

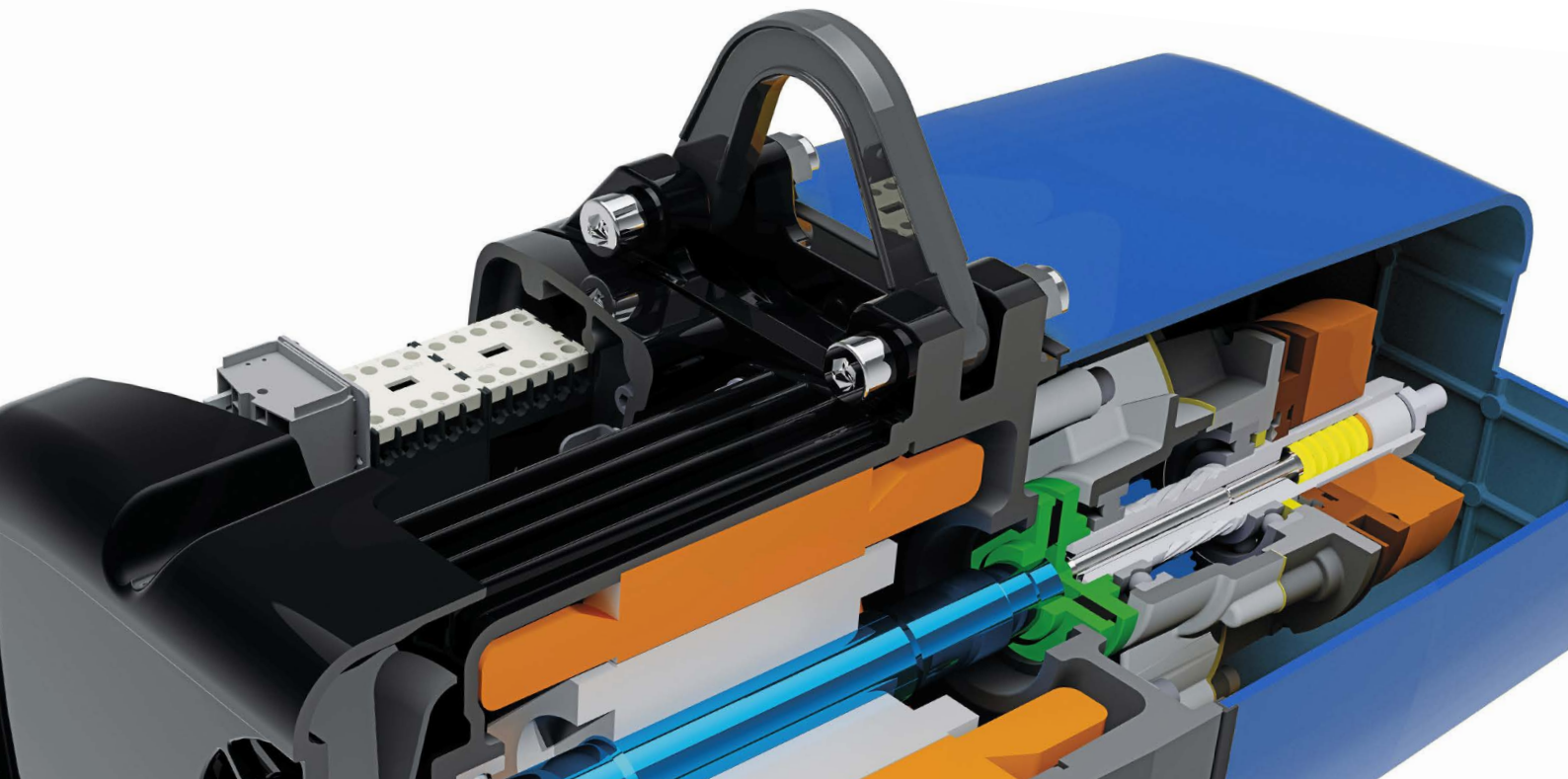
# TAWI



TAWI HOISTS

## Electric chain hoists

# Powerful and long-lasting



Simple and easy to use  
Reliable and safe in operation  
Long-lasting and easy to maintain

GP electric chain hoists have been developed and manufactured in Switzerland for more than 50 years. Hundreds of thousands of them are in operation worldwide – stationary or mobile.

