

PARTS LIST / 6663XX-XXX-C FLUID SECTION

★ 637433-XX Fluid Section Service Kits include: Balls (see Ball Option, refer to -XX in chart below), Diaphragms (see Diaphragm Option, refer to -XX in chart below), and items 2, 3, 19 and 196 (listed below), plus 93706-1 Key-Lube grease packet (page 6).

SEAT OPTIONS 6663XX-XXX-C				BALL OPTIONS 6663XX-XXX-C											
★ "21"				★ "22" (3-1/4" dia.)											
-XXX	Seat	Qty	[Mtl]	-XXX	Seat	Qty	[Mtl]	-XXX	Ball	Qty	[Mtl]	-XXX	Ball	Qty	[Mtl]
-1XX	95674	(4)	[A]	-8XX	94114	(4)	[SH]	-X2X	94103-G	(4)	[B]	-XCX	94103-C	(4)	[H]
-2XX	94113	(4)	[SS]	-9XX	94104-C	(4)	[H]	-X4X	94103-T	(4)	[T]	-XEX	94103-A	(4)	[Sp]
-4XX	94621-K	(4)	[K]	-EXX	94104-A	(4)	[Sp]								
-5XX	95678	(4)	[C]	-GXX	94104-G	(4)	[B]								

DIAPHRAGM OPTIONS 6663XX-XXX-C													
-XXX	★ Service Kit -XX = (Ball) -XX = (Diaphragm)	★ "7"			★ "8"			★ "3" (1/8" x 1" o.d.)			★ "19" (3/16" x 5" o.d.)		
		Diaphragm	Qty	[Mtl]	Diaphragm	Qty	[Mtl]	"O" Ring	Qty	[Mtl]	"O" Ring	Qty	[Mtl]
-XX2	637433-X2	96475-G	(2)	[B]	-----	---	---	Y325-210	(2)	[B]	Y325-350	(4)	[B]
-XX4	637433-X4	96476-T	(2)	[T]	96477-A	(2)	[Sp]	Y328-210	(2)	[T]	Y328-350	(4)	[T]
-XX9	637433-X9	96475-C	(2)	[H]	-----	---	---	Y327-210	(2)	[V]	Y327-350	(4)	[V]
-XXB	637433-XB	96475-A	(2)	[Sp]	-----	---	---	Y328-210	(2)	[T]	94115	(4)	[E]

NOTE: "O" ring item 19 is not required with seat options 6663XX-9XX-C, -EXX-C and -GXX-C.

WETTED PARTS OPTIONS 6663XX-XXX-C														
Item	Description (size)	Qty	Aluminum				Cast Iron				Stainless Steel			
			666300-XXX-C		666320-XXX-C		666302-XXX-C 66630C-XXX-C		666322-XXX-C 66632C-XXX-C		666301-XXX-C 66630B-XXX-C		666321-XXX-C 66632B-XXX-C	
			N.P.T.F.		BSP		N.P.T.F.		BSP		N.P.T.F.		BSP	
Part No.	[Mtl]	Part No.	[Mtl]	Part No.	[Mtl]	Part No.	[Mtl]	Part No.	[Mtl]	Part No.	[Mtl]	Part No.	[Mtl]	
<input type="checkbox"/> 6	Washer (fluid side)	(2)	94802	[A]	94802	[A]	94803	[SS]	94803	[SS]	94803	[SS]	94803	[SS]
15	Fluid Cap	(2)	96430	[A]	96430	[A]	96638	[CI]	96638	[CI]	96650	[SS]	96650	[SS]
60	Inlet Manifold	(1)	96429-1	[A]	96429-2	[A]	96636-1	[CI]	96636-2	[CI]	96654-1	[SS]	96654-2	[SS]
61	Outlet Manifold	(1)	96428-1	[A]	96428-2	[A]	96637-1	[CI]	96637-2	[CI]	96649-1	[SS]	96649-2	[SS]

