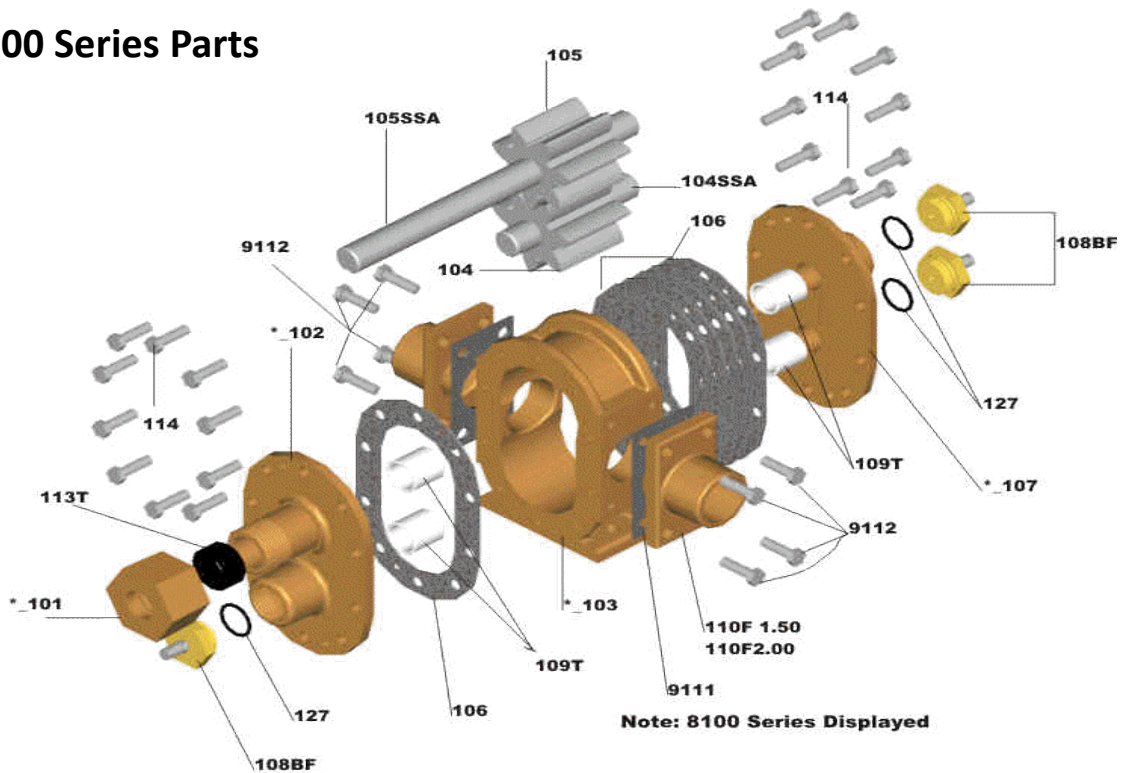