# Overview

## Reliable and long-lasting

- Chain safety factor minimum 8-times (1-fall in FEM, 2m, ISO, M5)
- Manganese phosphated profile steel chain with increased service life
- Gearbox with permanent lubrication
- High safety in operation
- Low-wear DC-spring-loaded brake
- No sensitive electronics used
- Aluminium casing and cover
- Minimum 1,600 operating hours with 40 % duty cycle, 240 s/h (FEM: 2m, ISO M5)
- Dry-running slipping clutch
- Area of application -15° to +50°C

## Easy to operate

- Low dead weight from 14 kg
- Compact housing with low headroom
- Protection class IP65; suitable for outdoor use
- Geared limit switches for positioning accuracy of the highest and lowest hook position
- Ergonomic control switch with emergency stop
- 42 V low voltage control
- Quiet running with 3-step drive and helical gearing
- 2 speeds as standard
- Load hook rotated through 360 degrees, with locking safety catch and rubber buffer
- No special tools for maintenance needed
- Easy to maintain, wearing parts can be changed easily and quickly

## Customer specific

- Three- or single-phase power
- Worldwide operation voltages
- Direct control, radio remote control, frequency inverter
- Synchronised electric chain hoist, corrosion resistant version, ATEX
- Eyebolt or hook suspension
- Lifting heights up to 200 m
- Temperature monitoring
- Operating data counter
- Wide range of accessories and options



# Standard chain hoists

## GPM250/1NF

Article number 1911441

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Execution: GPM250, 1 fall  
Capacity: 320 kg  
Lifting height: 4 m  
Lifting speed: 8/2 m/min

Classification: M4 (duty: 30% 180 s/h)  
Voltage: 3×400V 50Hz  
Control voltage: 42V / AC  
Pendant: 2-bn+ES standard  
Pendant cable: 2.8m  
Protection class: IP65  
Suspension: Eye bolt suspension  
Limit switch: Standard  
Chain: Profile chain 3.75×10.75

## GP250/1NF

Article number 1921341

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Execution: GP250, 1 fall  
Capacity: 400 kg  
Lifting height: 4 m  
Lifting speed: 8/2 m/min

Classification: M3 (duty: 25% 150 s/h)  
Voltage: 3×400V 50Hz  
Control voltage: 42V / AC  
Pendant: 2-bn+ES standard  
Pendant cable: 2.8m  
Protection class: IP65  
Suspension: Eye bolt suspension  
Limit switch: Standard  
Chain: Profile chain 3.75×10.75

## GP500/1NF

Article number 1924341

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Execution: GP500, 1 fall  
Capacity: 800 kg  
Lifting height: 4 m  
Lifting speed: 8/2 m/min

Classification: M3 (duty: 25% 150 s/h)  
Voltage: 3×400V 50Hz  
Control voltage: 42V / AC  
Pendant: 2-bn+ES standard  
Pendant cable: 2.8m  
Protection class: IP65  
Suspension: Eye bolt suspension  
Limit switch: Standard  
Chain: Profile chain 5.25×15

