

PARTS LIST / FLUID SECTION

✓ **KITS INCLUDE: (22) BALLS, (7) DIAPHRAGM, items: 2, 3, 19, (Refer to chart below) and 93706-1 Key-Lube® grease.**

WETTED COMMON PARTS				
Item	Description (size)	Qty	Part No.	Mtl
	Fluid Section Service Kits		637137-63-C	
<input type="checkbox"/> 1	Rod	☆(1)	98724-1	[C]
✓ 2	“O” Ring (3/32” x 3/4” o.d.)	(1)	Y330-113	[B]
✓ 3	“O” Ring (1/16” x 5/8” o.d.)	(4)	Y327-14	[V]
5	Washer (air side) (3-5/8” o.d.)	(2)	93441-2	[C]
<input type="checkbox"/> 6	Washer (fluid side) (3-5/8” o.d.)	(2)	93441-2	[C]
✓ 7	Diaphragm	(2)	90533-3	[V]
9	Washer (0.505” i.d.)	(2)	93189-1	[SS]
14	Screw (1/2” - 20 x 1”)	(2)	Y5-85-K	[C]
15	Fluid Cap	(2)	94945	[A]
16	Manifold (top with valve port)	(1)	93127	[A]
	Manifold (bottom)	(1)	92001	[A]
✓ 19	“O” Ring (3/32” x 1-9/16” o.d.)	(4)	Y327-126	[V]
21	Seat	(4)	92941	[K]
✓ 22	Ball (1” dia.)	(4)	90532-6	[D]
26	Bolt (5/16” - 18 x 1”)	(8)	Y6-55-C	[C]
29	Nut (5/16” - 18)	(16)	Y12-5-C	[C]
43	Ground Lug (see page 7)	(1)	93004	[Co]
	Relief Valve (see page 5)	(1)	96333	[Br]

MATERIAL CODE
[A] = Aluminum
[B] = Nitrile
[Br] = Brass
[C] = Carbon Steel
[Co] = Copper
[D] = Acetal
[K] = P.V.D.F. (Kynar)
[SS] = Stainless Steel
[V] = Viton

☆ Service Note: Fluid Section Service Kits also include part no. 93131 (5) “O” rings for repair of “-B” (pre - 8/89) models.

Service Note: Part no. 98930-T installation tool is available separately for use with items 1 and 2.

“Smart Parts”, Keep these items on hand in addition to the service kits for fast repair and reduction of down time.

FLUID SECTION DISASSEMBLY

1. Remove top manifold(s).
2. Remove (22) balls, (19) “O” rings and (21) seats.
3. Remove (15) fluid caps.
4. Remove the (14) screw, (9) washer, (3) “O” ring, (6) plate, (7) diaphragm and (5) plate.
5. Remove (3) “O” rings.

NOTE: Do not scratch or mar the surface of (1) diaphragm rod.

FLUID SECTION REASSEMBLY

- Reassemble in reverse order.
- Clean and inspect all parts. Replace worn or damaged parts with new parts as required.
- Lubricate (1) diaphragm rod and (2) “O” ring with Key-Lube grease.
- Use ARO pn / 98930-T bullet (installation tool) to aid in installation of (2) “O” ring on (1) diaphragm rod.
- Be certain (7) diaphragms align properly with (15) fluid caps before making final torque adjustments on bolt and nuts to avoid twisting the diaphragm.
- Re-check torque settings after pump has been re-started and run a while.

PARTS LIST / FLUID SECTION

COLOR CODE		
MATERIAL	DIAPHRAGM COLOR	BALL COLOR
ACETAL	N / A	Orange
VITON	Yellow (-)	N / A
	(-) Stripe	

