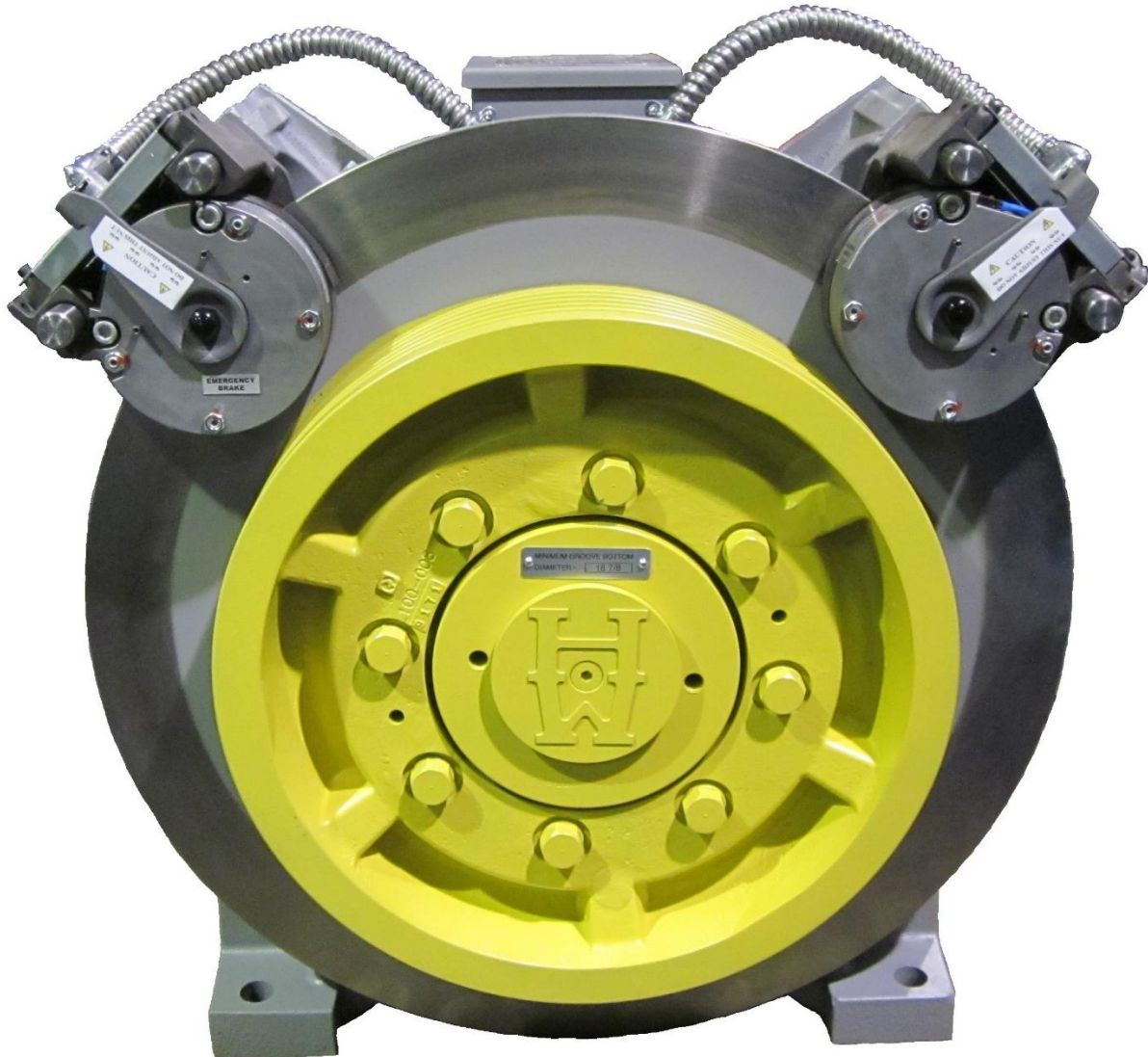

 A VANTAGE Company	Document Name	Date	Rev.	Page	Bulletin
	BACK BEARING REPLACEMENT – GL100, GL115, GL130 & GL170	3/30/20	A	1 of 5	1184

Hollister-Whitney Elevator Company, LLC

Replacement Manual – Back (Rear) Bearing GL100, GL115, GL130 and GL170 Machines



	Document Name	Date	Rev.	Page	Bulletin
	BACK BEARING REPLACEMENT – GL100, GL115, GL130 & GL170	3/30/20	A	2 of 5	1184

Special Tools Required

- 1) Small electric grinder suitable for small openings,
- 2) Brass hammer,
- 3) 1/2” cold chisel,
- 4) Bastard file, or other small file,
- 5) Emery Cloth or equal,
- 6) Bearing Heater or “toaster” oven capable of temperature control to at least 225° F,
- 7) Heat resistant gloves to handle the bearing after heating,

