Extreme Environment Products



▼ Shown from left to right: P-142ALSS, P-392ALSS, V-152NV, V-66NV, RC256NV, RC-106NV, RC-53NV



- Corrosion resistant, nickel-plated valves and cylinders
- Stainless steel pump inserts will not corrode
- Viton[®] Seals provide heat and chemical resistance
- Anodized aluminum pump reservoirs and plastic encapsulated pump bodies resist wet environments
- Two-speed operation reduces pump handle strokes 78% compared to single-speed pumps
- Pump handles lock for easy carrying

RC, P, V Series

Cylinder Capacity:

5-25 tons

Stroke:

2-6 inches

Maximum Operating Pressure:

10,000 psi



Use Enerpac **Extreme Environment Products** in wet

environments such as food

processing, pulp and paper, mining, construction and applications in high temperature or in welding areas.



Multifluid Hand Pumps

MP-Series corrosion resistant hand pumps for low pressure filling and high pressure testing applications,

suitable for a wide range of fluids.

Page:

77

▼ CYLINDER CHART



	Cylinder	Stroke	Model	Oil	Pressure	Collapsed	Extended	Outside	Weight				
l	Capacity		Number *	Capacity	Rating	Height	Height	Diameter					
ı							Ü						
ı													
l	(t)	<i>a</i> >		(* 2)			<i>a</i> >		<i>(</i> 11)				
ı	(ton)	(in)		(in³)	(psi)	(in)	(in)	(in)	(lbs)				
l	5	3.0	RC-53NV	2.98	10.000	6.50	9.50	1.50	3.3				
l		0.0	110 00111	2.00	10,000	0.00	0.00	1.00	0.0				
	10	2.0	RC-102NV	4.75	10,000	4.78	6.91	2.25	5.1				
	10	6.0	RC-106NV	13.70	10.000	9.75	15.88	2.25	9.8				
l	. •	0.0		.0.70	. 5,500	0.70	. 5.00	0	5.0				
l	25	6.0	RC-256NV	32.23	10,000	10.75	17.00	3.38	22.0				

▼ HAND PUMP CHART



Pump	Oil	Model	Pressure	Oil	Port	Piston	Weight
Type	Capacity	Number *	Rating	Displacement per Stroke	Dimension	Stroke	
	(in³)		(psi)	(in³)	(in)	(in)	(lbs)
Two	20	P-142ALSS	200/10,000	0.221 / 0.055	1/4"-18 NPTF	.50	4.5
Speed	55	P-392ALSS	200/10,000	0.687 / 0.151	3/8"-18 NPTF	1.00	9.0

▼ VALVE CHART



, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Valve Type	Model	Pressure	Pressure	Weight
	Number *	Function	Rating	
			(psi)	(lbs)
Manual Check Valve	V-66NV	Check	10,000	4.5
Pressure Relief Valve	V-152NV	+3% Repeatability	800-10,000	9.0

For cylinder details see pages 7-9; for pump details see pages 70-71; for valve details see pages 146-147.

Portable Hydraulic Toolbox

▼ Shown: SCR106TB



SCR, SCL, SRS **Series**

Capacity:

5-50 tons

Stroke:

.44-10.13 inches

Maximum Operating Pressure:

10,000 psi

- Includes a single-acting cylinder, two-speed lightweight hand pump (P392), gauge adaptor assembly (GA45GC), and 6 ft. rubber hose with couplers (HC9206C)
- Complete and ready-to-use hydraulic system
- Easy to carry sturdy toolbox
- · All components ship inside the toolbox as one package



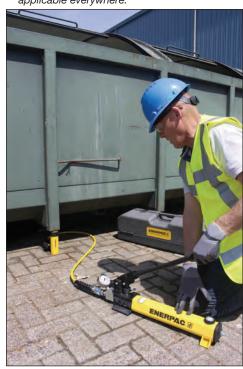
Gauge Adaptor Assembly

Toolbox sets include a 45 degree angled gauge adaptor assembly for improved operating ergonomics and safety.

