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Powermatic PF-31

Powermatic 3-Roll Power Feeder (Model PF-31) Instruction Manual

Your guide to safe and efficient operation

1. Product Overview

The Powermatic PF-31 3-Roll Power Feeder is a robust, heavy-duty machine designed to provide consistent and positive feeding for various materials in woodworking applications. It features a continuous-duty motor that transfers power to the feed rollers via a durable roller chain and sprockets system.

Its fully adjustable support columns, equipped with moveable universal joints and heavy locking mechanisms, allow the feeder to be securely positioned in horizontal, vertical, or angled feed orientations. The solid cast iron construction of the body, base, and universal joints ensures stability and vibration-free operation.

A key feature is the smart roller system, which simplifies maintenance by allowing only the tire to be replaced, rather than the entire roller assembly.

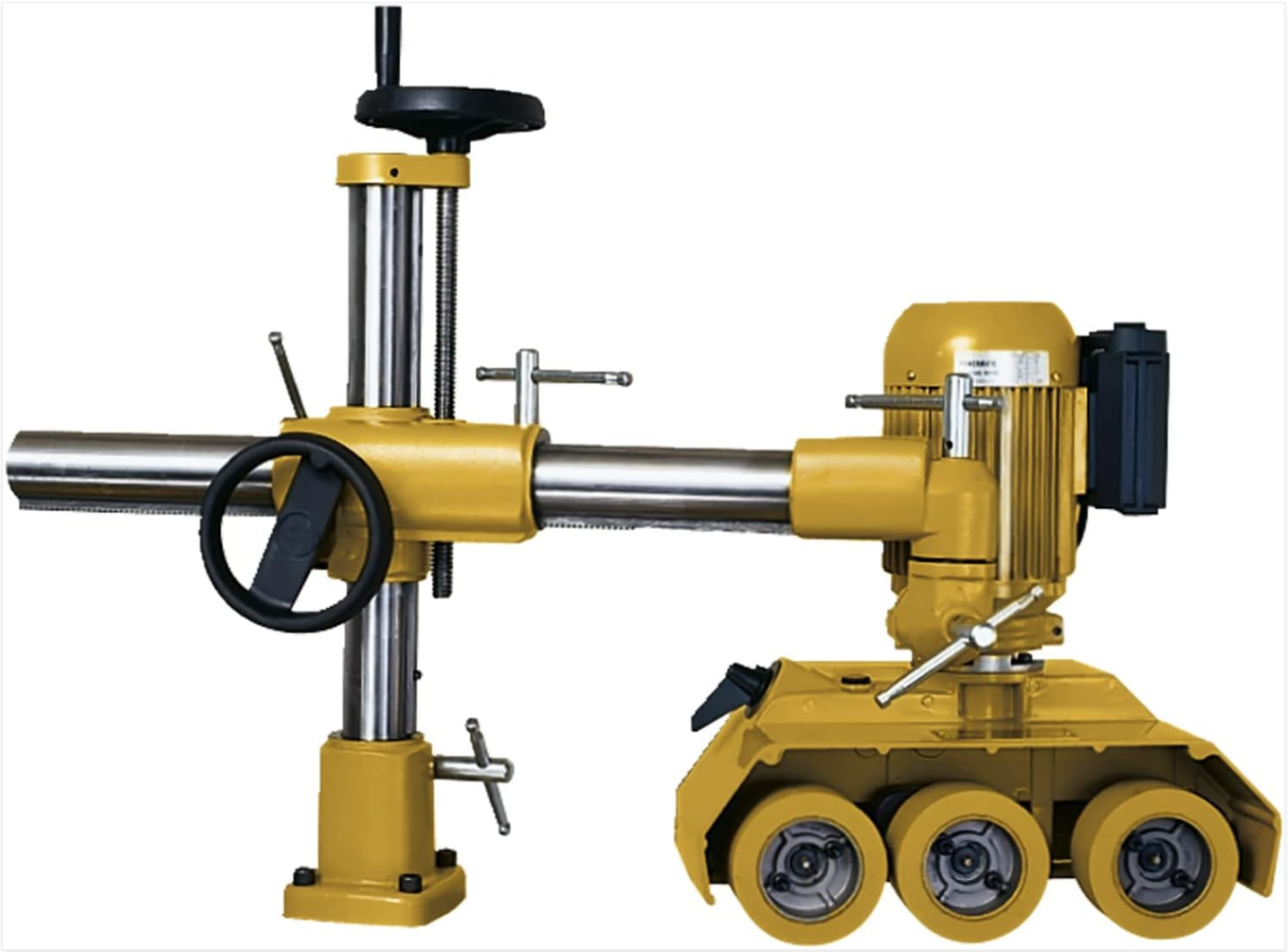


Figure 1.1: The Powermatic PF-31 3-Roll Power Feeder, showcasing its robust design and three feed rollers.