Parts You Should Receive

- 1) Sealed Double Row Cylindrical Roller Bearing; HW p/n GL100-089 (SKF #NNF 5014 ADB-2LSV/F9)
- 2) 3/4 - 10UNC x 2.5” Hex Head Screws (Rotor Locking Bolts), 3 pieces
- 3) 1/2 - 13UNC x 4” Square Headed Set screws (Jack Bolts), 3 pieces



BEFORE PERFORMING ANY MAINTENANCE ON THE MACHINE, TAKE ALL THE NECESSARY SAFETY PRECAUTIONS TO IMMOBILIZE THE CAR AND COUNTERWEIGHT DURING THE MAINTENANCE PERIOD TO PREVENT ANY UNINTENDED MOVEMENT THAT MAY RESULT IN INJURY OR DEATH!




BEFORE PERFORMING ANY MAINTENANCE ON THE MACHINE, REMOVE ALL ELECTRICITY FROM THE MACHINE AND BRAKES TO PREVENT ANY UNINTENDED MOVEMENT THAT MAY RESULT IN INJURY OR DEATH DURING THE MAINTENANCE PERIOD!

READ AND UNDERSTAND THE ENTIRE REPLACEMENT PROCEDURE BEFORE BEGINNING ANY OF THE STEPS OUTLINED BELOW. CONTACT HOLLISTER-WHITNEY WITH ANY QUESTIONS PRIOR TO BEGINNING THE BEARING REPLACEMENT.

Warranty and Repair Information

- All parts and equipment manufactured by Hollister-Whitney Elevator Company, LLC are guaranteed against defects in material and workmanship for a period of one (1) year from the date of shipment. Warranty covers only the repair or replacement of parts, F.O.B. our factory, upon determination by inspection at our factory that warranty is applicable. Equipment and components not of our manufacture are warranted only to the extent of the original manufacturer's warranty. Our warranty specifically does not include any other incidental liability or expense such as transportation, labor, and unauthorized repairs.
- Repair Information can be found at: <https://www.hollisterwhitney.com/support/>
 - Bulletin 1156 - Traction Sheave Replacement
 - Bulletin 1157 - Main Shaft Bearing Replacement
 - Bulletin 1158 - Mayr Brakes Service
 - Bulletin 1162 - Gearless Installation/Service Manual
- **For free technical support, contact Hollister-Whitney at 1-217-222-0466.** Technical support can also be reached at: [HW Product Support <productsupport@hwec.com>](mailto:productsupport@hwec.com)

 A VANTAGE Company	Document Name	Date	Rev.	Page	Bulletin
	BACK BEARING REPLACEMENT – GL100, GL115, GL130 & GL170	3/30/20	A	3 of 5	1184

- Before beginning bearing replacement, the counterweight will need to be landed and immobilized in the pit, and the car will need to be hung by a suitable hoisting system within the hoist way. All tension must be removed from the hoist ropes. Follow all company safety procedures to prevent unintended car movement prior to proceeding.
- Once the car has been suspended, and the tension has been removed from the hoist ropes, remove the traction sheave guard.
- If using a “toaster” oven to heat bearing, turn on “toaster” oven and set to no greater than 225° F
- Install 3 Rotor Locking Bolts provided, tighten but do not “Impact”. See Figure 1. This locks the rotor in place.

