

# HYDRAULICS

 Sykes-Pickavant®



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Sykes-Pickavant Loadstar Plus heavy duty pullers are renowned for their durability, immense pulling power and versatile range of kit options. Sykes-Pickavant hydraulic equipment builds upon the legendary Loadstar heritage and offers a first-class range of hydraulic pumps, cylinders and jacking kit options.

Rugged yet lightweight construction using only the highest quality components provides the perfect combination of strength and portability, ideal for incremental movement of heavy loads across multiple industries and applications.

## PUMP DESIGN



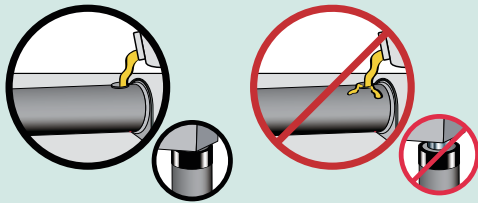
## CYLINDER DESIGN



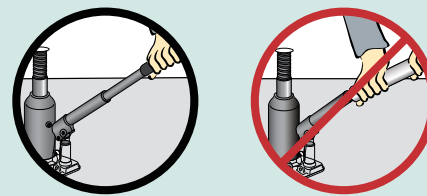


PUMPS

Fill oil reservoir only to recommended level ensuring cylinder is fully retracted



Do not use handle extenders or cheater bars. Hand pumps should operate with minimal effort when used correctly

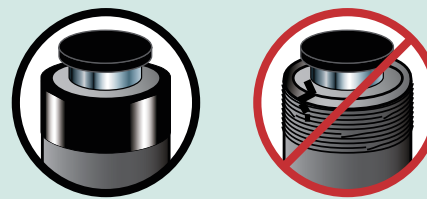


CYLINDERS AND JACKS

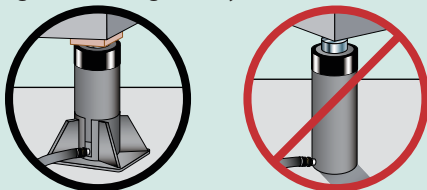
Select a cylinder with a least 20% more capacity than the load weight. Be aware of possible load shift



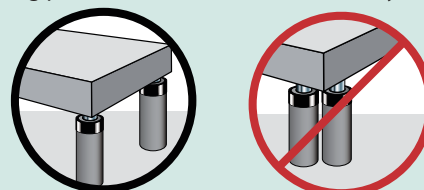
Do not use damaged or worn components. Inspect each component prior to use



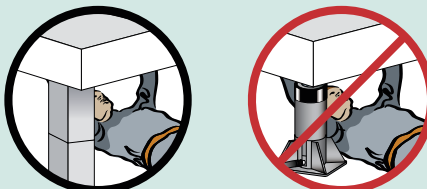
The load must be centred on the ram or equally distributed on multiple rams. Off centre loading can cause load slippage and damage the cylinder



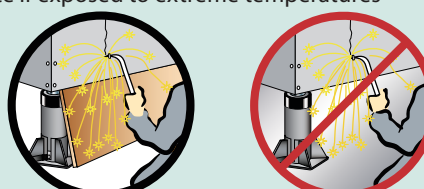
For multiple cylinder lifts the 'load balance' must be considered to correctly determine the location and number of lifting points to distribute the load evenly



Do not use hydraulic cylinders as permanent supports. If prolonged support is required use correctly weight rated cribwork



Avoid extreme heat or weld splatter near hydraulic components as this may cause damage. Hydraulic fluid can ignite if exposed to extreme temperatures

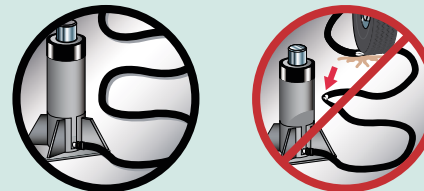


HOSES AND CONNECTIONS

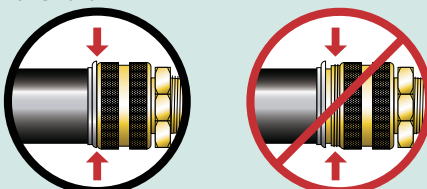
Do not drag or carry hydraulic pumps or cylinders by the connected hose. This may cause damage to components



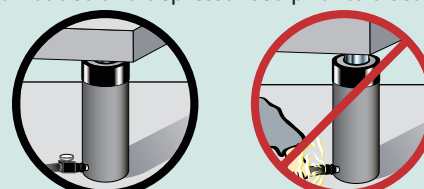
Keep hose and fittings away from high traffic areas. Contact with heavy or sharp objects may damage the hose internally



