

PURPOSE:

To provide a procedure to test the functionality of an ER Mechanical Load Brake.

SCOPE:

This procedure is limited to ER Electrical Hoists with a factory installed Mechanical Load Brake, 5 Ton capacities and below.

BACKGROUND:

In some cases it is necessary or desirable to test the functionality of the Mechanical Load Brake in our ER Electrical Hoist product line. This EDOC establishes such a procedure.

PROCEDURE:

The following steps configure the hoist with the Brake Spring removed for testing the functionality of the Mechanical Load Brake. (Refer to diagram on page 3.)

Preparations:

1. Remove the four Socket Bolts (2) & Spring Wahers (3) and Fan Cover (1).
2. Remove the Snap Ring (4) and Fan Washer (5).
3. Remove the Fan (7); use wheel puller if necessary.
4. Remove Key (23).
5. Remove adjusting Nut (8), Lock Washer (9) and Spacer (10).
6. Remove four Socket Bolts (12) & Spring Washers (13).
7. Remove Motor Cover Assembly (11).
8. Remove Collar M (14).
9. Remove four Coned Disc Spring M (15).
10. Remove Brake Spring (17).
11. Reinstall Brake Drum Assy (16).
12. Reinstall four Coned Disc Spring M (15).
13. Reinstall Collar M (14).
14. Reinstall Motor cover Assembly (11) using four Socket Bolts (12) & Spring Washers (13).
15. Reinstall Spacer (10), Lock Washer (9) and adjusting Nut (8). Tighten adjusting

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Nut (8) to a middle position.

16. For purposes of this test it is not necessary to reinstall the Fan (7) or Fan Cover Cover (1).

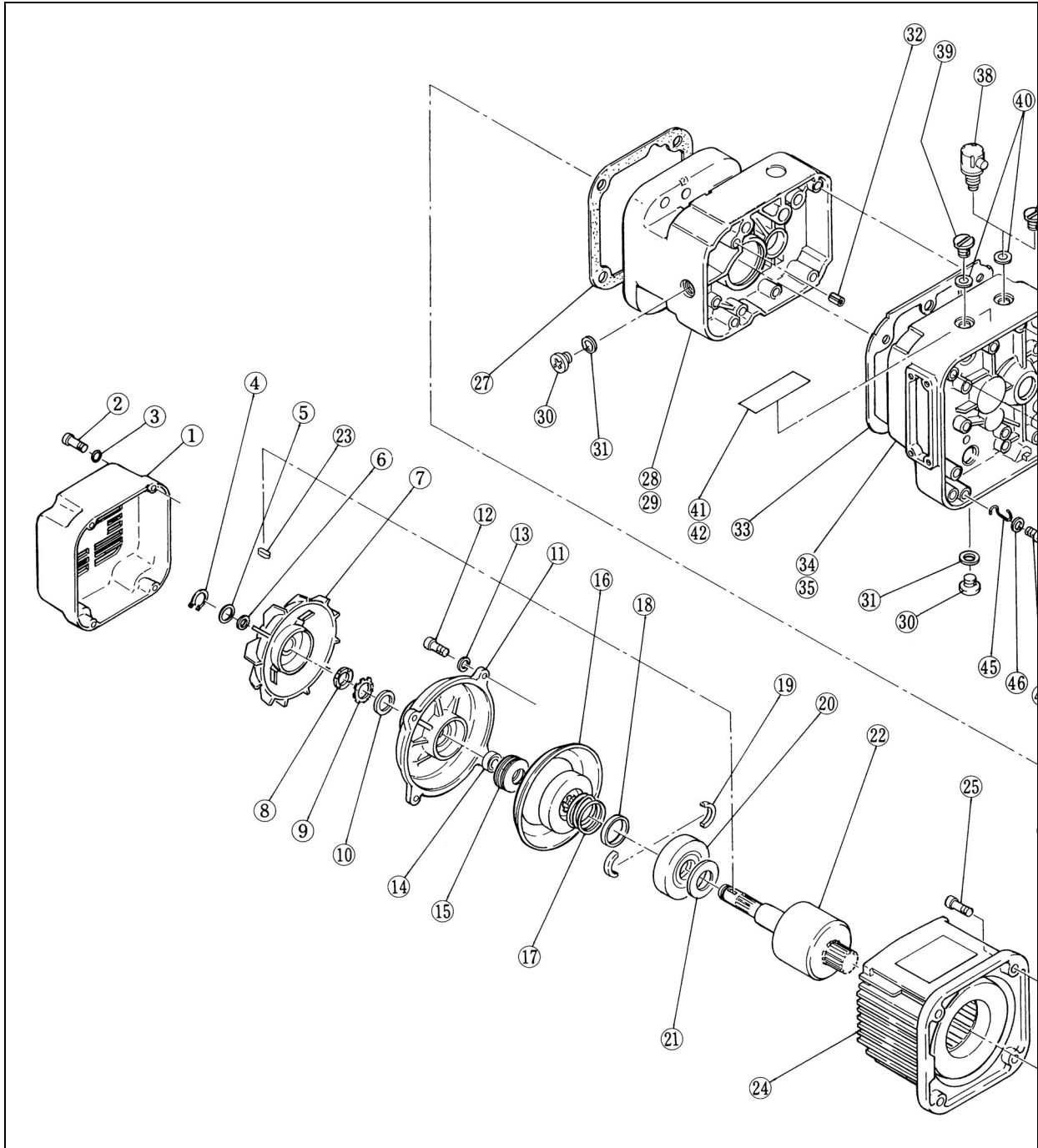
Test:

1. Arrange for the hoist to be powered.
2. Run the hoist up and down with no load on the hook to verify normal operation.
3. Apply a load to the hook of approximately 25% to 50% of the hoist rated capacity.
4. Criteria for the Mechanical Load Brake function – upon release of pendant button (up or down) the hoist should stop with minimal drift and hold the load.
5. If Mechanical Load Brake does not function within acceptable criteria, investigate and repair.

Restore Hoist:

1. Remove adjusting Nut (8), Lock Washer (9) and Spacer (10).
2. Remove four Socket Bolts (12) & Spring Washers (13).
3. Remove Motor Cover Assembly (11).
4. Remove Collar M (14).
5. Remove four Coned Disc Spring M (15).
6. Reinstall Brake Spring (17).
7. Reinstall Brake Drum Assembly (16).
8. Reinstall four Coned Disc Spring M (15).
9. Reinstall Collar M (14).
10. Reinstall Motor Cover Assembly (11) using four Socket Bolts (12) & Spring Washers (13).
11. Reinstall Spacer (10), Lock Washer (9) and adjusting Nut (8) in accordance with the procedure in Section 6.3 of the "Owner's Manual for Electric Chain Hoist ER and NER Series 1/8 Ton through 5 Ton capacity".
12. Reinstall the Key (23) and Fan (7).
13. Reinstall the Fan Cover (1), four Spring Washers (3) and Socket Bolts (2).
14. Perform Load Test in accordance with ASME B30.16. Upon successful completion of this load test, the unit can be re-commissioned.

END



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