

Model: 67A96D1-1
55 Ton (49.9 Metric Ton)
Aircraft Jack Tester

04/2018 – Rev. 01

REVISION
01

DATE
04/2018

TEXT AFFECTED
Original release

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This product can not be modified without the written approval of Tronair, Inc. Any modifications done without written approval voids all warranties and releases Tronair, Inc., its suppliers, distributors, employees, or financial institutions from any liability from consequences that may occur. Only Tronair OEM replacement parts shall be used.

1.0 PRODUCT INFORMATION

1.1 DESCRIPTION

The jack will test aircraft hydraulic tripod jack cylinders and conventional aircraft axle jacks. By use of spacers, it has an adjustable height of 25, 50 and 75 inches.

Note: For axle jacks with maximum range of less than 25 in (63.5 cm), it is recommended that the 25 in (63.5 cm) spacers be cut to a more applicable length.

1.2 MODEL & SERIAL NUMBER

Reference nameplate on unit

1.3 MANUFACTURER

ColumbusJack/Regent
1 Air Cargo Pkwy East
Swanton, Ohio 43558 USA

Telephone: 614.443.7492
Fax: 614.444.9337
E-mail: sales@columbusjack.com
Website: www.columbusjack.com

1.4 SPECIFICATIONS

Capacity 55 ton (49.9 metric ton)
Height..... 97 in (246.38 cm)
Width..... 38 in (96.52 cm)

2.0 SAFETY INFORMATION

2.1 USAGE AND SAFETY INFORMATION

To insure safe operations please read the following statements and understand their meaning. Also refer to your equipment manufacturer's manual for other important safety information. This manual contains safety precautions which are explained below. Please read carefully.



WARNING! — Warning is used to indicate the presence of a hazard that **can cause severe personal injury, death, or substantial property damage** if the warning notice is ignored.

CAUTION! — Caution is used to indicate the presence of a hazard that **will or can cause minor personal injury or property damage** if the caution notice is ignored.

3.0 TRAINING

3.1 TRAINING REQUIREMENTS

The employer of the operator is responsible for providing a training program sufficient for the safe operation of the unit.

3.2 TRAINING PROGRAM

The employer provided operator training program should cover safety procedures concerning use of the unit in and around the intended aircraft at the intended aircraft servicing location.

3.3 OPERATOR TRAINING

The operator training should provide the required training for safe operation of the unit.

NOTE: Maintenance and Trouble Shooting are to be performed by a skilled and trained technician.

4.0 OPERATION

4.1 PRE-OPERATION PROCEDURE

1. Inspect for physical damage and missing parts
2. Fill and bleed tester as indicated in 4.3 Procedure for Filling & Bleeding Jack Testers
3. For shipment, drain all hydraulic fluid from tester cylinder assembly

4.2 PRINCIPALS OF OPERATION

A cylinder assembly is located within the center of the fixture assembly. The cylinder contains a piston and outlet hole. An o-ring and backup ring are provided to keep fluid from leaking back into the cylinder. As pressure is applied to the footpad of the cylinder, the piston is forced upward inside of the cylinder forcing fluid into outlet hole through a hydraulic hose to the pressure gauge of fixture assembly. Pressure gauge will register pressure up to 55 ton (49.9 metric ton). When pressure is released, the piston will return to proper position as fluid returns to cylinder through the outlet hole, o-ring and backup ring located on inside of cylinder wall.

4.3 PROCEDURE FOR FILLING & BLEEDING JACK TESTERS

Due to the limited fluid movement during the load cell piston stroke, any amount of air in the hydraulic line between the load cell and the pressure gauge will cause an incorrect reading. The hydraulic line must be bled any time the line is opened.

NOTE: Use MIL-PRF-5606 hydraulic fluid or equivalent.

1. Remove pressure cap and connect hand pump to tee.

Note: Hand pump must have a 0 - 50 psi gauge.

