

7.5T – 10T Diesel Drive RSW

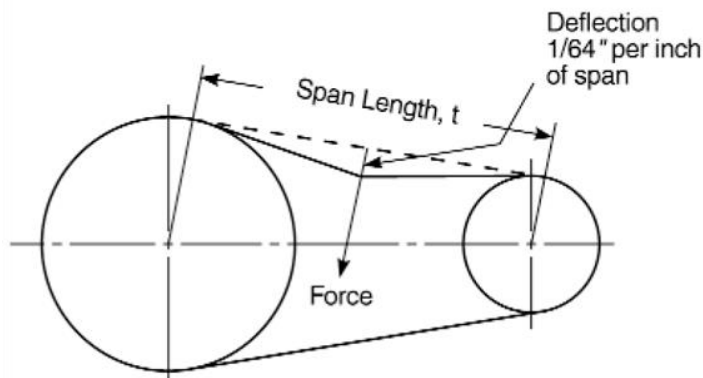
Belt Replacement / Tensioning Procedure

Theory:

V-Belts operate on friction. Too little tension results in slippage and excessive heat and wear. The proper tension for a V-belt is the lowest tension at which the belt won't slip or squeal under peak load. Always tension belts to the manufacturer's recommendations. Always ensure clean belts and pulleys during installation.

NOTE: Always ensure power to unit is locked-out prior to performing any work.

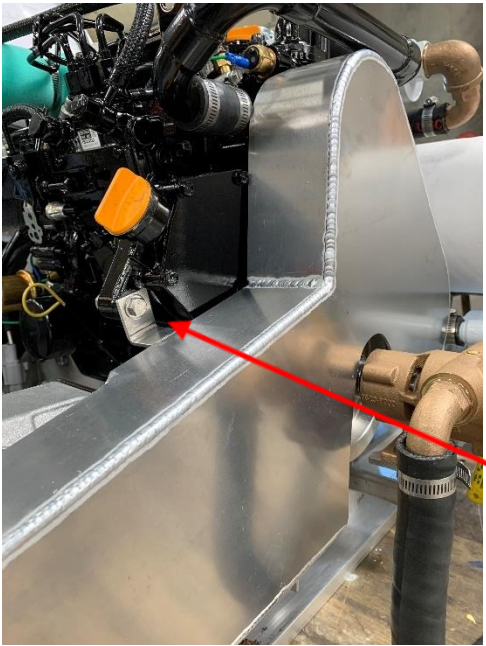
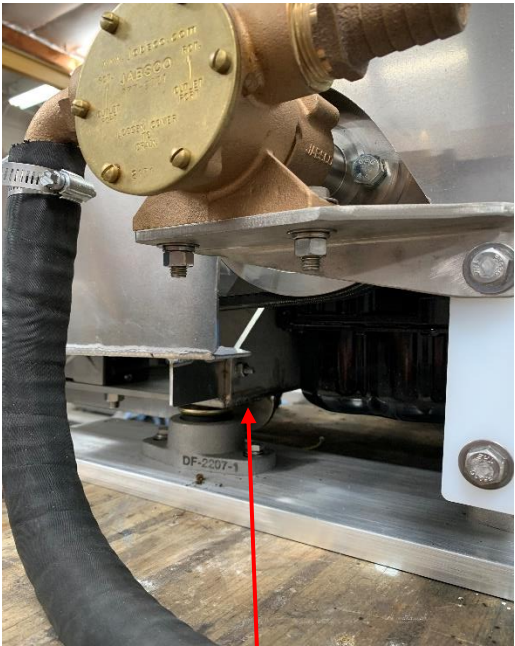
To tension belt, adjust the center distance until the belt appears taut. At the center of the belt span, apply a force perpendicular to the belt. Measure the force required to deflect the belt $1/64$ " per inch of span length. For example, an 8" span requires a $1/8$ " deflection. Compare the force required to the manufacturer recommended range.



