

PURPOSE

The purpose of this EDOC is to outline the method for adjusting and calibrating the slip clutch (overload limiter) on the L5LB lever hoist with newer model adjustable slip clutch.

SCOPE

1. Calibrating Slip Clutch using a Dynamometer.

TOOLS REQUIRED

1. Dynamometer
2. Slip clutch adjustment tool
3. Socket wrench
4. Needle nose pliers

PROCEDURE

1. Before adjusting the slip clutch, first check to see that the clutch material is not worn to the point that it can no longer be adjusted.
 - a. Disassemble the free wheel mechanism, handle, cam guide, and spacer per section 6.2 of the LB owner's manual (Figure 1). Then remove the slip clutch mechanism (Figure 2).



Figures 1 and 2: Disassembly

- b. Measure the gap between the female thread and the select wheel (Figure 3). If the gap is smaller than 0.005" the slip clutch should be replaced.

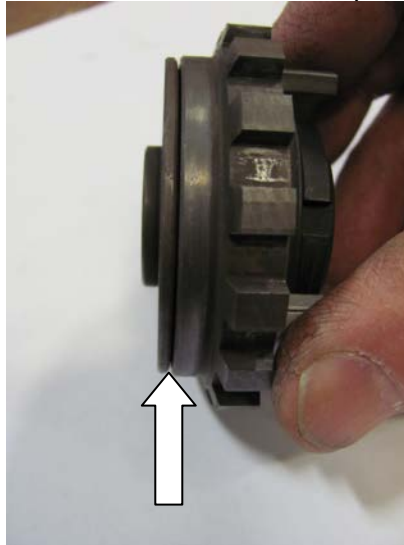


Figure 3: Gap between female thread and select wheel

2. If the slip clutch can be adjusted.
 - a. Reassemble the slip clutch and handle only.
 - b. Hang the LB hoist from a dynamometer and connect the bottom hook to a test load greater than the desired slip clutch setting. Ensure the test equipment is capable of supporting the loads that will be applied.



Figure 4: LB hanging from dynamometer

- c. Crank the lever in the lifting direction until the slip clutch is activated (slipping).
- d. Record the reading on the dynamometer (Figure 5).



Figure 5: Initial slip reading

- e. Determine if this slip reading is acceptable, too high, or too low.
 - i. If acceptable, release load, and reassemble the hoist per section 6.2 of the owner's manual. The adjustment is now complete.
 - ii. If it is too high or too low, adjustment is required. This is done by turning the slip clutch's lock nut with the slip clutch adjustment tool (Figure 6). Clockwise will increase the slip clutch setting, counterclockwise will decrease the slip clutch setting (Figure 7).
 - iii. **⚠ WARNING** Never loosen the adjusting nut more than 90 degrees (counter-clockwise).
 - iv. **⚠ WARNING** Never set the slip clutch value greater than 175% of the hoists rated capacity.
 - v. **⚠ CAUTION** Small rotations of the adjusting nut results in significant changes to the slip clutch setting.



Figures 6 and 7: Adjusting slip clutch lock nut with adjustment tool
vi. Return to step 2.b.

3. End.