2. Operate hand pump until load cell piston contacts retaining ring.

4.4 OPERATION PROCEDURES

1. Using an overhead chain hoist, lift the portable tester into vertical position to accommodate aircraft jack being tested. At desired height set by tubular steel spacers (as required) the tester is now ready to accept jack for test.
2. Place jack on beam under tester fixture assembly, raise extension screw/ram until jacking point bears on jack pad of fixture assembly. Ensure jack is parallel to vertical spacers.
3. Bleed any accumulation of air from hydraulic system, loosen the bleed plug. This forces any air in the system into the reservoir of the cylinder assembly.
4. Extend ram/extension screw until desired load is indicated on pressure gauge. Proceed with testing.

Note: Multiple stage jacks must be tested with all but smallest diameter stage fully extended and smallest diameter stage partially extended.

5.0 TROUBLE SHOOTING

If operational troubles are encountered, refer to the Trouble Shooting Chart which lists the most commonly occurring problems and gives information which will facilitate location of trouble source and determination of remedial action.

TROUBLE	PROBABLE CAUSE	REMEDY
Pressure gauge fails to reach maximum allowable load being tested	Gauge out of calibration	Recalibrate gauge
	Low hydraulic fluid	Refill cylinder assembly with hydraulic fluid and bleed air from system
	Leak in hydraulic line	Replace line, check fittings for tightness and fill cylinder. Bleed air from system
Pressure gauge fails to read any pressure	Air in system	Bleed air from system
Cylinder assembly out of fluid	Leak in system	Check fittings for tightness, condition of hydraulic line and replace if necessary. Fill hydraulic system and bleed air

6.0 PROVISION OF SPARES

6.1 SOURCE OF SPARE PARTS

Spare parts may be obtained from the manufacturer:

ColumbusJack/Regent
1 Air Cargo Pkwy East
Swanton, Ohio 43558 USA

Telephone: 614.443.7492
Fax: 614.444.9337
E-mail: sales@columbusjack.com
Website: www.columbusjack.com

6.2 RECOMMENDED SPARE PARTS LISTS

Reference the following page(s) for Replacement Parts and Kits available.

7.0 IN SERVICE SUPPORT

Contact Columbus Jack. for technical services and information. See Section 1.3 – Manufacturer.

8.0 GUARANTEES/LIMITATION OF LIABILITY

1. ColumbusJACK Corporation, (Seller) warrants each new product of its manufacture to be free from defects in material or workmanship, under proper, reasonable and normal use and service, and for a period of twelve (12) months after date of shipment from Seller's Swanton, OH. USA facility.
2. Where Buyer claims an alleged defect in material or workmanship and so advises Seller in writing within ten (10) days after discovery thereof, then and in such event, Buyer shall return said equipment, transportation prepaid, to the Seller, provided such return is timely and within twelve (12) months form date of original shipment. This warranty and liability of the Seller is expressly limited solely to replacement of repair of defective parts or goods, and return at Buyer's expense to Seller after find by Seller the product was defective prior to original shipment or, at the option of Seller, to making refund to Buyer of the purchase price for said product.
3. It is further expressly understood and agreed that:
 - a. THERE IS NO WARRANTY, representation of condition OF ANY KIND, express or implied, (INCLUDING NO WARRANTY OF MERCHANT-ABILITY OR OF FITNESS) EXCEPT THAT THE MATERIAL SHALL BE OF THE QUALITY SPECIFIED HEREIN, and none shall be implied by law. Except as otherwise provided herein, quality shall be in accordance with seller's specifications. Final determination of the material for the use contemplated by Buyer is the sole responsibility of Buyer and Seller shall have no responsibility in connection with such suitability, and
 - b. The Buyer's sole and exclusive remedy shall be repair or replacement of defective parts by the Seller. Should the goods, in the judgment of Seller, preclude the remedying of the warranted defects by repair or replacement, the buyer's sole and exclusive remedy shall the be the refund of the purchase price, and
 - c. Seller shall not be liable for prospective profits or special, indirect or consequential damages, nor shall any recovery of any kind against Seller be greater in amount than the purchase price of the specific material sold and causing the alleged loss, damage or injury. Buyer assumes all risk and liability for loss, damage or injury to persons or property of Buyer or others arising out of use or possession of any product or part sold hereunder, and
 - d. The Seller shall in no way be deemed or held to be obligated, liable or accountable upon or for any guarantees or warranties, express or implied, or created by statute or by operation of law or otherwise, in any manner of form beyond its express agreement above set forth, and
 - e. No warranty herein shall apply to any product which shall have been repaired or altered, unless such alteration or repair has been made by Seller or where, after return to and inspection by Seller, the product is found by Seller to have been subject to misuse, negligence or accident, and
 - f. No warranty of any nature is made by Seller as to any component forming a part of the product sold and Buyer shall receive only such warranties offered by such other manufacturer pertinent to such component, and
 - g. Seller does not assume nor does Seller authorize any other person to assume for it any other liability or make any warranty in connection with the sale of its products.

