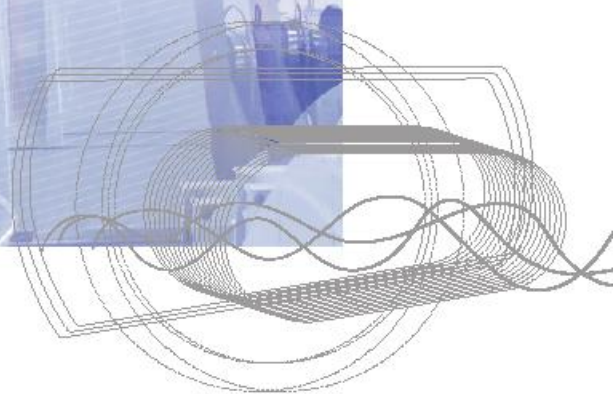


# The SW winch

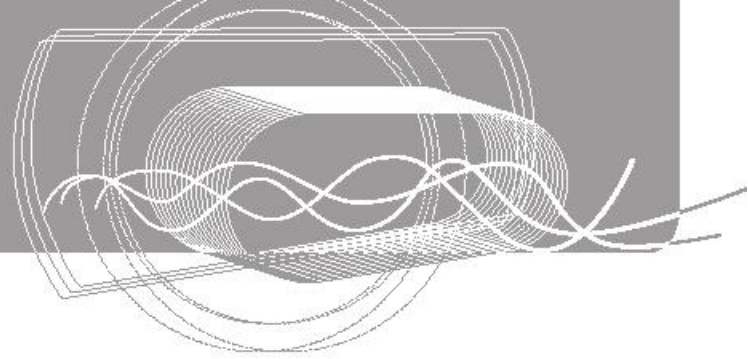


Partner of Experts

**STAHL**  
CraneSystems



# The SW winch



The SW winch is a modular construction on the basis of field-proven low-maintenance components. Series manufacture of the standard components means economic advantages for you. And this combined with precise manufacture of off-standard components makes the SW winch flexible and adaptable. Users, crane manufacturers and systems manufacturers will appreciate the open, compact, robust construction with easy access to rope drive and return sheaves and central lubrication of the wheels as standard. The optimised deadweight reduces the load on the crane structure and the short wheelbase ensures minimum approach dimensions with the wheel load evenly distributed.

The SW winch from STAHL CraneSystems is available in two frame sizes. The SW 10 is for the load capacity range of 25,000 kg to 100,000 kg and the SW 16 for the load capacity range from 50,000 kg to 160,000 kg. Particularly noteworthy is the reduced overall headroom thanks to the slightly angled return sheaves. This guarantees a minimal rope lead-in angle and thus ensures low wear and a longer service life of the rope system. The temperature of the hoist motor is continuously monitored and

this in conjunction with the optional advance cut-out extends service life. Ready installed control boxes considerably simplify erection and thus permit the SW winch to be commissioned rapidly. A condition monitoring unit is provided as standard to ensure fast error analysis and maintenance.

Various off-standard designs are available for applications in particular conditions. As an option, the SW winch can be equipped with the ESR function: the »Extended Speed Range« permits up to 1.7 times hoisting speed with partial load and thus usually makes an additional auxiliary hoist superfluous.

The SW winch is available up to a load capacity of 160,000 kg.



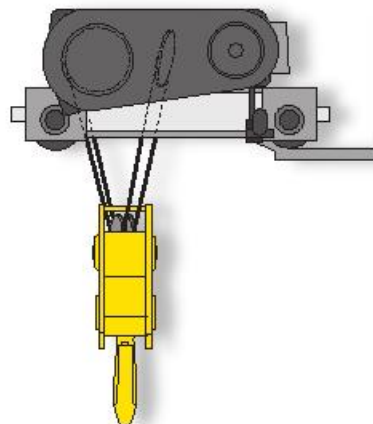


#### The facts

- Two frame sizes, SW 10 and SW 16
- Load capacity of 25,000 kg to 160,000 kg
- Four FEM classifications available
- Largely maintenance-free, low wear, long service life
- Compact construction and short approach dimensions
- Powerful hoist motors for great heights of lift
- Equipped as standard with a condition monitoring unit
- Slightly angled return sheaves
- Optionally available in ESR design (extended speed range) with up to 1.7 times hoisting speed at partial load

## The technology

The SW winch opens up the most varied applications. Individually tailored to your specific requirements, it is intended for use on a double rail crab. Its compact dimensions and short approach dimensions allow your production shop to be utilised to the full. The crabs have frequency-controlled drives as standard. But we are open to your requirements. Other speeds are available as options. Furthermore, the SW winch can be used as stationary hoisting or towing equipment, or in systems manufacture. As this is generally required for extremely exceptional applications STAHL CraneSystems offers the stationary design only on specific request.

