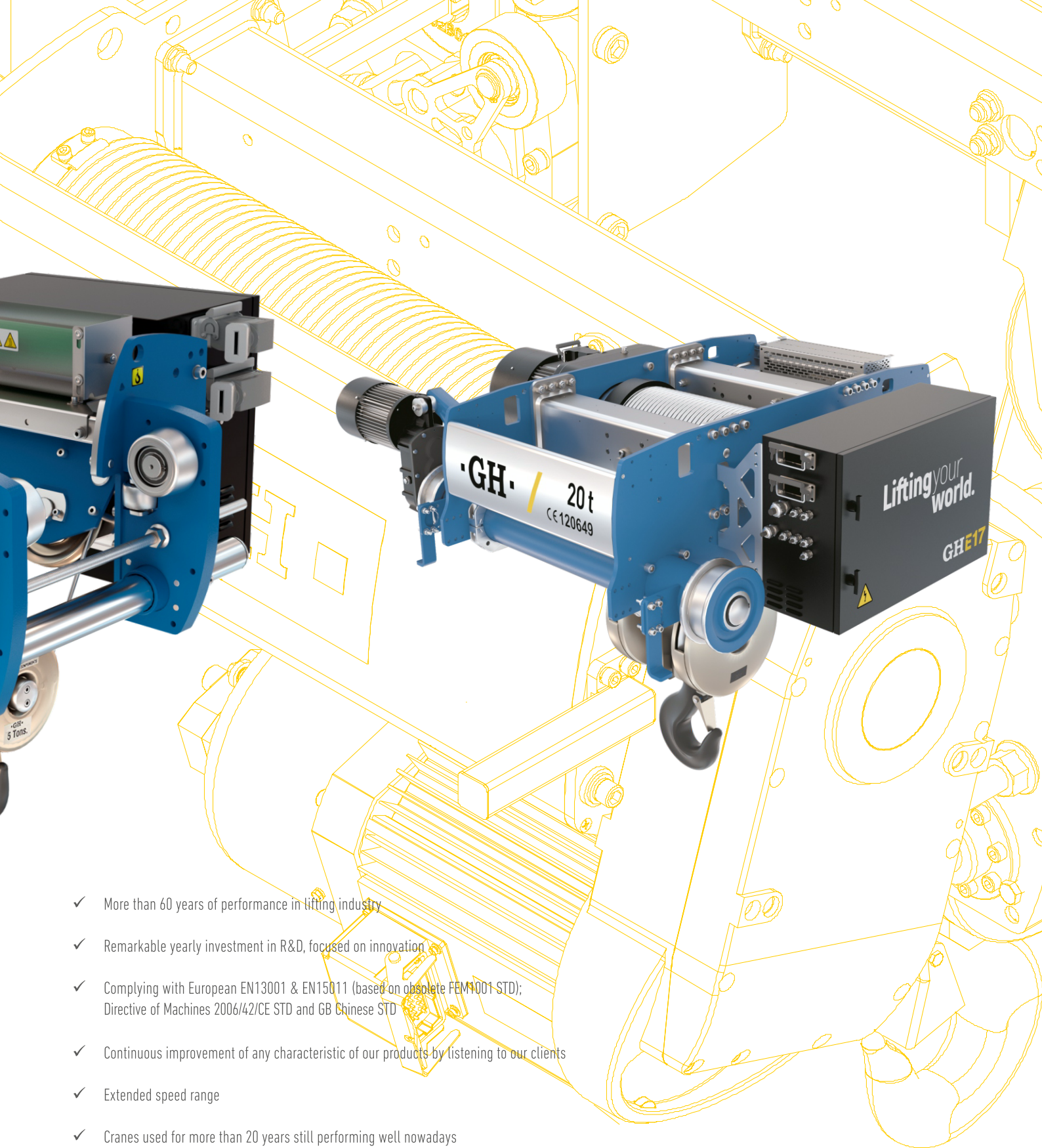
Own **8** manufacturing Facilities

Selling to over **60** Countries and Regions

Over **60** Years of performance in cranes industry

Over **80** Years of history

Over **125,000** global successful installations



- ✓ 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?

