

The AS7 wire rope hoist

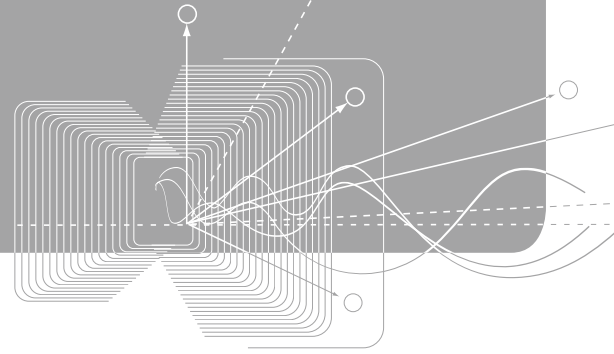


Partner of Experts

STAHL
CraneSystems



The AS7 wire rope hoist



The AS7 wire rope hoist programme is worldwide the innovative classic in lifting and crane technology. Users, crane manufacturers and system manufacturers appreciate the modular system based on field-proven, low-maintenance components. Series manufacture of the standard components brings economic advantages for you. And this combined with the precise manufacture of off-standard components makes the AS7 wire rope hoist a widely acknowledged top quality product.

The modular system permits practically unlimited combinations of the sub-assemblies to produce your individual solutions. The AS7 series from STAHL Crane-Systems is available in two designs for the upper load capacity range up to 125,000 kg. The wire rope hoists can be used with double rail crabs on double girder overhead travelling cranes or as stationary hoisting or towing equipment with different angles of installation and rope lead-offs. The narrow construction is particularly advantageous in systems building. The motor, gearbox and rope drum are arranged one behind the other. This central gear concept allows high performance and loads. The ASR7 wire rope hoist is the reduced version of the tried-and-tested AS7 wire rope hoist. It is designed for a

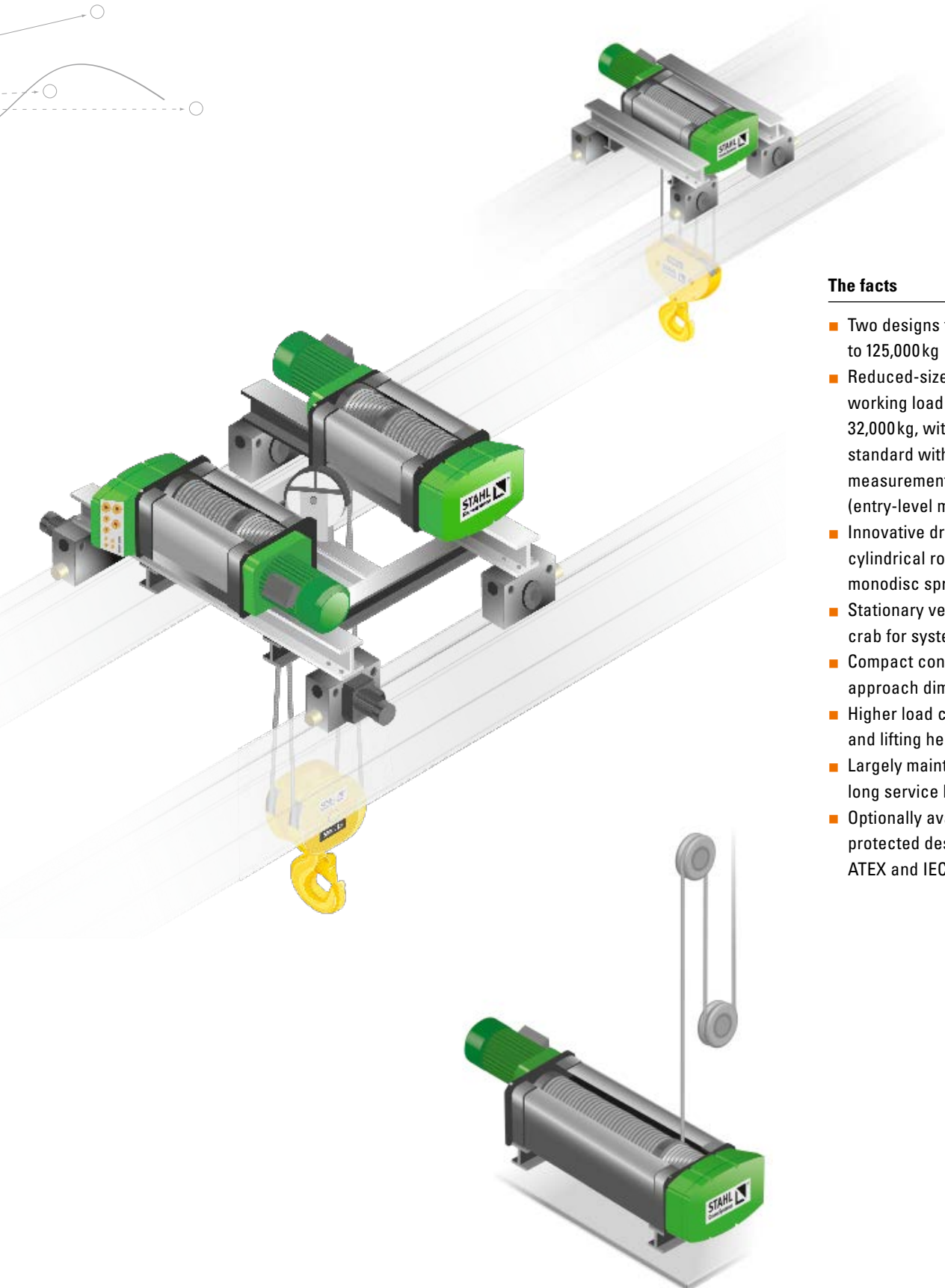
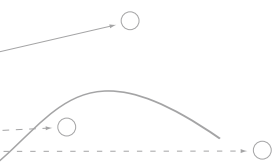
safe working load range from 20,000 kg to 32,000 kg and closes the gap between efficient use of the SH wire rope hoist programme and the AS7 wire rope hoist programme.

The revised design as twin hoist opens up the same areas of application as the AS7 wire rope hoist, but with higher load capacity, greater lifting height and faster hoisting speed as standard. An important safety feature of the AS7 twin wire rope hoist is the precise load positioning. As the rope of the twin hoist runs simultaneously in opposite directions, the load is raised or lowered without any sideways motion of the hook.

Various off-standard designs are available for use in particular conditions. Even in explosive atmospheres you do not have to manage without the AS7 wire rope hoist. On request, the entire wire rope hoist programme is available in explosion-protected design for Zone 1, Zone 2, Zone 21 or Zone 22. It's no coincidence that we are one of the market leader for explosion-protected lifting technology and crane components.



These AS7 wire rope hoists are equipped with maintenance platforms to make maintenance work safe. The ramshorn hooks of the bottom hook blocks can be electrically rotated ensuring precise handling.