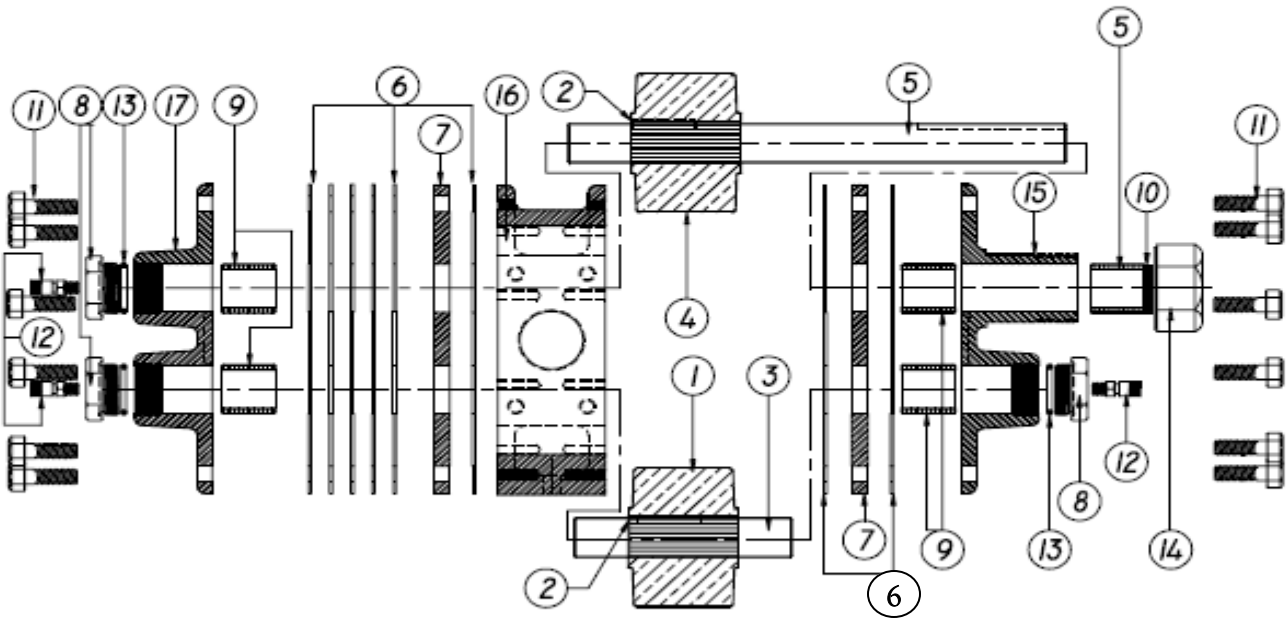


