

▼ SHS-Series 4-Point SyncHoist System



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

- 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.



▼ SyncHoist Powerpack to operate the 4 lifting points.



▼ A SyncHoist system used to align steel blocks of the ship's control tower sections allowing gradual lifting and positioning of the load.



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
- BTH-1 - 2014 compliant design of below-the-hook lifting devices

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

- 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 ton

Maximum Stroke:

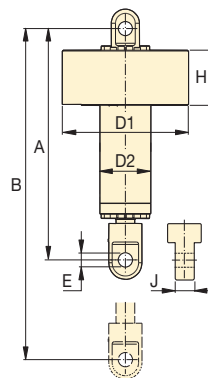
19.69 - 59.06 inches

Accuracy Over Full Stroke:

± .040 inches

Maximum Operating Pressure:

10,000 psi



Capacity (ton)	Total Load (ton)	Cylinder Stroke (in)	Model Number ¹⁾ 460-480 VAC, 3 ph - 60 Hz	Control System	Motor Size (hp)	Number of Pump Outlets and Oil Flow ²⁾ (in ³ /min)	Cylinder Dimensions (in)							Wt. (lbs) ³⁾
							A	B	D1	D2	E	H	J	
4 x 60	240	19.69	SHS 45520 MJ	Manual	10	4 x 85	51.18	70.87	27.17	9.65	2.32	15.16	3.15	992
		39.37	SHS 45540 MJ				70.87	110.24						1378
		59.06	SHS 45560 MJ				90.55	149.61						1764
		19.69	SHS 45520 AJ	Automatic	20	4 x 128	51.18	70.78	27.17	9.65	2.32	15.16	3.15	992
		39.37	SHS 45540 AJ				70.87	110.25						1378
		59.06	SHS 45560 AJ				90.55	149.61						1764
4 x 94	376	19.69	SHS 48520 MJ	Manual	15	4 x 128	52.36	72.05	27.17	10.43	2.83	15.16	3.94	1102
		39.37	SHS 48540 MJ				72.05	111.42						1543
		59.06	SHS 48560 MJ				91.73	150.79						1984
		19.69	SHS 48520 AJ	Automatic	20	4 x 128	52.36	72.05	27.17	10.43	2.83	15.16	3.94	1102
		39.37	SHS 48540 AJ				72.05	111.42						1543
		59.06	SHS 48560 AJ				91.73	150.79						1984
4 x 120	480	39.37	SHS 411040 MJ	Manual	15	4 x 128	23.03	112.40	30.71	12.40	3.35	15.55	4.88	2138
		59.06	SHS 411060 MJ				92.72	151.77						2723
		39.37	SHS 411040 AJ	Automatic	20	4 x 128	73.03	112.40	30.71	12.40	3.35	15.55	4.88	2138
		59.06	SHS 411060 AJ				92.72	151.77						2723
4 x 120	485	39.37	SHAS 411040 WU ⁴⁾	Wireless	4 x 5	—	73.03	112.40	41.85	12.40	3.36	21.26	4.88	2608
		59.06	SHAS 411060 WU ⁴⁾				92.72	151.77						3192
4 x 250	991	39.37	SHAS 422540 WU ⁴⁾	Wireless	4 x 10	—	84.25	123.62	48.62	16.54	5.59	22.83	7.48	7097
		59.06	SHAS 422560 WU 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: SHS 45560 MW.

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: SHAS 411060 WE.