The obligations of ColumbusJACK expressly stated herein are in lieu of all other warranties or conditions expressed or implied. **Any unauthorized modification of the ColumbusJACK products or use of the ColumbusJACK products in violations of cautions and warnings in any manual (including updates) or safety bulletins published or delivered by ColumbusJACK will immediately void any warranty, express or implied and ColumbusJACK disclaims any and all liability for injury (WITHOUT LIMITATION and including DEATH), loss or damage arising from or relating to such misuse.**

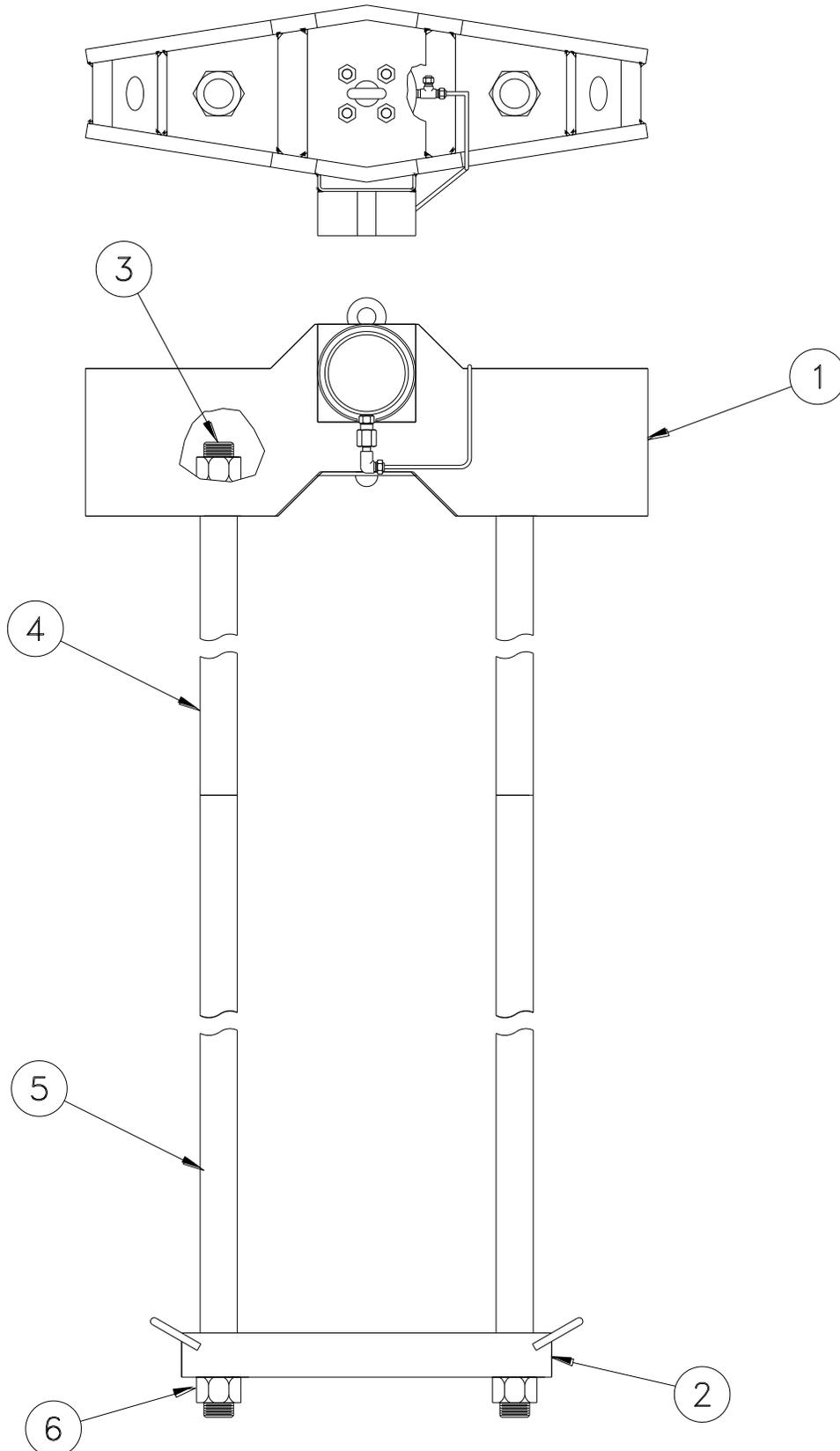
9.0 APPENDICES

APPENDIX I Routine Jack Maintenance Bulletin

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Parts List

When ordering replacement parts/kits, please specify model, serial number and color of your unit.



