#### **VESTIL MANUFACTURING CORPORATION**

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Drum Handling Equipment

## Revised 06-07

A company dedicated to solving ergonomic and material handling problems since 1955.

# OWNER'S MANUAL

MODEL DRUM-55-FP PORTABLE DRUM JACK

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# **WARNINGS & SAFETY INSTRUCTIONS**

- Ensure that all employees understand and follow the following instructions.
- Failure to read and understand this owner's manual before using or servicing the unit constitutes a misuse of the product.

# REPLACEMENT PARTS

We take pride in using quality parts on the equipment we manufacture. We are not responsible for equipment problems resulting from the use of unapproved replacement parts.

To order replacement or spare parts for this equipment, contact the factory.

In any communication with the factory please be prepared to provide the machine's serial number, which is indicated on the machine dataplate.

# RECEIVING INSTRUCTIONS

Every unit is thoroughly tested and inspected prior to shipment. However, it is possible that the unit could incur damage during transit.

Inspect the unit closely when it arrives. If you see evidence of damage or rough handling to either the packaging or to the product when it is being unloaded, immediately make a note of it on the Bill of Lading!

It is important that you remove the product's packaging upon its arrival to ensure that there is no concealed damage or to enable a timely claim with the carrier for freight damage.

Also verify that the product and its specifications are as ordered.



# **OPERATING INSTRUCTIONS AND MAINTENANCE**

#### I. PREOPERATING INSTRUCTIONS

Remove all packing material and carefully inspect unit for shipping damage. If any damage is found, file a claim with the delivering carrier immediately.

#### FOLLOW THESE INSTRUCTIONS FOR SAFE OPERATION

Only operate DrumJak if you have been trained and authorized. Read and follow all instructions here and on DrumJak unit.

- Do not operate DrumJak until you have checked its condition. Do not operate damaged or faulty DrumJak. Do not attempt repairs unless you are trained and authorized.
- Do not overload. Check identification plate for maximum drum weight information.
- Only raise drum to minimum clearance required for movement.
- Never leave raised drum unattended.
- 5. Make sure drum is secure before moving.
- 6. Use neutral position when maneuvering drums.
- Pull rather than push DrumJak when moving drums over long distances.
- Use extreme caution when moving drums up and down ramps.
- When moving drums up or down a ramp, always work from high side of grade.
- Make sure ramps, elevators, and dockboards have sufficient capacity to handle the drum and you.
- 11. In the event you should have to make an emergency stop,
- DrumJak can be stopped by rapidly lowering load.

  12. Do not use DrumJak as a scooter or permit riders.
- Park DrumJak in a safe, level place with handle upright and unit lowered.

#### II. OPERATING INSTRUCTIONS

#### A. GRABBING AND RAISING DRUM

Push DrumJak unit towards drum and inspect height of beak relative to drum rim. Beak should be above drum rim prior to grabbing. If it is below, raise beak by pushing actuating lever downward to position labeled "lift" and begin pumping until beak is just above rim. Grabbing drum begins by lowering beak upon rim. Beak will automatically open as it contacts drum rim. Repeat lifting sequence to raise drum to desired height.

#### B. MANEUVERING DRUM IN NEUTRAL

Maneuvering operations are carried out by engaging actuating lever to 'neutral' position, thereby releasing handle from additional pumping effort while keeping drum attached to the beak.

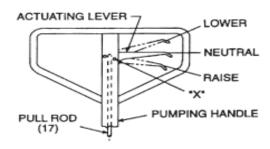
# C. LOWERING AND RELEASING DRUM

To lower and release drum, the actuating lever is pulled upward to position labeled 'lower'. Beak will automatically open and release drum once it is fully lowered.

#### III. MAINTENANCE

#### A. LUBRICATION

Periodic lubrication of friction components will reduce wear and provide long trouble-free operation. A lightweight oil should be applied to the lifting chain. A light bearing grease



should be applied to the front wheel (No. 10010) hub assembly and traverse (No.412490). A grease fitting is found at both locations for easy application.

## B. CARE OF HYDRAULIC UNIT

When operating unit in temperatures that are above freezing, use Shell Tellus 29 hydraulic oil or equal. For units being operated in temperatures below freezing, we recommend a hydraulic oil such as Shell Tellus 22 or equal. Do not use brake fluid. Capacity of the hydraulic unit is approximately 21/2 pints.