8100/9100 Series Parts



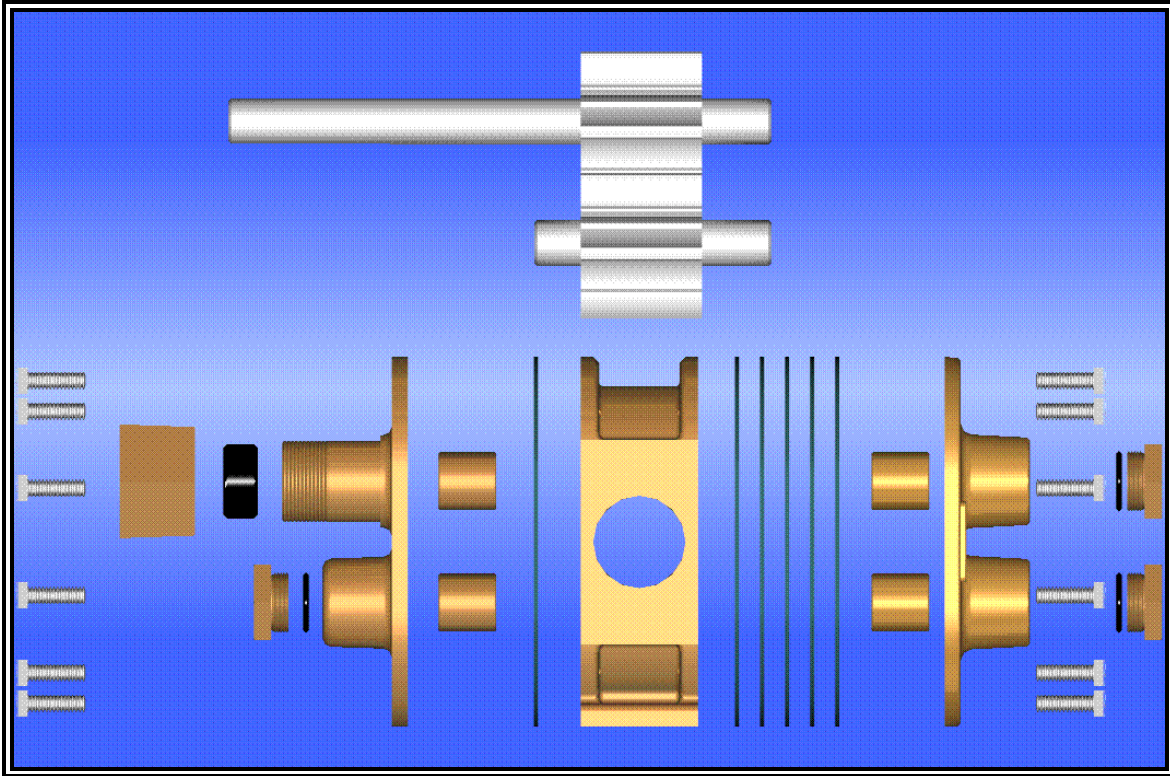
No	Stock No.	Description	Qty	No	Stock No.	Description	Qty	No	Stock No.	Description	Qty
1	104	Gear, Idler	1	8	108	End Plug	3	14	-101	Nut, Packing	1
2	104K	Key Gear	2		108BF	End Plug W/Ftg. Opt. ¹	(3)	15	-102	Plate, Front	1
3	104 SSA	Shaft, Idler	1	9	109B	Bushing, Bronze	4	16	-103	Case, Center	1
4	105	Gear, Drive	1	10	113G	Packing, Graphite	1	17	-107	Plate Back	1
5	105 SSA	Shaft, Drive	1	11	114	Bolt, End Plate	20		110F 1.50	Flange Adapter	**
6	106	Gasket, Plate	8	12	116	Fitting, Grease Opt. ¹	(3)		110F 2.00	Flange Adapter	**
7	107 HP	Wear Plate **	2	13	127	O'ring	3		9111	Flange Gasket	
						** Optional			9112	Bolt Flange	