HARDWARE OPTIONS 6663XX-XXX-C						
Item	Description (size)	Qty	Carbon Steel		Stainless Steel	
			Part No.	[Mtl]	Part No.	[Mtl]
5	Washer (air side)	(2)	94831-1	[C]	94831-2	[SS]
26	Screw (M12 x 1.75 - 6g x 45 mm)	(12)	94412-1	[C]	94412-2	[SS]
27	Screw (M12 x 1.75 - 6g x 60 mm)	(20)	94991-1	[C]	94991	[SS]
29	Nut (M12 x 1.75 - 6h)	(20)	95053-1	[C]	95053	[SS]

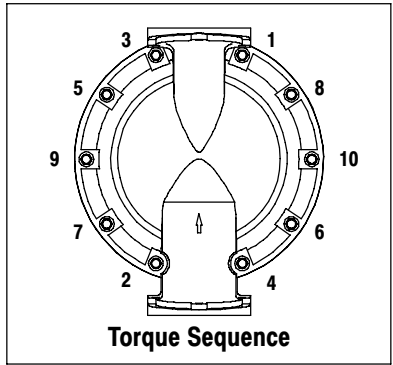
MATERIAL CODE
[A] = Aluminum
[B] = Nitrile
[C] = Carbon Steel
[Co] = Copper
[CI] = Cast Iron
[E] = E.P.R.
[H] = Hytrel
[K] = Kynar PVDF
[SH] = Hard Stainless Steel
[Sp] = Santoprene
[SS] = Stainless Steel
[T] = Teflon PTFE
[V] = Viton

COMMON PARTS									
Item	Description (size)	Qty	Part No.	[Mtl]	Item	Description (size)	Qty	Part No.	[Mtl]
<input type="checkbox"/> 1	Rod	(1)	96474	[C]	14	Screw (3/4" - 16 x 3-1/4")	(2)	Y5-134-T	[SS]
★ 2	"O" Ring (3/32" x 1" o.d.)	(1)	Y330-117	[B]	43	Ground Lug (see page 7)	(1)	93004	[Co]
9	Washer (13/16" i.d. x 2" o.d. x 5/32")	(2)	Y13-12-T	[SS]	★ 196	Cushion	(2)	94631	[Sp]

PARTS LIST / 6663XX-XXX-C FLUID SECTION

COLOR CODE		
Material	Diaphragm Color	Ball Color
Hytrek	Cream	Cream
Nitrile	Black	Red (●)
Santoprene	Tan	Tan
Santoprene (Backup)	Green*	N / A
Teflon PTFE	White (-) Stripe	White (●) Dot

* See item 8 in inset below.