GH

YOUR PARTNER

The New Generation

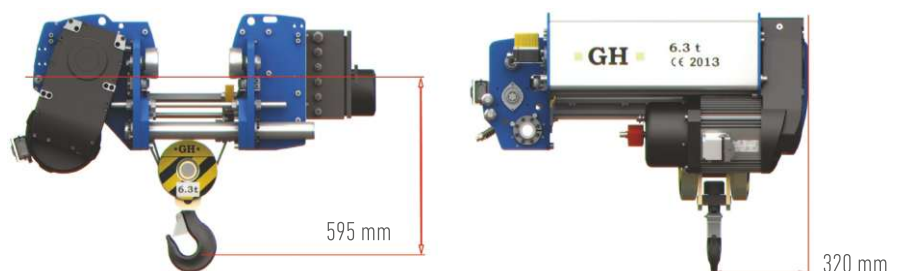
GH NEW HOIST SERIES: GHA12 (UP TO 3.2T), GHB11 (UP TO 6.3T), GHD13 (UP TO 12.5T) & GHE17 (UP TO 20T)



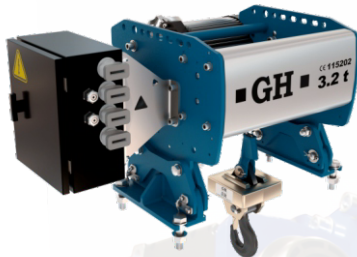
- **Totally modular**, screwed mounting: easy maintenance.
- **Design in C** decreasing side approaches in single girder versions.
- **Improved materials used** increasing hoist life span.
- **Frequency inverters as standard on all movements** (2 speeds in lifting optional).
 - Increased life of mechanical 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) – M6 working groups** in GHA12 and GHD17 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

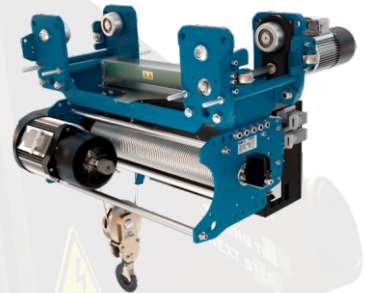
Reduced approaches



Configurations Covering Any Need



Foot mounted hoist



Single girder hoist



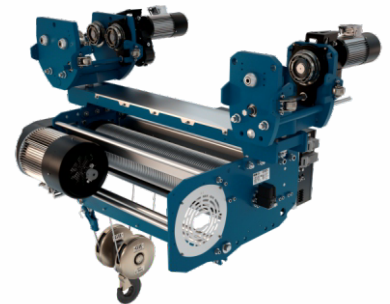
Low headroom single girder hoist



Standard double girder hoist (tubes)

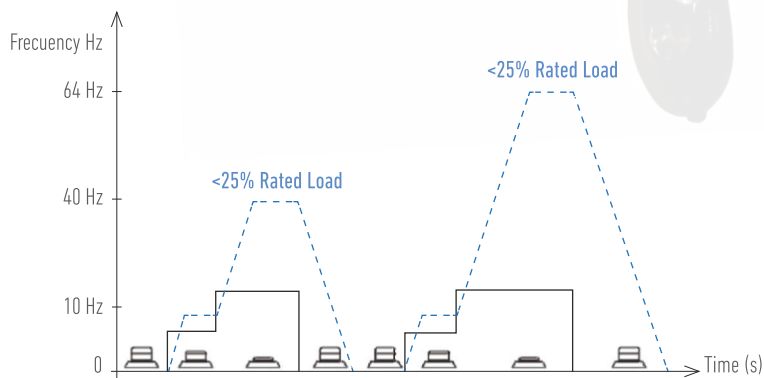


Double girder crab with end carriages



Single girder slewing hoist

SPEED INCREASED



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



5t

5m/min



1,2t

8m/min

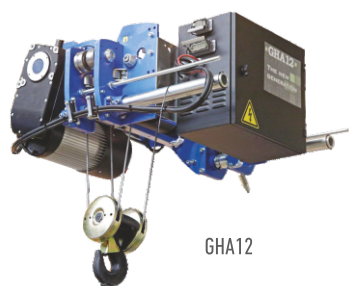
SAFETY

- 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.

