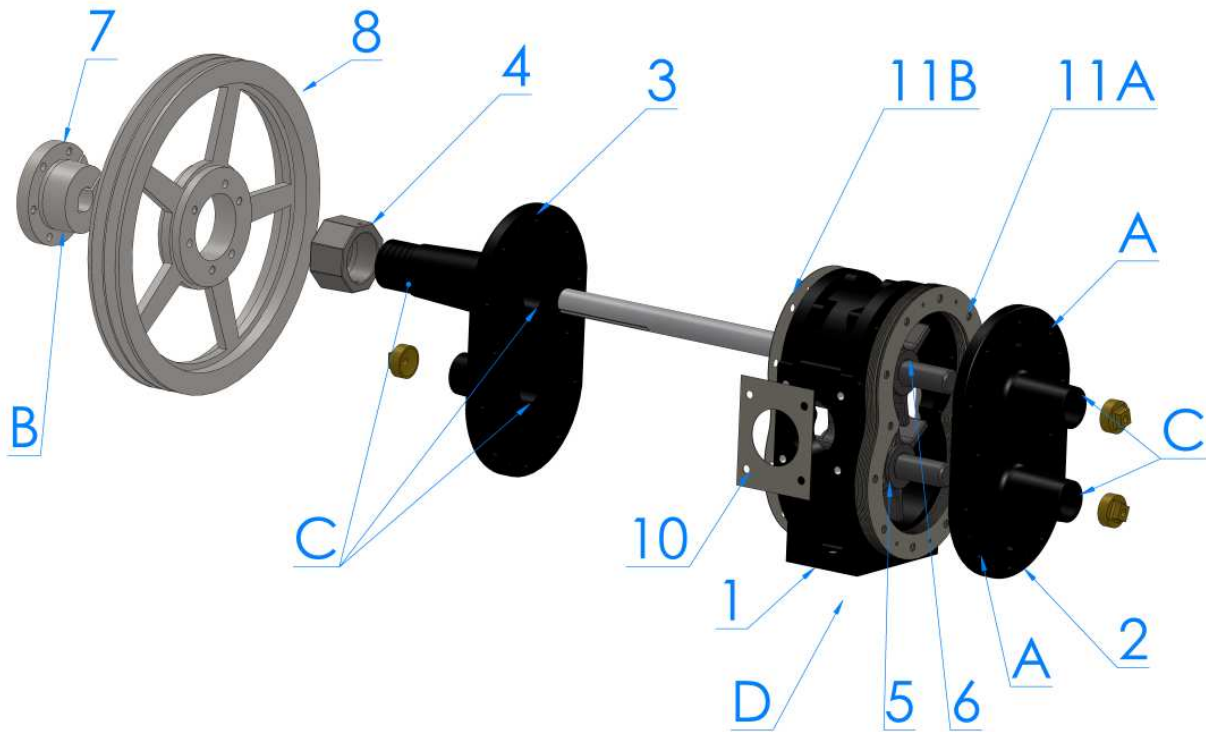


# PUMP MAINTENANCE



ITEM NO.	PART NO	DESCRIPTION	QTY.
1	52002	Center Case	1
2	52052	Back End Plate	1
3	52051	Front End Plate	1
4	55090	Octagonal Nut	1
5	53001	Idler Gear	1
6	53002	Drive Gear	1
7	28062	Bushing - 1 1/8 QD SF	1
8	28026	Sheave 2-5v 15.0 QD SF	1
9	28092	Key, .375SQ X 2.0"	1
10	55021	Flange Gasket	2
11	55020	Center Case Gasket	UP TO 10
12	55024	Packing Material	3
13	55001	Bushing 2 1/2" - Standard	5
14	55071	End Plug With Zerks	3
15	55061	Drain Plug	2
16	41253	7/16"-14 X 1 1/4" 18-8 SS Hex Cap Screw	2
17	41252	7/16"-14 X 1" 18-8 SS Hex Cap Screw	8

### PERIODIC REMOVAL OF CENTER CASE GASKETS TO IMPROVE PUMP PRESSURE

The pump will lose pressure with use over time. Removal of gaskets can restore pump performance.

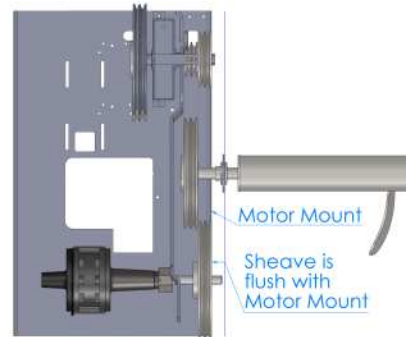
1. Turn off motor and remove the key during maintenance.
2. Remove the 12 hex cap screws from Back End Plate (2)
3. Using 2 of the cap screws, push the Back End Plate off the Center Case (1) by inserting the screws into the alternate holes (A) in the Back End Plate.
4. Remove one or more Center Case Gaskets (11A) from Center Case. If Center Case Gaskets are fused together, replace with new gaskets.
5. Replace Back End Plate and tighten screws to 30ft lbs.
6. Test the pump for proper adjustment by manually turning Sheave (8) on drive gear by hand. The Sheave can be accessed by removal of the sheet metal behind the pump or the Access Panel below the Pump Control Lever. If the pump turns freely, remove more gaskets. If unable to turn the pulley, put an additional gasket back into the pump. Repeat step 4.