Key Features:

- **Continuous Duty Motor:** Transfers power efficiently from the gearbox to the feed rollers.
- **Adjustable Support Columns:** Fully adjustable for horizontal, vertical, or angled feeder positions.
- **Moveable Universal Joints:** Equipped with heavy locking mechanisms for secure positioning.
- **Roller Chain and Sprocket Design:** Ensures positive feeding for all material types.
- **Smart Roller System:** Allows for easy replacement of only the roller tire, reducing maintenance costs.
- **Solid Cast Iron Construction:** Provides stability and vibration-free feeding.

2. Setup and Assembly

Before beginning assembly, ensure all components are present and undamaged. Refer to the included parts list and diagrams. Assembly typically involves mounting the feeder to your woodworking machine (e.g., table saw, shaper) and connecting it to the power supply.

Included Components:

- Stock Feeder Unit
- Grease Gun (grease not included)
- Boring Template
- Mounting Assembly
- Handle Over Arm
- Hardware (bolts, nuts, washers)



Figure 2.1: Key components of the Powermatic PF-31, including the motor, support columns, and feed rollers, essential for proper assembly.

Mounting Instructions:

1. Identify the appropriate mounting location on your machine, ensuring it provides stable support and allows for full range of motion for the feeder.
2. Use the provided boring template to mark and drill mounting holes if necessary.
3. Attach the mounting assembly to your machine using the supplied hardware, ensuring all bolts are securely tightened.
4. Carefully lift and attach the power feeder unit to the mounting assembly. Secure it with the designated locking mechanisms.
5. Connect the handle over arm to the feeder for easy adjustment.
6. Ensure all electrical connections are made according to local electrical codes and the feeder's specifications (115V, 1Ph).

3. Operating Instructions

The Powermatic PF-31 is designed for precise and consistent material feeding. Proper operation ensures safety and optimal results.



Figure 3.1: An operator feeding material through the Powermatic PF-31, demonstrating typical usage during woodworking operations.

Speed Settings:

The PF-31 offers four distinct feed speeds to accommodate various materials and operations:

- 13 Feet Per Minute (FPM)
- 36 FPM
- 43 FPM
- 108 FPM

To change speeds, refer to the gear change mechanism on the unit. This typically involves manually adjusting the gear ratio to access the desired speed range (e.g., high or low speed settings).

Adjusting Feeder Position:

The feeder's position can be adjusted to suit the workpiece and machine setup:

1. Loosen the locking mechanisms on the support columns and universal joints.
2. Adjust the feeder to the desired horizontal, vertical, or angled position. Ensure the rollers make firm, consistent contact with the workpiece.
3. Tighten all locking mechanisms securely before operation to prevent movement during feeding.



Figure 3.2: The Powermatic PF-31 mounted on a table saw, illustrating a common setup for consistent material feeding.

4. Maintenance

Regular maintenance is crucial for the longevity and optimal performance of your Powermatic PF-31 Power Feeder. Always disconnect power before performing any maintenance.

Roller Maintenance:

The smart roller system allows for easy replacement of worn tires without replacing the entire assembly.



Figure 4.1: A detailed view of the Powermatic PF-31's feed rollers, highlighting the replaceable rubber tires and spring suspension system.

1. Inspect rollers regularly for wear, cracks, or damage.
2. To replace a tire, follow the specific instructions in your detailed product manual for disassembling the roller and installing a new tire.
3. Ensure rollers are clean and free of sawdust or debris, which can affect feeding consistency.

