

## Maintenance Task

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

**Frequency**  
**SEMIANNUAL**  
**ANNUAL**

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### 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 dennergized 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.

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### 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.