FOR THE AIR MOTOR SECTION SEE PAGES 6 & 7

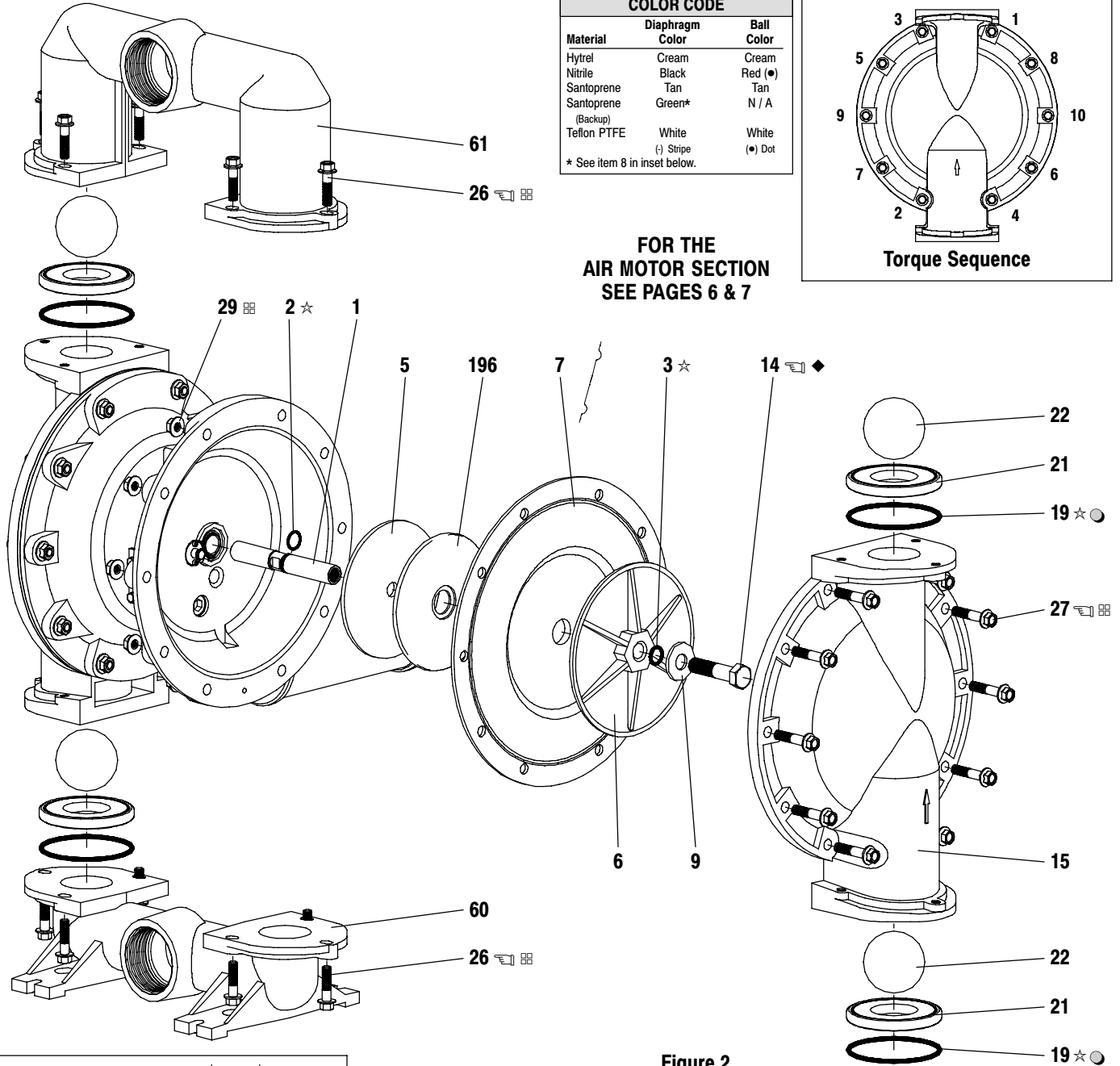
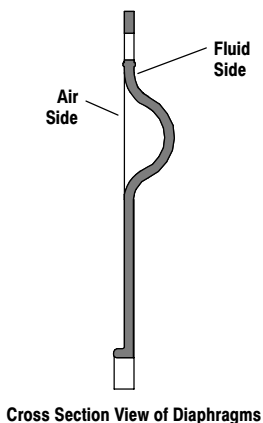
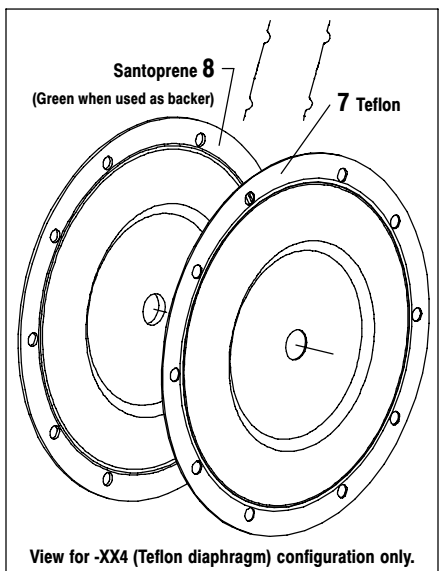


Figure 2



TORQUE REQUIREMENTS

NOTE: DO NOT OVERTIGHTEN FASTENERS.

(14) Screw, 65 - 70 ft lbs (88.1 - 94.9 Nm).
 (26) Screws, 60 - 70 ft lbs (81.3 - 94.9 Nm).
 (27) Screws, 60 - 70 ft lbs (81.3 - 94.9 Nm).

LUBRICATION / SEALANTS

- ☆ Apply Key-Lube to all "O" rings, "U" cups and mating parts.
- ◆ Apply Loctite® 271 to threads.
- ☒ Apply anti-seize compound to threads and bolt and nut flange heads which contact pump case when using stainless steel fasteners.
- Not used with models 6663XX-9XX-C, 6663XX-EXX-C and 6663XX-GXX-C.

