

5–24. Shuttle Assembly (Figure 5–23)

a. Removal, P600 (Figure 5–23, sheet 1)

1. Remove printer cover per paragraph 5–18a.
2. Set Forms Thickness Lever (1) to open.
3. Loosen two cam cover captive screws (2) with washers (3 and 4).
4. Separate cam cover (5) and attached gasket (6) from cam housing (7).
5. Place ribbon drive in service position per paragraph 3–4c, step 4.

– CAUTION –

Do not pull on wires when disconnecting hammer connectors. Wires may pull out.

6. Loosen two screws (10). Lift comb bracket (11).
7. Disconnect four hammer connectors (12).
8. Remove screws (8) from antirotation arm (9). Remove antirotation arm (9) by working it off sideways and down.

NOTE: it may be necessary to loosen remaining cover plate screws.

9. Remove screws (10) and (13).

NOTE: All P600 machines have sleeve bearings that must be loosened and re-torqued, regardless of the type of support block (machined or cast). The type of block determines the amount of torque.

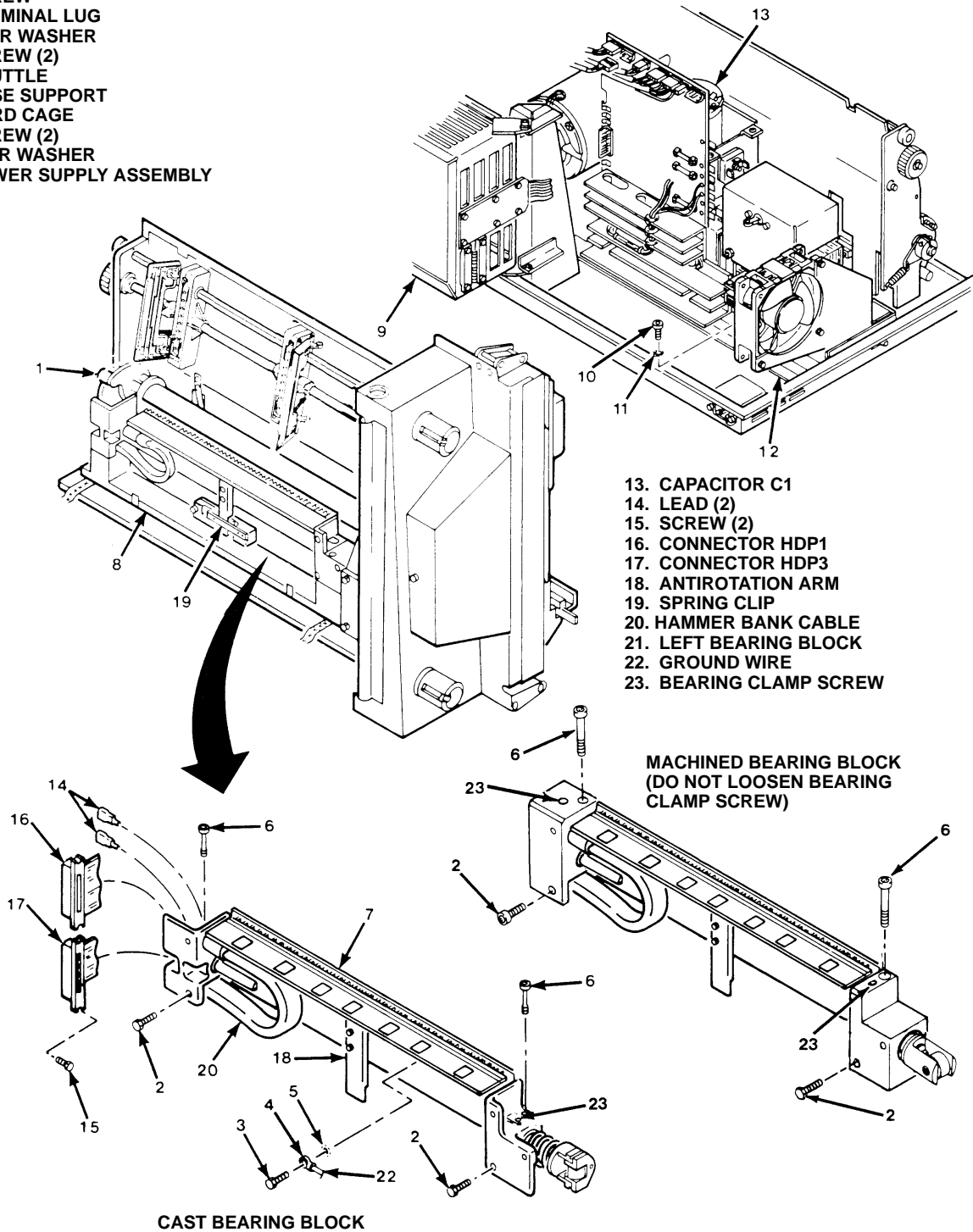
10. Loosen but do not remove bearing block clamp screws (14).
11. Loosen two captive screws (15) until shuttle assembly (16) can be separated from base support (17).
12. Carefully lift shuttle assembly (16) from printer (18).

b. Installation, P600

NOTE: Before continuing, clean mating surfaces of casting and bearing blocks.