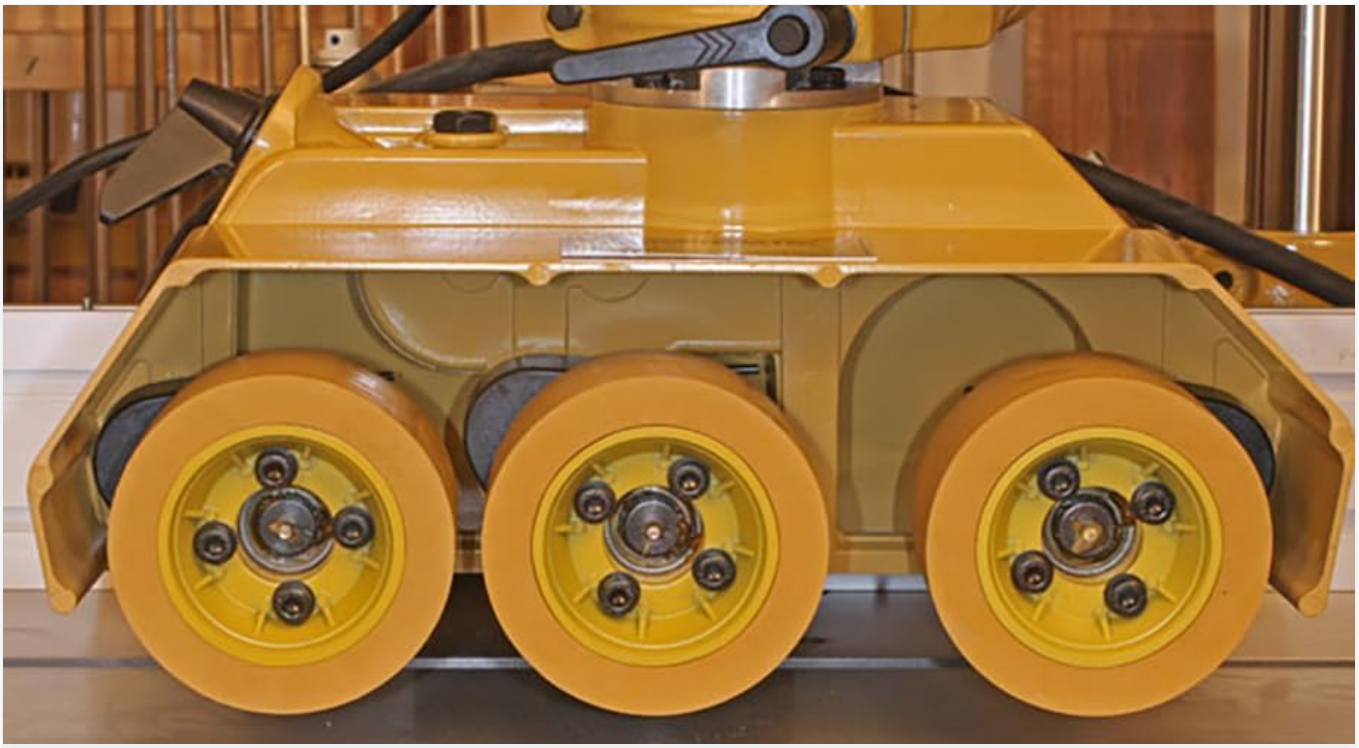


Figure 4.2: A close-up view of the three feed rollers on the Powermatic PF-31, showing their condition and contact surface.

Lubrication:

- Use the provided grease gun to lubricate designated points as indicated in the full manual.
- Regular lubrication of gears, chains, and moving parts prevents wear and ensures smooth operation.

General Cleaning:

- Keep the feeder unit clean from sawdust and wood chips. Use compressed air or a brush.
- Wipe down exterior surfaces with a clean cloth. Avoid using harsh chemicals that could damage the finish.

5. Troubleshooting

This section addresses common issues you might encounter with your Powermatic PF-31 Power Feeder. For more complex problems, contact customer support.

Problem	Possible Cause	Solution
Feeder not turning on	No power supply; tripped circuit breaker; faulty switch	Check power connection; reset breaker; inspect switch for damage.
Inconsistent feeding	Worn or dirty rollers; improper roller pressure; material slippage	Clean or replace rollers; adjust roller pressure; ensure material is clean.
Excessive vibration	Loose mounting; unbalanced rollers; worn bearings	Tighten mounting hardware; inspect rollers for damage; contact support for bearing issues.
Motor overheating	Overload; insufficient ventilation; continuous heavy use	Reduce load; ensure proper airflow around motor; allow motor to cool.

6. Specifications

Detailed technical specifications for the Powermatic PF-31 3-Roll Power Feeder.

Specification	Value
Brand	Powermatic
Model Number	PF-31
Horsepower	1.00 HP
Voltage	115 Volts
Wattage	1412.5 watts
Speeds	4 Speeds (13/36/43/108 FPM)
Product Dimensions (L x W x H)	43.25" x 18" x 29.5"
Item Weight	143 Pounds
Material	Rubber, Steel (for components)

Specification	Value
Power Source	Corded Electric
Surface Recommendation	Wood
Color	Yellow

7. Warranty Information

The Powermatic PF-31 3-Roll Power Feeder comes with a **5-Year Limited Warranty**. This warranty covers defects in material and workmanship under normal use and service. Please retain your proof of purchase for warranty claims.

For full details regarding warranty terms, conditions, and exclusions, please refer to the official warranty document included with your product or visit the Powermatic official website.

8. Support and Contact

For technical assistance, parts, or service inquiries regarding your Powermatic PF-31 Power Feeder, please contact Powermatic customer support.

- **Online Support:** Visit the official Powermatic website for FAQs, product registration, and service center locations.
- **Customer Service:** Refer to the contact information provided in your product packaging or on the Powermatic website for phone and email support.

When contacting support, please have your product model number (PF-31) and serial number ready to expedite assistance.

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