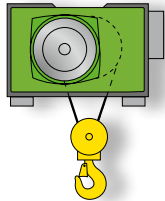


The facts

- Two designs for load capacities up to 125,000 kg
- Reduced-size ASR7 for a safe working load range from 20,000 kg to 32,000 kg, with larger height of lift, standard with exact load measurement at the rope anchorage (entry-level model)
- Innovative drive technology with cylindrical rotor motor with monodisc spring-loaded brake
- Stationary version or double rail crab for systems and crane building
- Compact construction and low approach dimensions
- Higher load capacity, hoisting speed and lifting height as twin hoist
- Largely maintenance-free, low wear, long service life in acc. with ISO
- Optionally available in explosion-protected design complying with ATEX and IECEx

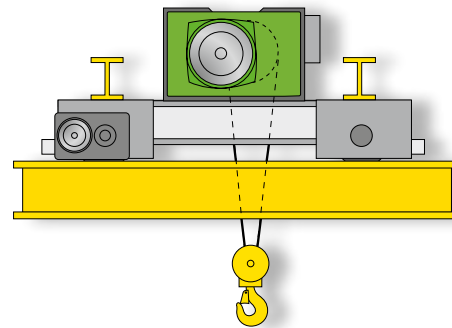
The models and crab variants

Various models and trolley variants for the AS 7 and ASR 7 wire rope hoists open up numerous possibilities of use. Individually tailored to your specific requirements as stationary hoisting or towing equipment, for use with a double rail crab, or for systems manufacture. The crabs are equipped with two travel speeds as standard. But in this too we are receptive to your requirements. Other speeds are available as options. Our wire rope hoists are known worldwide for their flexible and versatile use. A compact construction and extremely short approach dimensions help to make optimum use of a factory hall.



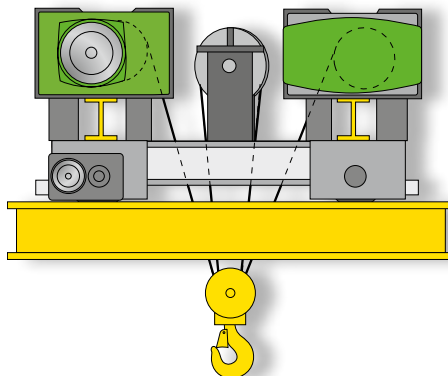
Stationary model

The AS7 wire rope hoist can be used as stationary hoisting or towing equipment, for example in systems manufacture. Depending on the application, the rope lead-off angle, the hoist mounting and the mounting position of the hoist motor can be varied.



OE double rail crab

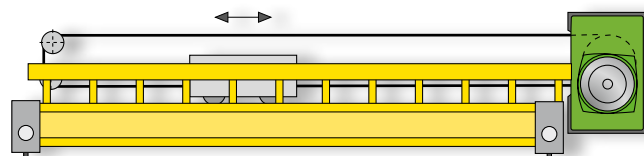
The OE double rail crab is intended for use on double girder overhead travelling cranes. The extremely compact construction makes very low approach and headroom dimensions possible and the available space can thus be used to the full. The double rail crab is available with various track gauges for the whole load capacity range.



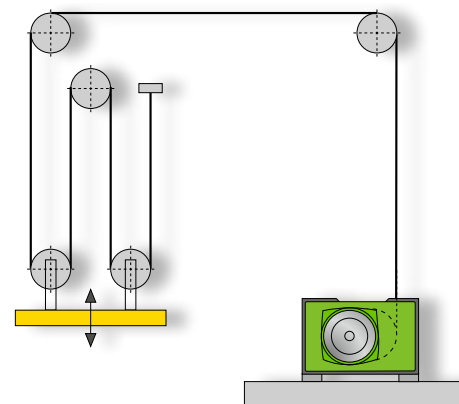
Twin hoist

The AS7 ZW wire rope hoist can also be used as stationary hoisting equipment or with the OE double rail crab.

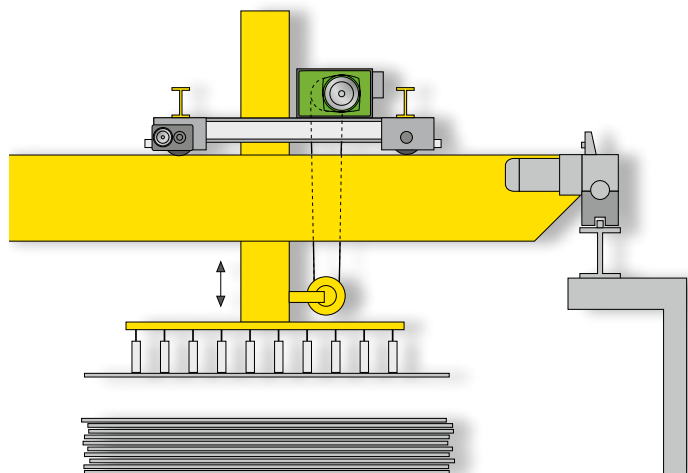
Application examples



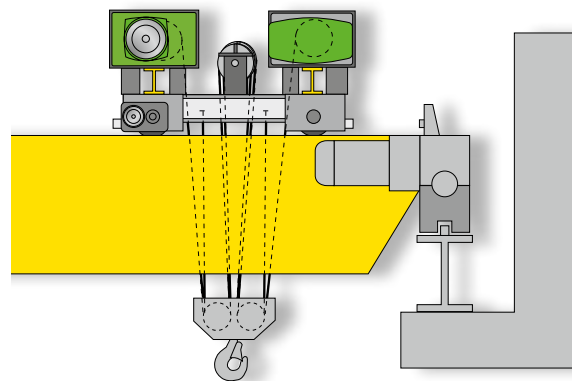
The AS7 wire rope hoist used as horizontal towing equipment in systems manufacture.



The frequency controlled AS7 wire rope hoist used bolted to the floor as vertical towing equipment in systems manufacture.



The AS7 wire rope hoist with guided load pick-up.



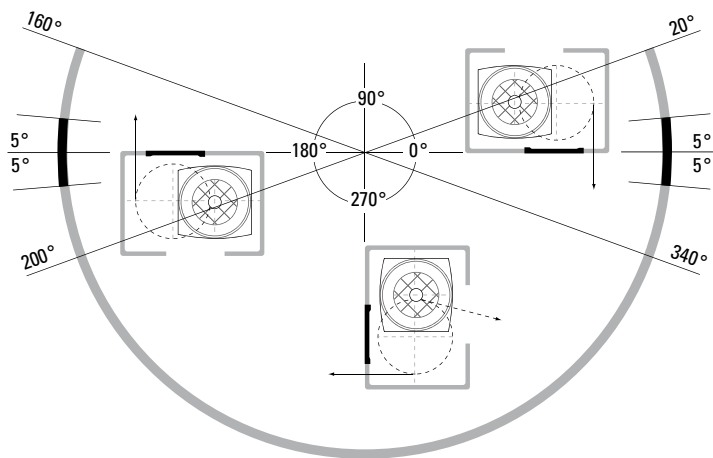
The AS7ZW wire rope hoist is mainly used with a double rail crab on double girder overhead travelling cranes.