#### C. HYDRAULIC UNIT - REMOVAL

See illustration: Frame Assembly

- Block up rear of unit so wheels can move freely.
- Drive out roll pin (2) and remove counterweight (1).
- 3. Unscrew both nuts attached to piston (59).
- 4. Drive out roll pin (33).
- 5. Drive out roll pins (4) and remove pins (3)
- 6. The hydraulic unit (5) can now be lifted out.

#### D. HYDRAULIC UNIT - DISASSEMBLY

See illustration: Hydraulic Unit Assembly

- Piston (59) remove by pulling through top of body assembly (18). Removal of retention plate (57) allows removal of seal (4), retaining ring (5), bushing (6), useal (7), and then spacer (8).
- Valving/Lowering Control ball valve (21) is accessible
  by removing the plug (26), washer (36) and spring (25)
  in the bottom of the unit next ball valve (24) is accessible by removing ball housing (20), washer (35) and
  tappet (22). Remove the connecting link from the chain
  (10) and connecting pin (9) end. Next unscrew chain
  (10) and connecting pin (11) of the cam pin (17). Then
  remove actuating plate (19) by unscrewing socket screw
  (37). Next the control-piston (14), spring (15), and 'O'
  ring (13) can be removed.
- Pump Piston (34) the retaining ring (32) is removed and the cylinder (31) will come out with the 'O' ring (30), back-up rings (29), spring (28), pump piston (34), washer (27) and retaining ring (33).

# E. LIFT HYDRAULIC – REMOVAL

See illustration: Frame Assembly

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# OPERATING INSTRUCTIONS AND MAINTENANCE

- Remove snap ring and drive out connecting link located at chain bracket on lift hydraulic assembly (32).
- 2. Roll chain away from idler sprocket (44).
- 3. Raise sled (31) up and away from frame (13).
- Remove screw (25).
- 5. Loosen both nuts connecting hydraulic lines.
- Remove lift hydraulic assembly (32).

#### F. LIFT HYDRAULIC - DISASSEMBLY

See illustration: Lift Hydraulic Assembly

- 1. Remove wiper seal (40).
- Remove retaining ring (39).
- Pull out sleeve (38), u-seal (37), and liner (36).
- Slide out oil distributor (35).

#### IV. TROUBLESHOOTING

#### A. UNIT WILL NOT RAISE

See illustration: Hydraulic Pump Assembly

- Tension on actuating lever too tight.
  - (a) Loosen lock nut (76).
  - (b) Adjust turnbuckle (75).
  - (c) Tighten lock nut (76).
- 2. No/Not enough hydraulic oil.
- Ball valves (21), (24), or washer on ball housing (20) leaking or dirty. (Before disassembling, try pumping unit to flush dirt out of valve seats).

See illustration: Hydraulic Unit Assembly

- 4. U-seal (7) or (37) in lift hydraulic are damaged.
- 5. O-Rings (31) on cylinder damaged.

#### B. UNIT WILL NOT HOLD LOAD

See illustration: Hydraulic Pump Assembly

 Ball valves (21), (24), or washer on ball housing (20) leaking or dirty. (Before disassembling, try pumping unit to flush dirt out of valve seats)

See illustration: Hydraulic Unit Assembly

- 2. U-seal (7) or (37) in lift hydraulic are damaged.
- Washers (35), (36) on ball housing (20) and/or screw plug (26) leaking.

#### UNIT LIFTS ON PUMP STROKE BUT LOWERS WHEN HANDLE IS RAISED

See illustration: Hydraulic Unit Assembly

 Ball valve (21) and/or washer (35) on ball housing (20) leaking.

## D. UNIT LEAKS HYDRAULIC OIL

See illustration: Hydraulic Pump Assembly

- Damaged seals.
- Unit overfilled with hydraulic oil (capacity is 2½ pints).
- Nuts are not tightened completely at piston (59) or lift hydraulic (32).

