

# *Flema*

*Manual*  
***FPL 603***  
*22T/44T/66T*  
*Air Hydraulic*



**Warning**  
**Safety Precaution**

This product, as well as all fire tools, should never be used by persons unless they have been trained properly according to O.S.H.A. Regulation #29CFR 1910.177 entitled "Servicing Single-piece & Multi-piece Rim Wheels."

# **Technical Specifications:**

- 1. Weight: 130 Lbs*
- 2. Capacity : 66T/44T/22T*
- 3. Low 5.875", High 19.5" (w/extensions)*
- 4. Stroke 7"*

## **OPERATING INSTRUCTIONS AT A GLANCE**

### **1.0 RECEIVING INSTRUCTIONS**

Important! Make sure to inspect all of the components for shipping damage within 24 hours. If damage is found, notify carrier at once. Shipping damage will not be covered by warranty. The carrier is responsible for all loss associated to shipping damage.

### **2.0 SAFETY**

Make sure to read the instructions, warnings and precautions carefully. Follow any recommended safety precautions to avoid personal injury or damage to the unit. Flema Products Ltd. cannot be responsible for any damage or injury from unsafe use, lack of maintenance or incorrect operation. In the event any questions or concerns arise, contact Flema Products Ltd for clarification.



## OPERATING INSTRUCTIONS

### 3.0 Operation

#### Use of the jack

**Lifting:** turn the control valve clockwise until the pump starts.

**Lowering:** turn the control valve counter clockwise. Always lower the jack completely in order to protect the lifting cylinder.

**The handle** offers 3 different positions: pull the handle and tip as required.

#### Maintenance

Maintenance and repair must always be carried out by qualified personnel. The air-motor requires oil to lubricate the mechanical parts. It is recommended to use air supply with water separator/filter and oil lubricator.

**Daily:** Lubricate the air-motor by injecting a little oil into the air connection on the handle and then lift to max. position. Disconnect the air hose, inject further oil into the air connection, reconnect the air hose and turn the control valve counter clockwise to lubricate the cylinder walls.

**Monthly:** Empty water separator/filter and fill oil lubricator with oil. Lubricate all mechanical parts with a few drops of oil. At the same time inspect jack and extensions for damage and wear and tear.

**Oil level:** refill oil through hole on top side of Jack body. Correct oil level is to one inch from top edge of the hole with the jack horizontal and the cylinder completely lowered.

**Quantity of oil:** 2,5 l.

Use high quality hydraulic oil, viscosity ISO VG 15. **Never use brake fluid!**

#### Safety Inspection

According to national legislation - minimum once a year though - the jack must be inspected by a professional: Damages, wear and tear, adjustment of the safety valve, cylinder and pump for leakages.

**PARTS BOOK AVAILABLE UPON REQUEST**



**Failure to comply with the following cautions and warnings could cause equipment damage, property damage or personal injury.**

**CAUTION** is used to indicate correct operating or maintenance procedures and practices to prevent damage to, or destruction of equipment or other property.

**WARNING** indicates a potential danger that requires correct procedures or practices to avoid personal injury.

**DANGER** is only used when your action or lack of action may cause serious injury or even death.



**WARNING:** Wear proper personal protective gear when operating hydraulic equipment.



**DANGER:** To avoid personal injury, keep hands and feet away from hydraulic unit and work-piece during operation. Do not handle pressurized hoses. Escaping oil under pressure can penetrate the skin, causing serious injury. If oil is injected under the skin, see a doctor immediately.



**WARNING:** This jack is for lifting only!! Support the load after completing the lift by other appropriate means. Never get under a load supported by the jack. Never exceed the rated capacity of the jack. Allow at least ten percent margin of safety.



**WARNING:** Use jack only on solid surface compatible of supporting the load and base of the jack. Always center the load on the lifting saddle of the jack. If the jack is not perpendicular to the load slipping or loss of load is possible.



**WARNING:** Distribute the load evenly when performing lifts with multiple jacks. Failure to heed this warning may cause loss of load and/or failure of the jack, resulting in property damage and/or personal injury.



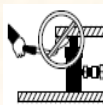
**WARNING:** The jack is to be used for lifting only! Support the load after completing the lift using approved accessories or by other appropriate means. Never get under a load being supported only by the jack.



**CAUTION:** FLEMA CAN NOT BE RESPONSIBLE for damage or injury from unsafe use application, or maintenance of this product. READ and follow all warnings, cautions, and instructions associated with this product. Do not remove warning labels, tags, or decals.



**CAUTION:** Fully retract the cylinder and protect the entire unit from external damage. Keep FPL 402 clean, avoid weld splatter, and store in a clean dry area. INSPECT ALL SYSTEM COMPONENTS BEFORE USE.