■ Standard

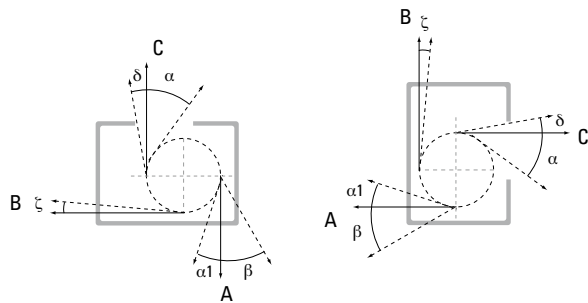
Type	Load capacity up to [kg]	Standard reeving	Reeving for true vertical lift	Stationary	OE double rail crab
ASR 7	32,000	4/1	–	■	■
AS7	45,000	–	10/2-1	■	■
AS7	50,000	2/1, 4/1	2/2, 4/2, 8/2	■	■
AS7	80,000	6/1	–	■	■
AS7ZW	125,000	–	ZW 4/2-1, ZW 6/2-1, ZW 8/2-1, ZW 10/2-1	■	■

You call the shots. Whatever you want to move, the AS7 wire rope hoist will follow. As stationary lifting or towing equipment with different angles of installation and rope lead-offs it moves factory doors and storage and retrieval machines or can be used as a traversing hoist with more than one rope lead-off, for example in long goods storage technology. Its outstanding flexibility is appreciated and acknowledged by systems manufacturers. Other reevings to those shown in our examples can be implemented on request. Please let us know.

Angle of installation
The AS7 wire rope hoist can be mounted in various angle ranges. For rope drives with bottom hook block the wire rope hoist must always be installed with its longitudinal axis horizontal.



Rope lead-off angle
Various rope lead-off angles are made possible by rotating the rope guide on the rope drum and setting the wire rope hoist up accordingly. The rope guide is adusted to suit the rope lead-off angle.

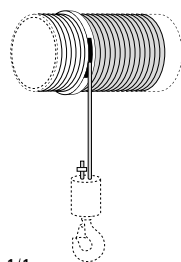


Standard		Turning of the rope guide	
A		B	C (on request)
$\alpha 1 (18^\circ)$	$\beta (30^\circ)$	$\zeta (3^\circ - 10^\circ)$	$\alpha (72^\circ)$ $\delta (10^\circ)$

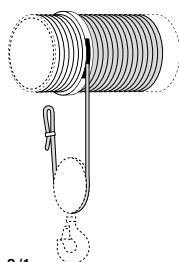
Single-grooved rope drum

The model with single-grooved rope drum is used for stationary hoisting or towing equipment or combined with a double rail crab.

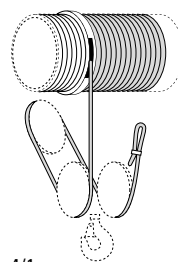
Standard reeving



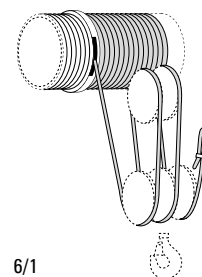
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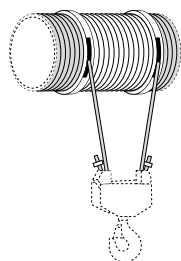
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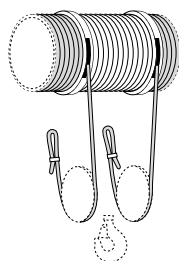
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Double-grooved rope drum

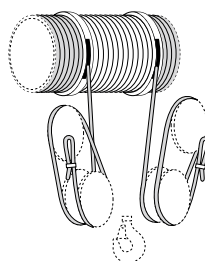
If true vertical lift is required, we recommend this model with double-grooved rope drum (right-/left-hand thread). This version can be used both in stationary form and with a double rail crab.



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4/2

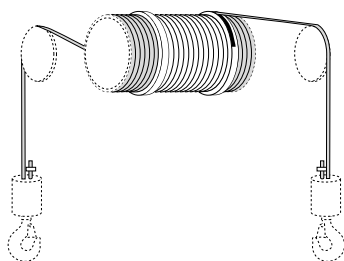


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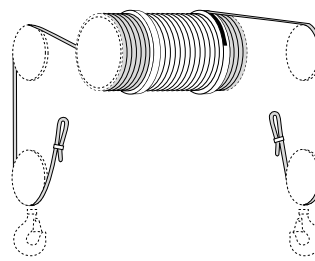
Reeving for true vertical lift

Double-grooved rope drum

The model with double-grooved rope drum (right-/left-hand thread) is used for many lifting and towing tasks where the load must be picked up at more than one point and true vertical lift is required.



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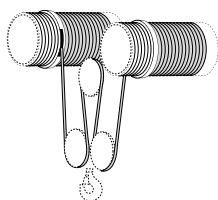


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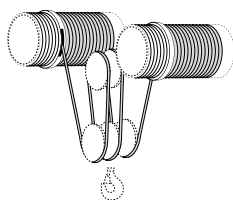
Reeving for multiple load pick-up points

Twin hoist

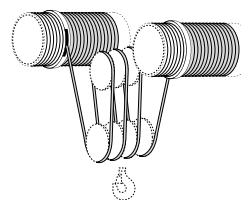
Independent of the grooving of the rope drum, stable guiding of the hook and precise positioning of the load are guaranteed.



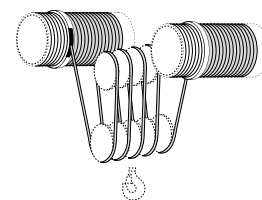
ZW 4/2-1



ZW 6/2-1



ZW 8/2-1



ZW 10/2-1

Reeving for true vertical lift

The technology

It's reassuring to know what convincing technology is concealed in the AS7 wire rope hoist. The largely maintenance-free components of the modular wire rope hoist are optimally matched to each other. They guarantee continuous productivity, high efficiency and long service life. One of the most important characteristics of this wire rope hoist is the arrangement of motor, gear and drum on one axis. It is particularly suitable for systems manufacture and can be used in restricted spaces.

