Thank you for choosing ESCO tire service tools and equipment. We suggest you read this instruction manual thoroughly before using the product. Save this instruction manual for future use.
INTRODUCTION

The high quality ESCO Stak-able 10 Ton Hydraulic Ram Kit is specifically designed for a wide range of heavy duty applications. The Stak-able Ram Kit eliminates the tedious effort required to push rusted, corroded wheels off of hubs. Ideal for stubborn 22.5 and 24. wheels, the Stak-able Ram Kit is far more resilient and robust than any other equipment alike on the market. Designed for applications in heavy-duty commercial and OTR industry use. Use extensions within the kit separately or as a single long extension.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>CAPACITY</th>
<th>OPERATING PRESSURE</th>
<th>WEIGHT</th>
<th>DIMENSIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>10316</td>
<td>10 TONS</td>
<td>10,000 PSI</td>
<td>10 LBS</td>
<td>12&quot; (304.8 MM) X 5&quot; (127 MM)</td>
</tr>
<tr>
<td></td>
<td>20,000 LBS</td>
<td>700 BAR</td>
<td>4.5 KG</td>
<td>X 5&quot; (127) MM</td>
</tr>
</tbody>
</table>
GENERAL SAFETY RULES

⚠️ WARNING ⚠️

- To avoid personal injury or property damage, please follow all safety precautions. ESCO cannot be responsible for injury or damage resulting from unsafe and incorrect products use or system operation, or lack of maintenance.
- Do not allow children or untrained individuals to use this product. Operator of this product must be trained and familiar with the correct use of hydraulic equipment.
- Always wear ANSI and OSHA standard Personal Protective Equipment when using this product. Not wearing eye wear, non-slip shoes or hearing protection may result in injury.
- Do not modify or use non-factory authorized parts on this product.
- Do not use hoses in system exceeding 10,000 PSI (700 BAR)
- Never use hydraulic hose to move or carry hydraulic components.
- Keep hydraulic equipment away from flames and heat.
- Only use compatible high quality hydraulic fluids.
- Only connect coupler fittings with quick disconnects. Never use tools to tighten coupler.
- Never lift a load more than the capacity of the cylinders, overloading causes equipment failure and possible personal injury.
- The operating pressure of cylinders are designed for a max pressure of 10,000 psi (700 bar), please do not use a pump or relief valve with a higher pressure rating to connect the cylinder. Higher pump or relief valve may cause equipment failure and possible personal injury.
- Please install pressure gauges in the system to watch the operating pressure. The gauge must have the same pressure rating as the pump and cylinder(s). The wrong gauges may result in personal injury. Always use an air pressure reducer or regulator with filter in hydraulic system.
- Please keep the cylinder clean all the time.
- Do not attempt to disconnect coupler while system is under pressure.
- Do not put poor-balanced or off-center loads on cylinders. The incorrect load or side loading can result in equipment failure and possible personal injury.
- When the cylinder is not in use, please keep the piston rod fully return, remove hose and use rubber cap to recover the coupler(s). If you use collar threads, please use the thread protector to recover the collar threads.
- Please use hydraulic equipment in normal temperature, do not use equipment in temperatures of 65 F (150 F) or higher. Overheating will soften seals and weakens hose materials, resulting in oil leaking or other equipment failure.
- Always follow OSHA 1910.77 standard* while using this product.
- Please carefully inspect cylinders, couplers and hose before use hydraulic equipment, if you find any damage on the couplers, hose, port threads and cylinders, please contact our technical service department with any questions or issues by calling 800-352-9852.

⚠️ Warning: PLEASE READ AND FOLLOW THIS INSTRUCTION BEFORE YOU USE ESCO CYLINDERS. ⚠️
OPERATING & MAINTENANCE INSTRUCTIONS

Connection a Single Acting Cylinder

1. Connect the hydraulic hose to the air/hydraulic pump to the hydraulic coupling on the air-hydraulic powered cylinder.
2. Please use a pump with a release valve or a 3-way valve and one hose to connect with Single Acting Cylinder (Figure 1). After connected all parts, please fully hand-tighten all couplers. If not, oil will be leaked between the pump and cylinder.

Bleeding Air from the Cylinder

Air may accumulate within a cylinder during shipment or after prolonged use; this air can cause the piston rod to respond “dithering.” Please follow the steps below to bleed the air from cylinder.

Single-Acting Cylinders:

Position the cylinder as figure 3 shows, so that the piston rod is extended down and the cylinder lower than the pump. Fully extend and retract the cylinder 1 or 2 times. It may be necessary to repeat the above steps several times.

For single acting cylinders, please do not allow piston rod to rotate when installing adaptors or during the work. Rotating piston rod may damage the return spring.

Maintenance

1. Please always use clean oil or other approved hydraulic oil with these cylinders. Use other unapproved oil or dirty oil will damage the cylinders.
2. Always keep cylinder clean, use thread protector and dust cap to protect collar thread and couplers.
3. After finish work, Cylinder must be fully retracted, cleaned and stored in ventilation, moist-proof, corrosion-proof place.