Page:

	Cylinder Model	Stroke	Capacity	Weight	Toolbox Set Model Number
		(in)	(tons)	(lbs)	
	General Purp	pose Cylinder	'S		
	RC-55	5.00	5	26	SCR-55TB
I I	RC-102	2.13	10	27	SCR-102TB
ENERPAC	RC-106	6.13	10	32	SCR-106TB
ic s	RC-1010	10.13	10	36	SCR-1010TB
	RC-154	4.00	15	34	SCR-154TB
RC Series	RC-256	6.25	25	45	SCR-256TB
	Low-Height	Cylinders			
(3)	RCS-101	1.50	10	28	SCL-101TB
ENERPA	RCS-201	1.75	20	33	SCL-201TB
	RCS-302	2.44	30	37	SCL-302TB
RCS Series	RCS-502	2.38	50	44	SCL-502TB
	Flat-Jac® Cy	linders			
-	RSM-100	0.44	10	26	SRS-100TB
8	RSM-200	0.44	20	28	SRS-200TB
	RSM-300	0.50	30	31	SRS-300TB
RSM Series	RSM-500	0.63	50	37	SRS-500TB

▼ The Hydraulic Toolbox is a versatile tool and applicable everywhere.





▼ Shown from left to right: JHA-356, JHA-156



JH, JHA Series

Capacity:

7-100 tons

Stroke

3.00-6.13 inches

Maximum Operating Pressure:

10,000 psi

- All-directional operation on 7, 15 and 35-ton models (JHA- Series)
- Internal relief valve to prevent overloading
- Machined flat front and bottom surfaces permit flush alignment in tight corners
- All models include pumping handle
- Chrome-plated plungers
- Automatic by-pass port to prevent over-extension (JH-Series)



Lifting Wedge and Machine Lifts

Ideal to lift the load the first few inches. The **LW-16** Lifting Wedge requires a

very small access gap of only .39 inch.

Page:

192



Load Skates

For moving heavy loads easily and safely.

Page: 19

Style	Jack Capacity	Stroke	Model Number	Jack Effective Area	Collapsed Height	Extended Height	Dimensions (W x L)	Plunger Diameter	Pump Speed	Weight
	(ton)	(in)		(in²)	(in)	(in)	(in)	(in)		(lbs)
	7	3.00	JHA-73	1.49	5.25	8.25	2.88 x 6.25	1.19	Single	11
Aluminum	15	6.06	JHA-156	3.14	9.75	15.81	3.63 x 9.38	1.63	Single	29
Jack	35	6.13	JHA-356	7.07	10.13	16.25	4.63 x 10.00	2.13	Single	40
	75	6.06	JHA-756	15.90	11.25	17.31	6.88 x 12.81	4.50	Single	94
Steel	30	6.13	JH-306	5.94	10.00	16.13	3.75 x 9.56	2.75	Single	59
Jack	50	6.09	JH-506	9.62	10.25	16.34	5.00 x 10.19	3.50	2-Speed	90
dack	100	6.06	JH-1006	20.63	11.31	17.37	7.13 x 12.94	5.12	2-Speed	184

Industrial Bottle Jacks

▼ Shown: **GBJ010A**, **GBJ030A**, **GBJ003A**



- Lower handle effort reduces operator fatigue
- Fully serviceable
- High-strength beam and pump linkage for long life
- Pumping handle included on all models
- Safety relief valve to prevent overload
- Automatic by-pass port to prevent over-extension
- Wiper seal for extended life
- Thick base material with large area for increased strength and stability during lifting