1 Rope and rope guide



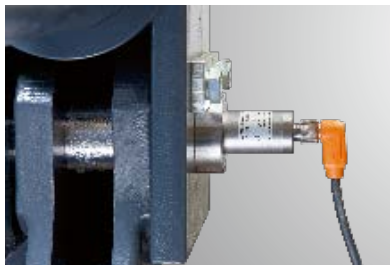
- Highly flexible special rope with long service life
- Field-proven enclosed rope guide in spheroidal graphite cast iron has no temperature limitations
- The GJS material (previously designated GGG40) is suitable for highest and lowest temperature ranges
- 360° rope tensioner, avoiding the formation of slack rope

2 Paint



- Standard paint treatment as per RAL 6018 yellow-green and RAL 7021 greyish black
- High-quality primer and top coats for standard applications
- Off-standard paint treatment for outdoor use or corrosive ambient conditions
- Shade as per customer's requirement

3 Overload cut-off



- Permanent electronic monitoring of the suspended loads
- Limitation of the maximum load by load measurement at the rope anchorage possible in the case of multiple reeving

4 Hoist gear

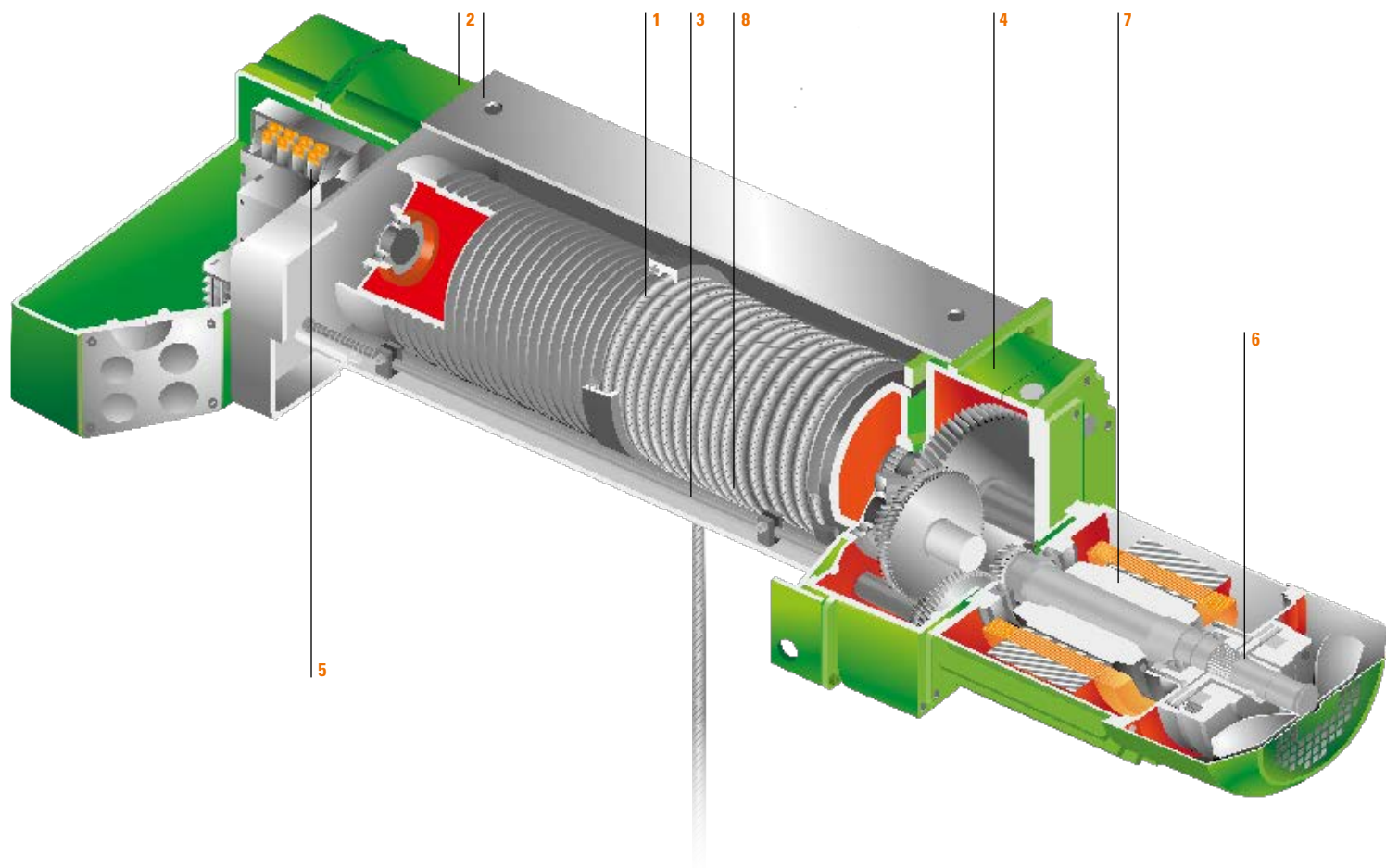


- All gear steps with lifetime lubrication in oil bath
- Minimal noise development thanks to modern technology

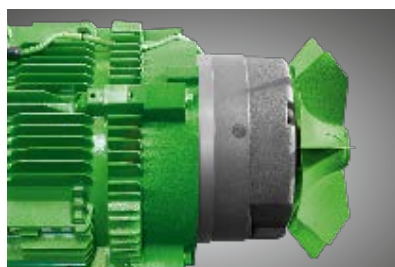
5 SLE/SMC control and motor management



- Condition monitoring as standard
- Inching operation is suppressed thus reducing stress
- All common control voltages available
- High degree of safety thanks to oversized contactors
- Monitoring of the temperature of the hoist motor and travel motor

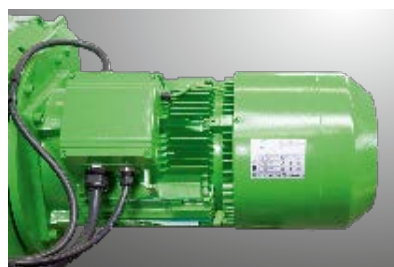


6 Brake



- Low-maintenance asbestos-free brake; needs no adjustment
- Long service life thanks to generously dimensioned brake
- Brake easily accessible for inspection from outside
- Motor management ensures low wear
- IP 65 protection

7 Motor



- Special-purpose motor for hoisting applications
- Classified according to ISO, high duty cycle and switching operation frequency
- IP 55 protection, thermal class F
- Motor outside rope drum, highly efficient motor cooling, maintenance-friendly
- Temperature control by ptc thermistors

8 Rope drive



- Optimised ratio of drum to sheave diameter ensures low wear on rope
- Flexible and long-lived wire rope
- Wear-resistant return sheaves, fine machining provides rope-friendly grooves in rope drum
- Drum easily accessible for rope replacement
- Robust bottom hook block with low headroom in spite of large dimensioning of hook

The options

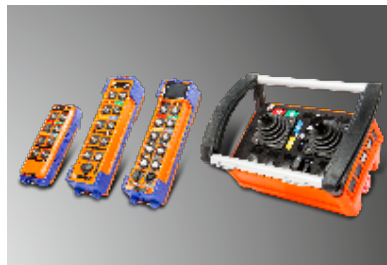
There's always room for improvement. Although it is first-class in the standard version, you have the option of making your AS7 wire rope hoist even safer, more cost-effective, more convenient with numerous mechanical, electrical and electronic features. As a welcome side-effect, the service life of the wire rope hoists is prolonged. The extensions to the programme boost the productivity of the wire rope hoist and adapt it to your individual requirements. Here we show you a few examples of supplementary equipment and options. If you need further detailed information, please pay a visit to our website at www.stahlcranes.com, or contact us directly.

