

RBC SERVICES UPDATE

RBC Services
Division of McNish Corporation

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LARGE DRIVEN SPROCKET REPLACEMENT

Issue 1, 1990

From time to time, we have received a call regarding the large driven sprocket on the RBC. While replacing this part may take a little time, it can be done with relative ease.

QUESTION: The large driven sprocket on my RBC is worn and needs to be replaced. Do I have to lift the RBC from the tank to change it out?

ANSWER: No.

Our inventory includes a split driven sprocket designed to be applied in two sections. These sprockets come with different tooth counts and sizes from no.120 up to no. 200. (No. 160 is stocked)

The job will take several hours, but other than the cost of the part itself, there is no need to cover the expense of heavy equipment or a crew of men.

Just in case you need to replace a large sprocket, here is what you need to do the job.

Always remember, **SAFETY FIRST.**

EQUIPMENT:

- (1) Split Sprocket With Patch Kit.
- (1) Gantry, Mobile Floor Crane, Fork Lift, Back Hoe, etc. (The sprocket being removed weighs up to 750 lbs.)
- (2) Heavy Duty C-Clamps

- (2) Chains, Cable Chokers or Slings capable of handling the load.
- (1) Oxygen-Acetylene Torch
- (1) Sledge Hammer
- (1) 1" Drift Pin and/or Pin Hammer
- (1) 3/4" Breaker Bar w/Cheater or Impact Wrench
- (1) 1-1/2" Socket
- (1) **Water Hose Standing By And Ready**

RECOMMENDED PROCEDURES:

- 1.) Shut down the RBC and lock out the power.
- 2.) Lower the water level in the RBC basin by 3 ft. (This is done to remove the chain case bottom.)
- 3.) Remove the top half of the chain case and withdraw the oil from the chain case bottom, then remove the chain case bottom.
- 4.) Adjust the drive package to loosen the chain. Break and remove the chain.
- 5.) **Remove the (2) dowel pins from the driven sprocket first, being careful not to drop them into the tank.**
- 6.) Remove the (8) bolts.
- 7.) Knock the sprocket off from the flange onto to the adjacent round surface, being careful not to slide it down to the journal.

CAUTION: Provide a protective cover over the media, such as a of sheet plywood, to protect it from hot slag. Prior to cutting the sprocket, be sure to have a water hose hooked up, turned on, ready to go and at hand. A fire extinguisher will not do.

- 8.) Cut the sprocket from the 12-0'clock position to the center.
- 9.) Rotate the sprocket 180 degrees.
- 10.) Secure the c-clamps on the sprocket a safe distance on either side of the next cut line. Attach chain, cable, etc., from the clamps to which ever device is being used to lift the sprocket and take up the slack.
- 11.) Complete the next cut, remove the halves and set aside.
- 12.) Clean any debris from the sprocket flange mounting surface.
- 13.) Apply the new sprocket one half at a time, aligning the proper holes, with the chamfer on the bore to the inside and apply the bolts.
- 14.) Apply the patch plates, spring pins and secure.

- 15.) Once the sprocket in properly placed, torque the bolts to 220 ft.lbs.
- 16.) Check the alignment of the drive sprocket and adjust if necessary.
- 17.) Re-apply the chain and bring to proper tension.
- 18.) Reinstall the chain case bottom, being careful to properly place the seals and add oil to a level where the chain will bathe during rotation.
- 19.) Apply the top half of the chain case.
- 20.) Bring the water back up to the operating level. If the RBC has been out of service for more than 6 hours, refer to RBC Services UPDATE Issue 1, 1989, RBC RESTART PROCEDURES prior to putting the unit back on line under power.

As always, if you have any questions regarding this or any other RBC repair procedures, please do not hesitate to give me a call.