### PUMP REBUILD AND GEAR REPLACEMENT

Pumps can typically be rebuilt one time before wear on the Center Case requires replacement of the pump.

1. Turn off motor and remove the key during maintenance.
2. Remove the 12 hex cap screws from Back End Plate (2)
3. Using 2 of the cap screws, push the Back End Plate off the Center Case (1) by inserting the screws into the alternate holes (A) in the Back End Plate.
4. Remove Sheet Metal panels behind pump to allow access to maintenance area.
5. Remove the 3 hex cap screws from the Bushing (7) and insert them into the three alternate holes (B), and push the Sheave (8) away from the Bushing (7). Apply equal pressure to the three screws to avoid cracking the Bushing. Remove Sheave and Bushing from drive shaft and pull Key out of slot on shaft.

6. Loosen the set screws on the Octagonal Nut (4) and remove.
7. Remove the Drive Gear (6) and Idler Gear (5) sliding them out of the Center Case.
8. Check the 5 bronze bearings (C) in End Plates (2 & 3) for excessive wear. If bearings are worn, remove pump from the machine. Press out and replace bearings.
9. Replace Drive and Idler Gears.
10. Replace Graphite Packing Rope inside the Octagonal Nut. Return Nut to Drive Gear shaft and tighten. After running water through the pump if may be necessary to tighten this Nut
11. Replace Center Case Gaskets (11A) with 9 new Center Case Gaskets.
12. Replace Back End Plate and tighten screws to 30ft lbs.
13. Grease the pump with 3 shots for each of the three short necks and 5 shots in the longer drive shafts of the pump.
14. Position pump belt, Bushing, Key and Sheave on drive shaft. The tank side face of the Sheave should be located so that it lines up with the back face of the motor mount when all 3 of the Bushing Hex cap screws are tightened. Proper torque is 25ft lbs. The Bushing will pull the Sheave towards the side Bushing with the Hex cap screws so be sure to allow for this movement when aligning the Sheave with the back of the motor mount.
15. Check to insure that the Sheave is properly aligned with back side of motor mount. If not, remove and repeat step 14.
16. Test the pump for proper adjustment by manually turning Sheave (8) on drive gear by hand. If the pump turns freely, remove more gaskets. If unable to turn the pulley, put an additional gasket back into the pump. Repeat step 11.
17. Replace all sheet metal in its original position to insure safety.



### PUMP REPLACEMENT

Pumps can typically be rebuilt one time before wear on the Center Case requires replacement of the pump.

1. Turn off motor and remove the key during maintenance.
2. Remove Sheet Metal panels behind pump to allow access to maintenance area.

3. Remove the 8 Hex cap screws that hold the plumbing to the pump sides.
4. Remove the 3 hex cap screws from the Bushing (7) and insert them into the three alternate holes (B), and push the Bushing away from the Sheave (8). Apply equal pressure to the three screws to avoid cracking the Bushing.
5. Remove the 2 hex cap screws (D) from underside of the Pump.
6. Remove Old Pump.
7. Place the Bushing, Key and Sheave from the old pump onto the drive shaft of the new pump and set pump on motor mount.
8. Secure new Pump (part no. 50101) to the motor mount with provided hex cap screws. Insure that the pump drive shaft is perpendicular to the back side of the motor mount. After pump is properly positioned adjust the retaining bolt located on the post behind the left side of the pump so the bolt head touches the neck of the Front End Plate. Lock bolt in place.
9. Position pump belt, Bushing, Key and Sheave on drive shaft. The tank side face of the Sheave should be located so that it lines up with the back face of the motor mount when all 3 of the Bushing hex cap screws are tightened. Proper torque is 25ft lbs. The Bushing will pull the Sheave towards the pump so be sure to allow for this movement when aligning the Sheave with the back of the motor mount.
10. Check to insure that the Sheave is properly aligned with back side of motor mount. If not, remove and repeat step 9.
11. Replace all sheet metal in its original position to insure safety.

### PUMP PARTS REPAIR LIST

<b>PART NO</b>	<b>DESCRIPTION</b>	<b>QTY.</b>
50101	TURFMAKER STANDARD PUMP	
55021	FLANGE GASKET	
55020	CENTER CASE GASKET	
55024	PACKING MATERIAL	
55001	BUSHING 2 1/2" - STANDARD	
53001	IDLER GEAR	
53002	DRIVE GEAR	

55040

REBUILD KIT	
FLANGE GASKET	2
CENTER CASE GASKETS	10
PACKING MATERIALS	3
BUSHING 2 1/2" - STANDARD	5