• Use 8 for first number if Alum/Bronze Use 9 for first number if Cast Iron



Options:

Stock No.	Description	Stock No.	Description	Stock No.	Description
109T	Bushing, Teflon	122	Nut, Bypass	104 BG	Bronze Gear
113T	Packing, Teflon	123	Screw, Adj. Bypass	104 CG	Steel Gear
107 HP	Plate, Hard Wear	124	Spring, Bypass	104 UG	Urethane Gear
* -107A	Plate, Bypass Complete	125	Ball, Bypass	104 VG	Viton Gear
* -1	Plate, Bypass	126	Cap. Bypass	81/91 SS EXT	Shaft Extension

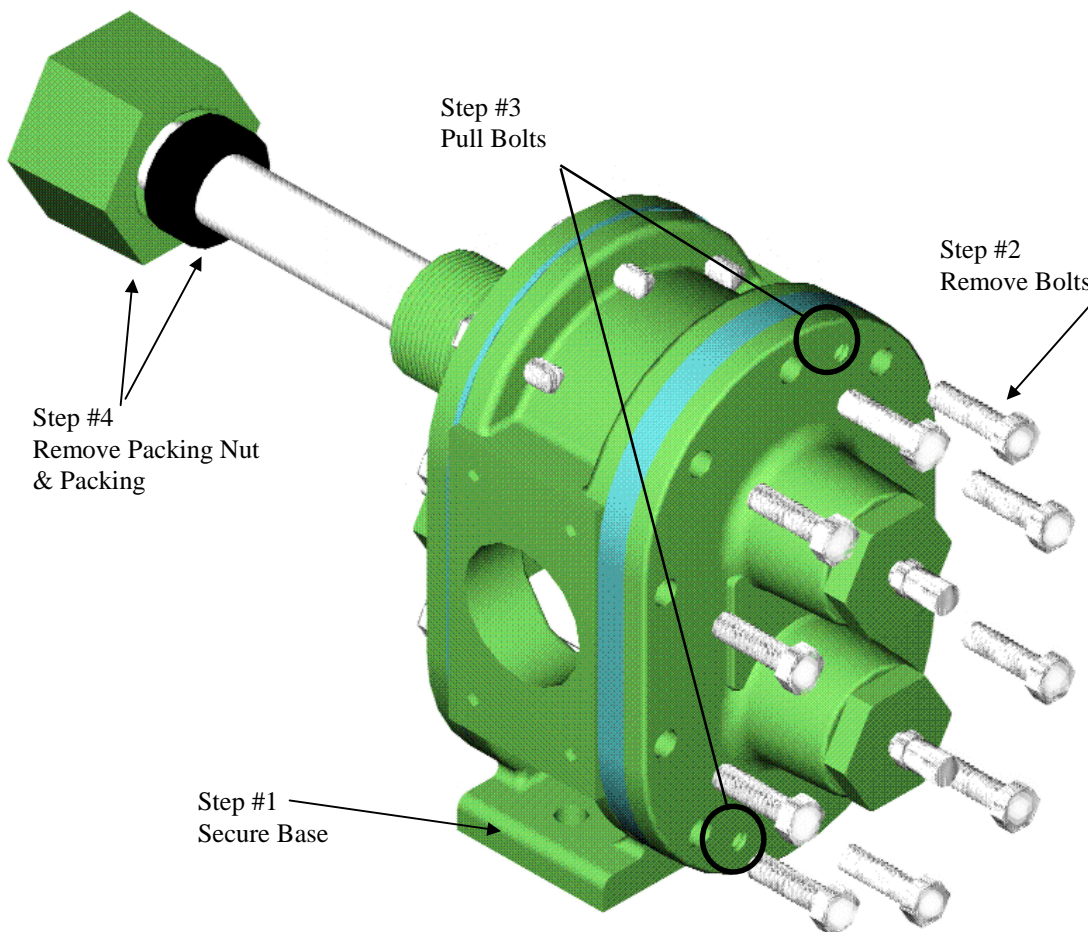


8100/9100 Series Bowie Pumps

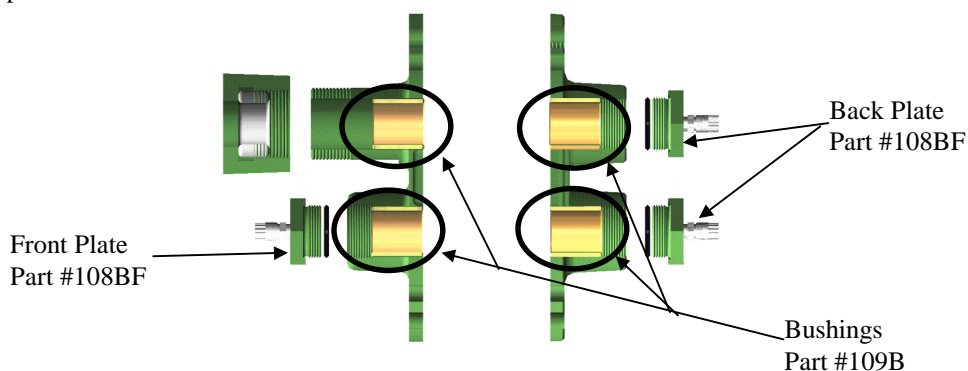
	<i>Page</i>
Disassembly	26
Assembly	27
Parts Stock Numbers	28
Footprints	29