## GP1000/1NF

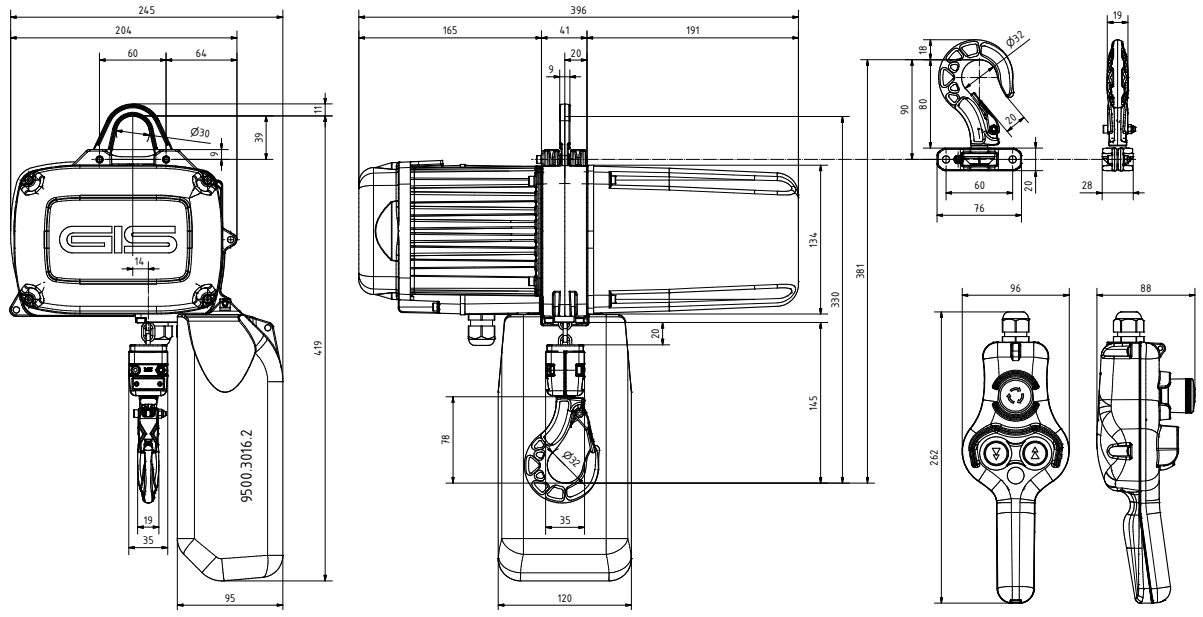
Article number 1927341

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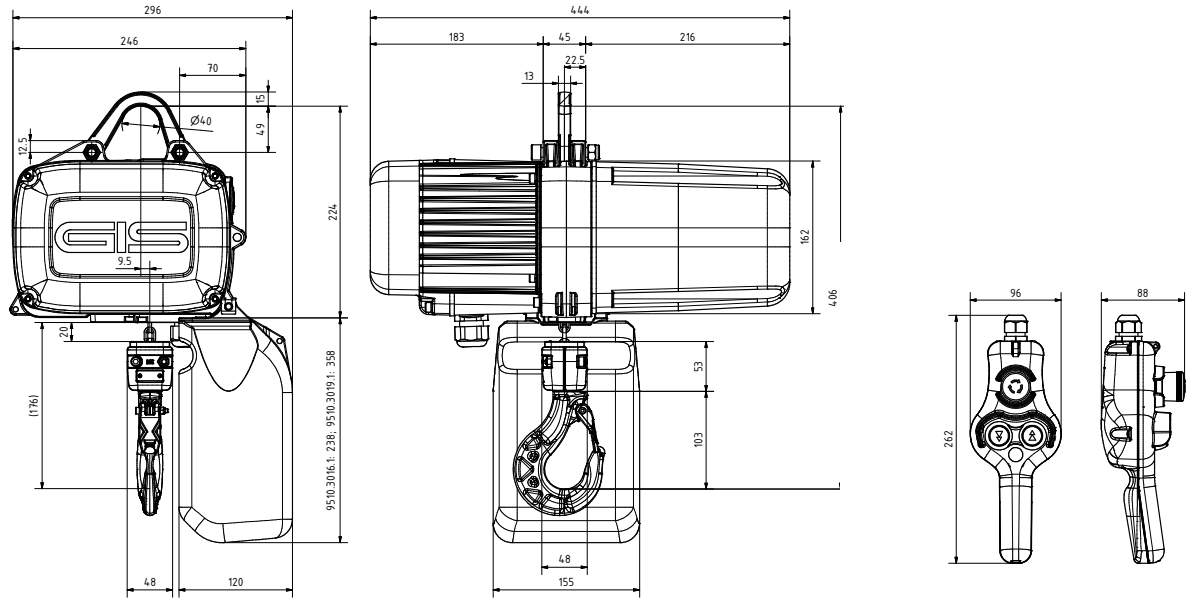
Execution: GP1000, 1 fall  
Capacity: 1600 kg  
Lifting height: 4 m  
Lifting speed: 8/2 m/min