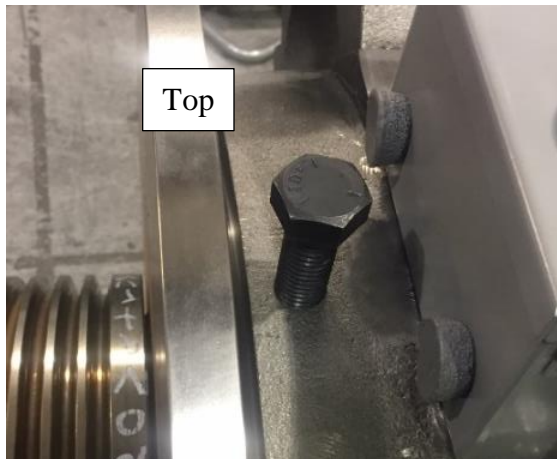
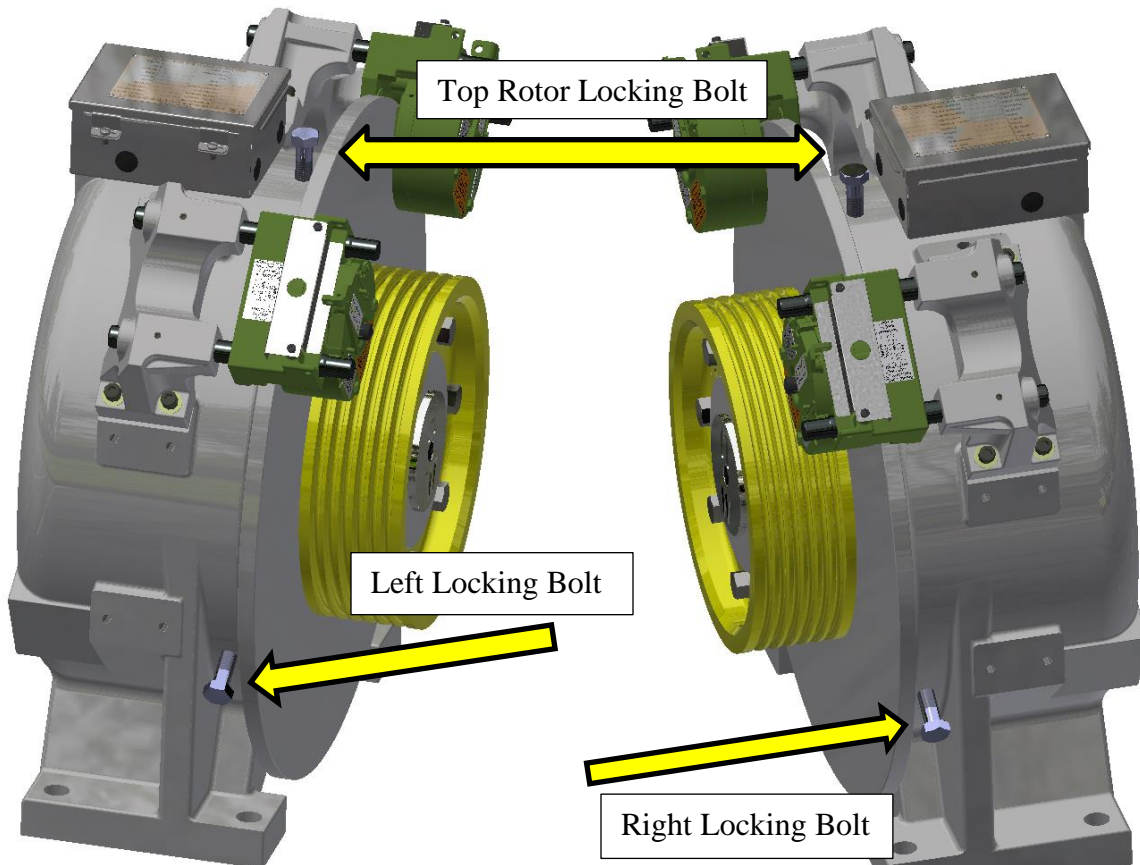



Figure 1: Rotor Locking Bolt Location

	Document Name	Date	Rev.	Page	Bulletin
	BACK BEARING REPLACEMENT – GL100, GL115, GL130 & GL170	3/30/20	A	4 of 5	1184

- Remove Encoder (See Figure 2)
 - Use 9/64” Hex Key (Allen) wrench to remove encoder tether from machine.
 - Use a 3 mm. Hex Key (Allen) wrench to remove encoder from shaft.

NOTE: ENCODER POLE POSITION MUST BE RELEARNED AFTER ENCODER IS REINSTALLED.



Figure 2: Encoder Removal

- Bearing housing removal (See Figure 3)
 - Remove 6 bolts with 3/8” hex key (Allen wrench).
 - Install 3 ½” square head Jack Bolts provided and jack the bearing housing out evenly
 - Remove bearing cap to expose bearing still mounted on the shaft. See picture below.