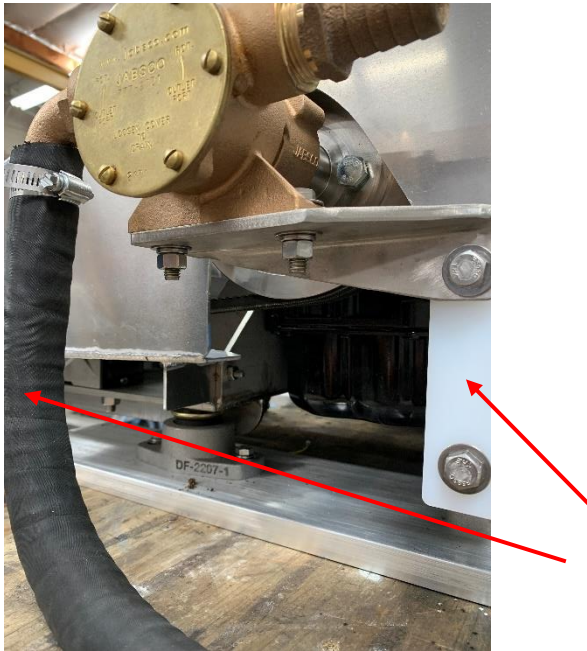
Alternately, adjust the center distance until the belt appears taut. Run the drive for about 15 minutes to seat the belt and apply full load. If the belt slips or squeals, apply more tension. When the drive is in motion, a slight sag on the slack side is normal. This method of belt tensioning, without measuring force or deflection, is inaccurate and can cause damage to equipment and/or personnel. Please follow manufacturer recommended procedures.

Generator Belt:

- 1) Remove Belt Guard
 - a. Remove 4 bolts at 3 locations:

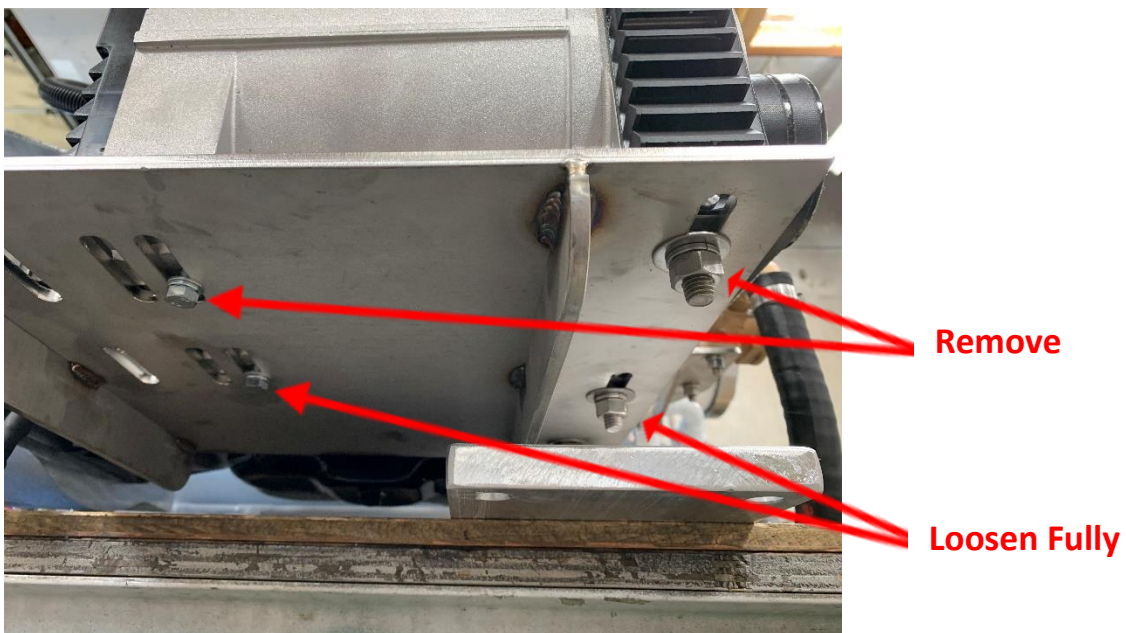


2) Remove condenser pump anti-rotation bracket and condenser pump discharge hose.