Jack Cap.	Stroke	Model Number	Screw Extension	Min. Height	Max. Height	Plunger Dia.	Saddle Dia.	Base Dims. L x W	Wt
(ton)	(in)		(in)	(in)	(in)	(in)	(in)	(in)	(lbs)
2	18.11	GBJ002LA	-	22.44	40.55	1.14	-	2.95 x 4.57	13.2
2	4.13	GBJ002A	2.56	6.61	13.31	0.94	0.93	2.95 x 4.57	7.9
3	4.13	GBJ003A	2.56	6.61	13.31	0.94	0.93	2.95 x 4.57	8.1
5	5.91	GBJ005A	2.95	5.91	17.20	1.14	1.12	2.95 x 4.92	9.9
8	5.91	GBJ008A	2.95	8.62	17.48	1.46	1.50	3.54 x 5.67	13.6
11	5.91	GBJ010A	2.95	8.62	17.48	1.46	1.50	3.54 x 5.67	14.1
11	2.44	GBJ010SA	1.18	5.16	8.78	1.46	1.50	3.54 x 5.67	11
17	5.91	GBJ015A	2.95	8.98	17.83	1.75	1.77	4.41 x 6.42	19.4
22	5.91	GBJ020A	2.95	9.21	18.07	2.00	2.40	4.72 x 6.77	23.3
22	4.13	GBJ020SA	2.17	7.48	13.78	2.00	2.40	4.72 x 6.77	20.9
33	5.91	GBJ030A	2.95	9.53	18.39	2.27	2.72	5.67 x 7.72	34.2
55	5.51	GBJ050A	-	10.24	15.75	3.15	3.15	6.50 x 8.43	59.4
110	5.91	GBJ100	-	11.81	17.72	4.33	3.70	11.65 x 13.11	191.8

All GBJ Jacks meet or exceed: ANSI, PALD, CE

GBJ

Series

Capacity: 2-110 tons

Stroke:

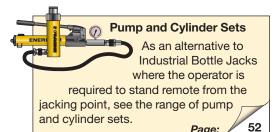
2.44-18.11 inches



Screw Feature

Heat treated, adjustable extension screw with cleated saddle on selected GBJ models helps adjusting

and prevents slipping.



▼ Enerpac heavy-duty hydraulic bottle jack makes lifting loads easier.



PR-Series, POW'R-RISER® Lifting Jack



▼ Shown: PRASA10027L and Accessory Locking U-Rings



Safe, Efficient, Mobile Load Lifting

- 60, 100, 150 and 200-ton capacities with pneumatic or electric pumps for the toughest jobs
- 4-inch ground clearance for transport over rail and rough terrain
- Three-position handle provides easy tilt back and transport
- Complies with ASME/ANSI B30.1:2015 & CE specifications
- Easy-to-change external filter minimizes down time
- Rugged, fully enclosed 24-inch wide frame with no exposed fittings or hoses
- SUP-R-STACK[™] Extension System allows lifting at all heights without blocking.

Pendant Cord Standard 12' pendant cord for

air driven units with pneumatic valves and 20' pendant cord for electric driven units keeps operator away from the load.

▼ Enerpac POW'R-RISER® used in mining operations to lift heavy equipment.



Capacity	Stroke	Electric Pump Model Number	Weight	
(ton)	(in)	(115 VAC)	(lbs)	
60	14	PREMB06014L	390	
80	27	PREMB06027L	600	
	16	PREMB10016L	510	
400	27	PREMB10027L	600	
100	16	-	-	
	27	-	-	
	15.5	-	-	
150	26.5	-	-	
150	15.5	PREMB15016L	570	
	26.5	PREMB15027L	708	
200	15.3	-	-	
200	24.3	-	-	

(PR-Series not available in Canada. Contact Enerpac.)

POW'R-RISER® Lifting Jack



SUP-R-STACK™ **Extensions**

Increase useful height from 5" to 18".

Model No.	Size (in)	Model No.	Size (in)					
PRE5	5	PRE11	11					
PRE7	7	PRE14	14					
PRE9	9	9 PRE18						
PRES6024		Extension set includes PRE5, PRE7, PRE11PRE18						



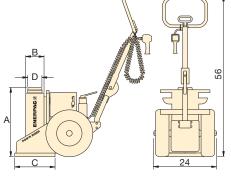
Spacers

Fine tune your Extension stack height.