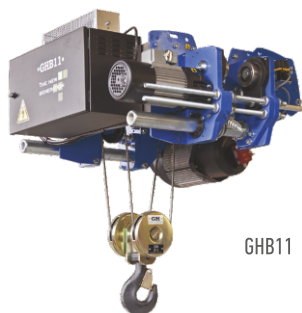
FEATURES

- 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 4/1	up to 1.6t up to 3.2t	21.6 m 10.8 m
GHB11	2/1 4/1	up to 3.2t up to 6.3t	23.6 m 10.0 m
GHD13	2/1 4/1	up to 6.3t up to 12.5t	36.5 m 15.6 m
GHE17	2/1 4/1	up to 10t up to 20t	44.6 m 22.3 m



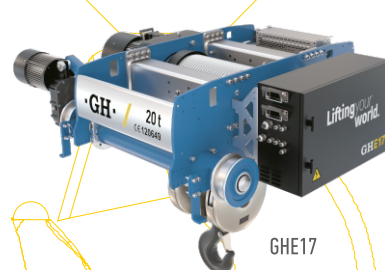
GHA12



GHB11



GHD13



GHE17

A12 R 6 41 4 H2 M5

FEM Group (M5,...,M6)

Height of lifting (H1,...,H6)

Hoisting speed (4 m/min= 04)

Wire rope falls (2/1; 4/1; 4/2; ...)

Lifting capacity (Eg.: 3,2 t=03; 10 t=10)

Hoist type. Execution (F: Fixed hoist; N: Normal headroom; R: Low headroom; B: Double girder standard; T: Double girder with end girders)

Hoist type. Size (GHA12, GHB11, GHD13, GHE17)

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.

* 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.