See illustration: Hydraulic Unit Assembly

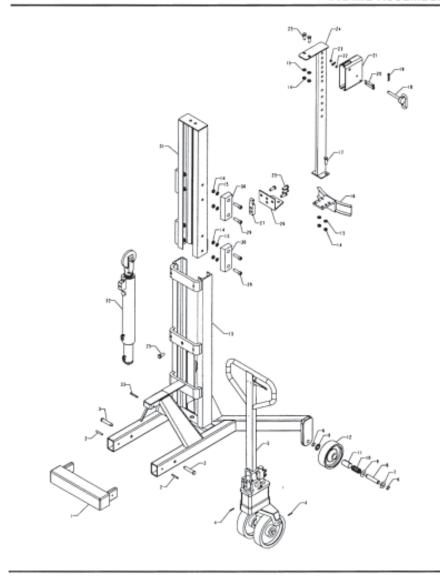
- 4. O-Ring (31) damaged.
- 5. Washer (36) on plug (26) is damaged.

### E. UNIT WILL NOT LOWER

See illustration: Hydraulic Pump Assembly

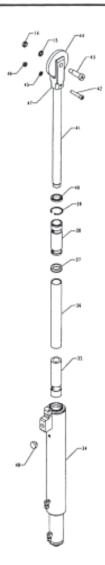
- Tension on actuating lever too loose.
  - (a) Loosen lock nut (76).
  - (b) Adjust turnbuckle (75).
  - (c) Tighten lock nut (76).

# FRAME ASSEMBLY



| Ref. # | Part #   | Part Name               | Qty. Req |
|--------|----------|-------------------------|----------|
| 1      | 10001    | Counterweight           | 1        |
| 2      | 10002    | Roll Pin                | 2        |
| 3      | 10003    | Pin                     | 2        |
| 4      | 50000-12 | Roll Pin                | 2        |
| 5      | 41998    | Hydraulic Unit Assembly |          |
| 6      | 10004    | Retaining Ring          | 4        |
| 7      | 10005    | Washer                  | 2        |
| 8      | 10006    | Rin                     | 2        |
| 9      | 10007    | Seal Washer             | 4        |
| 10     | 10008    | Roller Bearing          | 2        |
| 11     | 10009    | Spanner Bushing         | 2        |
| 12     | 10010    | Wheel                   | 2        |
| 13     | 10011    | Frame                   | 1        |
| 14     | 10012    | Nut                     | 12       |
| 15     | 10013    | Lock Washer             | 12       |
| 16     | 10014    | Saddle                  | 1        |
| 17     | 10015    | Bolt                    | 2        |
| 18     | 10016    | Hitch Pin               | 1        |
| 19     | 10017    | Cotter Pin              | 1        |
| 20     | 10018    | Shoulder Bolt           | 2        |
| 21     | 10019    | Beak Housing            | 1        |
| 22     | 10020    | Lock Washer             | 2        |
| 23     | 10021    | Nut                     | 2        |
| 24     | 10022    | Beak Rail               | 1        |
| 25     | 10023    | Bolt                    | 7        |
| 26     | 10024    | Bracket                 | 1        |
| 27     | 10025    | Chain Bracket           | 1        |
| 29     | 10026    | Bolt                    | 8        |
| 30     | 10027    | Bearing                 | 4        |
| 31     | 10028    | Sled                    | 1        |
| 32     | 10029    | Lift Hydraulic Assembly | 1        |
| 33     | 10030    | Roll Pin                | 1        |
|        |          |                         |          |