Model No.	Size (in)	Model No.	Size (in)
PRS1	1	PRS3	3
PRS2	2	-	_
PRS4	Set include and (1) P		1, (1) PRS2

Сар.	Swivel Load Cap		Locking U-Rings			Set Model Number	Locking U-Ring Sets Include				
		1	3	41/4	5½ 10			(quantity and model numbers)			nbers)
(ton)		in.	in.	in.	in.	in.		2X	1X	2X	1X
-	DDTOO	DDUI44	DDIIAA	DDUAA		DDUI440	¹)PRUS126	PRU11	PRU13	PRU14	-
60	PRTS60	PRU11	PRU13	PRU14	-	PRU110	²⁾ PRUS137	PRU11	PRU13	PRU14	PRU10
400	DDTCCO	DDU44	DDII40	DDUAA		DDU440	¹) PRUS126	PRU11	PRU13	PRU14	-
100	PRTS60	PRU11	PRU13	PRU14	-	PRU110	²⁾ PRUS137	PRU11	PRU13	PRU14	PRU110
450	PRTS150	DDU454	DDII450		DDII466	DD114540	³⁾ PRUS1526	PRU151	PRU153	PRU155	-
150	PK15130	PRUIDI	PRUIDS	-	PKU 100	PRUIDIU	²⁾ PRUS1526	PRU151	PRU1510	PRU155	_
200	DDTCOOO	DDI 1004	DDIIOO		DDLIOOE	DD110040	³⁾ PRUS2026	PRU201	PRU203	PRU205	-
200	PRTS200	PNU201	PNU203	-	FNU203	PKU2010	²⁾ PRUS2026	PRU201	PRU2010	PRU205	-

¹⁾ For 14 and 16" stroke models



Series

PR



Rated Lifting Capacity:

60-200 tons

14-27 inches

Maximum Operating Pressure:

10,000 psi



WARNING!

Extensions: Any two Extensions may be stacked for loads up to 60 tons. For loads over 60 tons or strokes over 14" only one Extension and one Spacer can be used.

Spacers: Never exceed 3" in total Spacer height.



Locking U-Rings

For safe mechanical cribbing of a lifted load, accessory Locking U-Rings can be placed around an extended

piston and come in four lengths for each POW'R-Riser® capacity, and are available individually or in sets. Locking U-Rings are accommodated by storage racks integral to the POW'R-Riser®.

Max. Additional Air Pump D Valve Weight В C Stack Height Using Type **Optional Ext. System** (lbs) (in) (in) (in) (in) (in) PRAMA06014L 32* 390 24 6.4 14 4 PRAMA06027L 600 37 6.4 14 4 11 Manual PRAMA10016L 4 21** 510 26 7.0 18 PRAMA10027L 600 37 7.0 18 4 11 PRASA10016L 510 26 7.0 18 4 21** PRASA10027L 600 37 7.0 18 4 11 Pneumatic PRASA15016L 570 26 8.0 18 5 21** PRASA15027L 708 37 8.0 18 5 11 26 8.0 18 5 21** Manual 37 8.0 18 5 11 PRASA20016L 640 26 9.5 20 6 21** Pneumatic PRASA20027L 825 37 9.5 20 6 11

Ordering Example:

1-ph electric motor.

Air Pump, 50 scfm, 80 psi 115 VAC, 1ph., 50-60 Hz, 20 A

208-240 VAC, 1-ph., 50-60 Hz, Euro Plug, 10 A

For power source, the following characters should be

60 ton model, with a manual valve and a 208-240 VAC,

inserted in the 5th space of the model number.

Model No. PREMI06014L is a 14" stroke,

208-240 VAC, 1-ph., 50-60 Hz, USA Plug, 10 A

G ¹⁾208-240 VAC, 3-ph., 50-60 Hz

1)380-415 VAC, 3-ph., 50-60 Hz

1)440-480 VAC, 3-ph., 50-60 Hz

1)575 VAC, 3-ph., 50-60 Hz

²⁾ For 27" stroke models

³⁾ For 15.5" stroke models

¹⁾ Not available for 60-ton capacity

^{*} Based on one 18" and one 11" Extension and one 3" Spacer.

^{**} Based on one 18" Extension and one 3" Spacer.

Pow'R-LOCK™ Portable Lift System



Shown: PL20025-ASA and PL20014-ASA



Efficient Lifting with Continuous, Automatic Load Locking

- Provides continuous locking protection during lift, lower and hold functions
- Patent-pending control technology synchronizes cylinder and lock nut for smooth and efficient lifting and lowering
- Unique double-acting cylinder offers a low collapsed height to accommodate more lifting applications
- Simple 2-button pendant allows operation of raise and lower functions from up to 20 feet away
- All exposed load-bearing steel cylinder components utilize a nitrocarburizing treatment to reduce wear and resist corrosion
- Ergonomic handle has six positions for comfortable handling and folds when not in use
- Meets ANSI /ASME B30.1-2015, AS/NZS-2538, AS/NZS-2693 certification criteria



Pow¹R-LOCK™ Self-Locking Lift System

Only the **Pow'R-LOCK™** Lift System provides continuous positive locking of the load through all stages of lifting and lowering. No operator intervention is required to activate or deactivate the automatic locking system.

