LH-SERIES LOW-HEIGHT SKIDDING SYSTEM

The Ideal Jack & Slide Solution



▼ LH-Series, Low-Height Skidding System



Highest Quality

- Enerpac adheres to the highest quality standards and maintains rigid QA manufacturing processes
- Our low-height skidding system utilizes Enerpac's industry-proven pumps and cylinders

World Class Support

- Product training is available at our place or yours, to insure operators are fully trained prior to using the equipment
- Our global staff is available to help anywhere the equipment may be in operation, with 28 facilities in 22 countries

Proven Safety

 We are committed to achieve the Goal of Zero harm to our employees, customers and end users of our products

2-in-1 Skidding System for Heavy Loads

The Ideal Low-Height Jack & Slide Solution

Low-Height Skidding System

Skidding techniques have been used for centuries. These systems can get into tight spaces

for situations where a crane is not always ideal. They are able to move heavy loads on a portable track with minimal lifting.

Enerpac has applied high-pressure hydraulics to create the Enerpac Low-Height Skidding System. The maximum capacity of the system is 400 tons, assuming two skidding units are used as shown in our starter kit (see page 5). With its low height, our system can fit in small spaces, but its rigid design allows lifting of heavy loads.

Features & Benefits include:

- 2-in-1 track design for added support
- Intuitive pump control
- Easily reversible to change skidding direction
- Portable design for quick setup

▼ A custom hydraulic Low-Height Skidding System provides the maintenance team with the ability to maneuver and transport transformers with physical access limitations. Shown with optional track support.



A custom hydraulic Low-Height Skidding System for transport outage maintenance. Shown with optional track support. Both power units are connected together to provide synchronous travel of the load.



LH-Series, Low-Height Skidding System, 400 Tons

Skidding Systems
The Skidding System is comprised of a series of skid beams moved by hydraulic push-pull cylinders, travelling over a pre-constructed skid track.

A series of special PTFE-coated Teflon® pads are placed on the skid tracks to reduce friction. The pushpull cylinders are then connected by hydraulic hoses to our Split-Flow Pump. The Split-Flow Pump can be mounted on an optional pump cart for easy transport.

The skid track offers a 2-in-1 design. It can be used either on a fully supported surface or combined with the optional track support for added rigidity when the support surface is not fully supported or when spanning a gap is necessary. This two-part design means you do not need to own two sets of track for various ground support conditions.

An optional storage and transport frame easily holds the equipment in between use.

1 2 3 4 5

1	Skid Track	Required
2	Skid Beam	Required
3	Push-Pull Cylinder Unit	Required
4	Hydraulic Hoses	Required
5	Split-Flow Electric Pump	Required
6	Track Support	Optional (not shown)
7	Storage and Transport Frame	Optional (not shown)
8	Pump Cart	Optional (not shown)

▼ Details of push-pull unit of LH400



▼ Low-Height Skidding System assembly



LH Series



Skidding Capacity (with 2 push-pull units):

400 tons

Push-Pull Stroke:

23.5 inches

Maximum Operating Pressure:

10,000 psi

Maximum Capacity
Skidding capacity is limited to 200 tons per push-pull unit.
When utilizing two push-pull units with four skid beams together, the maximum skidding capacity of the system is 400 tons.



Standard Skidding Systems

Enerpac offers a range of **HSK-Series** skidding systems with additional features. Enerpac can also

create customized skidding systems to meet your specific requirements.



Low-Height Lifting Cylinders

For a complete line of Enerpac low-height cylinders, see the cylinder and lifting

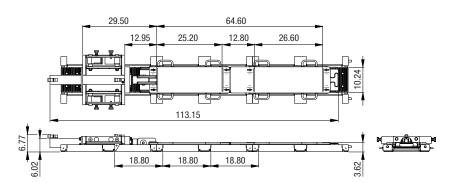
products in our Industrial Tools catalog.

▼ HSKJ-2500 Skid Shoe Jack from the standard HSK-Series skidding system

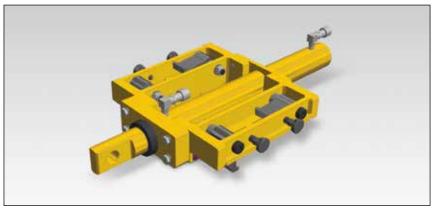


Low-Height Skidding System Components

▼ LH400 Low-Height Skidding System



▼ LHPP25 Low-Height Push-Pull Unit



Push-Pull Unit

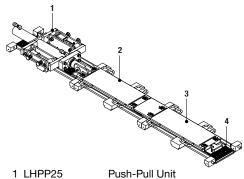
- Connects to first skid beam to push or pull load along skid track
- Easily reverse direction by switching reaction tabs
- Complies to ASME B30.1 and other safety standards