1. Set shuttle assembly (16) in position on printer (18). Install antirotation arm (9) with notch toward shuttle using two screws (8).
2. Install and finger tighten two captive screws (15).
3. Install and finger tighten screws (13) on right bearing block and screws (10) on both bearing blocks.

1. FORMS THICKNESS LEVER
2. SCREW (2)
3. SCREW
4. TERMINAL LUG
5. STAR WASHER
6. SCREW (2)
7. SHUTTLE
8. BASE SUPPORT
9. CARD CAGE
10. SCREW (2)
11. STAR WASHER
12. POWER SUPPLY ASSEMBLY



-B-
P300

Figure 5-23. Shuttle Assembly Removal/Installation (2 of 2)

5–24. Shuttle Assembly_{–continued}

b. Installation, P600_{–continued}

4. Using two wrenches, partially tighten screws (10) and (15) on left side.
5. Repeat step 4 for right side screws (13) and (15).
6. Alternate between steps 4 and 5 until both sides are evenly tightened and shuttle is fully seated.
7. Connect four hammer connectors (10). Make sure that connectors align properly such that male pins do not show at either side.
8. Loosen two screws (10) and put comb bracket (11) back in place. Tighten screws (10). With comb bracket installed, verify that there is enough clearance between wires and top of shuttle to pass a pencil through the gap. If not, increase wire flex loop.

– CAUTION –

Torquing to incorrect value or without operating shuttle will damage bearings.

9. Torque bearing block screws.
 - (a) Operate shuttle continuously by loading paper, reconnecting ac power, setting POWER to ON, and cycling ON LINE switch on and off.
 - (b) Torque screws (14) to 36 in–lbs for machined bearing blocks; torque screw (14) to 8–10 in–lbs for die cast blocks. (The warning label on the shuttle frame will indicate the correct torque.)
10. Tighten cam cover plate screws. Install cam cover (5) with attached gasket (6) on housing (7). Tighten two captive screws (2).
11. Install hammer bank cover assembly and check platen gap (adjust if necessary) per paragraph 5–10.
12. Place ribbon drive in operating position per paragraph 3–4c, step 9.
13. Replace cover per paragraph 5–18b.

5–24. Shuttle Assembly_{-continued}

c. Removal, P300 (Figure 5–23, sheet 2)

1. Perform Steps 1 through 5 of paragraph 5–24a.

NOTE: All machined P300 shaft support blocks have linear bearings that do not require any adjustment, and the blocks must never be removed from the shuttle. Newer P300 shuttles have blocks made from castings that are thinner and lighter. These castings can have either a linear bearing that requires no adjustment or a sleeve bearing that requires the loosening and re-torquing procedure indicated on the warning label. P300 shuttles with sleeve bearings in the shaft support blocks have a warning label on the shuttle face that reads “Loosen torque screw in top of each bearing block before rotating shuttle to service position. Retorque to 3–5 in-lbs while shuttling.” The labelled instructions must be followed.

2. Place Forms Thickness Lever (1) in the open position.
3. If the shuttle has cast bearing blocks with sleeve bearings (see *NOTE* above), loosen the bearing clamp screws. On all other types, do not loosen the bearing block screws.
4. Remove two screws (2).
5. Remove screw (3), terminal lug (4), and star washer (5).
6. Loosen two screws (6) until shuttle (7) is free of base support (8).
7. Swing open card cage (9).
8. Remove two screws (10) and star washers (11). Slide power supply assembly (12) forward.

– CAUTION –

Do not pull on wires when disconnecting leads. Wires can pull out of fast-on connectors.

9. At capacitor C1 (13), disconnect two leads (14).
10. Remove two screws (15). Separate HDP1 (16) from card cage (9). Repeat for HDP3 (17).
11. Cut tie wraps as required. Carefully lift shuttle (7) clear of base support (8).

d. Installation, P300

1. Set shuttle (7) on base support (8) with antirotation arm (18) behind spring clip (19). Slip hammer bank cable (20) under left bearing block (21). Make sure cable is tied neatly and not pinched under bearing block.
2. Install terminal lug (4), star washer (5), and screw (3). Allow sufficient slack for service loop in ground wire (22).
3. Route hammer bank cable (20) to card cage (9).

– CAUTION –

When connecting to capacitor on power supply, make sure correct polarity is observed. Incorrect polarity will damage the printer.

4. Install two leads (14) on capacitor C1 (13).

5–24. Shuttle Assembly_{–continued}

d. Installation, P300_{–continued}

5. Place connector HDP1 (16) on card cage (9). Install two screws (15). Repeat for HDP3 (17).
6. Retie cable as necessary, to keep it clear of power supply chassis and card cage. Slide power supply assembly (12) back into position. Install two screws (10) and star washers (11).
7. Install screws (6, 2, and 1) finger tight.

NOTE: Alternately tighten left and right sides (steps 8 and 9) a little at a time until shuttle seats.

8. At left side of shuttle (7), simultaneously tighten screws (2 and 6). Verify cable (20) is neatly tied and moves freely under bearing block (21).
9. On right side of shuttle (7),tighten screws (2 and 6).
10. If the shuttle has cast bearing blocks with sleeve bearings (see *NOTE* on previous page), torque the bearing clamp screws to 3 – 5 in–lbs while the shuttle is cycled by alternately pressing the ON LINE switch.
11. Perform steps 12 through 15 of paragraph 5–24b.