Two different stroke lengths are available. Both models are powered by an external compressed air system (user-supplied). A convenient two-button pendant controls operation of the Lift System's air motor and directional control valve.



Tilt Load Cap

All Pow'R-LOCK™ Lift

System models feature a

Tilt Load Cap to reduce side-loading.

Enerpac declares that this product has been tested and conforms to applicable standards and is approved to carry the CE mark. An EU Declaration of Conformity is enclosed separately.

((

◆ The PL-Series Pow'R-LOCK Portable Lift System.

PL-Series, Pow'R-LOCK™Portable Lift System



▼ ACCESSORIES Model

Number

PLC₁

PLS₁

PLS₂

PLE₅

PLE7

PLE9

PLE11

PLE14

PLB12

Accessories

Flat Load Cap - Non-tilt load cap has lower profile for tight lifting spaces.

Description

Flat Load Cap

Spacer

Spacer

Extension

Extension

Extension

Extension

Extension

Extension base adapter

Spacers - Minimize gap between load cap and lifting point to maximize hydraulic stroke of the jack.

Extensions - Stackable, with large alloy steel locating studs to resist effects of side-loading.

Extension Base Adapter – Extension Base Adapter design eliminates risk of improper stacking when using more than one extension.

PL20014-ASA

Х

Х

Χ

Х

Х

Х

Χ

Х

Height

(in)

1.3

1.0

2.0

5.0

7.0

9.0

11.0

14.0

12.0

89.9

PL20025-ASA

Х

Χ

Х

Х

Х

PL **Series**



Rated Lifting Capacity:

200 tons

Stroke:

14 or 24.5 inches

Maximum Operating Pressure:

10,000 psi



WARNING!

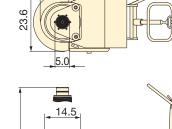
PLE11 and PLE14 Extensions and PLB12 Extension Base Adapter are to be used with

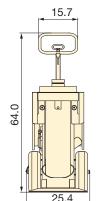
the "short" model PL20014-ASA only.

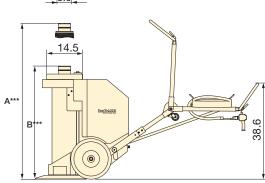
Use of these extensions on the "tall" model PL20025-ASA will result in an excessive maximum lifting height. Load could become unstable and drop, resulting in possible personal injury and/or property damage.

Model No.	Max. Additional Stack Height* (in)
PL20014-ASA	28.0
PL20025-ASA	9.0

Using optional PLB and PLE-Series extensions and PLS-Series spacers. Load cap height is NOT included in the stack height.







	Capacity	Stroke	Model Number	Cylinder Lifting Speed * in/min		Recommended Air Supply**		A ***	B ***	Wt.
	(ton)	(in)		Load	No Load	(CFM)	(psi)	(in)	(in)	(lbs)
ľ	000	14.0	PL20014-ASA	2.0	2.4	100 150		48.0	34.0	1105
	200	24.5	PL20025-ASA	2.0	2.4	130-150	55-100	70.0	45.5	1320

Depending on available airflow, regulator setting, pump speed and load weight.

Minimum dynamic air pressure of 55-60 psi, 90-100 psi required to achieve 200-ton capacity.

*** Height of items A and B is with swivel load cap installed. Subtract 2-inches if flat load cap is used.

Safety First

When lifting large, heavy vehicles certain precautions must be followed. Follow your published safety directions for lifting and cribbing your loads.

The Pow'R-LOCK™ Lift System provides load/lock protection, but you must follow the safety directions for load cribbing operations.



Pow'R-RISER® Lifting Jack

When automatic load-locking is not required, the Enerpac Pow'R-RISER® jack provides a mobile lifting solution.