Classification: M3 (duty: 25% 150 s/h)  
Voltage: 3×400V 50Hz  
Control voltage: 42V / AC  
Pendant: 2-bn+ES standard  
Pendant cable: 2.8m  
Protection class: IP65  
Suspension: Eye bolt suspension  
Limit switch: Standard  
Chain: Profile chain 7.45×23

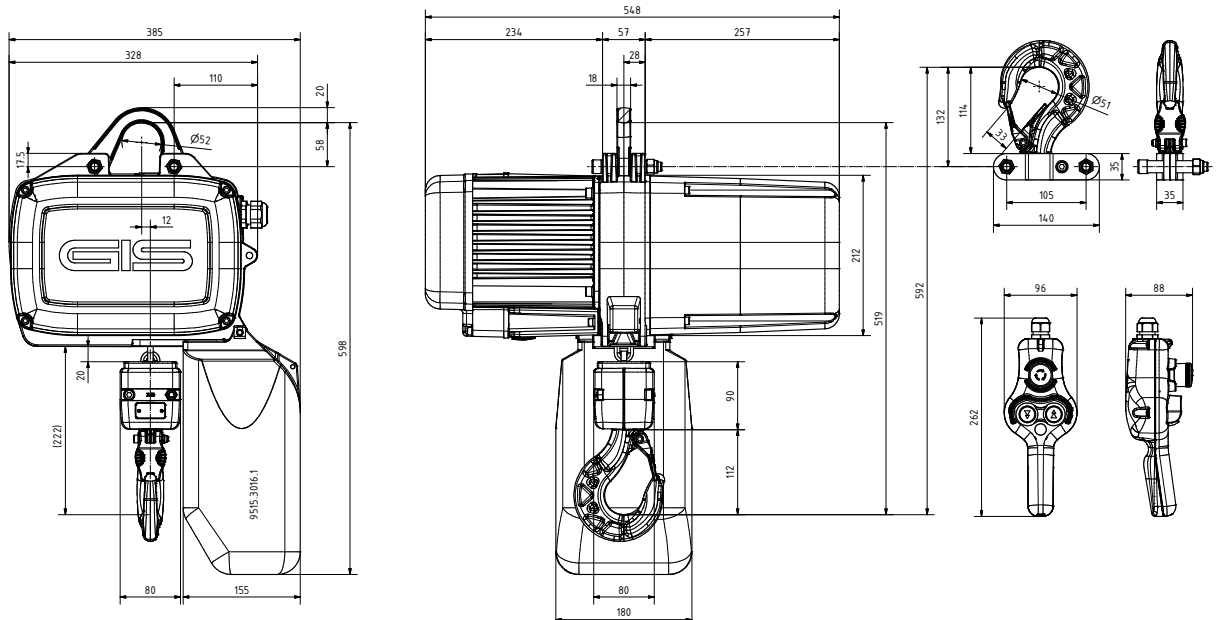
# GPM250/1NF



# GP250/500/1NF



# GP1000/1NF



# Chain hoist models

For many industrial lifting applications standard GP series of electric chain hoists offer the ideal solution. Depending on the complexity of the task and the conditions on site we offer different models to provide a full range of solutions.

## GPM

Lifting capacity up to 320 kg  
Electric driven chain hoist in standard execution  
Low dead weight for easy operating  
Available in 1-phase and 3-phase voltages  
Steel profile chain  
Eye bolt suspension  
Protection class: IP65



## GP

Lifting capacity up to 2500 kg  
Electric driven chain hoist in standard execution  
High capacity and quick lifting speed  
Available in 1-phase and 3-phase voltages  
Steel profile chain  
Eye bolt suspension  
Lift height up to 200m  
Protection class: IP65

## GPR

Lifting capacity up to 1250 kg  
Corrosion resistant electric chain hoist for use in food, pharmaceutical, wastewater treatment plants, outdoor use  
Housing cataphoresis coated  
Round, stainless steel chain  
Suspension corrosion resistant  
All parts in contact with the chain (wearing parts such as chain wheel, load hooks, screws) in corrosion resistant version  
Protection class: IP65  
Special grease for food industry



## **GPH**

**Lifting capacity up to 500 kg**

Handy chain model for quick and easy positioning of loads. Control of electric chain hoist and guidance of the load with one hand.