**CAUTION:** Keep hydraulic equipment away from flames and heat. Excessive heat will soften packing and seals, resulting in fluid leaks. Heat also weakens hose materials and packing. For optimum performance do not expose equipment to temperatures of 65 C (150 F) or higher.



**WARNING: BE SURE LIFTING ARRANGEMENT IS STABLE BEFORE LIFTING LOAD.** Use jack only on a solid and level surface, capable of supporting the load and the base of the jack. Always center the load on the lifting saddle of the jack. If the jack is not perpendicular to the load, slipping or loss of load is possible.



<b>Symptom</b>	<b>Possible Cause</b>	<b>Solution</b>
<b>1. Sporadic Cylinder Action</b>	<ol style="list-style-type: none"> <li>1. Air Trapped in hydraulic system.</li> <li>2. Low oil level in hydraulic reservoir.</li> <li>3. Seal wear and/or internal damage</li> </ol>	<ol style="list-style-type: none"> <li>1. Cycle cylinder up and down several times to bleed trapped air.</li> <li>2. Add Hydraulic oil as required</li> <li>3. Have unit inspected by Authorized Service Center. Repair or replace components as required.</li> </ol>
<b>2. Noisy operation</b>	<ol style="list-style-type: none"> <li>1. Air trapped in hydraulic system.</li> <li>2. Low oil level in hydraulic reservoir.</li> <li>3. Air leaks in hydraulic system</li> <li>4. Clogged or blocked pump intake screen</li> </ol>	<ol style="list-style-type: none"> <li>1. Cycle cylinder up and down several times to bleed trapped air.</li> <li>2. Add Hydraulic Oil as required.</li> <li>3. Check all points where air might leak into system.</li> <li>4. Have hydraulic reservoir and intake screen flushed and cleaned by Authorized Service Center.</li> </ol>
<b>4. Pump runs but will not pump oil OR Cylinder moves but will not lift load</b>	<ol style="list-style-type: none"> <li>1. Seal wear and/or internal damage.</li> <li>2. Control Valve needs repair</li> </ol>	<ol style="list-style-type: none"> <li>1. Have hydraulic system inspected by Authorized Service Center. Repair or replace components as required.</li> <li>2. Have hydraulic system inspected by Authorized Service Center. Repair or replace components as required.</li> </ol>
<b>6. Pump does not run</b>	<ol style="list-style-type: none"> <li>1. Insufficient compressed air volume.</li> <li>2. Moisture in compressed air</li> <li>3. Air Motor corroded, damaged, worn or seized.</li> </ol>	<ol style="list-style-type: none"> <li>1. Increase volume of compressed air or increase size of supply air line to meet airflow and pressure requirements.</li> <li>2. Be sure that compressed air is clean, dry and free of water</li> <li>3. Put oil in airline. Use only SAE 10 detergent oil or an approved antifreeze lubricant.</li> <li>4. Have air motor inspected by Authorized service center. Repair or replace as required.</li> </ol>





Innovation . Quality . Service

# THE FLEMA DIFFERENCE

## YOUR SOURCE FOR INNOVATION . QUALITY . SERVICE

### FACTORY-TO-CUSTOMER COMMUNICATION

We endeavor to keep the line of communication open from end user to distributor to factory. We want to be in a position to respond immediately with reliable solutions to meet you and your customer's needs.

### NEW PRODUCT DEVELOPMENT

With our ongoing new product development, you and your Customers are assured to be on the leading edge with technology, products and solutions for your business.

### PRECISION ENGINEERING & RIGOROUS TESTING

With our exceptional attention to detail and our Best-in-Class manufacturing, you are guaranteed a first class product every time.

### PROMPT SERVICE SUPPORT

You can expect timely, reliable solutions for you and your customer, every time.

**FULL ONE YEAR LIMITED WARRANTY**  
Assures your complete satisfaction.

### BRANDS YOU CAN COUNT ON

Flema Brands are engineered for the highest demands and designed for top performance, whether you choose our *Flema F-P-L* top of the line products, our *Flema Whiskey Jack* line developed in response to our Customers need for an economical option, or our *Flema Custom* products designed and manufactured to your specifications.



### UNIQUE FLEMA SERVICES

- Rentals on Mining Jacks
- Repair Service and Testing
- **Flema CUSTOM PRODUCTS**

Flema's manufacturing is designed with the flexibility to custom design and manufacture products to YOUR specifications:

- Heavy Tonnage Jacks
- Cylinders & Baseplates
- Pump Packages
- Wheel Rings
- Bead Breakers
- Tools & Tool Branding
- Injection Molding



CUSTOM 420 TON JACK



CUSTOM 150 TON CYLINDER



CUSTOM CASTING



CUSTOM HYDRAULIC PUMP