For more information go to: www.enerpac.com





▼ Shown: **BLS-1006**



- Climbing Jacks include integral tilt saddles with maximum tilt angles up to 5°
- Large base with anti-rotation rod for stability and safety
- Built-in safety valve prevents accidental over-pressurization
- Baked enamel finish for increased corrosion resistance
- CR-400 couplers included on all cylinder models

▼ Synchronous Stage Lifting: 48 double-acting jacks (25 and 50 ton) are networked into a 16 point synchronous system to lift this 164-feet, 1100-ton building up to a height of 8-feet to construct a new floor level.



A Simple Solution to Incremental Lifting

Lifting Height

Climbing Jacks overcome the usual limitation of lift height imposed by the jack's plunger

stroke length. Large objects, such as oil tanks, can be lifted, held and lowered for maintenance without sending for a crane.



SFP-Series Pumps with multiple outlets with equal oil flow. For lifting applications on multiple points Split-Flow

Pumps are a far better alternative than using independently operated pumps.

Page: 11



EVO-Series, Synchronous Lifting Systems

The EVO-system is the ideal system for stage lifting. The system has 9 work modes

including the stage lift work mode to easily step through each stage of the lifting cycle.

Page: /

12

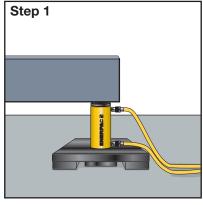
Cylinder Capacity	Stroke	Model Number	Max. Cylinder Capacity (tons)		
(tons)	(in)		Push	Pull	
55	5.91	BLS-506	55	12	
105	6.34	BLS-1006	105	48	
154	5.94	BLS-1506	154	74	
220 5.94		BLS-2006	220	113	

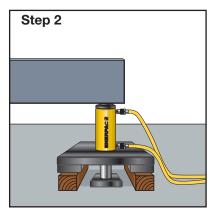
62 www.enerpac.com

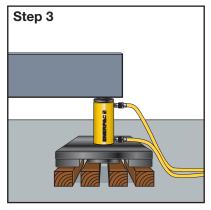
Double-Acting Climbing Jacks

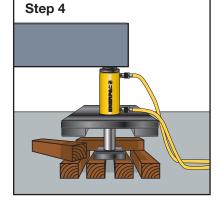


◀ Typical stage-lift application using a custom built Enerpac system to lift the 360 ton Akkerwinde wooden bridge in the Netherlands.









▲ Stage Lifting Sequence

Step 1: The Climbing Jack is placed on a solid support under the load (retracted plunger).

Step 2: Plunger extends, lifting the load and giving clearance to insert two outer blocks under the spreading plate.

Step 3: Plunger retracts, giving clearance to position the central blocks which will support the plunger plate for the next extension.

Step 4: Plunger extends, lifting the load, giving clearance to insert two new blocks, placed crosswise under the spreading plate.







Capacity per Lifting Point:

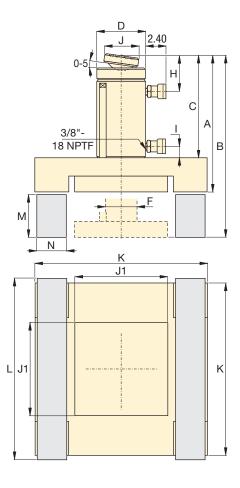
55 - 220 tons

Stroke per Stage:

5.91 - 6.34 inches

Maximum Operating Pressure:

10,000 psi



Cylinder Effective Area (in²)			tive Capacity (in)									Suppo and Din		Wt.	Model Number				
Push	Pull	Push	Pull	Α	В	С	D	F	Н	I	J	J1	K	Material	L	М	N	(lbs)	
11.04	3.33	67.80	20.44	15.98	21.89	12.52	5.00	3.11	2.24	1.42	1.97	9.45	20.28	Azobe	22.24	5.51	4.72	375	BLS-506
20.66	9.64	136.57	63.77	17.52	23.86	13.50	6.97	3.74	2.99	0.94	2.80	12.99	26.38	Wood	28.35	5.91	6.30	695	BLS-1006
30.71	14.79	188.56	90.80	18.58	24.57	14.57	8.00	4.49	3.70	1.54	5.12	9.06	18.70	Solid aluminum	19.69	5.51	4.53	710	BLS-1506
44.21	22.50	264.35	134.80	20.08	26.02	15.24	9.76	5.24	4.02	1.46	5.12	10.63	21.65	or steel	22.64	5.51	5.31	825	BLS-2006

^{*} Support blocks are not supplied by Enerpac.