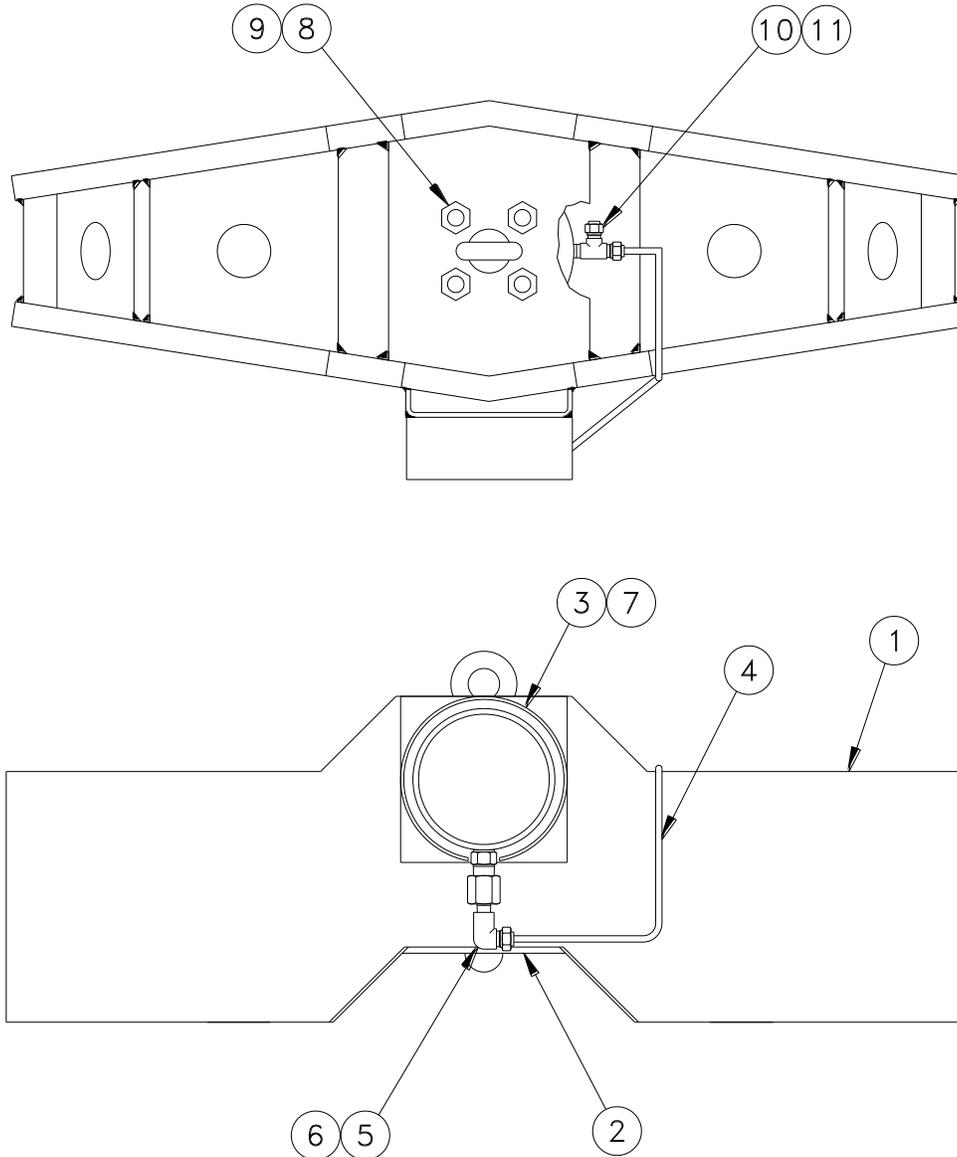
Parts List

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	67A96D2-1	Fixture Assembly	1
2	67A96C6-1	Beam Assembly	1
3	67A96C7-1	Rod	2
4	67A96C7-2	Spacer, 25 Inch	2
5	67A96C7-3	Spacer, 50 Inch	2