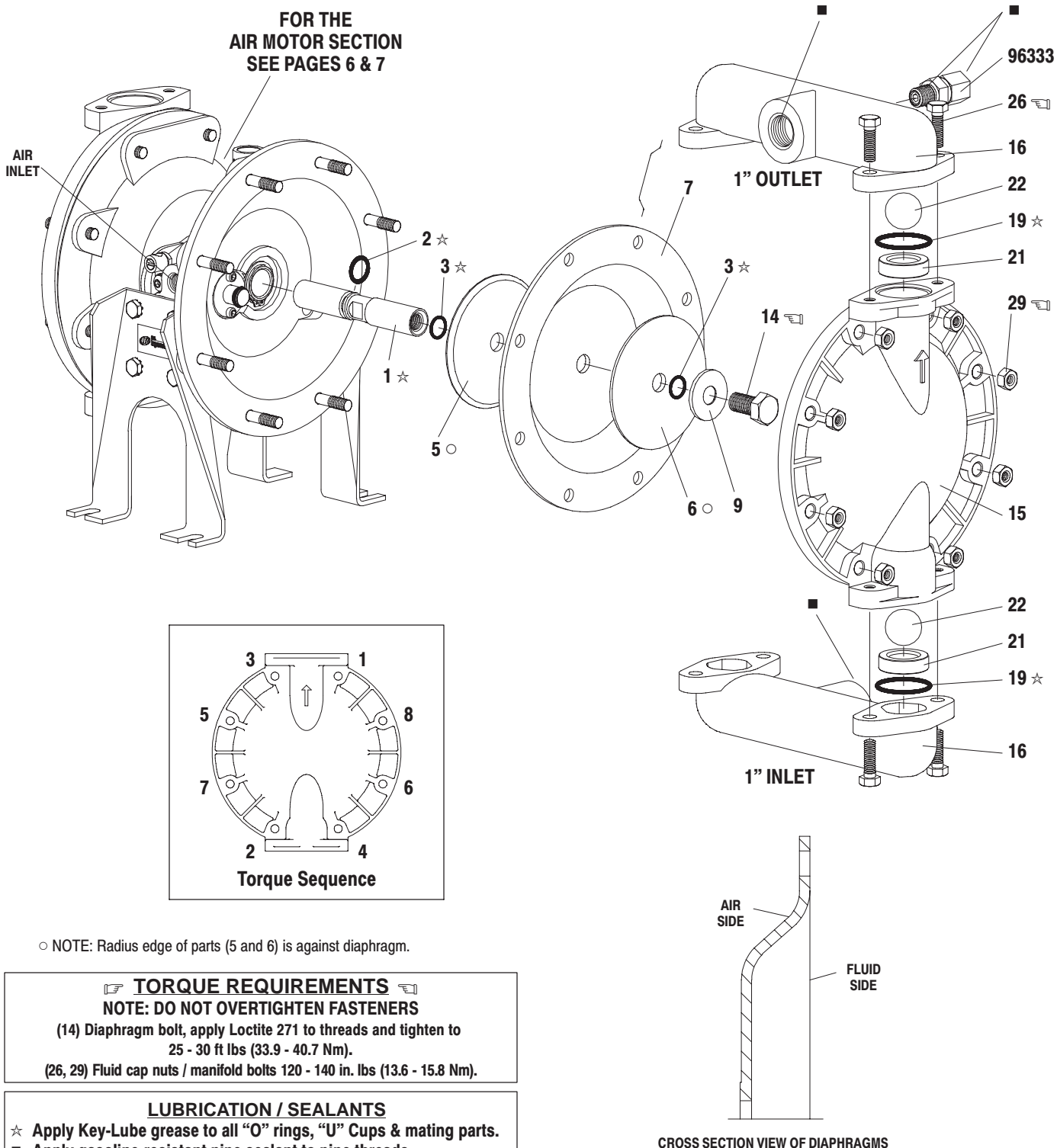


Figure 1

PARTS LIST / AIR MOTOR SECTION

✓ Indicates parts included in 637118-C Air Section Service Kit.