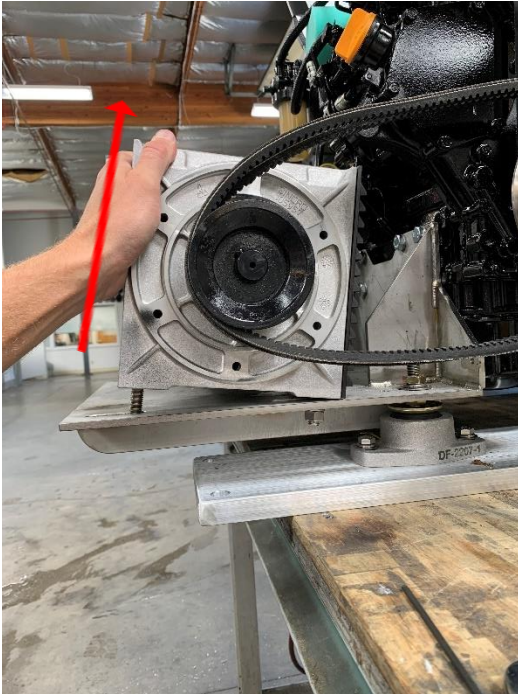


3) Loosen 4 generator mounting bolts

4) Remove 2 outboard bolts while leaving 2 inboard bolts in place, but loose.



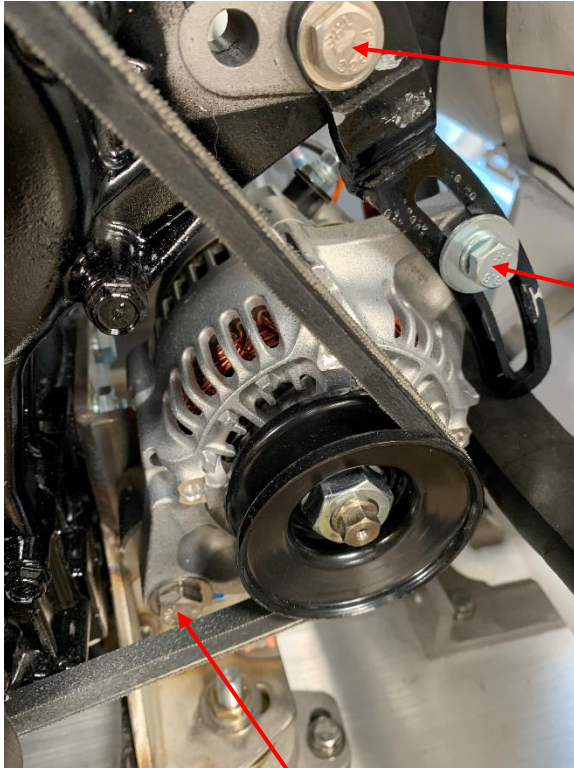
5) Tilt generator to remove / replace belts.



- 6) Place new belts in grooves and lower generator.
- 7) Replace bolts / nuts finger tight.
- 8) Pull tension on drive end of generator while tightening one drive end bolt.
- 9) Square generator pulley with drive pulley and tighten all bolts.
- 10) Check belt tension against belt manufacturer specifications
- 11) Re-install belt guard

Alternator Belt:

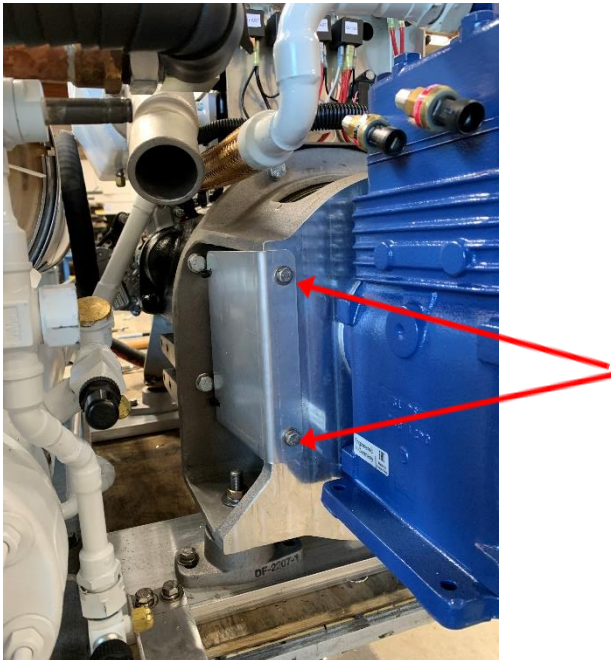
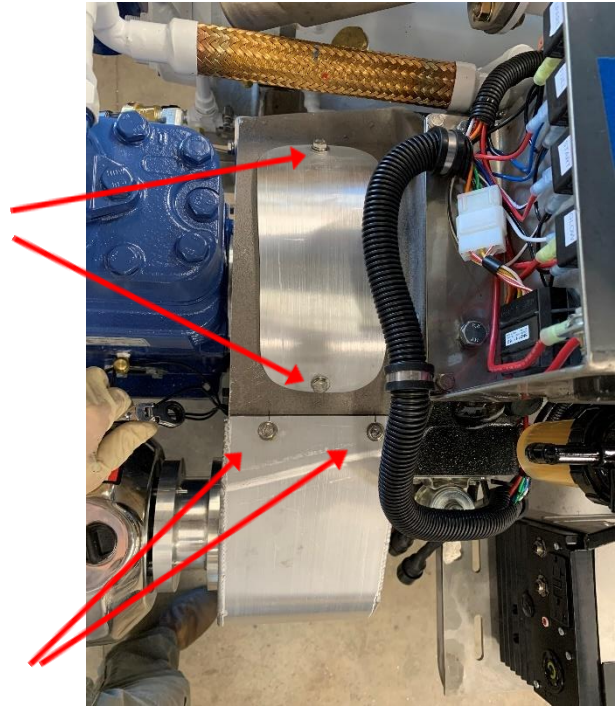
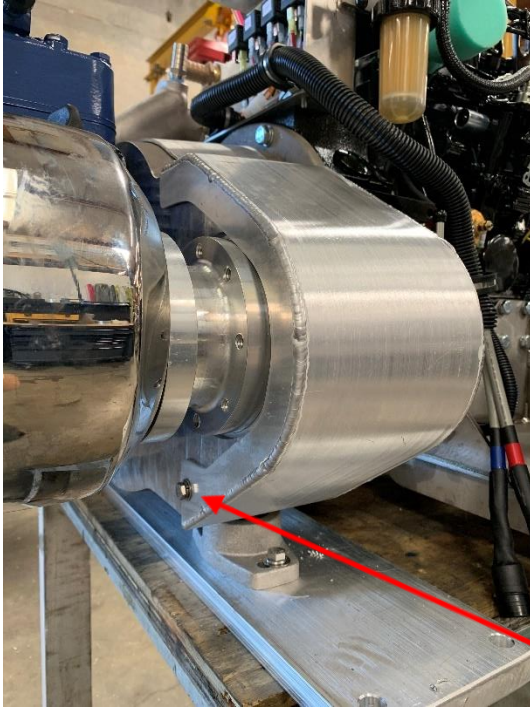
- 1) Remove generator belt as described above.
- 2) Loosen 3 bolts:



- 3) Remove old belt
- 4) Place new belt in pulley grooves
- 5) Re-tighten 3 bolts while applying downward force to alternator.
- 6) Check belt tension against belt manufacturer specifications.
- 7) Re-install generator belt following directions above.
- 8) Re-install belt guard.