Control pendant



- Robust control pendant with EMERGENCY STOP palm button and control cable
- All switching elements for hoist, cross and long travel are 2-step
- IP 65 protection
- Additional buttons, for example to activate a horn, can easily be fitted.
- Optional load display. All data displayed can be read out on a notebook with the aid of the SMC Multicontroller.

Radio remote control units



- Pushbutton unit with belt clip, optionally with signal feedback from the crane
- Joystick transmitter with controller and carry strap
- Automatic battery chargers with interchangeable batteries
- Robust plastic housing, IP 65 protection
- Works in the 2.4 GHz frequency range.
- Other radio remote control units on request

Emergency hoist limit switch (gear limit switch)



- In standard version, the hoist is equipped with a gear limit switch for top and bottom hook position and an operational limit switch for top hook position
- As an option, up to eight switching elements can be fitted to the switch. This permits for example further stopping positions and operational limiting in bottom hook position.

SMC Multicontroller



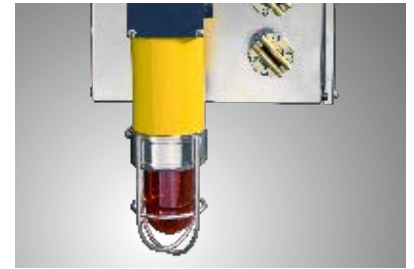
- Continuous load monitoring by overload cut-off even if hoist is idling
- Overload protection with ALC automatic load control
- Load spectrum memory for load-related operating time summation
- Operating data registration, e.g. operating hours, load spectrum, motor switching operations and load cycles
- Data exchange with PC possible

Load display



- SLD four-digit 7-segment load display (Stahl Load Display), large format, luminous red, available with various interfaces including CAN.
- Choice of 60 mm, 100 mm or 150 mm digit height
- No additional sensor is required as the standard load sensor is used.

Signal transmitters



- Visual and acoustic signal transmitters such as horn and flashing light can be mounted on crabs.
- The signal transmitters can be activated by a button on the control pendant.

Manual release of hoist brake



- The brake release device permits the hoist brake to be released manually and thus the load to be lowered during a power cut.
- As an option, every hoist can be equipped with this equipment to supplement the standard brake.

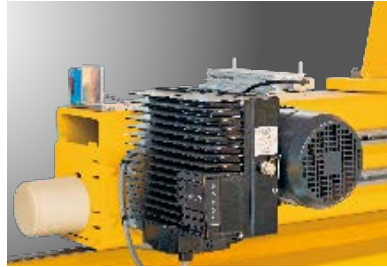
Rope drum brake



- Redundant brake system provides increased safety
- Intercept and holding brake, prevents the load falling even if the gear should break
- Control is effected with a centrifugal switch or safety PLC

SFH frequency inverters for ›hoisting‹

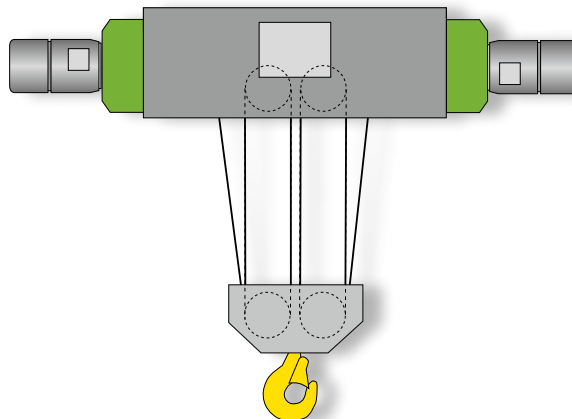
- Smooth starting and braking characteristics
- Load swing greatly reduced
- Fast, precise positioning of the load, corrective switching operations rarely necessary
- The reduced dynamic load means a longer service life for hoist motor and gear and reduces stress on the whole system.
- ESR function (Extended Speed Range) for higher hoisting speeds with partial load
- Worldwide approvals for all frequency inverters
- Certified in compliance with DIN ISO 9001

Frequency inverters for ›cross/long travel‹

- Simple to instal, parametrise and operate
- Standard speed range 1:10, up to 1:30 as an option
- SPS compatible to super-ordinate systems (optional)
- All internationally customary mains voltages are available
- Also available as switch cabinet version

TDC Twin Drive Concept

- Prevents sagging of the load even when the gearbox fails
- Permanent brake, drive and load monitoring
- Two synchronously controlled hoist motors and brakes
- Two manually releasable brakes for emergency lowering
- Robust, completely encapsulated system
- Service and safety brake of identical design
- Up to 60% higher load capacities when transporting non-molten metals



		Standard	Options
Ambient temperature		–20°C to +40°C	–40°C to +80°C
Protection to IEC/EN 60529		IP 55	IP 66
Paint	Colour	Greyish black/yellow-green RAL 7021/6018	All other colours from RAL colour chart
	D.F.T.	80 µm	120 µm to 320 µm
	Paint	Polyurethane topcoat	Epoxy-resin base (240/320 µm)
Control pendants		–	STH1 control pendant with/without load indicator Radio remote control unit with pushbutton or joystick control
Control		The electrical devices are wired onto a terminal strip in the hoist panel box	Complete control with transformer, crane switch contactor (main contactor) Crane manufacturers' control without transformer and without crane switch contactor
Hoist motor control		Pole-changing or frequency controlled, control range 2...100 %	Frequency controlled, control range 1...100 %
Travel motor control	50 Hz	5/20 m/min	2.5/10 m/min or 8/32 m/min
	60 Hz	6.3/25 m/min	3.2/12.5 m/min or 10/40 m/min
	50/60 Hz	2.5...25 m/min frequency controlled	4.0...40 m/min frequency controlled
Motor supply voltage	50 Hz	380–415 V	All voltages possible
	60 Hz	440–480 V	
Rope	to DIN EN 12385	Bright or galvanised	–
	Rope safety factor	Generally ≥ 4.0	Off-standard rope and higher rope safety factor
Rope drive		Bottom hook block, rope return sheaves, rope suspension and wire rope with 1/1, 2/2-1, 2/1, 4/1, 4/2-1, 6/1, 8/2-1, 10/2-1, 2/2-2, ZW 4/2-1, ZW 6/2-1, ZW 8/2-1, ZW 10/2-1 reevings	Ramshorn hook Additional bottom hook blocks and/or return sheaves
Limit switch	Emergency hoist limit switch (gear limit switch)	For top and bottom hook position and operational limit switch for top hook position	With additional switching elements for further stopping positions of hook
	Travel limit switch	–	For up to four switching functions – pre- and end limiting in both directions of travel
Overload cut-off		SLE	SMC
	Signal transmitter	–	Horn, flashing light
	Visualisation	–	Large-format load display, display in control pendant, with PC
	Data exchange	–	RS 232, RS 485, CAN
Temperature control of travel motors		Ptc thermistors including tripping device	–
Mechanical protective device		Wheel arresters	Anti-derail device
		Double rail crab with buffers	–
Hoist brake		Monodisc spring-loaded brake with asbestos-free brake linings	Manual brake release, or redundant drive unit by Twin Drive Concept Rope drum brake Air monitoring Wear monitoring

The engineering

Engineering means innovation and individuality. Constantly redefining the lifting and transporting of loads for complex requirements even in explosive areas is a job for our experts. Drawing on one of the widest product ranges of standard components, they regularly develop modern, individual off-standard and customised solutions. Hardly any other manufacturer of lifting and crane technology can offer you this diversity of precisely designed top quality customised solutions with maximum cost-effectiveness.