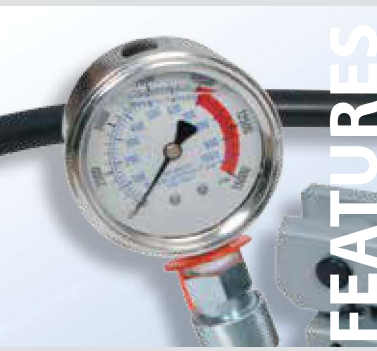
Ensure quick coupler fittings are fully engaged to prevent blow off and leakage under pressure. Fittings should secure with minimal effort



Never attempt to disconnect hydraulic hoses, fittings or couplers under pressure. The cylinder and hoses should be fully unloaded and depressurised prior to disconnecting



# HYDRAULIC PUMPS



## Pumps

- Sykes-Pickavant hydraulic pumps are available as lightweight aluminium alloy or rugged steel construction. Both types provide the durability and long service life which Sykes-Pickavant customers have come to expect, while also maximising portability and manoeuvrability for on-site applications
- Each pump is supplied with a 2.5" diameter gauge, liquid filled to protect for shock and needle vibration, a heavy duty hose featuring dual layer steel braided reinforcement with spring guard at each end to protect adaptors and a self sealing ball type coupling system

Part No.	Pressure Rating (Bar)		Oil Capacity (C.C.)	Oil Volume Per Stroke (C.C.)		Weight (kg)	Length (mm)	Width (mm)	Depth (mm)
	1st Stage	2nd Stage		1st Stage	2nd Stage				
200160	28	700	2000	40	3	12	725	150	225
200170	13.8	700	1000	12.9	2.3	3.5	542	110	135
200175	700 Max.		750	9 CFM Air Consumption		5.4	442	170	179

### 200160

#### High Capacity, Two Speed Steel Pump

- Rugged steel body construction for long life and confidence in extreme operating conditions
- High volume fluid capacity with rapid first stage for speed and efficiency
- Ideal for workshop, construction, mining or rescue use
- Features hand sized release knob with anti loss mechanism ideal for industrial requirements
- Internal overload valve prevents pump from being used beyond its rated capacity



### 200170

#### Two Speed Aluminium Pump

- Portable two stage hydraulic pump with low handle effort for ease of use
- Lightweight aluminium alloy construction allows effortless manoeuvrability and portability at onsite applications
- Features hand sized release knob with anti loss mechanism ideal for industrial requirements



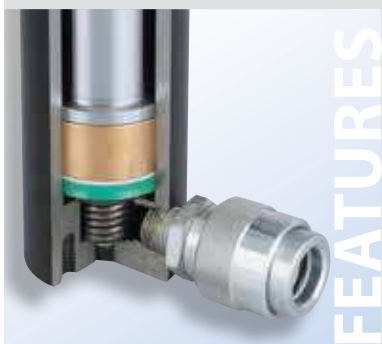
### 200175

#### Air-Powered, Aluminium Hydraulic Pump

- Compressed air powered hydraulic pump designed for use with single acting cylinders
- Lightweight aluminium alloy construction built for long life and portability
- Automatic overload relief valve protects hydraulic components and ensures safe working environment for the operator
- Unique inlet and outlet design features a low noise exhaust system



# HYDRAULIC CYLINDERS



## Cylinders

- All Sykes-Pickavant hydraulic cylinders meet worldwide safety standards and are built tough to endure real world industrial and construction site conditions. Heavy duty steel plated springs provide fast and complete return every time to ensure trouble free operation and long service life
- All cylinders feature piston blow out protection which limits piston travel at the end of the stroke to add strength and safety allowing the cylinder to be operated at full stroke

Part No.	Max Working Pressure (Bar)	Stroke (mm)	Oil Capacity (C.C.)	Dia (mm)	Operating Range (mm)	
					Retracted	Extended
200120	700	158.5	610	88	273	431.5
200130	700	65	310	117	178.5	243.5
200150	700	50	368	160	212	262

### 200120

#### 20 Tonne Hydraulic Cylinder

- Steel cylinder, single acting plunger with spring return
- Pistons hard chromed
- Ram inside roll polished
- Heavy duty spring for fast and full return
- Stop rings for piston blow-out protection
- Rod wiper protects inner cylinder from dirt contamination