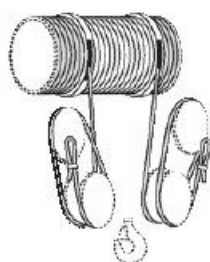


### Double rail crab

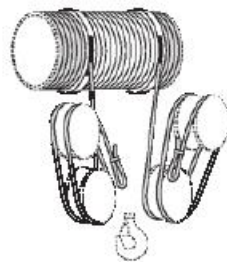
The double rail crab is intended for use on double girder cranes. The extremely compact construction makes very low approach and headroom dimensions possible and the available space can thus be utilised to the full. The double rail crab is available with various track gauges for the whole load capacity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

### Double-grooved rope drum

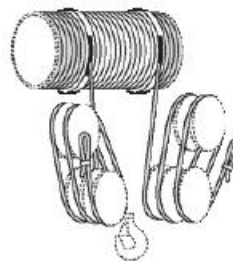
The SW winch uses a double-grooved rope drum providing true vertical lift of the load (right/left-hand thread).



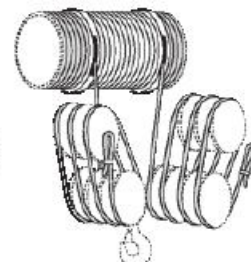
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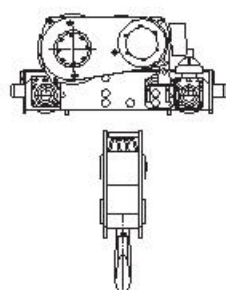
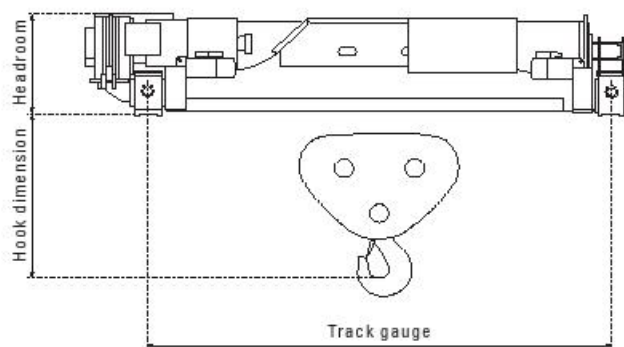
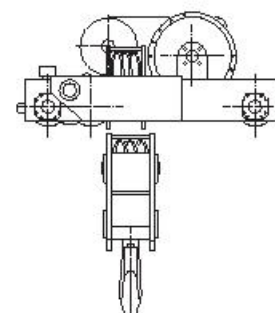
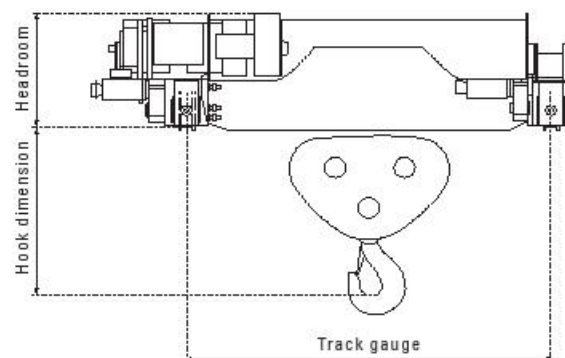


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16/2

Reeving for true vertical lift


**SW 10 model**

**SW 16 model**
**Dimensions of SW 10 model**

Load capacity [kg]	Reeving	ISO FEM	Height of lift up to [m]	Headroom [mm]	Hook dimension [mm]
25,000	8/2	M6	40.2	851	1215
32,000	8/2	M6	40.2	851	1215
40,000	8/2	M5	40.2	851	1215
	10/2	M6	32.1	923	1340
45,000	8/2	M4	40.2	851	1215
48,000	12/2	M6	26.8	923	1340
50,000	8/2	M3	40.2	851	1215
	10/2	M5	32.1	923	1340
56,000	10/2	M4	32.1	923	1340
63,000	10/2	M3	32.1	923	1340
	12/2	M5	26.8	923	1340
70,000	12/2	M4	26.8	923	1340
75,000	12/2	M3	26.8	923	1340
80,000	16/2	M5	20.1	923	1406
90,000	16/2	M4	21.1	923	1406
100,000	16/2	M3	20.1	923	1406

The SW 10 model is available with the following track gauges: 2400 mm, 3400 mm and 4200 mm. The hook dimension is increased with narrower track gauges.