The AS7 wire rope hoist programme forms the basis for a wide variety of solutions. Compact construction, low headroom, double-grooved rope drums, frequency-controlled drives, TDC Twin Drive Concept. Numerous trolleys are optionally available for all wire rope hoists. Different angles of installation and rope lead-offs are ideal for flexible use not only in systems building. Customised system solutions, individually adapted to your precise requirements, are our forte. The experience and knowledge gained from over 140 years of crane technology give us the flexibility to develop and produce the optimum solution for your project in short time. On request, all off-standard wire rope hoists and customised solutions are available in explosion-protected design for Zone 1, Zone 2, Zone 21 and Zone 22.

The facts

- Perfectly matched to your project
- Every hoist is the result of over 140 years of experience and expertise
- Cost-effective thanks to modular system
- Technically mature thanks to the use of field-proven standard components
- High quality and reliability ensured by in-house production
- All customised solutions are available as an option in explosion-protected design complying with ATEX and IECEx.



Example 1 Two crane bridges, four wire rope hoists and a special controller

To modernise the crane systems in a factory for the production of electric motors, old concrete crane runways are being reinforced to a load capacity of 32 tonnes and the two existing crane systems equipped with four AS7 wire rope hoists with a lifting capacity of 32 tonnes each. The cranes are used to transport the completely assembled motors in the hall and also between halls. The different load capacities of the hall and optimal use of the production area place high demands on the control equipment for the crane systems.

The four wire rope hoists are equipped with redundant bolt load cells to monitor the hoisted loads as well as a fail-safe position measuring system for the trolleys and fail-safe data transmission between the cranes. The control equipment registers the position data and the distance between the two cranes as well as the current load on each of the four AS7 wire rope hoists. Hoisting and travel movements are permitted or blocked in dependence on all measured data. In this way two cranes can work a small distance apart in the same crane runway field as long as their total payload does not exceed 32 tonnes. If the two cranes are located a small distance apart to the left and right of one of the hall supports, the controller allows both cranes to pick up the full payload. The controller allows tandem operation of the two travel carriages. Tandem operation of the two cranes, by contrast, is not permitted.

The system has been classified by the German TÜV technical inspection authority in Category 3 according to DIN EN 954 and in Performance Level Pl d according to DIN EN ISO 13849-1.

The facts

- Crane and crab distance protection
Performance Level Pl d
- Fail-safe position measuring system for crane trolleys
- Fail-safe data transmission between the cranes
- SMC evaluation device and two-channel SCC safety shut-off device



Example 2 ASF 7 wire rope hoist in systems manufacture of a high bay warehouse

STAHL CraneSystems' engineers developed an overall concept in a high bay warehouse for the storage and retrieval of stacks of concrete weighing up to 50 t. During storage, the spreader beam of the storage and retrieval machine is raised. After it has reached the required level, a rail-bound carriage moves into the storage box and picks up or sets down precast concrete sections. The four frequency controlled AS7 wire rope hoists working in synch are mounted on the base of the storage and retrieval machine. Each is designed for a load capacity of 21.5 t and they raise the telescopic platform at up to 15 m/min with four falls of 25 mm diameter rope. These are high flexibility off-standard ropes with a rope safety factor of 10:1.

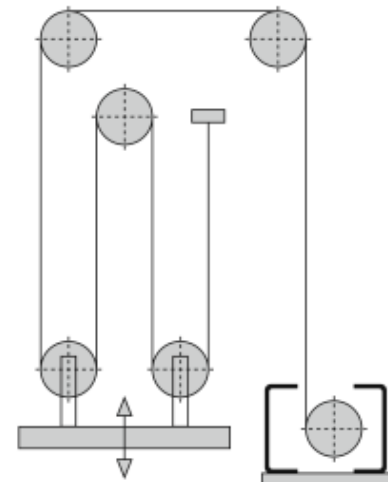
The wire rope hoists are driven by high-powered 36 kW frequency controlled motors. This inverter technology enables the speed to be regulated steplessly and precisely, the maximum speed being optimised dependent on the suspended load.

The smooth starting of the motors avoids impact forces; supporting structure, ropes and rope sheaves are protected from damage. Forced ventilation mounted on the motors permits a duty cycle of 80 % DC and ensures that the motors do not overheat even in continuous operation.

As the outdoor high-bay warehouse is exposed to all weather conditions, the SPC control is mounted in a climate-controlled panel box. This control regulates the synchronisation of the hoists and prevents operating errors and accidents.

The facts

- Storage and retrieval machine weighing 110 t with four synchronised frequency controlled AS 7 wire rope hoists
- Track gauge: 14.1 m, height: 15 m, length: 13.5 m, load capacity: 50 t
- Hoisting speed max. 15 m/min
- Travel speed max. 90 m/min
- SFD frequency inverters
- SPC control
- High ISO classification



Example 3 Two ASF7 wire rope hoists and ingenious rope tightening

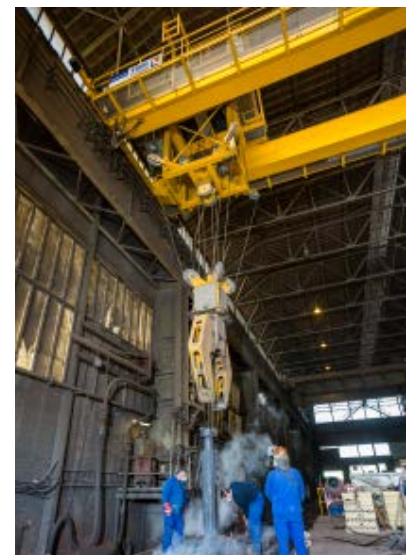
A grab crane works in a cooling hall for cast steel moulds for safe and quick picking up and loading of the steel cylinders. The gripper is lifted and lowered in the hot, dusty hall by two frequency-controlled ASF 7 wire rope hoists mounted on a double rail crab.

STAHL CraneSystems developed a solution for use of this gripper that is gentle on the rope and rope drum. There is a rope tightening contrivance at a fixed distance underneath the wire rope hoists passing the rope over several sheaves. Thanks to the inclined ropes, it keeps the load still during travel and has a stabilising effect even in the event of slightly asynchronous run or if one of the hoists stops.

