R&M Materials Handling, Inc. 4501 Gateway Boulevard Springfield, Ohio 45502 PH: 937-328-5100 Frame 3 Hoist Gearcase Bolt-tightening Pattern Technical Bulletin November 2003

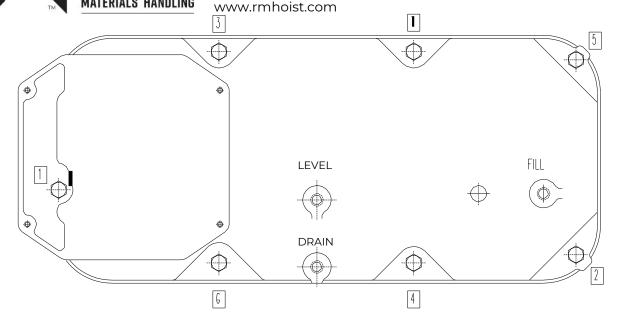


Figure 1 – Frame 3 Bolt-tightening Sequence

Step 1: Make sure mating surfaces of cover and case do not have any nicks or dings

<u>Step 2:</u> Use 5/8-11 hex head cap screw (grade 5) with 5/8" spring lock washers to bolt the cover to the gear case. Do not use plated bolts.

Bolt length	<u>Position</u>
1 ½"	1
2"	2 & 5
2 ½"	3, 4, 6 & 7

<u>Step 3:</u> Tighten the cover bolts to a torque of 45 ft-lbs in the sequence 1 through 7 as indicated in Figure 1.

Step 4: Retighten the cover bolts to a torque of 97 ft-lbs in same sequence as previous.

Step 5: Fill the gearcase with oil to the proper oil level.

Step 6: Test the hoist without load and with load.

Step 7: Check the tightness of the cover bolts at a torque of 97 ft-lbs.

Before removing the cover from the hoist-mounted gearcase, screw four 5" long studs (without bolt heads) into positions 3, 4, 6, and 7. This will help hold the cover during removal and align the cover during installation.