Option: handy kit for retrofitting of GIS standard electric chain hoist



## **GPHT**

**Lifting capacity up to 250 kg**

Telescopic chain hoist for stable lifting with high accuracy

Simple and precise maneuvering of the chain hoist with one hand pendant

Ideally suited for eccentric loads

Control unit with rocker switch for left and right-handed operation



## **GPFU**

**Lifting capacity up to 2500 kg**

Electric chain hoist with frequency inverter

For applications with high switching frequency and shift operation

Lifting speed up to 14 m/min

With soft start for precise and gentle positioning of the load

Protection class: IP65

## **GP Ex D och GP Ex G**

**Lifting capacity up to 2500 kg**

Electric chain hoist explosion proof ATEX version

Protection class: IP65

Dust-proof version GP Ex D:

II 3D Ex tc IIIA T130°C Dc (ZONE 22)

Temperature monitoring

Gas-proof version GP Ex G:

II 3G Ex pz IIA T3 Gc (ZONE 2)

II 3D Ex tc IIIA T130°C Dc (ZONE 22)

Temperature monitoring operation interruption in the event of a pressure drop

# Benefits

The GP is simple in its structure and does not contain any sensitive electronics, which minimises the risk of operational interruptions. It is characterised by quiet running and is made for longevity whilst working hard. The ergonomic control switch with 42 V low voltage allows convenient and safe working. Maintenance is easy, quick and needs no special tools.



## Profile steel chain

The higher cross-sectional area reduces wear and increases the lifetime of the chain. The GP has a chain safety factor of at least 8-times (FEM, 2m, ISO, M5). The case hardened and manganese phosphated profile steel chain provides about 15% more capacity at an identical nominal diameter compared to the round steel chain.

## Control switch

The control switch fits comfortably in your hand and is ergonomically designed. It is robust, impact-resistant, safe to operate and controlled by 42 V low voltage. Push buttons placed in parallel increase the ease of operation. The external strain relief protects the control cable.



## Polygonal connection

The inner part of the modularly designed chain hoist embodies real innovation. All shaft-hub connections are built to a polygonal design. This allows significantly faster disassembly and assembly during maintenance and thus reduces service costs.

## Protection class: IP65

A feature of the hoist and the control switch is the protection class IP65. It is dust proof and protected against water jets. As it is compact and robust designed, the GP is best suited for dusty environments as well as for outdoor operation.





# Chain hoist "on request"

Many industrial lifting applications are covered by TAWI's range of standard chain hoist models. Depending on the complexity of the application and the operating conditions it's important to use an correctly classified chain hoist or a different lifting speeds.

Depending on how frequent chain hoists are used, the chain hoist can be calibrated for different loads. For class M3, the chain hoist can be started 150 times per hour and be loaded 25% of the time (total 15 minutes per hour). Select the correct classification for the chain hoist can optimize the capacity, size and consumption.