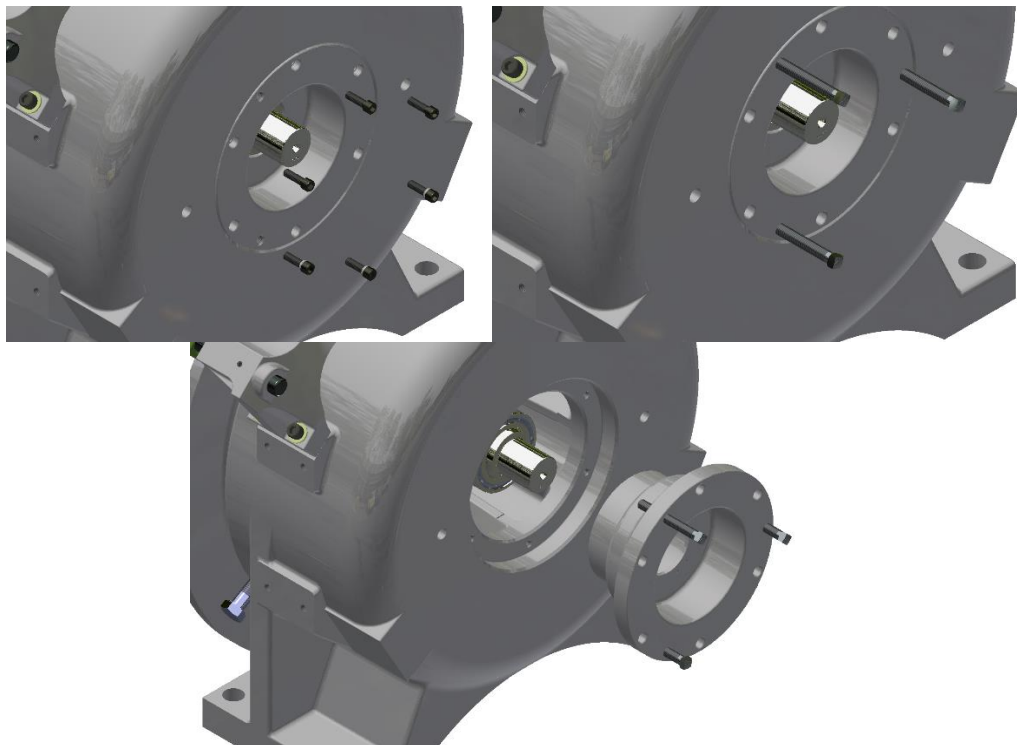



Figure 3: Bearing Housing Removal

	Document Name	Date	Rev.	Page	Bulletin
	BACK BEARING REPLACEMENT – GL100, GL115, GL130 & GL170	3/30/20	A	5 of 5	1184

- Remove bearing from shaft one of two methods can be used: With bearing puller, pull bearing from shaft. It may pull off just fine, but it also may be stubborn. If this is the case,
 - Continue to pull until bearing outer race pulls off the inner race, the rollers will fall out and the outer race will then be removed. Alternately, stuff rags around shaft inside machine; this will help prevent grinding debris from getting inside the machine onto the front bearing. With a small grinder, cut the outer race through in two places 180 degrees apart. The outer race and rollers can then be removed.
 - Now remove inner race from shaft. Remove the rags from inside the machine. Clean the grease from inner race, then with a small torch heat inner race until it is hot and loose on the shaft. once hot use a pair of large channel locks and pull off inner race. Alternately, leave the rags in place (or stuff rags around shaft as per the above) inside machine. With a small grinder, grind a groove almost through the inner race. Take care not to grind into the Main Shaft Place the Cold Chisel in the groove just ground into the inner race. Strike the chisel until the inner race pops apart. (Figure 10) Remove Inner Race, **BUT DO NOT DISCARD**. You may be using the Inner Race later as a Bearing Press.
 - If there are any marks on the main shaft that were made during the bearing removal process, use a small file, fine emery cloth or equal to remove any burrs or gouges that may be present.
 - Clean the shaft area where the new bearing will be, to remove any metal dust or fragments caused by the bearing removal and subsequent shaft cleanup.

NOTE: IF BEARING PULLS OFF BY HAND WITH NO HEAT, CONTACT HOLLISTER WHITNEY

- Install New Bearing
 - With a bearing heater, set temperature to 225° F. Alternately, a small “toaster” oven capable of temperature control to at least 225° F may be used. Place a piece of sheet metal in the previously warmed oven and place the bearing on top of the sheet metal. Allow the bearing to reach approximately 210° to 225°F. Care must be taken with an oven to not overheat the bearing.
 - With heat resistant gloves, remove bearing from oven and line up with end of shaft; it is important to make sure the bearing goes on as straight as possible to avoid the bearing sticking at an odd angle. The bearing may not go on all the way by hand. If so, use the inner race saved from the previous bearing and a brass hammer to tap the bearing into place.

NOTE: IT IS NOT UNCOMMON FOR SOME GREASE TO ESCAPE DURING THE INSTALLATION.

- Reinstall Rear Bearing Housing
 - Allow bearing to cool to room temperature.
 - Slide the housing over the bearing paying close attention to getting it started straight. Light taps with a soft hammer will help this process. Once properly aligned the housing will slip into place.
 - Reinstall Allen bolts and washers.
- Reinstall Encoder.

NOTE: ENCODER POLE POSITION MUST BE RELEARNED AFTER ENCODER IS REINSTALLED.

- Remove 3 Rotor Locking Bolts.
- Unhang the car thus returning the tension to the hoist ropes and follow all company safety procedures for the encoder to relearn the machine pole positions and ultimately to safely return car to service.