The hoists with a factory classification of ISO M7 are equipped with four-pole motors for variable speed control, encoders and external ventilation. To obtain optimal conditions for the suspension ropes, the rope drums were individually designed and manufactured at STAHL CraneSystems. The BCC 2 system specifically developed to this end is used for brake monitoring. Should the brakes not be properly open on lifting, the SMC 22 service monitoring system switches the hoists off safely. The crane is operated by radio control.

The facts

- Two ASF 7 wire rope hoists
- Individually manufactured rope drums
- High duty cycle of 80% DC
- High hoist classification ISO M7
- SMC 22 service monitoring system
- BCC 2 brake monitoring system
- Low-stress and low-wear hoisting movements thanks to intelligent rope reeving
- Use of standard components



The explosion-protected AS7Ex wire rope hoist



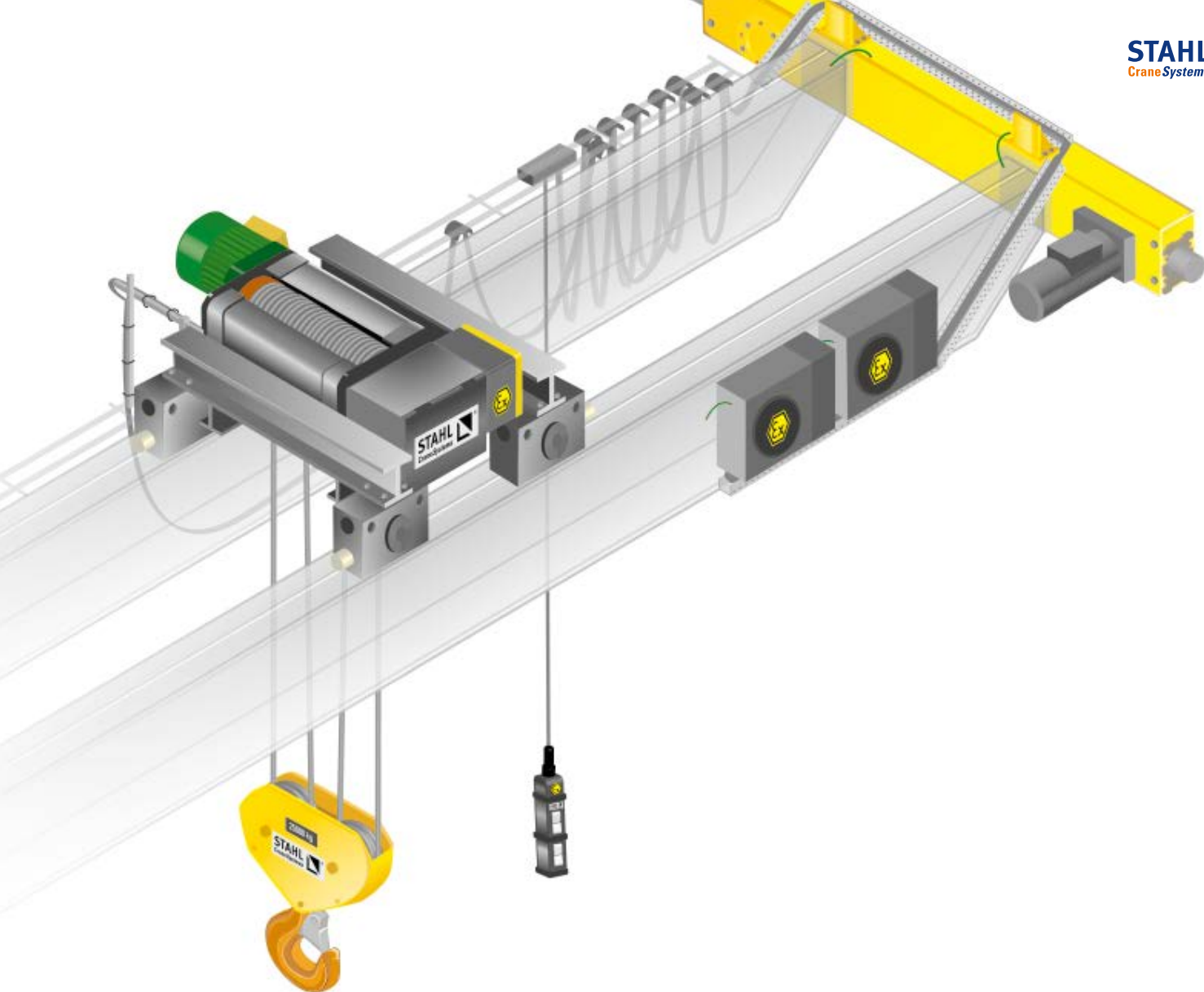
STAHL CraneSystems is known internationally as an explosion protection specialist and is regarded as a world market leader in explosion protection technology. The safety of people and machines in areas subject to gas and dust explosion hazards is our top priority. Here we make no compromises. As developer of numerous innovations in this field we have had palpable influence on crane technology. Experience and know-how from many decades, our own fundamental research and development, approvals from the Federal Physico-Technical Institute (PTB) and other test institutes in many countries underline our expertise. Hoisting technology from STAHL CraneSystems ranks among the safest technology on the market in the chemical, petrochemical and pharmaceutical industries, the food processing industry, power supply, shipbuilding, offshore and natural gas liquefaction industries (LNG).

Without exception, the AS7Ex wire rope hoist programme is based on the modular AS7 wire rope hoist programme. All components of the explosion-protected hoists come from our own production, from motor and brake to controls and control pendant. For this ensures the complete, high-quality explosion protection on which users, crane manufacturers and system manufacturers all over the world have relied for decades. The strict ATEX directives and IECEx regulations on mechanical and electrical explosion protection are of course met.

The facts

- International specialist for explosion-protected technology
 - The world's first complete, most comprehensive wire rope hoist programme for Zone 1, Zone 2, Zone 21 and Zone 22
 - Based on the AS 7 wire rope hoist programme
 - Design and maintenance to ATEX and IECEx in certified quality
 - All equipment available in explosion-protected design
- ➔ For more information, visit www.stahlcranes.com or ask for our brochure "Expertise in explosion protection", which we will gladly send to you by post.

Use	Category	Protection against	Explosion protection class
Zone 1	Ex II 2 G	Gas	Ex de IIB T4 Gb or Ex de IIC T4 Gb
Zone 2	Ex II 3 G	Gas	Ex de nA IIB T3 (T4) Gc or Ex de nA IIC T3 (T4) Gc
Zone 21	Ex II 2 D	Dust	Ex tb IIIC T 120°C Db
Zone 22	Ex II 3 D	Dust	Ex tc IIIC T 120°C Dc



Explosion-protected wire rope hoists in twin design with auxiliary hoist facilitate compressor maintenance in a hydrogen liquefaction plant.

The support

Quality right down to the most minor detail is the standard STAHL CraneSystems is committed to. Not only in the field of crane technology, but also on the subject of support. You will find lifting and crane technology from STAHL CraneSystems all around the world. Developed by engineers and experts, manufactured with maximum care following our well-known standard of quality. All around the world, many companies from various fields have decided on maximum safety and quality, on products from STAHL CraneSystems.

