

Maintenance Task

PM No. **Title**
F34 **FAN, BELT DRIVEN (LESS THAN 7.5 HP)**

Frequency
SEMIANNUAL
ANNUAL

MAINTENANCE TASK DESCRIPTION:

1. Lubricate fan blower bearings. (Semi-Annual)
2. Clean and inspect fan. (Annual)
3. Adjust/align fan belts. (Annual)
4. Test fan operation. (Annual)
5. Complete vibration, infrared and motor insulation tests. (Annual)

SPECIAL INSTRUCTIONS:

1. Review manufacturer's instructions.
2. Schedule shutdowns with operating personnel, as needed.
3. De-energize, lock out, and tag fan motor electrical circuit.

PROCEDURES (SEMI-ANNUAL):

1. Lubricate fan shaft bearings while unit is running. Add grease slowly until slight bleeding is noted from the seals. Do not over lubricate. Remove old or excess lubricant.

TOOLS, MATERIALS, AND EQUIPMENT: (SEMI-ANNUAL):

1. Mechanic's tool set.
2. Lubricants and grease gun.

PROCEDURES (ANNUAL):

1. Fan:
 - a. For normally denenergized units or high/low temperature start units, simulate a start signal and verify that unit works.
 - b. Tag out unit.
 - c. Thoroughly clean unit.
 - d. Check fan blades for dust buildup and clean if necessary.
 - e. Check fan blades and moving parts for excessive wear. Clean as needed.
 - f. Check fan RPM to design specifications.
 - g. Check bearing collar set screws on fan shaft to make sure they are tight.
 - h. Check fan wheel for bent or damaged vanes.
 - i. Vacuum interior of unit if accessible. Clean exterior.
 - j. Check belts for wear, adjust tension or alignment, and replace belts when necessary. Multiple belt drives should be replaced with matched sets.
 - k. Check structural members, vibration eliminators and flexible connections.
 - l. Check that hold down bolts are secure.
 - m. Test fan operation.
 - n. Remove all trash and clean area around fan.
2. Motors:
 - a. Check ventilation ports for soil accumulation, clean if necessary.
 - b. Clean exterior of motor surfaces of soil accumulation.
 - c. Lubricate bearings:
 - (1) Remove filler and drain plugs (use zerk fittings if installed).
 - (2) Free drain hole of any hard grease.
 - (3) Add grease - use good grade lithium base grease unless otherwise noted.
 - d. Check motor windings for accumulation of soil. Vacuum if required.
 - e. Check hold down bolts and grounding straps for tightness.
 - f. Check controller for proper operation. Check electrical connections for tightness. Relamp as necessary.
 - g. Remove tags and return to service. Check for unusual noise or vibration. Check for evidence of overheating. Make sure unit actually works.

TOOLS, MATERIALS, AND EQUIPMENT (ANNUAL):

1. Mechanic's tool set.
2. Tachometer.
3. Cleaning equipment and materials.
4. Vacuum.
5. Grease guns, lubricants.

Maintenance Task

6. Respirator.

NOTE: Follow regulations concerning removal and disposal of lubricants/oil.
Comply with EPA regulations as appropriate.

ENGINEER'S NOTES:

1. Record operational status of unit.
2. Record belt size and number.
3. Record grease requirements and if units were greased.