New Series Selection Table

Capacity [kg]	Hoist type	FEM Group	Reeving	FI Lifting [m/min]	Rated power [Kw]	Height of lifting HOL [m]					
SWL	CODE	FEM	FALL	V	P	H1	H2	H3	H4	H5	H6
1000	GHA12_014105M6	M6	4/1	5	3,1	4,5	8	10,8			
	GHA12_012110M6	M6	2/1	10		9	16	21,6			
	GHB11_012216M5	M5	2/2	16	5	4	10,3	15,4	20,5		
	GHB11_012220M5	M5		20							
	GHB11_011116M5	M5	1/1	16		14,5	27,1	37,2	47,3		
	GHB11_011120M5	M5		20							
1600	GHA12_014105M6	M6	4/1	5	3,1	4,5	8	10,8			
	GHA12_012110M6	M6	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_012220M6	M6	2/2	20	9,5		15,9		31	38,5	46
	GHD13_011120M6	M6	1/1	20		15,2	28,8		51	61,9	72,8
2000	GHA12_024105M6	M6	4/1	5	3,1	4,5	8	10,8			
	GHB11_024208M5	M5	4/2	8	5		5	7,5	10		
	GHB11_024210M5	M5		10							
	GHB11_022108M5	M5	2/1	8		7,26	13,55	18,6	23,6		
	GHB11_022110M5	M5		10							
	GHD13_022216M5	M5	2/2	16	9,5		15,9		31	38,5	46
	GHD13_022220M6	M6		20							
	GHD13_021116M6	M6	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_024208M5	M5	4/2	8	5		5	7,5	10		
	GHB11_024210M5	M5		10							
	GHB11_022108M5	M5	2/1	8		7,26	13,55	18,6	23,6		
	GHB11_022110M5	M5		10							
	GHD13_024210M6	M6	4/2	10	9,5		7		14,7	18,5	22,3
	GHD13_022110M6	M6	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							
	GHE17_021116M6	M6	1/1	16		18,4	29,7	44	55,3	66,6	89,1
	GHE17_022216M6	M6	2/2	16		6,1	13,3	22,5	29,6	36,8	51,1
3200	GHA12_034105M5	M5	4/1	5	3,1	4,5	8	10,8			
	GHB11_034105M5	M5	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_034210M6	M6	4/2	10	9,5		7		14,7	18,5	22,3
	GHD13_032110M6	M6	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
	GHE17_031116M6	M6	1/1	16		18,4	29,7	44	55,3	66,6	89,1
4000	GHE17_032216M6	M6	2/2	16		6,1	13,3	22,5	29,6	36,8	51,1
	GHB11_044104M5	M5	4/1	4	5	3,6	6,8		10		
	GHB11_044105M5	M5		5							
	GHD13_044208M6	M6	4/2	8	9,5		7		14,7	18,5	22,3
	GHD13_044210M6	M6		10							
	GHD13_042108M6	M6	2/1	8		7,6	14,4		25,5	31	36,5
	GHD13_042110M6	M6		10							
	GHE17_041116M6	M6	1/1	16		18,4	29,7	44	55,3	66,6	89,1
	GHE17_042216M6	M6	2/2	16		6,1	13,3	22,5	29,6	36,8	51,1
5000	GHB11_054104M5	M5	4/1	4	5	3,6	6,8		10		
	GHB11_054105M5	M5		5							
	GHD13_054105M6	M6	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							
	GHE17_051116M5	M5	1/1	16		18,4	29,7	44	55,3	66,6	89,1
	GHE17_052108M6	M6	2/1	8		9,2	14,9	22	27,7	33,3	44,6
6300	GHE17_052216M5	M5	2/2	16		6,1	13,3	22,5	29,6	36,8	51,1
	GHE17_054208M6	M6	4/2	8			6,6	11,2	14,8	18,4	25,5
	GHB11_064104M5	M5	4/1	4	5	3,6	6,8		10		
	GHD13_064105M6	M6	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	GHE17_062108M6	M6	2/1	8		9,2	14,9	22	27,7	33,3	44,6
	GHE17_062212M4	M4	2/2	12		6,1	13,3	22,5	29,6	36,8	51,1
	GHE17_064208M6	M6	4/2	8			6,6	11,2	14,8	18,4	25,5
	GHD13_084104M6	M6	4/1	4	9,5	3,8	7,2		10	12,8	15,6
10000	GHD13_084105M6	M6		5							
	GHE17_082108M6	M6	2/1	8		9,2	14,9	22	27,7	33,3	44,6
	GHE17_084208M6	M6	4/2	8			6,6	11,2	14,8	18,4	25,5
	GHD13_104104M6	M6	4/1	4	9,5	3,8	7,2		10	12,8	15,6
12500	GHD13_104105M5	M5		5							
	GHE17_102108M5	M5	2/1	8		9,2	14,9	22	27,7	33,3	44,6
	GHE17_104104M6	M6	4/1	4		4,6	7,4	11	13,8	16,6	22,3
	GHE17_104208M5	M5	4/2	8			6,6	11,2	14,8	18,4	25,5
16000	GHD13_124104M5	M5	4/1	4	9,5	3,8	7,2		10	12,8	15,6
	GHE17_124104M6	M6	4/1	4		4,6	7,4	11	13,8	16,6	22,3
	GHE17_124206M4	M4	4/2	6			6,6	11,2	14,8	18,4	25,5
20000	GHE17_164104M6	M6	4/1	4	15/2,5	4,6	7,4	11	13,8	16,6	22,3
	GHE17_204104M5	M5	4/1	4	15/2,5	4,6	7,4	11	13,8	16,6	22,3

Big Capacity Hoists 16t-100t

SERIES



FOOT MOUNTED



SG TROLLEY

SWL $\leq$ 20t as STD,
HOL $\leq$ 57.8 m
SWL $\leq$ 40t on request



DG STD TROLLEY

SWL $\leq$ 32t
HOL $\leq$ 28m



DG EC TROLLEY



DG DUAL EC TROLLEY

SWL $\leq$ 100t
HOL $\leq$ 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.



TRAVELLING GEARED MOTORS

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



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).