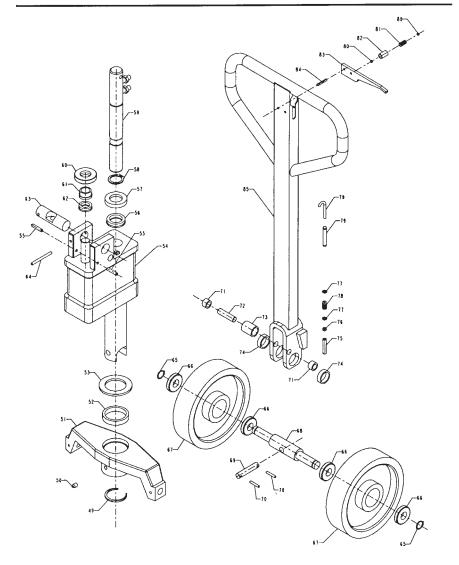
# LIFT HYDRAULIC ASSEMBLY



| ef.# | Part #   | Part Name       | Qty. Req |
|------|----------|-----------------|----------|
| 14   | 10012    | Nut             | 1        |
| 15   | 10013    | Lock Washer     | 1        |
| 34   | 10031    | Cylinder        | 1        |
| 35   | 10032    | Oil Distributor | 1        |
| 36   | 10033    | Liner           | 1        |
| 37   | 54015-1  | U-Seal          | 1        |
| 38   | 10034    | Sleeve          | 1        |
| 39   | 50012-25 | Retaining Ring  | 1        |
| 40   | 54001-8  | Wiper Seal      | 1        |
| 41   | 10035    | Piston          | 1        |
| 42   | 10036    | Shoulder Bolt   | 1        |
| 43   | 10037    | Shoulder Bolt   | 1        |
| 44   | 10038    | Idler Sprocket  | 1        |
| 45   | 10039    | Lock Washer     | 1        |
| 46   | 10040    | Nut             | 1        |
| 47   | 10041    | Fork            | 1        |
| 48   | 10042    | Grommet         | 1        |
|      |          |                 |          |
|      |          |                 |          |

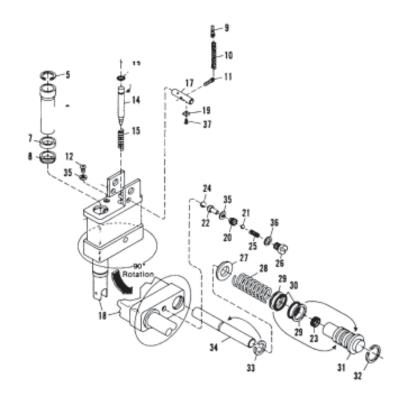
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# HYDRAULIC PUMP ASSEMBLY



| Ref# | Part #   | Part Name         | Qty. Req |
|------|----------|-------------------|----------|
| 49   | 50012-24 | Retaining Ring    | 1        |
| 50   | 54011-1  | Grease Fitting    | 1        |
| 51   | 41249    | Traverse          | 1        |
| 52   | 65039    | Bearing           | 1        |
| 53   | 79850    | Washer            | 1        |
| 54   | 41998*   | Hydraulic Unit    | 1        |
| 55   | 10043    | Roll Pin          | 2        |
| 56   | 10044    | Seal, Loaded      | 1        |
| 57   | 10045    | Retention Plate   | 1        |
| 58   | 10046    | Retaing Ring      | 1        |
| 59   | 10047    | Piston            | 1        |
| 60   | 10048    | Retention Plate   | 1        |
| 61   | 10049    | Bushing           | 1        |
| 62   | 10050    | Seal, Loaded      | 1        |
| 63   | 41252    | Pin               | 1        |
| 64   | 50000-15 | Roll Pin          | 1        |
| 65   | 50012-21 | Retaining Ring    | 2        |
| 66   | 65081-20 | Bearing           | 4        |
| 67   | 41269    | Wheel             | 2        |
| 68   | 41270    | Axle              | 1        |
| 69   | 41195    | Pin               | 1        |
| 70   | 50000-17 | Roll Pin          | 2        |
| 71   | 55017-2  | Bearing           | 2        |
| 72   | 41191    | Pin               | 1        |
| 73   | 41192    | Roller            | 1        |
| 74   | 41194    | Bushing           | 2        |
| 75   | 41190    | Hexagon           | 1        |
| 76   | 50008-8  | Nut               | 1        |
| 77   | 41193    | Washer            | 2        |
| 78   | 79918    | Spring            | 1        |
| 79   | 41295    | Rod, Pull         | 1        |
| 80   | 55001-7  | Ball              | 2        |
| 81   | 41292    | Spring            | 1        |
| 82   | 41326    | Tube              | 1        |
| 83   | 41325    | Handle, Actuating | 1        |
| 84   | 50012-12 | Roll Pin          | 1        |
| 85   | 41298    | Handle            | 1        |
|      |          |                   |          |