PARTS LIST / 6663XX-XXX-C AIR SECTION

✓ Indicates parts included in 637434 Air Section Service Kit.

Item	Description (size)	Qty	Part No.	[Mtl]
101	Motor Body	(1)	96427	[A]
✓ 102	"O" Ring (1/16" x 1-1/4" o.d.)	(2)	Y325-24	[B]
□ 103	Sleeve	(1)	94528	[D]
✓ 104	Retaining Ring, TruArc (1-5/32" i.d.)	(2)	Y145-26	[C]
105	Screw / Lockwasher (1/4" - 20 x 5/8") (models 6663X0-XXX-C, 6663X1-XXX-C and 6663X2-XXX-C)	(8)	93860	[C]
	Cap Screw (1/4" - 20 x 5/8") (models 6663XB-XXX-C and 6663XC-XXX-C)	(8)	Y6-42-T	[SS]
106	Lockwasher (1/4") (models 6663XB- XXX-C and 6663XC-XXX-C)	(8)	Y14-416-T	[SS]
107	Plate	(2)	96424	[SS]
✓ 108	Gasket (with notch)	(1)	96426	[B/Ny]
□ 109	Piston	(1)	96422	[D]
✓ 110	"U" Cup (3/16" x 2-1/8" o.d.)	(1)	Y186-55	[B]
□ 111	Spool	(1)	96421	[A]
□ 112	Washer (2.055" o.d.)	(5)	93251	[GPS]
✓ 113	"O" Ring (small) (1/8" x 1-3/4" o.d.)	(5)	Y325-222	[B]
✓ 114	"O" Ring (large) (3/32" x 2-1/16" o.d.)	(6)	Y325-134	[B]

MATERIAL CODE

[A] = Aluminum	[GPS] = Glass filled Polyphenylene Sulfide
[B] = Nitrile	[Ny] = Nylon
[Bz] = Bronze	[SS] = Stainless Steel
[C] = Carbon Steel	[U] = Polyurethane
[D] = Acetal	[Z] = Zinc

AIR MOTOR SECTION SERVICE

Service is divided into two parts – 1. Pilot Valve, 2. Major Valve.

GENERAL REASSEMBLY NOTES:

- Air Motor Section Service is continued from Fluid Section repair.
- Inspect and replace old parts with new parts as necessary. Look for deep scratches on metallic surfaces, and nicks or cuts in "O" rings.
- Take precautions to prevent cutting "O" rings upon installation.
- Lubricate "O" rings with Key-Lube.
- Do not over-tighten fasteners, refer to torque specification block on view.
- Re-torque fasteners following restart.

PILOT VALVE DISASSEMBLY

1. Remove (104) retaining ring.
2. Remove (123) screws and (122) "O" rings.
3. Remove (118) piston rod, (121) sleeve bushing, (119) "O" rings and (120) spacers from the (101) motor body.
4. Remove (103) sleeve and (102) "O" rings.

Item	Description (size)	Qty	Part No.	[Mtl]
□ 115	Spacer	(4)	93250	[GPS]
□ 116	Spacer	(1)	96420	[D]
✓ 117	Gasket	(1)	96425	[B/Ny]
118	Pilot Rod	(1)	93309-2	[C]
✓ 119	"O" Ring (1/8" x 3/4" o.d.)	(4)	93075	[U]
120	Spacer	(3)	115959	[Z]
121	Sleeve Bushing	(2)	98723-2	[Bz]
✓ 122	"O" Ring (3/32" x 9/16" o.d.)	(2)	94820	[U]
✓ 123	Screw (#8 - 32 x 3/8")	(4)	Y154-41	[C]
126	Pipe Plug (3/4 - 14 P.T.F. x 17/32")	(1)	Y227-6-L	[C]
127	Pipe Fitting (1-1/4 N.P.T. x 1-1/2 N.P.T.)	(1)	96451	[C]
128	Pipe Plug (1/8 - 27 P.T.F. x 1/4")	(1)	Y227-2-L	[C]
197	Button Head Screw (1/4" - 20 x 1/4")	(2)	94987	[SS]
198	Button Head Screw (1/4" - 20 x 3/8")	(1)	94987-1	[SS]
201	Muffler Kit (includes item 127)	(1)	67389	
✓	Key-Lube "O" Ring Lubricant	(1)	93706-1	
	10 Pak of Key-Lube	(10)	637175	

PILOT VALVE REASSEMBLY

1. Replace two (102) "O" rings if worn or damaged and reinstall (103) sleeve.
2. Install one of the (121) sleeve bushings, (119) "O" rings, (120) spacers and the remaining (121) bushing.
3. Carefully push (118) pilot rod into bushings etc. and retain on each end with the two (122) "O" rings, retain with (123) screws.
4. Replace (104) retaining rings.

