B.4 MACHINE BRAKE ADJUSTMENT

Test and adjust the machine brake torque as follows:

1. Stop the escalator.
2. Remove the upper floorplate sections.
3. Plug the maintenance pendant into the upper inspection station socket.
4. Lock and tag out the main disconnect.
5. Remove the floor grating to gain access to the underslung machine space and climb down into the space.
6. Remove the center cap from the brake #1 (front).
   - Testing the brake torque will require using a torque wrench and 1-1/2" socket on the extended shaft of the gear reducer.
   - The brake torque setting for Size 250 brakes on these 20 HP motors is 164 Ft/lbs +/- 16 Ft/lbs (222.3 Nm +/- 21.7 Nm).
7. To test the brake torque on brake #2 (back), pull the hand release lever on brake #1 (front) to manually release that brake while you test the torque on brake #2.
8. To test the brake torque on brake #1 (front), pull the hand release lever on brake #2 (back) to manually release that brake while you test the torque on brake #1.
9. Release both brakes to measure the torque required to move the escalator due to friction.
   - Subtract the value from this step (#9) from the torque values achieved in step #7 or #8 to get the true brake torque.
10. If the torque on brake #2 must be adjusted, you must first remove brake #1:
    - Remove the four (4) bolts on brake #1 and remove brake #1.
    - Remove the four (4) bolts on the adapter plate and remove the adapter plate to expose brake #2.
11. To adjust the torque on either brake, unscrew that brake’s four (4) plug screws with their copper seal rings.
12. Use an Allen wrench to adjust all four setscrews to the desired dimension (see Dimension “a” graph).
13. Rotate the wrench clockwise to increase the brake torque, or counter-clockwise to decrease it.
14. Recheck the torque.
15. Re-attach brake #1 (if torque on brake #2 has been adjusted).
FOR TORQUE ADJUSTMENT:
ALL (4) SETSCREWS MUST BE SET TO EQUAL "a" DIMENSIONS.

Figure B-5  Mayr M250 Dual Brake Adjustments
B.4.1 Brake Wear Detector Adjustment

The brake wear detector must be checked after replacing the rotor. Test and adjust the brake wear detector on each machine brake as follows:

1. Manually release the brakes.
2. Loosen the two wear detector switch mounting bolts.
3. Position the switch assembly so that a .6mm feeler gauge inserted between the switch and the setscrew does not energize the switch.
4. Check that an .8mm feeler gauge inserted between the switch and the setscrew does activate the wear detector switch.
5. Tighten the two wear detector switch mounting bolts.

B.4.2 Brake Release Switch Adjustment

Inspect and adjust the brake release switch as follows:

1. With the power OFF to the brake, make sure the brake release switch is not operated.
2. Release the brake with the manual brake release handle.
3. Check that the brake release switch is activated.
Figure B-6  Brake Switch Adjustment
B.5 PAWL BRAKE ADJUSTMENT

Inspect and adjust the pawl brake as follows:

1. Remove the upper landing plates and attach the maintenance pendant.
2. Check the pawl brake for damage.
   - Replace any worn or damaged parts.
3. Check that the clearance between the pawl and ratchet’s outer diameter is at least 132mm (5.2”) when the shoe is placed.
   - If needed, adjust the clearance with bolt “A” (in Detail H) on the pawl brake shoe.
4. Release the pawl brake by removing the pawl brake shoe fastener.
5. Check the limit switch for the following:
   - The switch activates when the distance between the pawl and ratchet’s outer dimension is 55mm +/- 3mm (2.16” +/- .12”). See Detail J.
   - The pawl can reach the bottom of the ratchet tooth.
6. Reinstall the shoe fastener and check that parts are properly aligned.
   - Adjust the pawl brake assembly side to side so that the pawl shoe equally clears the chain inner link plates.
   - Verify the pawl overlaps the ratchet (side to side) with the pawl engaged.
Figure B-7  Pawl Brake Adjustment – Clearance
Figure B-8  Pawl Brake Adjustment