

Planer Infeed Roller Pressure Adjustment

1.0 Maintenance Objective & Frequency

The objective of this procedure is to calibrate the infeed roller pressure on a planer to ensure consistent material feed, minimize snipe, and prevent premature roller wear. Proper pressure adjustment reduces vibration, improves surface finish, and extends the life of the feed rollers and cutterhead bearings.

This PM should be performed every 500 operating hours or whenever snipe, feed slippage, or uneven board thickness is observed. It is also recommended after replacing infeed rollers or springs.

2.0 Lockout/Tagout (LOTO) & Safety

- **Electrical Isolation:** Disconnect the main power disconnect switch and apply a personal lock and tag. Verify zero voltage with a multimeter at the motor starter.
- **Mechanical Isolation:** Ensure the cutterhead has come to a complete stop. Engage the cutterhead brake if equipped.
- **Pneumatic Isolation:** If the planer uses pneumatic roller tensioning, close the main air supply valve and bleed residual pressure from the system.
- **PPE:** Wear safety glasses, cut-resistant gloves, and hearing protection. Use a dust mask if debris is present.

3.0 Required Tools, Parts & Lubricants

- Torque wrench (0-150 in-lb range)
- Feeler gauge set (0.001-0.030 inch)
- Dial indicator with magnetic base (0.001 inch resolution)
- Allen key set (metric and imperial as required by planer model)
- Combination wrench set (metric and imperial)
- Replacement infeed roller springs (if worn or broken)
- Light machine oil (e.g., ISO 32)
- Clean lint-free rags

4.0 Step-by-Step Maintenance Procedure

1. Perform LOTO as per Section 2.0. Confirm that all energy sources are isolated and locked out.
2. Remove the infeed table and any access covers to expose the infeed roller assembly. Refer to the machine manual for specific cover removal steps.
3. Visually inspect the infeed roller for wear, flat spots, or debris buildup. Clean the roller surface with a rag and light machine oil if necessary.
4. Inspect the roller springs for cracks, deformation, or loss of tension. Replace any springs that do not meet OEM free-length specifications (measure with calipers).

5. Using a feeler gauge, check the gap between the infeed roller and the cutterhead knife tip (or the chipbreaker if applicable). The gap should be 0.010-0.020 inch (0.25-0.50 mm) as per OEM spec. Adjust by loosening the roller mounting bolts and repositioning the roller.
6. Set the dial indicator on the machine frame with the plunger contacting the infeed roller surface near the center. Zero the indicator.
7. Apply a downward force of 10-15 lbs (4.5-6.8 kg) to the roller using a spring scale or known weight. Record the deflection. The deflection should be 0.005-0.015 inch (0.13-0.38 mm). If deflection is outside this range, adjust the spring tension by turning the adjustment nuts or replacing springs.
8. Check roller parallelism by measuring the gap between the roller and the table at both ends using a feeler gauge. The difference should not exceed 0.002 inch (0.05 mm). Adjust by shimming the roller brackets if necessary.
9. Lubricate all pivot points and spring adjustment threads with light machine oil. Wipe away excess oil.
10. Reinstall the infeed table and access covers. Torque all fasteners to OEM specifications (typically 30-50 ft-lb for table bolts).

5.0 Verification & Return to Service

1. Remove LOTO devices and restore power to the planer. Ensure all safety guards are in place.
2. Run the planer without material for 30 seconds to confirm smooth roller rotation and no unusual noise.
3. Feed a test board (scrap wood of consistent thickness) through the planer. Measure the board thickness at the infeed and outfeed ends with calipers. The thickness variation should be less than 0.005 inch (0.13 mm).
4. Inspect the test board for snipe (excessive depth at the ends). If snipe exceeds 0.010 inch (0.25 mm), repeat the pressure adjustment procedure.
5. Document the pressure settings (deflection readings, gap measurements) and any parts replaced in the maintenance log. Sign off on the PM work order in ServiceGrid.

Regulatory Disclaimer: This document is a generic maintenance template provided for educational and informational purposes only. It does not constitute professional engineering or reliability advice. The end-user assumes all liability for validating all step sequences, torque specs, and LOTO protocols against specific machinery OEM manuals before deployment to a live production floor.