MAJOR VALVE DISASSEMBLY

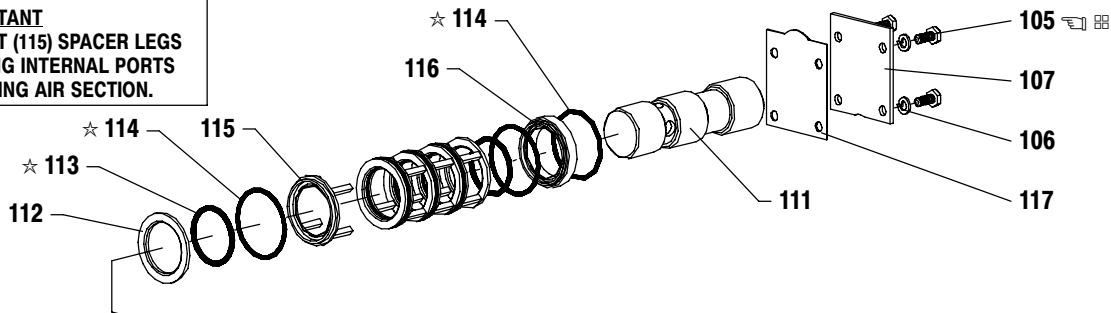
1. Remove (107) plate and (108 and 117) gaskets.
2. On the side opposite the air inlet, push on the inner diameter of (111) spool. This will force the (109) piston out. Continue pushing the (111) spool and remove. Check for scratches and gouges.
3. Reach into the air section (exhaust side) and remove (116) spacer, (115) spacers, (113) "O" rings, (114) "O" rings, (112) washers, etc. Check for damaged "O" rings.

