



TIGER LIFT TRACTION MACHINE GEAR BOX REPLACEMENT

1. Shut off power to controller.
2. Land counterweights, hoist car to obtain slack cables.
3. Remove motor from gearbox.
4. Loosen 2 set screws in outboard bearing eccentric collar.
5. Use hammer and punch to "unlock" eccentric, remove from shaft.
6. Remove 2 set screws on back side of reducer output hub.
7. Remove outboard bearing bolts, but leave bearing angle attached to the machine frame.
8. Remove bolts from the gearbox.
9. Remove bearing, shaft, sheave, and gearbox all at once.
10. Slide bearing from shaft.
11. Remove allen screws from sheave bushing. If necessary, use screws as jackbolts to push sheave off of bushing. Remove the sheave and bushing from the shaft.
12. Put new gearbox on base, finger tighten bolts. If bearing angle was removed, install it now, finger tight.
13. Put bearing on angle, finger tighten bolts.
14. Slide shaft (without key installed) through bearing and gearbox. Tighten gearbox bolts.
15. Tighten bearing angle and bearing bolts a little at a time while turning shaft.
16. Shaft should slide in and out and turn freely. If not, slightly loosen bearing and/or angle bolts, move bearing a bit, retighten bolts, and check for free sliding shaft. This will be a trial and error process, which might take 1 try or 30 tries to get it right. It is very important to repeat these steps until the shaft slides freely. Bearing and angle bolts must be very tight, with no binding on shaft.
17. Remove shaft, install key into keyway cut into shaft.
18. Put bushing into sheave, run allen screws in by hand until they just barely begin to draw bushing into sheave.
19. Slide shaft into gearbox from back. If there is not enough room, put key into keyway in gearbox. Slide shaft in through the outboard bearing first. Hold sheave and bushing in place, slide shaft through bushing and into gearbox.
20. Install eccentric collar on bearing, using hammer and punch to lock in place. Tighten set screws.
21. Using stubby allen wrench, tighten bushing bolts. Make sure the bushing is about 1/8" away from the hub of the gear box. Use the dummy drive shaft and a drill motor to spin the gearbox so you can turn the driver to get to the bushing bolts. It usually takes 4-5 times on each bolt to seat bushing square in the sheave. Both bolts will stay tight when this happens. You might use a hammer the last time or two.
22. If there is not a flat machined onto the setscrew end of shaft, drill a shallow hole into the shaft, going through the setscrew hole in the reducer (not the hole over the keyway) with a drill that will not touch the threads. Drill into the shaft about 1/8" with a 15/64" drill.
23. Install the new setscrew with the pointed end in this hole. Secure with locknut.
24. Install the other setscrew into hole over key slot, secure with locknut.
25. Run unit with drill and dummy shaft to make sure there are no binds.
26. Remove dummy shaft, make sure key comes out. Reinstall motor.
27. Let car down, check for proper operation.