6	450A4392	Hex Nut	4
7	4SE00226-1	Adapter Assembly, (Not Shown)	1

Parts List

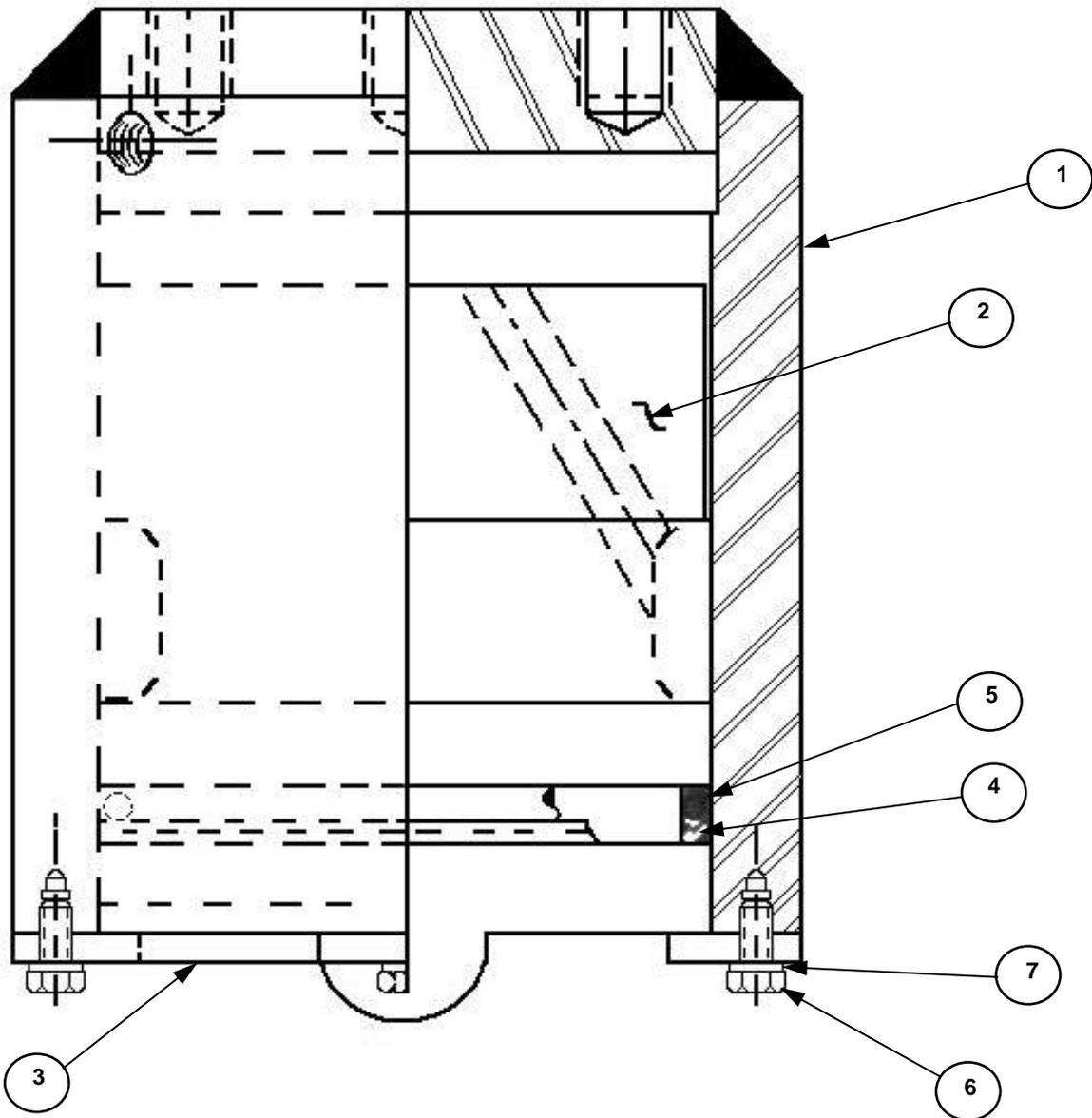
When ordering replacement parts/kits, please specify model, serial number and color of your unit.