# HYDRAULIC UNIT ASSEMBLY



| Ref# | Part #    | Part Name                                  | Qty. Reg. |
|------|-----------|--|-----------|
| 5    | 540012-25 | Retaining Ring                             | 1         |
| 6    | 41165     | Bushing                                    | 1         |
| 7    | *10051    | U-Seal                                     | 1         |
| 8    | 41166     | Spacer                                     | 1         |
| 9    | 41180     | Pin, Threaded                              | 1         |
| 10   | 79904     | Chain                                      | 1         |
| 11   | 41272     | Connector, Chain                           | 1         |
| 12   | 41181     | Screw                                      | 1         |
| 13   | *54002-11 | O-Ring                                     | 1         |
| 14   | 41284     | Piston, Control                            | 1         |
| 15   | *79915    | Spring                                     | 1         |
| 17   | 41302     | Pin  | 1         |
| 18   | 41354     | Body Assembly                              | 1         |
| 19   | 41303     | Actuating Plate                            | 1         |
| 20   | 41289     | Ball, Housing                              | 1         |
| 21   | *55001-2  | Ball                                       | 1         |
| 22   | *41286    | Tappet                                     | 1         |
| 23   | *54015-4  | Packing, Rod                               | 1         |
| 24   | *55001-7  | Ball                                       | 1         |
| 25   | *41288    | Spring                                     | 1         |
| 26   | 41301     | Screw, Plug                                | 1         |
| 27   | 41170     | Washer                                     | 1         |
| 28   | 79908     | Spring                                     | 1         |
| 29   | *64074-5  | Ring, Back-up                              | 2         |
| 30   | *54002-12 | O-Ring                                     | 2         |
| 31   | 41995     | Cylinder, Pump                             | 1         |
| 32   | 50012-26  | Retaining Fing                             | 1         |
| 33   | 50012-21  | Retaing Ring                               | 1         |
| 34   | 41996     | Piston, Pump                               | 1         |
| 35   | *50011-10 | Washer                                     | 1         |
| 36   | *50011-20 | Washer                                     | 1         |
| 37   | 50003-12  | Screw, Countersunk                         | 1         |
|      | 43023     | Repair Kit, Includes<br>all parts marked * |           |

# LIMITED WARRANTY

Vestil Manufacturing Corporation ("Vestil") warrants this product to be free of defects in material and workmanship during the warranty period. Our warranty obligation is to provide a replacement for a defective original part if the part is covered by the warranty, after we receive a proper request from the warrantee (you) for warranty service.

# Who may request service?

Only a warrantee may request service. You are a warrantee **if** you purchased the product from Vestil or from an authorized distributor AND Vestil has been fully paid.

# What is an "original part"?

An original part is a part <u>used to make the product as shipped</u> to the warrantee.

# What is a "proper request"?

A request for warranty service is proper if Vestil receives: 1) a photocopy of the <u>Customer Invoice</u> that displays the shipping date; AND 2) a <u>written request</u> for warranty service including your name and phone number. Send requests by any of the following methods:

MailFaxEmailVestil Manufacturing Corporation(260) 665-1339sales@vestil.com2999 North Wayne Street, PO Box 507PhoneAngola, IN 46703(260) 665-7586

In the written request, list the parts believed to be defective and include the address where replacements should be delivered.

# What is covered under the warranty?

After Vestil receives your request for warranty service, an authorized representative will contact you to determine whether your claim is covered by the warranty. Before providing warranty service, Vestil may require you to send the entire product, or just the defective part or parts, to its facility in Angola, IN. The warranty covers defects in the following *original* dynamic components: motors, hydraulic pumps, electronic controllers, switches and cylinders. It also covers defects in *original* parts that wear under normal usage conditions ("wearing parts"): bearings, hoses, wheels, seals, brushes, batteries, and the battery charger.

# How long is the warranty period?

The warranty period for original components is <u>30 days</u>. The warranty period begins on the date when Vestil ships the product to the warrantee. If the product was purchased from an authorized distributor, the period begins when the distributor ships the product. Vestil may extend the warranty period for products shipped from authorized distributors by *up to* 30 days to account for shipping time.

# If a defective part is covered by the warranty, what will Vestil do to correct the problem?

Vestil will provide an appropriate replacement for any *covered* part. An authorized representative of Vestil will contact you to discuss your claim.

## What is not covered by the warranty?

- 1. Labor;
- Freight;
- 3. Occurrence of any of the following, which automatically voids the warranty:
  - Product misuse:
  - · Negligent operation or repair;
  - Corrosion or use in corrosive environments;
  - Inadequate or improper maintenance;
  - Damage sustained during shipping;
  - Collisions or other incidental contacts causing damage to the product;
  - <u>Unauthorized modifications</u>: DO NOT modify the product IN ANY WAY without first receiving written authorization from Vestil. Modification(s) might make the product unsafe to use or might cause excessive and/or abnormal wear.

# Do any other warranties apply to the product?

Vestil Manufacturing Corp. makes no other express warranties. All implied warranties are disclaimed to the extent allowed by law. Any implied warranty not disclaimed is limited in scope to the terms of this Limited Warranty.