### 200130

#### 30 Tonne Hydraulic Cylinder

- Aluminium cylinder, single acting hollow plunger with spring return
- Large bearing surfaces for side load protection
- Heavy duty spring for fast and full return
- Hard anodize coating reduces wear and corrosion
- Stop rings for piston blow-out protection
- Rod wiper protects inner cylinder from dirt contamination
- Lightweight aluminium construction
- Supplied with three steel inserts (solid, hollow plain and hollow threaded)



### 200150

#### 50 Tonne Hydraulic Cylinder

- Aluminium cylinder, single acting hollow plunger with spring return
- Large bearing surfaces for side load protection
- Heavy duty spring for fast and full return
- Lightweight aluminium construction
- Stop rings for piston blow-out protection
- Rod wiper protects inner cylinder from dirt contamination
- Supplied with three steel inserts (solid, hollow plain and hollow threaded)
- Hard anodize coating reduces wear and corrosion
- Convenient carry handle





# JACK AND PRESS KITS



## Jack and Press Kits

- Hydraulic jack and press frame arrangements are configured using the light weight 200170 Two Speed Aluminium Hydraulic Pump ensuring maximum portability
- Available in 20, 30 and 50 tonne kits to accommodate a broad spectrum of uses and applications such as mining, construction, steel erecting and rescue
- Cylinders must be placed in a position to provide a straight direct lift to avoid extreme side loading which can damage the internal sleeve

### 200133

#### 20 Tonne Hydraulic Jack Kit

- 20 tonne jacking system for incremental movement of heavy loads
- Top and bottom plate configuration allows the load to be spread over a larger area
- Supplied in metal case

#### Contents

Part No.	Qty	Description
200170	1	Two Speed Aluminium Hydraulic Pump
200120	1	20T Hydraulic Cylinder
200143	1	Autogrip Collar Adaptor
200121	1	20T Cylinder Push Plate
200124	1	20T Cylinder Base Plate



### 200134

#### 20 Tonne Hydraulic Toe Lift Kit

- 20 tonne toe lift jacking system for incremental movement of heavy loads
- Base plate and toe lift enables lift from a lower height in confined spaces
- Supplied in metal case

#### Contents

Part No.	Qty	Description
200170	1	Two Speed Aluminium Hydraulic Pump
200120	1	20T Hydraulic Cylinder
200143	1	Autogrip Collar Adaptor
200123	1	Toe Lift
200124	1	20T Cylinder Base Plate



## JACK AND PRESS KITS

212000

**20 Tonne Hydraulic Press Frame Kit**

- Standalone portable press frame system for pin pushing applications
- Includes five extractor (pushing) pins ideal for difficult access areas such as HGV king pins
- Autogrip collar adaptor for quick change of pins
- Moveable top block of frame allows adjustment of throat depth for variable applications
- Includes hydraulic pump and 20 tonne cylinder
- Supplied in metal case

**Contents**

Part No.	Qty	Description
200170	1	Hydraulic Pump
200120	1	20T Hydraulic Cylinder
200144	1	Extractor Pin 25 x 150
200145	1	Extractor Pin 50 x 150
200146	1	Extractor Pin 38 x 150
200147	1	Extractor Pin 18 x 75
200148	1	Extractor Pin 20 x 150
200149	1	Autogrip Collar Adaptor
200395	1	Press Frame



200141

**30 Tonne Hydraulic Jack Kit**

- 30 tonne jacking system for incremental movement of heavy loads
- Aluminium cylinder, single acting hollow plunger with spring return
- Supplied in metal case

**Contents**

Part No.	Qty	Description
200170	1	Two Speed Aluminium Hydraulic Pump
200130	1	30T Hydraulic Cylinder



200153

**50 Tonne Hydraulic Jack Kit**

- 50 tonne jacking system for incremental movement of heavy loads
- Aluminium cylinder, single acting hollow plunger with spring return
- Supplied in metal case

**Contents**

Part No.	Qty	Description
200170	1	Two Speed Aluminium Hydraulic Pump
200150	1	50T Hydraulic Cylinder



## ACCESSORIES

217200

**Pump Hose**

- Heavy duty hose featuring dual layer steel braided reinforcement
- Includes spring guard at each end to protect adaptors
- Maximum working pressure: 700 bar
- Length: 180cm (6 feet)
- End fitting: 3/8" NPT



217400

**Hydraulic Coupling**

- Self sealing ball type coupling system
- Supplied complete with both male and female halves (ram/hose)
- End fitting: 3/8" NPT



217900

**Gauge and Block Assembly**

- 2.5" diameter gauge, liquid filled to protect for shock and needle vibration
- Dual scale 0 – 1,000 bar (0 – 15,000psi)
- Gauge thread: 1/4" NPT
- Block thread: 3/8" NPT