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.



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.



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.



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.



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.



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

E B 20 41 4 H2 M5

FEM Group (M3,...,M7)

Height of lifting (H1,...,H9)

Hoisting speed (4 m/min= 04)

Wire rope falls (2/1; 4/1; 4/2; ...)

Lifting capacity (Eg.: 20t=20; 40t=40)

Hoist type. Execution (F: Fixed hoist; N: Normal headroom; R: Low headroom; B: Double girder standard; T: Double girder with end girders)

Hoist type. Size (F, G)

* 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.

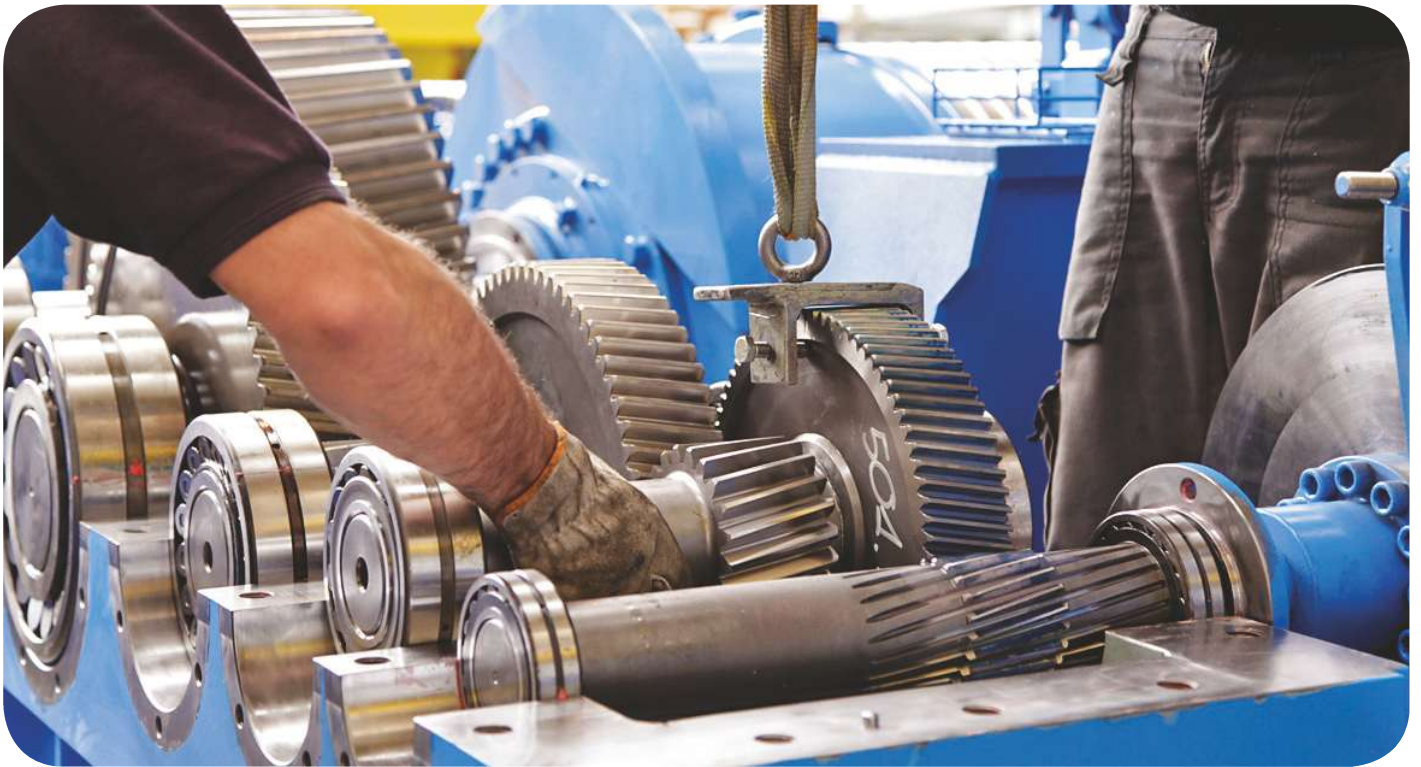
Capacity [kg]	Hoist type	FEM Group	Reeving	Pole-changing	Lifting [m/min]	FI Lifting [m/min]	Rated power [Kw]	Height of lifting HOL [m]								
SWL	CODE	FEM/ISO	FALL	V			P	H1	H2	H3	H4	H5	H6	H7	H8	H9
16000	GHF16_4208M6	M6	4/2	8/1.33			25/4.17	8.7	12.3	15.8	19.3	22.8	26.3	35		
	GHF16_4208M4	M4														
	GHF16_2108M5	M5	2/1	8/1.33				21.6	27.5	33.3	39.1	44.9	50.7	65.2		
	GHG16_4212M7	M7	4/2			1.2-12	45	8	11.6	15.2	22.4	26	35	43	53	62
20000	GHF20_4104M6	M6	4/1	4/0.67			19/3.17	9	11.9	14.8	17.7	20.6	27.8	35		
	GHF20_4208M5	M5	4/2	8/1.33			30/5	8.7	12.3	15.8	19.3	22.8	26.3	35		
	GHF20_4208M4	M4														