MAJOR VALVE REASSEMBLY

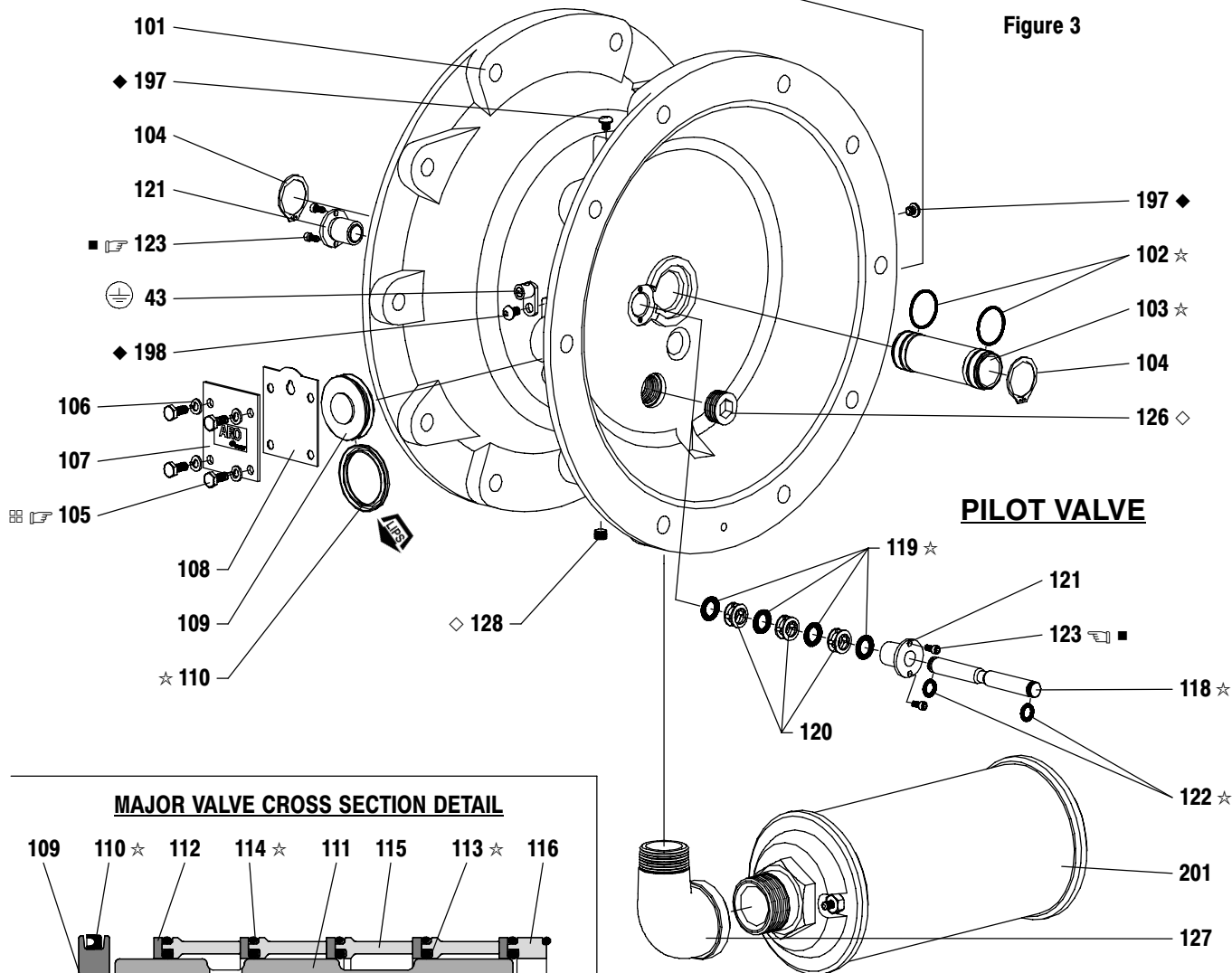
1. Replace (112) washer, (114) "O" ring and (113) "O" ring onto (115) spacer and insert etc. **NOTE: Be careful to orient spacer legs away from blocking internal ports.**
2. Lubricate and carefully insert (111) spool.
3. Install (117) gasket and (107) plate.
4. Lubricate and install (110) packing cup and insert (109) piston into (air inlet side) cavity, the (110) packing cup lips should point outward.
5. Install (108) gasket and replace (107).

PARTS LIST / 6663XX-XXX-C AIR SECTION

IMPORTANT
 BE CERTAIN TO ORIENT (115) SPACER LEGS
 AWAY FROM BLOCKING INTERNAL PORTS
 WHEN REASSEMBLING AIR SECTION.



MAJOR VALVE
 See cross section detail figure 4.



MAJOR VALVE CROSS SECTION DETAIL

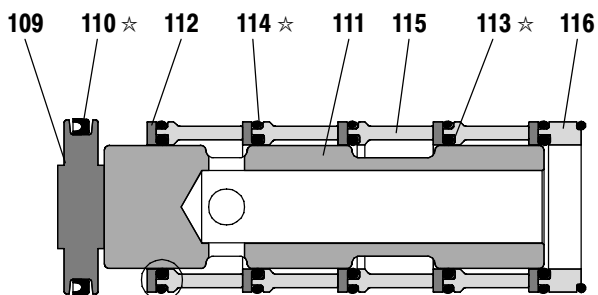
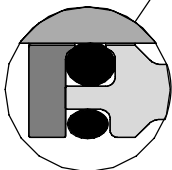


Figure 4



TORQUE REQUIREMENTS
 NOTE: DO NOT OVERTIGHTEN FASTENERS.
 (105) Cap screws, 40 - 50 in. lbs (4.5 - 5.6 Nm).
 (123) Cap screws, 20 - 25 in. lbs (2.3 - 2.8 Nm).

LUBRICATION / SEALANTS

- ☆ Apply Key-Lube to all "O" rings, "U" Cups & mating parts.
- Apply Loctite 262 to threads.
- ◇ Apply Loctite 572 to threads.
- ◆ Apply Loctite 271 to threads.
- ⊞ Apply Loctite Nickel Anti-Seize to threads.