

SUGGESTED TRIPOD JACK PREVENTATIVE MAINTENANCE PROCEDURES

- **Jack Data:**

Jack Model: _____ Serial Number: _____

Refer to MALABAR SERVICE MANUAL for rated capacities & hydraulic pressure set points.

- **90 Day Maintenance Procedure:**

10 point Check

1. Check Hydraulic system (hyd. Lines, hand pump, cylinder assembly, fluid reservoir, air operated pump, hyd. Casters & load gauge) for damage or leaks. Note: Air operated pump, hyd. casters and load gauge are optional equipment.

2. Check jack structure, casters, ship adapter, locknut, screw extension, ladder, braces & hardware for damage, corrosion or excessive wear.

3. Check reservoir fluid level with plunger fully retracted.

4. Operate jack to extend plunger and inspect for damage, corrosion, moisture or foreign material.

Caution: Do not fully extend plunger at elevated pressure!

Operate jack partially with air operated pump and partially with hand pump. Note: Air operated pump is optional equipment.

6. If jack is equipped with air operated pump, check air relief valve (must be properly installed) and air pump lubricator for oil (SAE #10 wt. Or equiv.). Note: Air pump lubricator is not furnished on all models.

7. Check paint condition and apply touch-up paint as required.

8. Check towbar for damage or corrosion. Note: Towbars are optional equipment on some models.

9. Verify proper operation of optional equipment (hyd. operated casters, platform mounted controls, adj. Swivel feet & bubble level, etc.) Refer to Service Manual for maintenance information on optional equipment.

10. Open release valve & verify plunger fully retracts. Fully extend & retract screw extension. Screw must have a positive stop. Recover jack with rain hat.

- **Annual Maintenance Procedure:**

1. Remove load gauge, calibrate and reinstall.

Note: Load gauge is optional equipment.

2. Lubricate caster wheels, caster swivel locks & horn bearings.

3. Check jack screw extension for positive stop.

4. Perform above 10 point check. Skip step #10.

- **Maintenance Records:**

Date of prior Inspection Record: _____

Maintenance Inspections:

1st Qtr. Inspection: by/date: _____

2nd Qtr. Inspection: by/date: _____

3rd Qtr. Inspection: by/date: _____

Annual Inspection: by/date: _____

1st Qtr. Inspection: by/date: _____

2nd Qtr. Inspection: by/date: _____

3rd Qtr. Inspection: by/date: _____

Annual Inspection: by/date: _____

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1st Qtr. Inspection: by/date: _____

2nd Qtr. Inspection: by/date: _____

3rd Qtr. Inspection: by/date: _____

Annual Inspection: by/date: _____

- **Annual Maintenance Procedure(continued):**

5. Apply a thin film of LPS2 or equivalent lubricant to jack plungers, screw extension, foot screws.

6. Check reservoir for fluid contamination (water and/or dirt). Drain and flush if required.

7. Install jack cylinder assembly in an approved jack test fixture and check hydraulic relief valve setting.

Note: If a test fixture is not available, disconnect fluid line to jack cylinder assembly and plug before adjusting hydraulic relief valve.

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

8. Remove jack from test fixture, retract jack plunger & screw extension completely. Recover jack with rain hat.

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 if two stage type jack) for corrosion, pits, signs of scoring or scratches which may damage seals.
- Inspect upper bearing(s) for excessive wear or scoring.
- Inspect screw extension and plunger external surfaces for excessive wear, damage or corrosion. Refinish or replace as necessary.
- Inspect ship adapter and jack locknut(s) for excessive wear, damage or corrosion.
- Inspect hand pump plunger and inside diameter of pump cylinder 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, (air pump and hand pump suction filters) with clean solvent.
- Inspect valve seats in valve block assembly 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:

- **Extreme caution should be exercised when using a high pressure air or nitrogen source to operate the jack air operated pump!** Always make sure the source pressure is **off** before connecting to the jack air inlet and the supply regulator is adjusted. **Do not exceed 120 PSIG regulator outlet pressure.**
- Avoid towing jack over long distances, rough uneven surfaces and at high speeds. Do not exceed normal walking speed ..never faster than 5 MPH! Should regular extended towing over uneven surfaces (airport roads, hangar door rails, speed bumps or wide expansion joints) be necessary due to operational circumstances contact your Malabar Representative for recommendations.
- Promptly replace any damaged or worn-out parts. Do not allow prolonged service with damaged jack components. This will cause excessive wear, accelerate parts replacement and may compromise safety.
- Use a protective covering over jack cylinder and structure during extensive aircraft 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 rain hat in place. Use of a protective tarp or other method of shelter is highly recommended to prolong service life.
- Based on location, periodic or scheduled hydraulic reservoir service (drain, flush & fluid replacement) is highly recommended.
- 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.

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