	GHF20_2108M5	M5	2/1	8/1.33				19	24	29.2	34.4	39.6	44.8	57.8		
25000	GHG20_4212M6	M6	4/2			1.2-12	45	8	11.6	15.2	22.4	26	35	43	53	62
	GHF25_8204M6	M6	8/2	4/0.67			19/3.17	8.5	14	18.5	23	27.3	31.8			
	GHF25_4104M6	M6	4/1	4/0.67				9	11.9	14.8	17.7	20.6	27.8	35		
	GHF25_4104M4	M4														
32000	GHG25_4212M5	M5	4/2			1.2-12	55	8	11.6	15.2	22.4	26	35	43	53	62
	GHF32_8204M5	M5	8/2	4/0.67			25/4.17	8.5	14	18.5	23	27.3	31.8			
	GHF32_4104M5	M5	4/1	4/0.67				9	11.9	14.8	17.7	20.6	27.8	35		
	GHF32_4104M4	M4														
40000	GHG32_8206M7	M7	8/2			0.6-6	45	13.2	17.7	22.2	26.7	31.2				
	GHG32_4208M5	M5	4/2			0.8-8	55	8	11.6	15.2	22.4	26	35	43	53	62
	GHF40_12203M6	M6	12/2	3.2/0.53			30/5	9.3	12.3	15.3	18.3	21.3				
	GHF40_8204M5	M5	8/2	4/0.67				8.5	14	18.5	23	27.3	31.8			
50000	GHF40_8204M4	M4														
	GHF40_4104M4	M4	4/1	4/0.67				8.3	11	13.6	16.3	18.9	25.5	32		
	GHG40_8206M6	M6	8/2			0.6-6	55	13.2	17.7	22.2	26.7	31.2				
	GHF50_12203M4	M4	12/2	3.2/0.53			30/5	9.3	12.3	15.3	18.3	21.3				
63000	GHG50_12204M7	M7	12/2			0.4-4	45	8.8	11.8	14.8	17.8	20.8				
	GHG50_8204M5	M5	8/2			0.4-4		13.2	17.7	22.2	26.7	31.2				
	GHF63_12202M3	M3	12/2	2.6/0.43			30/5	9.3	12.3	15.3	18.3	21.3				
	GHG63_12204M6	M6	12/2			0.4-4	55	8.8	11.8	14.8	17.8	20.8				
80000	GHG63_8204M4	M4	8/2			0.4-4		13.2	17.7	22.2	26.7	31.2				
	GHG80_12203M5	M5	12/2			0.33-3.3	55	8.8	11.8	14.8	17.8	20.8				
	GHG100_12202M4	M4	12/2			0.26-2.6	55	8.8	11.8	14.8	17.8	20.8				





