10.0 FAN INSTALLATION

When installing the fan in the frame, follow this procedure:

1. Bring the fan components to the assembly area:

    a. Fan shaft.

    b. Gate arms and gate pivot bracket.

Fan Shaft

Gate Arms/Gate Pivot Bracket

FIG 10-1 FAN COMPONENTS

2. Assemble gate pivot components:

    a. Assemble gate arm over tube mount and secure with bolt and clamp.

    b. Tighten bolt to its specified torque.

    c. Assemble gate arm with side support over tube.

Bolt/Clamp

Side Support

FIG 10-2 GATE PIVOT COMPONENTS

3. Assemble hanger with gate arm hydraulic cylinder mount to short shaft end:

   a. Slide tube over short end of shaft.

Rear

Front

FIG 10-3 GATE CYLINDER MOUNT ARM

4. Assemble hanger without cylinder mount to long shaft end:

   a. Slide tube over long end of shaft.

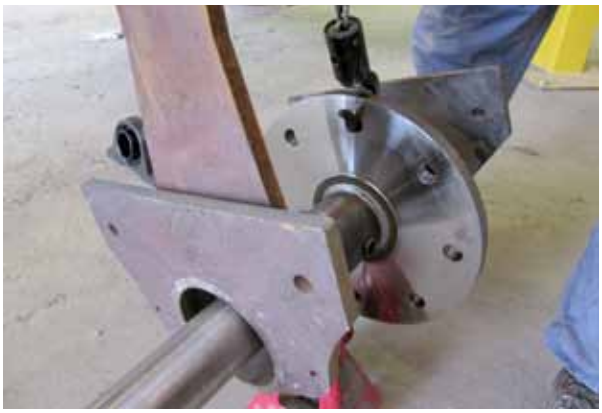

FIG 10-4 CYLINDER MOUNT

5. Prepare to assemble bearing on short shaft:

   a. Bring bearing to assembly area.

Gate

   b. Back out hub set screws.

Set Screws

   c. Use an emery cloth to clean shaft.

Emery Cloth

   d. Apply anti seize compound to the shaft.

Anti-Seize

FIG 10-5 PREPARE SHAFT

6. Mount bearing on shaft:

   a. Slide bearing on shaft.

   b. Be sure set screws are backed out and don't interfere with fit.

   c. Tap into position (bearing should be tight up against hub on fan shaft).

   d. Tighten both set screws to their specified torque.

Sliding

Tapping

Shaft End

Right Set Screw

Left Set Screw

FIG 10-6 MOUNTING BEARING

7. Prepare long shaft:

   a. Use an emery cloth to remove any burrs or residue from shaft.

Emery Cloth

   b. Measure 13 1/2 inches from end of shaft.

Measuring

   c. Apply anti seize compound on shaft above 13 1/2 inches.

Anti-Seize

FIG 10-7 LONG SHAFT

8. Install bearing on shaft:

   a. Back out set screws in hub to prevent interference.

   b. Slide bearing on shaft.

   c. Slide or tap top bearing into position.

   d. Measure and position bearing 13 1/2 inches from end of shaft.

Tapping

13 1/2 Inches

FIG 10-8 BEARING INSTALLATION

9. Secure bearings by tightening set screws to their specified torque.

Tightening

Assembled

FIG 10-9 SET SCREWS

10. Move shaft into frame:

    a. Lift shaft using a strap next to fan mounting hub.

Strap

    b. Move assembly in from the rear of frame.

Moving

    c. Manoeuvre from top into frame opening.

Above

    d. Lower down into frame.

Lowered

    e. Position the long portion of the shaft pointing forward.

Positioning

FIG 10-10 MOVING SHAFT

11. Mount front bearing to frame:

    a. Turn bearing so base is on top.

Pointing UP

    b. Position under front cross frame.

Front Cross Frame

    c. Install 6 inch mounting bolt.

Bolt

    d. Tighten bolts finger tight to hold in position.

Finger Tight

FIG 10-11 MOUNTING FRONT BEARINGS

12. Mount rear bearing:

    a. Turn bearing so base is on top.

    b. Position under rear cross frame.

    c. Install mounting bolts finger tight.

Bearing Up

Installed

FIG 10-12 REAR BEARING

13. Attach rear gate pivot bracket to rear cross frame:

    a. Rotate gate pivot bracket until it is above shaft.

    b. Install anchor bolts.

    c. Tighten finger tight.

Turned

Finger Tight

FIG 10-13 REAR GATE PIVOT BRACKET

14. Attach front gate pivot bracket to front cross frame:

    a. Rotate gate pivot bracket until it is above shaft.

    b. Install anchor bolts.

    c. Tighten finger tight.

Turned

Bolts

Finger Tight

FIG 10-14 FRONT GATE PIVOT BRACKET

15. Tighten fasteners to their specified torque:

    a. Rear gate pivot bracket.

Rear Gate Pivot Bracket

    b. Rear bearing mounts.

Rear Bearing

    c. Front gate pivot bracket.

Front Gate Pivot Bracket

    d. Front bearing mounts.

Front Bearing

FIG 10-15 TORQUE FASTENERS

16. Check set screws on bearing hubs and tighten to their specified torque:

    a. Front bearing.

    b. Rear bearing.

Front Bearing

Rear Bearing

FIG 10-16 SET SCREWS

17. Bring first half of fan plate to machine:

    a. Attach clamp to fan plate for lifting.

Clamp

    b. Lift with hoist or crane and move to machine.

Lifting

    c. Lift over machine and lower into frame next to hub on shaft.

Lowering

Hub

    d. Align mounting holes and install mounting bolts.

Mounting Bolts

    e. Tighten bolts to their specified torque.

Tightened

FIG 10-17 FAN PLATE HALF

18. Lower plate into position:

    a. Use a punch or drift through plate and against frame to hold plate.

    b. Install 'O' ring bolt in the center of plate.

'O' Ring

    c. Release clamp.

Hoist

    d. Attach hoist to 'O' ring and support the weight of the plate.

Lowering

    e. Remove clamp.

Punch/Drift

    f. Slowly lower plate until a punch can be placed through plate to support it in its partially up position.

    g. Remove hoist and 'O' ring bolt.

Supported

FIG 10-18 INSTALLING PLATE

19. Install second half of fan plate:

    a. Attach lofting clamp to second half of fan plate.

    b. Bring to assembly area.

Clamp

    c. Lift above frame and lower down to mounting hub.

Lifting

Lowering

    d. Install mounting bolts.

Bolt

    e. Tighten mounting bolts to their specified torque.

    f. Remove drift or punch.

Mounted

FIG 10-19 INSTALL SECOND HALF

20. Install aligning bolts through plate junction:

    a. Install bolt and a heavy washer on both sides through the plate seam.

    b. Tighten bolt to its specified torque.

    c. Repeat with seam on the other side of plate.

Bolt

Tightened

Second Bolt

FIG 10-20 ALIGNING BOLTS

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