ISO (FEM) Classification	M3 (1Bm) 150 s/h, 25% duty	M4 (1Am) 180 s/h, 30% duty	M5 (2m) 240 s/h, 40% duty	M6 (3m) 300 s/h, 50% duty	M7 (4m) 360 s/h, 60% duty	Lifting speed 50 Hz	No. of chain falls	Dead weight (3m lift)
Types	Capacity [kg]					(m/min)		[kg]
GPM 250/1NF	-	<b>320</b>	250	200	160	8/2	1	17
GPM 250/2SF	-	320	125	100	80	16/4	1	17
GP 250/1NF	<b>400</b>	320	250	200	160	8/2	1	24
GP 250/1SF	-	160	125	100	-	16/4	1	24
GP 250/2NF	-	630	500	400	320	4/1	2	25
GP 500/1NF	<b>800</b>	630	500	400	320	8/2	1	26
GP 500/1SF	-	320	250	200	160	16/4	1	26
GP 500/2NF	-	1250	1000	800	630	4/1	2	28
GP 1000/1NF	<b>1600</b>	1250	1000	800	630	8/2	1	62
GP 1000/1SF	-	630	500	400	-	16/4	1	62
GP 1000/2NF	-	2500	2000	1600	1250	4/1	2	66
GPR 500/1NF	-	320	250	-	-	8/2	1	26
GPR 500/1SF	-	160	125	-	-	16/4	1	26
GPR 500/2NF	-	630	500	-	-	4/1	2	28
GPR 1000/1NF	-	630	500	-	-	8/2	1	62
GPR 1000/2NF	-	1250	1000	-	-	4/1	2	66
GPH 500/NF	-	-	500	400	320	8/2	1	25
GPH 500/SF	-	-	250	200	160	16/4	1	25
GPHT 500/NF	-	-	250	200	160	8/2	1	52
GPHT 500/SF	-	-	125	100	80	16/4	1	52
GP 250/1NL FU	-	-	-	320	250	1,3-6,9	1	25
GP 250/1N FU	-	-	-	320	250	2,4-13,9	1	25
GP 500/1NL FU	-	-	-	630	500	1,3-6,9	1	27
GP 500/1N FU	-	-	-	630	500	2,4-13,9	1	27
GP 1000/1NL FU	-	-	-	1250	1000	1,3-6,9	1	63
GP 1000/1N FU	-	-	-	1250	1000	2,4-13,9	1	63

Red marked versions available as standard models

# Accessories and options

## Standard version

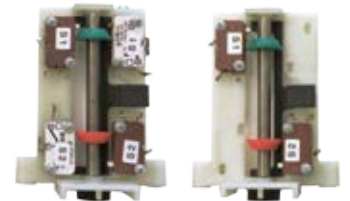
- Lifting capacity: 320, 400, 800, 1600 kg.
- Standard voltage: 3 × 400 V / 50 Hz
- Control voltage: 42V low voltage
- 3-phase motor: 2 speeds
- Protection class: IP65
- Eye bolt suspension
- Standard lifting height: 4 m
- Control cable length: 2,8 m
- Ergonomic control with emergency-stop
- Control cable with external strain relief
- Adjustable limit switch for highest and lowest hook position.
- DC spring-loaded brake

## Accessories and options

- Lifting capacity up to 2500kg
- Direct-, radio-, frequency-controlled
- Other voltages on request
- Other lifting speeds on request
- Hook suspension
- External limit switch / multiple limit switches
- Parallel connection of multiple chain hoists
- Operating data counter
- Temperature monitoring
- Manual brake release / Second brake
- Overpressure release valve
- Chain container for various lifting heights (lifting heights up to 200 m)
- Gear grease for low temperature use / food industry
- Slack chain shutdown

## Geared limit switch

With the integrated geared limit switch (3 ph.) the upper and lower end position of the load hook can be set easily, precisely and are easily accessible. Optionally, to increase safety, two additional emergency stop contacts are available. High speed shutdown and external limit switch for high lifting heights are other options.



## Safety radio remote control

The lightweight, very rugged handheld transmitter is powered by a rechargeable lithium ion battery and has a protection class of IP66. With its certified STOP function the receiver meets the requirements of SIL 3 Performance Level PL e.

## Frequency inverter

Electric chain hoist, motorised trolley or the complete crane system can be operated using frequency inverters. The soft start ensures the accurate and gentle start and positioning of goods and minimises oscillating motion. The speeds and ramps for lifting and travelling can be programmed to suit the application.