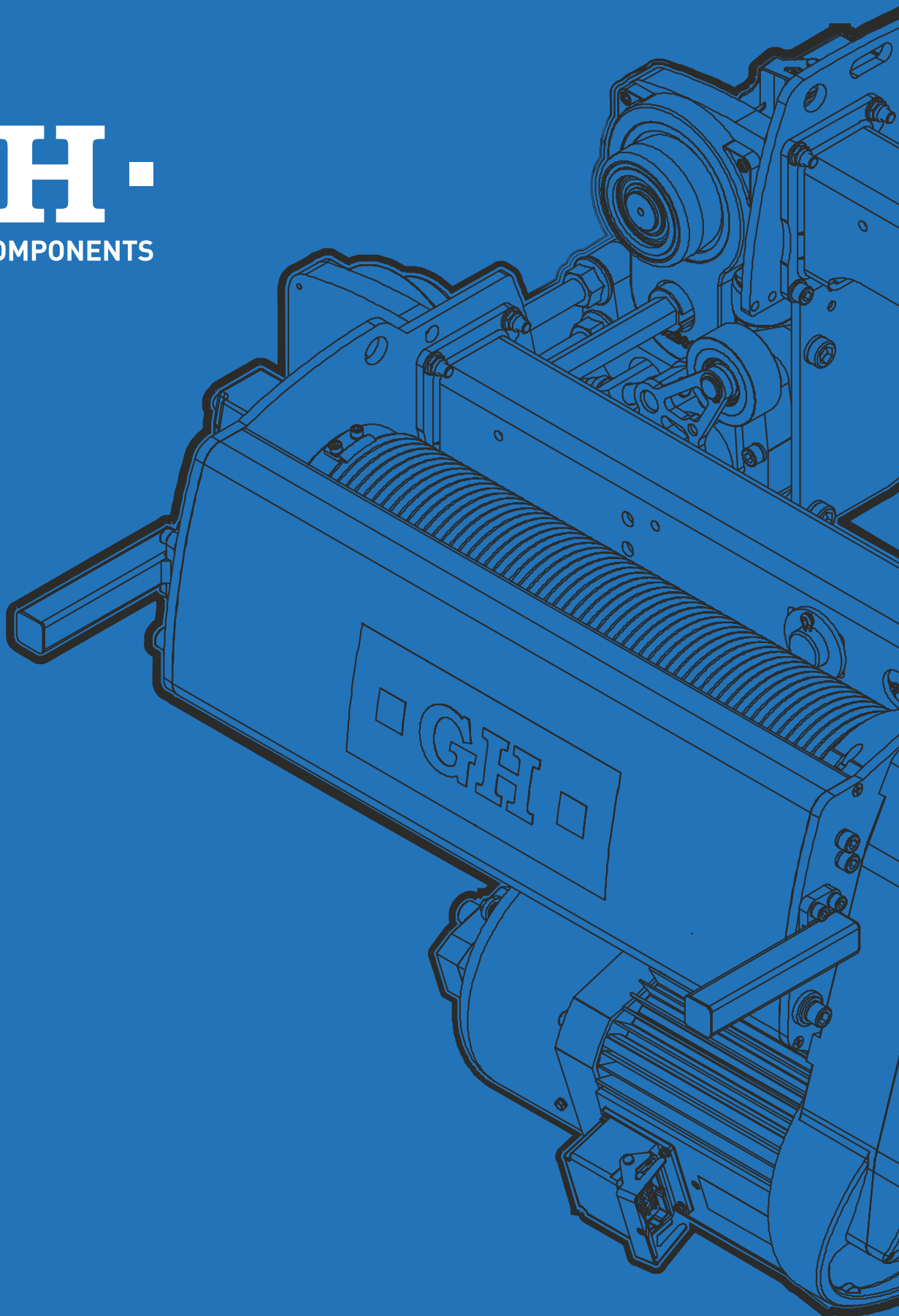
GH SERVICE OFFERING

- Spare Parts.
 - Original Spare parts supply.
 - Customized spare parts supply.
- Training.
 - Crane technical training.
 - Crane safety and operator training.
- Technical support and consultation.



- GH -

CRANES & COMPONENTS



GH CRANES & COMPONENTS

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