▼ LHSB1A and LHSB1B Skid Beams

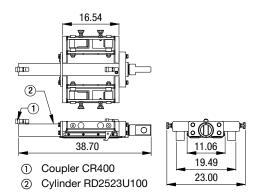


Skid Beams

- Interlocks without any fasteners to slide load over skid track; skid beam A (LHSB1A) attaches to the push-pull unit skid beam B (LHSB1B) attaches to skid beam A
- · Polished stainless steel skid surface
- Carrying handles for easy transport

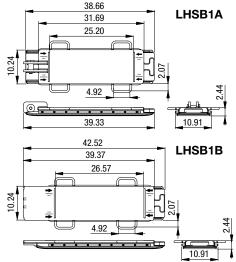


- 1 LHPP25 Push-Pull Unit 2 LHSB1A Skid Beam A 3 LHSB1B Skid Beam B
- 4 LHST1 Skid Track (includes PTFE Skid Pads)



▼ Low-Height Push-Pull Unit

		Model Number	Stroke	Weight				
Push	Pull		(inch)	(lbs)				
25	11	LHPP25	23.5	224				



▼ Skid Beams

Capacity	Model Number	Weight
(tons)		(lbs)
100	LHSB1A	145
100	LHSB1B	139

LH-Series, Low-Height Skidding Components

Low-Height Skidding Jack Starter Kit - LH400SKJ

A complete starter kit is

available to fit the needs of any jack and slide application. This system comes with two skidding units that will support up to 400 tons in total. This kit will get the job done, but there are optional accessories available in addition (see page 7).

Each skidding unit will have 1 push-pull unit, 2 skid beams, 5 skid tracks, and 2 hoses. The Split-Flow Pump has 2 outlets and can be easily towed on the pump cart. After the job is complete, components can be stowed on the included storage and transport frame.

Model Number	Qty
LHPP25	2x
LHSB1A	2x
LHSB1B	2x
LHST1	10x
SFP213MJ	1x
LHPC	1x
HC7250C	4x
LHSF	1x
	Number LHPP25 LHSB1A LHSB1B LHST1 SFP213MJ LHPC HC7250C

LH **Series**



Skidding Capacity (with 2 push-pull units):

400 tons

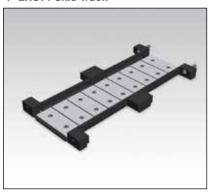
Push-Pull Stroke:

23.5 inches

Maximum Operating Pressure:

10,000 psi

▼ LHST1 Skid Track

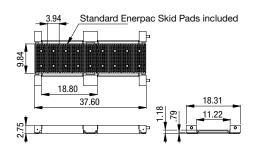




Teflon® Pads

A series of special PTFE coated Teflon® pads are placed on the skid tracks. The PTFE surface

is matched with the skid beam and designed to achive minimum friction coefficients. Replacement Teflon® Pads come in packs of 12 pieces. Order model number HSKSPS1.



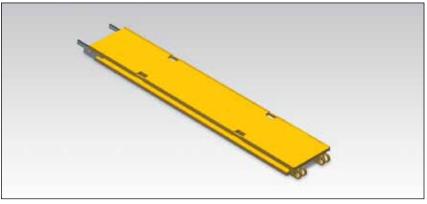
Skid Track

- Support the load for skidding operations
- Track sections bolt together
- Includes 9 pieces easily replaceable PTFE skid pads

▼ Skid Track

Max.Cap. (per skid track)	Model Number	Track Length	Weight (incl. pads)	
(tons)		(in)	(lbs)	
100	LHST1	37.60	148	

▼ LHTS3 Track Support



Track Support

- Optional component for added rigidity to span a gap or surface that is not fully supported
- Connects with locking pin
- For use with LHST1 skid track

Lifting Lugs 19.25

▼ Track Support

Maximum Capacity	Model Number	Track Length	Weight
(tons)		(inch)	(lbs)
200	LHTS3	118	1875

▼ SFP404SJ



Reservoir Capacity:

10 or 40 gallons

Split Flow Outlets:

2, 4 or 6 outlets

Flow at Rated Pressure:

33 - 101 in³/min

Maximum Operating Pressure:

10,000 psi



Split-Flow Pumps

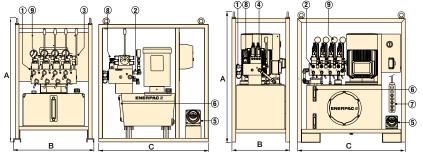
Enerpac's Split-Flow Pumps ensure each push-pull unit is synchronized during the skidding movement.

