

▼ SHS-Series 4-Point SyncHoist System



- High-precision load maneuvering using one crane
- Reduces the risk of damage from oscillations of wire rope due to crane jogging and sudden starts/stops
- Vastly improving worker safety, operating speed and control
- PLC-controlled hydraulics turn lifting into high-accuracy hoisting and load positioning system
- Double-acting push/pull cylinders with load-holding valves for added safety
- Increased efficiency compared to conventional load positioning methods

Options for system management and control:

- Manual control: system warning functions
- Automatic control: fully PLC-monitored system with programmable functions using touch screen and system warning functions
- Wireless control: self-contained hydraulics with hand-held control

▼ Bridge segments are hoisted from the ground, being positioned with a 4-point SyncHoist system with fully monitored cylinders.



▼ Rigging engineers used the SyncHoist system to precisely monitor and adjust each lifting point independently, or together in a synchronized manner to position the 1140 ton nuclear plant module.



Accurate Hoisting and Load Positioning Enhancing a Crane's Capability



Synchronous Hoisting

Enerpac SyncHoist is a unique crane product for below-the-hook positioning of heavy loads that require precision placement. The SyncHoist system may reduce the number of cranes needed and reduce the costs of multiple picks.

Functions

- High precision horizontal and vertical load positioning
- Pre-programmed positioning, tilting and aligning.

Applications

- Positioning of rotor, stator and propeller blades of wind turbines
- Positioning of roof sections, concrete elements, steel structures
- Positioning of turbines, transformers, fuel rods
- Precise machinery loading, mill rod changes, bearing changes
- Precise positioning of pipe lines, blow out valves
- Positioning and aligning of ship segments prior to assembly.

▼ Offshore wind turbine base foundations installed with a wireless SHAS-SyncHoist System to ensure the foundation remained vertical during lowering and positioning.



SyncHoist - High Precision Load Positioning



What is SyncHoist?

Enerpac SyncHoist is a hydraulically operated auxiliary attachment for high precision load positioning for cranes. The SyncHoist system can be used for pre-programmed positioning, tilting and aligning of loads.

- Complete system tested in compliance with European lifting directive and safety requirements.

SyncHoist improves safety, operating speed and control of load movement

Geometric positioning of heavy loads in a horizontal and vertical plane are frequently done using more than one crane. Synchronizing movements between cranes are difficult and risky. The lifting inaccuracy can result in damage to the load and support structures and puts workers at risks. The SyncHoist system can be used for controlled hydraulic horizontal and vertical material handling.

System management and control

Contact Enerpac for the following options, or other customized stroke, capacity and control configurations.

1. Manual control

- Valves with manual levers
- Warnings for thermal motor protection
- Visual check: oil level, filter indicator.

2. Automatic control

- Load and stroke monitoring, and stroke control
- PLC-control and touch screen
- Solenoid valves with pendant
- Pre-programmable motions and data recording
- System warnings for:
 - maximum cylinder load control setting
 - stroke and position control
 - thermal motor protection
 - oil level and filter indicator.

Autonomous (wireless) system SHAS-Series

- Wireless remote control
- Only one electric power connection per lifting point
- Integrated hydraulics, PLC and controls
- No need for hydraulic hoses and cables
- No need for mid-hoist disconnection of hoses and movement of pump.

SHS, SHAS Series



Capacity:

60 - 250 tons

Maximum Stroke:

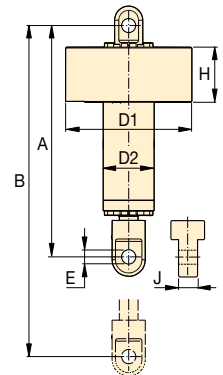
19.69 - 59.06 inches

Accuracy Over Full Stroke:

± 0.040 inches

Maximum Operating Pressure:

10,000 psi



Capacity	Total Load	Cylinder Stroke	Model Number ¹⁾	Control System	Motor Size	Number of Pump Outlets and Oil Flow ²⁾	Cylinder Dimensions (in)							Wt.
(ton)	(ton)	(in)	460-480 VAC, 3 ph - 60 Hz		(hp)	(in ³ /min)	A	B	D1	D2	E	H	J	(lbs) ³⁾
4 x 60	240	19.69	SHS45520MJ	Manual	10	4 x 85	51.18	70.87	27.17	9.65	2.32	15.16	3.15	992
		39.37	SHS45540MJ				70.87	110.24						1378
		59.06	SHS45560MJ				90.55	149.61						1764
		19.69	SHS45520AJ	Automatic	20	4 x 128	51.18	70.78	27.17	9.65	2.32	15.16	3.15	992
		39.37	SHS45540AJ				70.87	110.25						1378
		59.06	SHS45560AJ				90.55	149.61						1764
4 x 94	376	19.69	SHS48520MJ	Manual	15	4 x 128	52.36	72.05	27.17	10.43	2.83	15.16	3.94	1102
		39.37	SHS48540MJ				72.05	111.42						1543
		59.06	SHS48560MJ				91.73	150.79						1984
		19.69	SHS48520AJ	Automatic	20	4 x 128	52.36	72.05	27.17	10.43	2.83	15.16	3.94	1102
		39.37	SHS48540AJ				72.05	111.42						1543
		59.06	SHS48560AJ				91.73	150.79						1984
4 x 120	480	39.37	SHS411040MJ	Manual	15	4 x 128	23.03	112.40	30.71	12.40	3.35	15.55	4.88	2138
		59.06	SHS411060MJ				92.72	151.77						2723
		39.37	SHS411040AJ	Automatic	20	4 x 128	73.03	112.40	30.71	12.40	3.35	15.55	4.88	2138
		59.06	SHS411060AJ				92.72	151.77						2723
4 x 120	485	39.37	SHAS411040WU ⁴⁾	Wireless	4 x 5	—	73.03	112.40	41.85	12.40	3.36	21.26	4.88	2608
		59.06	SHAS411060WU ⁴⁾				92.72	151.77						3192
4 x 250	991	39.37	SHAS422540WU ⁴⁾	Wireless	4 x 10	—	84.25	123.62	48.62	16.54	5.59	22.83	7.48	7097
		59.06	SHAS422560WU ⁴⁾				103.94	143.31						7527

¹⁾ With 4 cylinders and one 460-480 VAC-3 phase-60 Hz power pack (suffix J). For 400 VAC-3 phase-50 Hz power pack change suffix J into W. Example: SHS45560MW.

²⁾ Pump and cylinders include 4x 82 feet hydraulic hoses with couplers. ³⁾ Weight per cylinder.

⁴⁾ WU = with US electrical wiring. Change into suffix "WE" for EU-market. Example: SHAS411060WE.