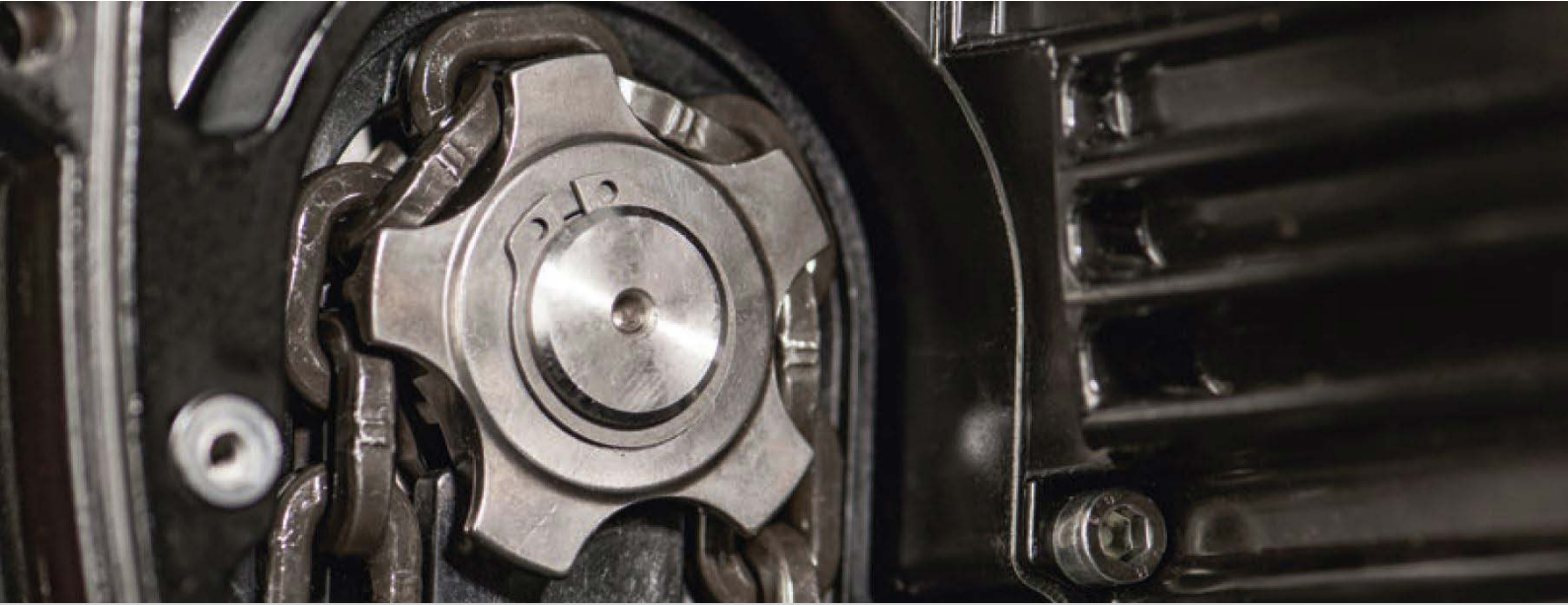


## Operating data counter

The installation of an operating data counter gives the user additional safety during operation and can extend the life of the electric chain hoist when under-used. By analysing the operating hours and the number of circuits on a mobile reading device or a PC / laptop the optimum maintenance cycle can be set.

# Service and maintenance

The efficiency of an electric chain hoist should be considered throughout the whole product life cycle. The GP has low wear and is designed to last. Repair and maintenance is done simply and quickly which makes the chain hoist very economical to maintain. Its high reliability minimises the risk of production downtime and potentially high downtime costs.



The GP series has an overall modular structure. Wearing parts are replaced in a simple manner. The electric chain hoist can be quickly disassembled and reassembled without special tools thanks to the polygonal connection. This saves time and costs, which both service technicians as well as customers appreciate.

## Slipping clutch

The slipping clutch serves as an overload protection and protects the motor and the crane system against overloading. It is located in front of the brake, outside the flow of forces and runs dry with very low maintenance. The slipping clutch is easily accessible and adjustable.

## Chain guidance

Chain and chain guidance are wearing parts, which must be regularly checked and replaced if necessary. The chain guidance is easily and laterally disassembled with a few movements without complete dismounting of the chain hoist. This results in considerable time savings.

## Transmission

The 3-stage gear has helical gearing and lifetime permanent lubrication which provides smooth running and is maintenance free. Replacement is simple and clean, as the gearbox is self-contained and closed. The chain hoist can simply be converted to a different speed by changing the gear box.

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Smart lifting



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