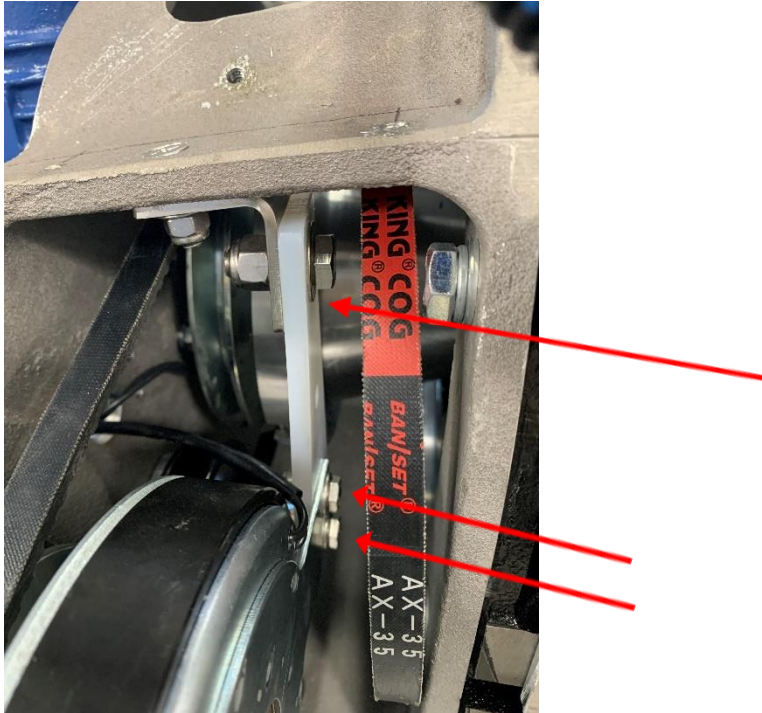
Circulation Pump Belt: Note: If spare belt is in place around the shaft, skip steps 2 and 4-7.

1) Remove 3 belt guards (7 bolts total)