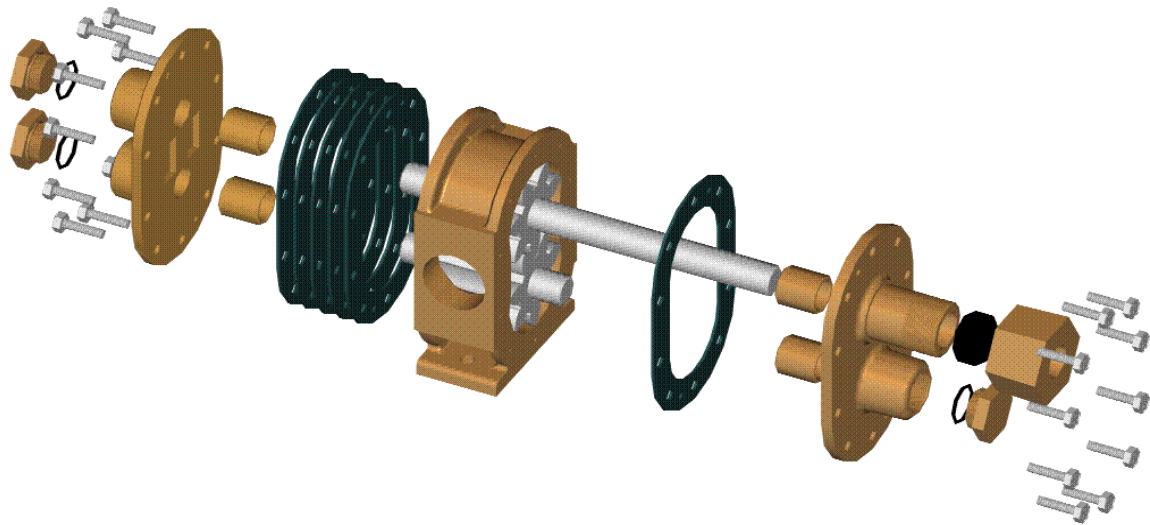
DISASSEMBLY OF 8100/9100 SERIES PUMPS

1. Secure base of pump to table or workbench.
2. Remove ten (10) 3/8" x 1 1/4" back plate bolts that attaches back plate to center case.
3. Insert two (2) 3/8" x 2" pull bolts into threaded holes. Remove end plate by sequentially turning the pull bolt so that the plate move evenly on top and bottom to avoid binding on the bushings and shafts.
4. Remove packing nut and packing on drive shaft.



5. Carefully remove drive and idler gears.
6. To remove front plate, remove ten (10) 3/8" x 1 1/4" front plate bolt that attached the front plate to the center case. Follow steps of line 3 to remove front plate.
7. Remove the two end plugs from the back plate and the one end plug from the front plate.
8. There is access now for removal of the bushings (part #109B), two in the front plate and two in the back plate.





ASSEMBLY OF 8100/9100 SERIES BOWIE PUMPS

Prior to assembly of pump make sure all parts are clean and free from foreign objects.

1. Install end plugs with o'rings into both the front [part no's. 108, 127] and back plates [part no. 8107 or 9107].
2. Attach front plate [part no. 8102 or 9102] to center case using one [part no. 106] gasket between plate and center case. Affix bolts finger tight.
3. Solidly secure center case. Lightly oil both the idler and drive gears prior to installation into the center case.
4. Insert idler and drive gears into center case and front plate.
5. Use seven [part no. 106] gaskets between back plate [part no. 8107 or 9107] and center case. Attach back plate to center case with bolts finger tight.
6. Tighten bolt numbers 1 & 2 on both the front and back plates.
7. Oil gears through the input/discharge port
8. Turn the gears several turns with the drive shaft to seat the gears in place. When the gears are turning smoothly tighten bolt numbers 3 & 4 on both the front and back plates. Turn the gears several turns with the drive shaft to assure smooth operation. If the gears turn smoothly then continue to tighten the bolts in the sequence as shown in diagram to 22-25 ft. lbs. Otherwise loosen the bolts and repeat steps 5 & 7.
9. Install graphite packing [part no. 113G] into packing nut [part no. 8101 or 9101].
10. Install packing nut over drive shaft and turn until firm, not tight. Note: over tightening can cause damage
11. Use tie wire to secure packing nut in place.
12. Lubricate at all grease fittings. Three are located on end plugs, and one on over front plate drive shaft gland. Grease front plate drive shaft gland until grease starts to come out the packing.