**Dimensions of SW 16 model**

Load capacity [kg]	Reeving	ISO FEM	Height of lift up to [m]	Headroom [mm]	Hook dimension [mm]
50,000	8/2	M6	51.8	1045	1585
63,000	8/2	M6	41.4	1045	1585
	10/2	M5	51.8	1045	1530
70,000	8/2	M4	51.8	1045	1585
78,000	12/2	M6	34.5	1113	1635
80,000	8/2	M3	51.8	1045	1585
	10/2	M5	41.4	1045	1530
90,000	10/2	M4	41.4	1045	1530
100,000	10/2	M3	41.4	1045	1530
	12/2	M5	34.4	1113	1635
112,000	12/2	M4	34.4	1113	1635
125,000	12/2	M3	34.4	1113	1635
	16/2	M5	25.9	1113	1720
140,000	16/2	M4	25.9	1113	1720
160,000	16/2	M3	25.9	1113	1720

The SW 16 model is available with the following track gauges: 2700 mm, 3400 mm and 4200 mm and 5300 mm. The hook dimension is increased with narrower track gauges.

Function and performance of the SW winch from STAHL

CraneSystems is thought through down to the most minor detail. It is a reassuring feeling to know that. The largely maintenance-free components and sub-assemblies, manufactured in state-of-the-art series production, are optimally matched. This modular construction permits wide-ranging variants while at the same time ensuring outstanding performance and cost-effectiveness.

#### 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

#### Rope and rope guide



- Robust guide elements in spheroidal graphite cast iron
- Load sensors to monitor overload
- Two independent ropes
- Rope overwind protection and slack rope monitor
- Pressure roller is possible as an alternative to rope guides

#### Rope drive



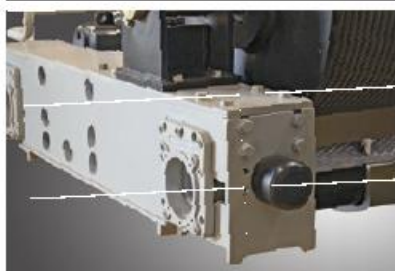
- Wear-resistant return sheaves, fine machining provides rope-friendly grooves in rope drum
- Rope sheaves in bottom hook block set at an angle to return sheave, no fleet angle
- As an option, motor-driven rotating load hook with inverter
- Robust bottom hook block with low headroom
- Optimised ratio of drum to sheave diameter ensures low wear on rope
- Flexible and long-lived wire rope
- Drum easily accessible for replacing rope

#### Hoisting gear



- Reliable and maintenance-free thanks to a statically determined three-point suspension
- 3-step spur gear
- Gear limit switch
- Supplementary limit switch for top hook position activated by bottom hook block as standard

### Crab



- Convex running surface of wheels
- For high load capacities, 6 wheels reduce the wheel load
- Flanged wheels on hoist gear side, guide rollers are also available as an option
- Wheels without flanges on the opposite side
- Even distribution of wheel load

### Motor



- Powerful 4-pole hoist motor for great lifting heights
- Four FEM classifications
- Stepless hoisting and travel speeds as standard
- Motor-driven ventilation preventing overheating (SW 10), forced ventilation (SW 16)
- Bimetal temperature control for hoist and travel motors
- 2-step travel limit switches
- Coupling between hoist motor and hoist gear
- IP 55 protection

### Electrics



- Clear marking of cables ensures speedy recognition and correct installation
- Simple, maintenance-friendly replacement of components
- Flexible towing arm swivelling from  $-37.5^\circ$  to  $+37.5^\circ$  for all types of power supply

### Control and SMC21 motor management



- Pre-installed control boxes with interior lighting, socket and warning horn on outside of control box
- Fully equipped control, functional arrangement
- Main components: frequency inverter for hoist and travel, condition monitoring, main contactor, control transformer, radio remote control as an option
- Generously dimensioned for additional individual components
- IP 55 protection for contactors and inverters
- IP 21 protection for resistor housing

## 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 – accessible right around the clock**

Our own subsidiaries and numerous partners around the world ensure reliable spare parts supply and expert assistance in your area.



### **Training courses**

We constantly keep our regional crane manufacturing partners up to date with training courses, seminars and information material. You too 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 match a special programme to your individual specifications and requirements.

You will find our current seminar programme at [www.stahlcranes.com/en/support](http://www.stahlcranes.com/en/support)



### **Factory service centre – in action all over the world**

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

You will find our online service at [www.web.stahlcranes.com](http://www.web.stahlcranes.com) and you can reach our factory service centre on [customer.service@stahlcranes.com](mailto:customer.service@stahlcranes.com)



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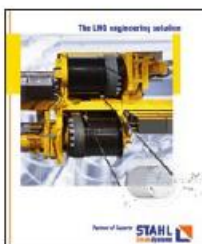
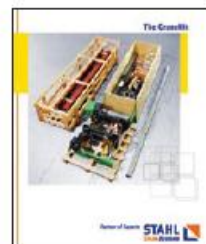
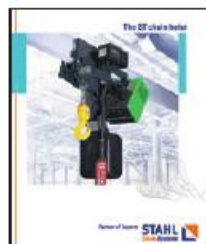
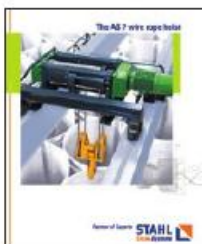
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→ [www.stahlcranes.com](http://www.stahlcranes.com)

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