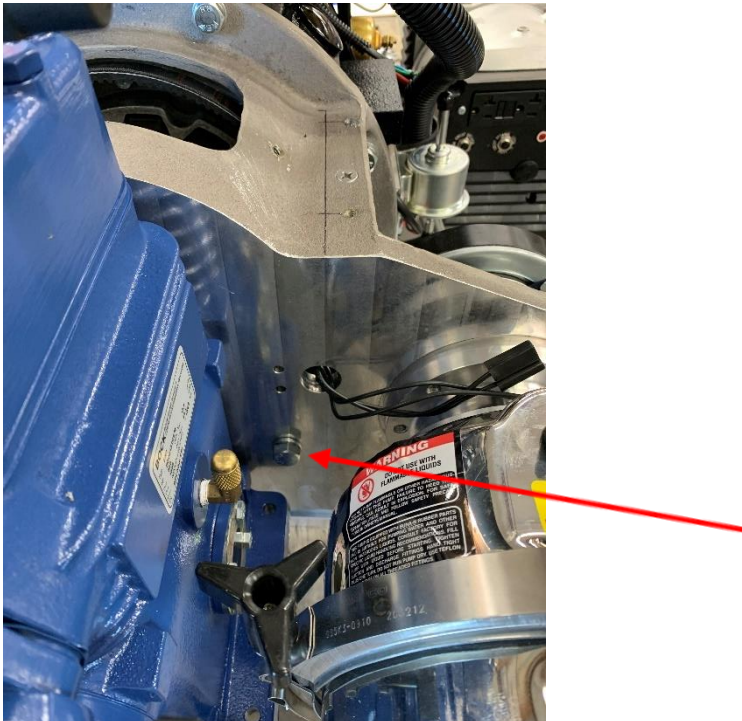


2) Partially remove clutch anti-rotation bracket

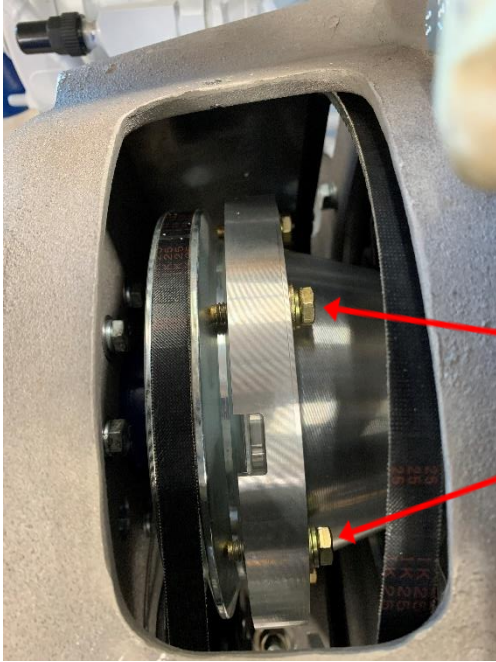
- a. Loosen top bolt
- b. Remove 2 lower bolts



3) Loosen tensioning idler arm bolt:

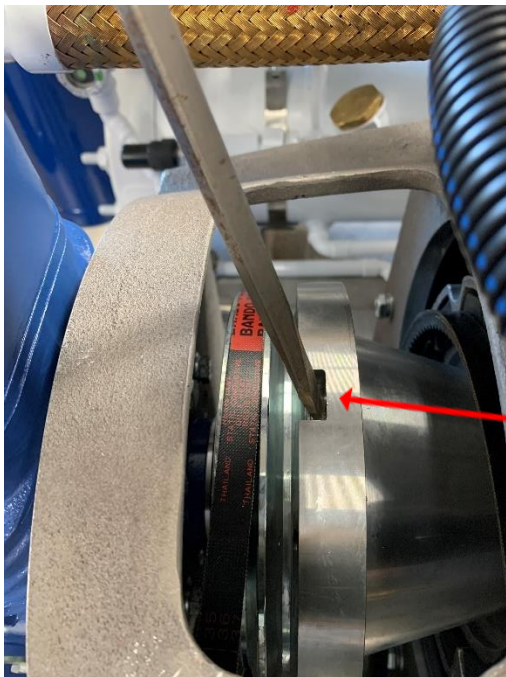


4) Remove shaft hub bolts (6)

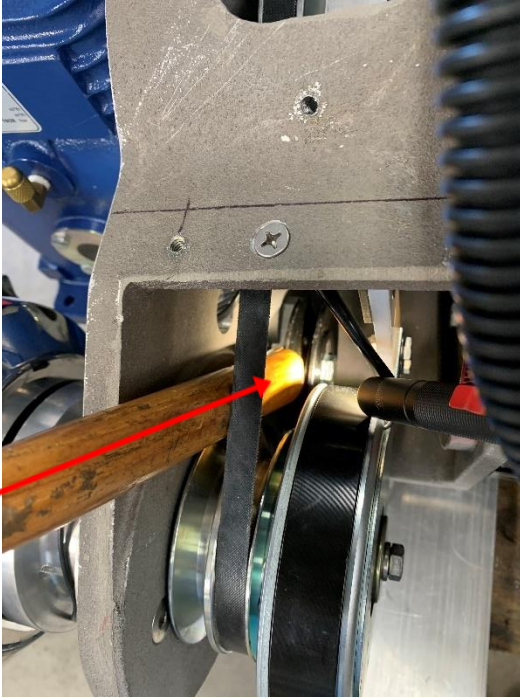


5) Split the hub by prying apart at the notched cut-outs:

6) Create a gap by pushing the shaft adapter toward the engine:



- 7) Remove old belt and replace with new belt by passing through the shaft adapter gap.
- 8) Re-install and tighten hub bolts.
- 9) Re-install and tighten clutch anti-rotation bracket.
- 10) Ensure belt is properly placed in pulley grooves.
- 11) Using a wood or plastic tool – press down on tensioning idler while tightening bolt.



- 12) Check belt tension against belt manufacturer specifications.
- 13) Re-install belt guards.

NOTE:

Whenever working on machinery, it is best practice to take note of the condition of all inclusive components. For the belt drive system, be sure to check wear on the pulleys, belts, and idler bearings. Also check for free rotation of water pumps while belts are off, and free rotation of clutches when disengaged.