SHS and SHAS-Series SyncHoist



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-monitorized system with programmable functions using touch screen and system warning functions
- Wireless control: self-contained hydraulics with hand-held control

▼ SyncHoist Powerpack to operate the 4 lifting points.



▼ Bridge segments are hoisted from

the ground, being positioned with a 4-point



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

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

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



64 www.enerpac.com

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:

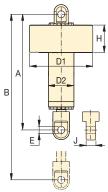
19.69 - 59.06 inches

Accuracy Over Full Stroke:

± .040 inches

Maximum Operating Pressure:

10,000 psi



Capacity	Total Load	Cylinder Stroke	Model Number ¹⁾ 460-480 VAC, 3 ph - 60 Hz	Control System	Motor Size	Number of Pump Outlets and Oil Flow ²⁾ (in ³ /min)	Cylinder Dimensions (in)							
(ton)	(ton)	(in)			(hp)		Α	В	D1	D2	Е	Н	J	(lbs) 3)
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		992
		39.37	SHS 45540 MJ				70.87	110.24					3.15	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 Automatic	15	4 x 128 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				52.36	72.05						1102
		39.37	SHS 48540 AJ				72.05	111.42						1543
		59.06	SHS 48560 AJ				91.73	150.79						1984
		39.37	SHS 411040 MJ	Manual	15	4 x 128	23.03	112.40	30.71	12.40 3.3	3 35		4.88	2138
4 x 120	480	59.06	SHS 411060 MJ	Iviariaai	10	4 / 120	92.72	151.77	00.7 1		0.00			2723
	700	39.37	SHS 411040 AJ	Automatic	20	4 x 128	73.03	112.40	30.71	12.40	12.40 3.35			2138
		59.06	SHS 411060 AJ	Automatic	20	4 X 120	92.72	151.77	50.71	12.40	0.00	10.00	4.00	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
7 A 120	+00	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
7 X 230	991	59.06	SHAS 422560 WU 4)	WILCIESS	4 1 10	_	103.94	143.31	40.02	10.04	5.59	22.00		7527

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.

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

WU = with US electrical wiring. Change into suffix "WE" for EU-market. Example: SHAS 411060 WE.

Custom Hydraulic Cylinders

There's no substitute for experience in customizing hydraulic cylinders and Enerpac meets the needs of the most demanding applications.

Cylinders are the primary workhorse in hydraulic systems required to push or pull. Although Enerpac offers a wide variety of cylinders to fit many application requirements there are many applications which require customization. These may include special corrosion protection, ability to handle extreme side loads, or having special mounting needs.



◀ Large capacity cylinders for extreme applications.



Cylinders with special attachments.



 Custom private labeled cylinders for OEM applications.

OVERVIEW



▲ Custom 500-ton cylinders with 72-inches of stroke for lifting electric rope shovels.

CUSTOMIZABLE FEATURES:

- Stroke
- Capacity
- Paint
- Pressure Rating
- Fitting
- Special Attachments
- Seals
- Imbedded Sensors
- Collapsed Height
- Rod Modifications
- Special Mounting
- Corrosion Resistance

66 www.enerpac.com

Custom Hydraulic Cylinders

INFRASTRUCTURE



 Custom cylinders used for incremental bridge launching systems.

BUILDING CONSTRUCTION



 Custom cylinders for jack and slide operations.

INFRASTRUCTURE



◆ Custom SyncHoist cylinders for placement of stadium roof trusses.

POWERGEN



Custom doubleacting lock-nut cylinders with internal stroke sensors and an integrated load holding valve for lifting nuclear components.

INFRASTRUCTURE



 Custom cylinders with embedded sensors for bridge construction.

POWERGEN



◆ One of three custom SyncHoist cylinders used to place a 1,140-ton nuclear plant module.