- 2, 4, or 6 split-flow outlets
- Joystick (manual) controlled or pendant (solenoid) controlled valves
- Flow per outlet ranging from 33 to 101 in³/min at 10,000 psi
- Can be used for all standard single- and double-acting cylinders
- · Pressure compensated flow control (one per outlet)
- Adjustable pressure relief valve per circuit
- All models include pressure gauges (one per outlet)



LH400SKJ Skidding Starter Kit

The Split-Flow Pump SFP213MJ comes standard in this Low-Height Skidding Starter Kit.



- ▲ SFP-Series with 10 gallon reservoir (shown with 4 split-flow outlets)
- ▲ SFP-Series with 40-gallon reservoir (shown with 4 split- flow outlets)

- ① Manifold with split-flow outlets and CR-400 couplers
- ② Adjustable pressure relief valve per circuit
- (3) Manual 4/3 control valves with joysticks
- (4) Solenoid 4/3 control valves (24 VDC)
- ⑤ Power Receptacle
- 6 Oil sight gauge(s)
- 7 Remote control pendant with 30 ft. cord
- (8) Flow control valve (one per outlet)
- Hydraulic pressure gauge (one per outlet)

Number of Split Flow	Reservoir Size	Oil Flow per Outlet @	4/3 Valve	del Number e Operation Hold/Retract	Motor Size 460 V - 3ph 60 Hz	Dimensions (in)		Weight	System Skidding Speed	
Outlets	(gal)	10,000 psi (in ³ /min)	Manual (Joystick)	24 V Solenoid (Pendant)	(hp)	А	В	С	(lbs)	(ft/hr)
2	10	94	SFP213MJ*	SFP213SJ	7.5	40.1	26.0	35.4	529	60
	10	33	SFP404MJ	SFP404SJ	7.5	40.1	26.0	35.4	529	20
4	40	65	SFP409MJ	SFP409SJ	7.5	54.0	23.8	44.5	1047	40
	40	101	SFP414MJ	SFP414SJ	10	54.0	23.8	44.5	1076	65
_	10	33	SFP604MJ	SFP604SJ	7.5	40.1	26.0	35.4	529	20
6	40	94	_	SFP613SJ	15	54.0	31.7	47.2	1213	60

^{*} SFP213MJ pump comes standard in LH400SKJ Low-Height Skidding Starter Kit.

▼ HC-7206 Thermo-Plastic Hose



Thermo-Plastic Safety Hoses

- For demanding applications, featuring a 4:1 safety factor
- Max. working pressure 10,000 psi
- Outside jacket is polyurethane, to provide maximum abrasion resistance





Hose Internal Diameter	Hose End Assemblies and Couplers		Hose Length	H700-Series Thermo- Plastic Hoses Model Number	Weight
(in)	End one	End two	(ft)		(lbs)
	3/8"		3	HC-7203	1.7
		CH-604	6	HC-7206	2.3
.25	NPTF		10	HC-7210	3.3
.25			20	HC-7220	6.4
	CH 604	CH 604	20	HC-7220C	6.6
	CH-604	CH-604	50	HC-7250C	15.4

▼ LHSF Storage and Transport Frame



Storage and Transport Frame

- For easy storage and transport
- Fits following components: 2x LLPP25 Push-Pull Unit 2x LHSB1A Skid Beam A 2x LHBS1B Skid Beam B 10x LHST1 Skid Tracks

▼ LHPC Pump Cart



Pump Cart

- Easily tows pump around jobsite
- Can be used with all models of Split-Flow Pumps

▼ Cart for Split-Flow Pump

Model Number	Overall Dimensions L x W x H	Weight
	(inch)	(lbs)
LHPC	48 x 30 x 16.5	140

▼ Storage & Transport Frame

Model Number	Overall Dimensions L x W x H	Wt.	
	(in)	(lbs)	
LHSF	42.6 x 36.8 x 35.3	440	

With all components stored dimensions are: 42.6 x 36.8 x 39.5 inch, and total weight 2975 lbs.

▼ Cribbing Accessories

Model Number		Material and Dimensions (in)			Description
		L	W	Н	
STAWFT	Transport Frame for Azobe Timbers	_	-	-	Frame for 100 pieces
STAW100	Azobe Wood Track Timbers	59.06	3.94	3.94	Includes 100 pieces
STSP500	Steel Shimming Plates	_	_	-	For Skid Track Alignment Includes 500 plates

▼ Azobe Wood Track Timbers





HEAVY LIFTING TECHNOLOGY

When your application requires something other than our standard product offering, look to Enerpac's Heavy Lifting Technology, experience, and expertise.

Our group of engineers, designers, and specialists will work with you to understand your specific application and provide a turn-key solution that will exceed your expectations.



Heavy Lifting Strand Jack



Skidding Systems



Jack-up Systems



Hydraulic Gantry



Synchronized Lifting System



Self-Propelled Modular Transporter

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