When it comes to sales, we are committed exclusively to capable, professional crane manufacturing partners. You can expect optimum support from them when your individual crane system with components from STAHL CraneSystems is at stake. Consulting and erection of a new system, system-oriented testing and maintenance, modernisation, spare parts supply and training courses. Together with our subsidiaries and crane manufacturing partners we offer you perfectly coordinated support all over the world.





Spare parts – available around the clock

Our own subsidiaries and numerous partners around the world ensure a reliable supply of spare parts and expert assistance in your area. Even decades after a series has been discontinued, spare parts are available all over the world around the clock.



Training courses

We constantly keep our regional crane manufacturing partners up to date with training courses, seminars and information material. And you too as end customer can profit directly from our expertise. We impart practical and theoretical knowledge in our own training centre or on your premises. The seminars on offer in the form of individual, basic and advanced courses cover all main product groups. However, we would also be pleased to develop a special programme for your individual specifications and requirements.

You can find our current seminar programme at www.stahlcranes.com/en/support



Factory service centre – on duty around the world

Our factory service centre is a service for our customers: wherever you are, we assist your crane or systems manufacturer and your technicians with our experience and expertise whenever needed. Modern diagnostic apparatus and condition monitoring systems stand by to support professional service and maintenance work. Not only you, but also your system are in safe hands. You can rely on us.

You can reach our factory service centre at customer.service@stahlcranes.com



MarketingPortal plus – our online support

At mplusplus.stahlcranes.com you can view or download the most important information quickly and conveniently: brochures, product information, technical documents, illustrations and much more.



The AS 7 wire rope hoist in action

Experts in all countries immediately recognise hoist and crane components from STAHL CraneSystems. For the AS 7 wire rope hoist is in action all around the world in the most diverse variants and solutions. Innovative, thought through down to the most minor detail and manufactured with greatest care, the AS 7 wire rope hoist continues to conquer new areas of application. It thus proves its well above average flexibility and cost-effectiveness. STAHL CraneSystems is represented on all continents by subsidiaries, sales and crane manufacturing partners.





1 The double girder overhead travelling crane with a span of 24 m is equipped with an AS 7 wire rope hoist with a lifting capacity of 5t. Two load ropes ensure stable and low-swing operation of the bulk grab. The crane, whose crane and crab travel drives are equipped with frequency inverters, is controlled from a central control point.

2 This double girder overhead travelling crane with two AS 7 wire rope hoists is installed on a deep-sea vessel. The hoists each have a lifting capacity of 20t. This system was equipped with a rack-and-pinion gear and painted with a special coating to make it seaworthy.

3 Double girder overhead travelling crane with three AS 7 wire rope hoists for reel handling and for maintenance work. Two synchronised wire rope hoists remove a 22 t reel of paper from the paper machine every 30 minutes. The hoist with a lifting capacity of 30t is mounted in the middle of the double girder overhead travelling crane for maintenance work. The integrated electronic load aggregation device ensures that a maximum of 30 t is lifted.

4 The double girder overhead travelling crane with an AS 7 ZW wire rope hoist can lift loads of up to 100 t. Due to the hall statics, the maximum permissible load varies from hall section to hall section. A special crane controller with Performance Level Pl d controls safe operation of the crane with the help of permanent evaluation of the load.

5 A double girder overhead travelling crane, equipped with AS 7 wire rope hoists as twin hoist, is used to transport castings weighing up to 100 t. Due to same-side, opposed rope guidance of the twin hoist, the load is lifted and lowered without lateral travel of the hook and can be positioned exactly.

6 A double girder overhead travelling crane with two AS 7 wire rope hoists works in a hydroelectric power plant to open the sluice gates when necessary. The covered hoists are mounted on double rail crabs and have a lifting capacity of 40t each.





1 These frequency controlled AS7 wire rope hoists with four-point load pick-up are ready for use regardless of weather conditions. Each wire rope hoist is equipped with two load ropes which are attached to return sheaves on the load beam and ensure that the load is transported steadily without swinging. The height-adjustable rope suspensions ensure that the load beam maintains its completely horizontal position. It is equipped with a motorised rotating mechanism so that the load can be rotated horizontally if necessary.

2 The coils, which can weigh up to 10 t, are loaded with the help of an AS 7 ZW twin hoist. The special double girder overhead travelling crane runs on 4 crane endcarriages with a total of 8 wheels for better distribution of the load on the crane runway.

3 The portal crane with a lifting capacity of 50 t serves as emergency and maintenance crane at a sluice. The crane is put into storage and can be recommissioned within 48 hours when necessary. The AS 7 wire rope hoist is equipped with numerous special features for outdoor use such as a protective housing for the hoist, anti-condensation heaters and frequency inverters.

4 A portal crane with two SH6 Twin Drive Concept wire rope hoists and an AS 7 wire rope hoist with special monorail trolley as auxiliary hoist works in a wave test facility. All hoists are classified according to ISO M6.

5 Four heavy-duty cranes in a hydroelectric power plant synchronise loads and positions among each other continuously. This is needed in order to prevent the building statics from being overloaded. ASF 7 ZW wire rope hoists lift up to 125 t, while other AS 7 wire rope hoists serve as auxiliary hoists.



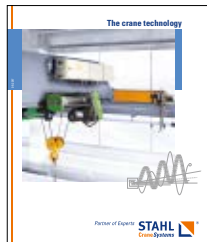




- 1 Two double girder overhead travelling cranes are used in a repair workshop for dismantling and assembly of mining machinery. The hoists are equipped with electronic load indicator and load monitoring for increased safety and reliability.
- 2 Double girder overhead travelling cranes with AS 7 wire rope hoists with lifting capacities of 41 t and 60 t are used in one of Norway's biggest power stations in Bergen. The frequency-controlled hoists are used for maintenance work.
- 3 Three bridge cranes with two identical AS 7 wire rope hoists each are equipped with stepless drives. Each of the AS 7 wire rope hoists is designed for a load capacity of 40 t. The ramshorn hooks of the bottom hook blocks can be electrically rotated so that the loads can be handled precisely. The catwalks make inspection and maintenance work easier. A comprehensive condition monitoring package is part of the maintenance concept.
- 4 A double girder overhead travelling crane with an AS 7 wire rope hoist is used in a sheet metal cutting plant. The hoist is equipped with a motor-controlled rotational hook and an adjustable magnetic lifting beam.
- 5 A manufacturer of CNC machine tools needed 86 cranes for its new production halls. Altogether, 15 wire rope hoists of the type AS 7 and 105 wire rope hoists from the SH series are used in the factory, partly as combination of main and auxiliary hoist.
- 6 A total of 29 cranes, among them two double girder overhead travelling cranes with a lifting capacity of 150 t and a tandem function, work in an Arabian factory. Wire rope hoists of the type AS 7 and SH are used as hoists. All of the cranes have a programming facility for sway control.



You can find this and other brochures at www.stahlcranes.com/download. We will gladly also send them to you by post.



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