Item	Part Number	Description	Qty
	67A96D2-1	Fixture Assembly; consists of:	
1	67A96F3-1	Fixture Weldment Assembly	
2	67A96C4-1	Cylinder Assembly	
3	67A96C8-1	Pressure Gauge	
4	67A96D2-2	Tubing	
5	485-20804	Expander	
6	461-30404	Female Elbow	
7	MS35207-264	Pan Head Screw	
8	MS35338-31	Lockwasher	
9	MS90725-188	Hex Head Cap Screw	
10	458-30404	Male Run Tee	
11	478-00004	Cap	

Parts List

When ordering replacement parts/kits, please specify model, serial number and color of your unit.



Item	Part Number	Description	Qty
	67A96C4-1	Cylinder Assembly; consists of:	
1	67A96D5-1	Cylinder Weldment	1
2	67A96D5-4	Piston	1
3	67A96D5-5	Ring	1
4	67A96B10	Backup Ring	1
5	MS28775-427	O-Ring	1
6	450A4391	Hex Head Cap Screw	4
7	450A3918	Lockwasher	4



APPENDIX I

Routine Jack Maintenance Bulletin



Routine Jack Maintenance Bulletin

TO PROVIDE COMPLETE INFORMATION ON SERVICING
ColumbusJACK/REGENT QUALITY GROUND HANDLING EQUIPMENT

BULLETIN RJM 171 – RECOMMENDED HYDRAULIC OILS

The following hydraulic oils are recommended for use in all ColumbusJACK/Regent products, though any oil compatible with Buna-N seals may be used. Proper oil level should be .5 to 1 inch below the fill port when all rams are collapsed.

Exxon/Mobil Aero HF (MIL-PRF-5606)
Exxon/Mobil DTE-11, -15
NATO Code No. H-538 (MIL-PRF-87257)
Phillips 66 X/C 5606
Royco 783 (Anderol) (MIL-PRF-6083)
Royco 782 (Anderol) (MIL-PRF-83282)
Shell Tellus 10, 15
Shell Aerofluid 31 (MIL-PRF-83282)
Shell Aerofluid 41 (MIL-PRF-5606)
Texaco Regal Oil R & O (32, 46, 100, 150, 220, 320, 460)