Warning: PLEASE READ AND FOLLOW THIS INSTRUCTION BEFORE YOU USE ESCO CYLINDERS.
## TROUBLESHOOTING

Please release pressure and disconnect hose(s) before making repair. Carefully inspect cylinders, couplers and hose before use hydraulic equipment, if you find any damage on the couplers, hose, port threads and cylinders, please contact our technical service department with any questions or issues by calling 800-352-9852.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
</table>
| Cylinder will not extend or extend completely | 1. Pump release valve open  
2. Couplers not fully tightened  
3. Oil level in pump reservoir is low  
4. Pump or valve malfunctioning  
5. Overload for cylinder  
2. Fully tighten couplers.  
3. Fill oil in pump.  
4. Repair, or use another pump and valve  
5. Change another cylinder with appropriate capacity.  
6. Check for dirt or leaks, change the damage parts. |
| Cylinder can not maintain pressure            | 1. Leaky connection.  
2. Cylinder seals leaking.  
3. release valve not fully closed  
4. Pump or valve malfunctioning | 1. clean and reseal thread, tighten connection.  
2. Replace worn seals. Clean inside cylinder and use clean hydraulic oil.  
3. Fully tightening the release valve.  
3. Repair, or use another pump and valve. |
| Cylinder extends slower than normal           | 1. Leaky connection.  
2. Coupler not fully tightened.  
3. Pump malfunctioning. | 1. clean and reseal thread, tighten connection.  
2. Fully tighten couplers.  
3. Repair, or use another pump and valve. |
| Cylinder extend in dithering                  | 1. Air in cylinder.  
2. Cylinder piston rod binding. | 1. bleed air.  
2. Check for dirt or leaks. Check for bent, misaligned and worn parts. |
| Cylinder leaks hydraulic oil                  | 1. Leaky connection.  
2. Worn or damaged seals.  
3. Cylinder damage. | 1. clean and reseal thread, tighten connection.  
2. Replace worn seals, clean inside cylinder and use clean hydraulic oil.  
3. Use new cylinder of contact with your nearest Authorized ESCO Hydraulic Service Center. |
| Cylinder will not retract or Retracts slower than normal | 1. Pump release valve closed.  
2. Couplers are not fully tightened.  
3. Pump reservoir is full.  
4. hose is blocked.  
5. Return spring is damaged.  
2. Tightening the couplers.  
3. Drain hydraulic oil to correct level.  
4. clean or change hose.  
5. change return spring.  
6. Use new cylinder or contact your nearest Authorized ESCO Hydraulic Service Center. |

Register your ESCO tool for warranty repairs at www.esco.net/warranty
STAK-ABLE HYDRAULIC RAM KIT #10316

PARTS BREAKDOWN

Part No.  Description                               Qty
10316-1  CYLINDER MAIN BODY                          1
10316-2  LOCK SPRING                                 1
10316-3  HEX SOCKET HEAD CAP SCREWS                  1
10316-4  BRAKE PLUNGER                               1
10316-5  SAFETY LOCK RING                            1
10316-6  OIL SEAL RING                               1
10316-7  OIL SEAL RING                               1
10316-8  SPLIT PIN                                   1
10316-9  COUPLER                                     1
10316-10 SADDLE                                     1
10316-11 EXTENSION 1 (1 INCH)                        1
10316-12 EXTENSION 2 (2 INCH)                        1
10316-13 EXTENSION 3 (3 INCH)                        1
PARTS AND REPAIR SERVICE

GUARANTEED 1-Day Turnaround Service.

Received by ESCO - Repaired in 24 Hours - Returned to you!

- ESCO will pick up product for repair/warranty at your location.
- ESCO will guarantee Repair/Service for 30 days.
- ESCO has rental tools available
- ESCO repairs IMT, FEC, Stellar, Blackhawk, OTC, Power Team, Ame Int., & Enerpac hydraulic pumps, bead breaker, and cylinders.
- Authorized ESCO Repair & Warranty Centers Located through the US & Canada. For more information contact your ESCO sales representative.
- Technical Support Over the Phone Available by Calling 1-800-352-9852

Prompt, reliable service after the sale is very important to ESCO. ESCO maintains an in-house repair facility in Brooksville, Florida. To insure that our customers have as little down-time as possible, we offer a 1 day turnaround service. Our factory repair service is equipped with all the tools and machinery needed to repair your equipment quickly and affordably. Our trained technicians are the best in the industry. Not only do we service our own products, but we also service our competitors’ products.

In addition to ESCO’s 30 years of providing quality repair service, ESCO has reached out and partnered with more than 50+ hydraulic repair facilities across the US & Canada, to deliver quality repair and timely return of products. Visit www.esco.net or call 1.800.352.9852 to hear more about the newly added “Authorized ESCO Warranty & Repair Facilities” across the US.

If you have a bead breaker, ram, or hydraulic pump that needs repair, ESCO fixes your product with factory parts and guarantees the repair. In addition to servicing ESCO brand products, we also re-pair CP, IMT, Elrick, Branick, Goodyear, FEC, AME Int., and Haltec lines of hydraulic bead breakers, rams, pumps, jacks, and many other hydraulic tire service equipment.
WARRANTY

Products sold by Equipment Supply Company (ESCO) are warranted to be free from defects in material and workmanship under proper use, application, and maintenance in accordance with ESCO's written recommendations, instructions, and specifications for a period of 1 year (365 days) from the date of shipment to the end user, unless otherwise noted. ESCO's obligation under this warranty is limited to, and the sole remedy for any such defect shall be the repair or replacement (at ESCO's discretion) of unaltered parts returned to ESCO, freight prepaid, and proven to have such defect, provided such defect occurs within the 90-day warranty period (or otherwise noted) and is reported within 14 days of occurrence.

This is the only authorized ESCO warranty and is in lieu of all other express or implied warranties or representations, including any implied warranties of merchantability or fitness. Warranty claims must be submitted and be processed in accordance with ESCO's established warranty claim procedure. In no event will ESCO be liable for business interruptions, loss of sales and/or profits, personal injury, costs of delay, or for any other special, indirect, incidental or consequential losses, costs, or damages.

PURCHASE DATE:___________________________________________
MODEL NO.:________________________________________________
SERIAL NO. (If Applicable):____________________________________

NOTES:
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________________________________________________________________________
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Return to ESCO, 15270 Flight Plath Blvd. Brooksville, FL 34604
Or Visit www.esco.net/warranty
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