

MALABAR

INTERNATIONAL

SUGGESTED AXLE JACK PREVENTATIVE MAINTENANCE PROCEDURES Malabar 5 to 20 Ton Portable Axle Jacks

- **Jack Data:**

Jack Model: _____ Serial Number: _____

For Models:
215, 219, 641, 642S, 648A,
649A, 652, 8693A, 8732

**Refer to other side for rated capacities & hydraulic
pressure set points.**

- **90 Day Maintenance Procedure:**

6 Point Check:

1. Check hydraulic system (hand pump & cylinder assembly) for damage or leaks.
2. Check jack reservoir, ship adapter, jack base & hardware for damage, corrosion or excessive wear.
3. Check reservoir fluid level with plungers fully retracted.
4. Operate jack to extend plungers and inspect for corrosion, moisture or foreign material.

Caution: Do not fully extend inner plunger at elevated pressure!

5. Check paint condition and apply touch-up paint as required.
6. Open release valve & verify plungers fully retract. Note: Retract manually through the application of weight. Retract screw extension completely.

- **Annual Maintenance Procedure:**

1. Check jack screw extension for positive stop when fully extended.
2. Perform above 6 point check. Skip step #6.
3. Apply thin film of LPS2 or equivalent lubricant to jack plungers and screw extension.
4. Check reservoir for fluid contamination (water and/or dirt). Drain and flush if required.
5. Install jack cylinder assembly in an approved jack test fixture and check hydraulic relief valve setting.

Caution: Do not attempt to adjust hydraulic relief valve with inner plunger fully extended!

6. Remove jack from test fixture, retract jack plungers & screw extension completely.

- **Maintenance Records:**

Date of prior Inspection Record: _____

Maintenance Inspections:

1 st Qtr. Inspection:	by/date:	_____
2 nd Qtr. Inspection:	by/date:	_____
3 rd Qtr. Inspection:	by/date:	_____
Annual Inspection:	by/date:	_____
1 st Qtr. Inspection:	by/date:	_____
2 nd Qtr. Inspection:	by/date:	_____
3 rd Qtr. Inspection:	by/date:	_____
Annual Inspection:	by/date:	_____
1 st Qtr. Inspection:	by/date:	_____
2 nd Qtr. Inspection:	by/date:	_____
3 rd Qtr. Inspection:	by/date:	_____
Annual Inspection:	by/date:	_____

Rated Capacities & Hydraulic Pressure Set Points:

Jack Models:	641	642S 648A & 649A	8693A	215 219	652	8732
Rated Capacity (Tons):	5	10	12	15	20	20
Hyd. press. @ rated cap. (PSIG):	4730	5140	6170	4320	5660	6270
Safety valve set point (Tons)* :	5.5	11	13	16.5	22	22
Hyd. press. @ safety setting (PSIG)*:	5204	5655	6685	4753	6227	6898

*Note: Safety valve set points for all the above models (except model 8693A) is 5-10% above the rated capacity. Safety valve set point for model 8693A is 4-8% above the rated capacity.

Jack Overhaul or Disassembly: (Refer to Service Manual)

Each time the jack is disassembled, inspect and/or repair as follows:

- Inspect inside diameter of jack cylinder and outer plunger for corrosion, pits, signs of scoring or scratches which may damage seals.
- Inspect upper bearings for excessive wear or scoring.
- Inspect screw extension and plunger outside diameter for excessive wear, damage or corrosion. Refinish or replace as necessary.
- Inspect ship adapter for excessive wear, damage or corrosion.
- Inspect hand pump plungers and inside diameter of pump cylinder(s) for damage, corrosion and scoring. Inspect pump links and pins for excessive wear.
- Inspect and replace as necessary distorted, worn-out or deteriorated seals, gaskets or packings.
- Inspect and clean fluid screens, (hand pump suction filters) with clean solvent.
- Inspect valve seats in pump base for scratches, dents or corrosion. Repair or replace as required.
- Drain, flush and refill hydraulic reservoir with clean MIL-H-5606 hydraulic fluid or equivalent.
- Prior to reassembly, clean parts (except seals) in clean solvent, blow off parts with clean dry air and assemble immediately. Note: Use filtered hydraulic fluid to lubricate parts and seals during reassembly. Parts and assemblies that cannot be cleaned with solvent should be flushed with clean hydraulic fluid. Particular attention should be focused on the reservoir to remove all sludge and sediment.

General Precautions and Operational Tips:

- Promptly replace any damaged or worn-out parts.
- Avoid using axle jack as a landing gear “overhaul stand” for prolonged periods without adequate protection. Use a protective covering over jack cylinder and frame during landing gear disassembly, de-greasing, paint stripping, overhaul and/or assembly operations.
- To prevent entrance of contaminants and water into jack cylinder assembly, keep jacks fully retracted with the cylinder rain cover in place. Use of a protective cover or other method of shelter is acceptable to prolong service life.
- Always consult the jack service manual for operation and service data. Do not attempt to remove safety devices or modify jack components or use unauthorized parts. Modification of jack may cause damage to other components, failure of jack, injury and/or damage to aircraft. Contact your Malabar Representative for additional information or assistance.