Item	Description (size)	Qty	Part No.	Mtl
101	Motor Body (includes items 195)	(1)	66836-1	[A]
□102	“O” Ring (0.07” x 1” o.d.)	(2)	92959	[B]
□103	Sleeve	(1)	94527	[D]
✓104	Retaining Ring, TruArc (0.925” i.d.)	(2)	Y145-25	[C]
105	Cap Screw (1/4” - 20 x 5/8”)	(8)	93860	[C]
106	Lock Washer (1/4”)	(1)	Y14-416-T	[SS]
107	Leg	(2)	92003	[C]
✓108	Gasket (with notch)	(1)	92878	[B/NY]
□109	Piston	(1)	92011	[D]
✓110	“U” Cup (3/16” x 1-3/8” o.d.)	(1)	Y186-51	[B]
□111	Spool	(1)	92005	[A]
112	Washer (1.557” o.d.)	(5)	92877	[Z]
✓113	“O” Ring (small) (1/8” x 1-1/4” o.d.)	(5)	Y325-214	[B]
✓114	“O” Ring (large) (3/32” x 1-9/16” o.d.)	(6)	Y325-126	[B]
□115	Spacer	(4)	92876	[Z]

Item	Description (size)	Qty	Part No.	Mtl
□116	Spacer	(1)	92006	[Z]
✓117	Gasket	(1)	92004	[B/NY]
118	Pilot Rod	(1)	93309-1	[C]
✓119	“O” Ring (1/8” x 3/4” o.d.)	(4)	93075	[U]
120	Spacer	(3)	115959	[Z]
121	Sleeve Bushing	(2)	98723-1	[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]
124	Stud (5/16” - 18 x 1-3/4”)	(16)	92866	[C]
128	Pipe Plug (1/8 - 27 N.P.T. x 1/4”)	(1)	Y227-2-L	[C]
195	Button Head Screw (1/4” - 20 x 1/4”)	(2)	94987	[SS]
196	Button Head Screw (1/4” - 20 x 3/8”)	(1)	94987-1	[SS]
201	Muffler	(1)	93110	[C]
✓	Key-Lube “O” Ring Lubricant	(1)	93706-1	
	10 Pak of Key-Lube		637175	

□ “Smart Parts”, Keep these items on hand in addition to the service kits for fast repair and reduction of down time.

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 grease.
- Do not over-tighten fasteners, refer to torque requirement 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.

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.

MATERIAL CODE

[A] = Aluminum	[C] = Carbon Steel	[SS] = Stainless Steel
[B] = Nitrile	[D] = Acetal	[U] = Polyurethane
[Bz] = Bronze	[NY] = Nylon	[Z] = Zinc

MAJOR VALVE DISASSEMBLY

1. Remove (107) legs, (108) and (117) gaskets.
2. On the side opposite the air inlet, push on the inner diameter (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

NOTE: Replace worn parts as necessary. Lubricate “O” ring with Key-Lube grease when reassembling.

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).
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 / AIR MOTOR SECTION

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

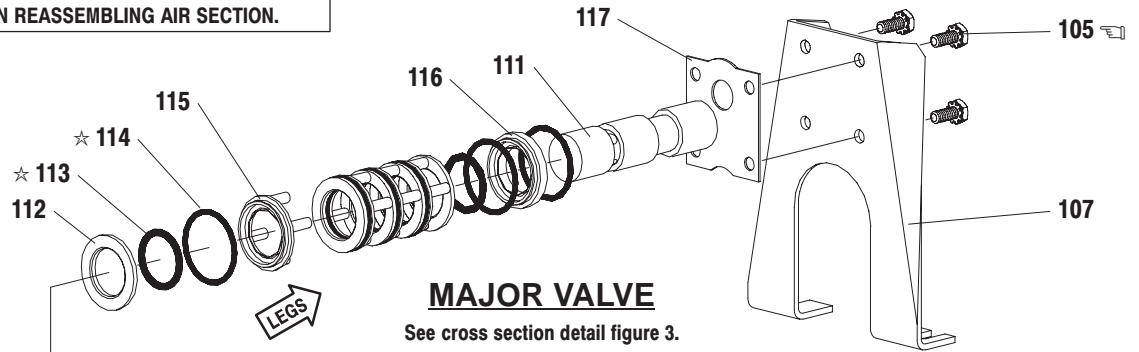
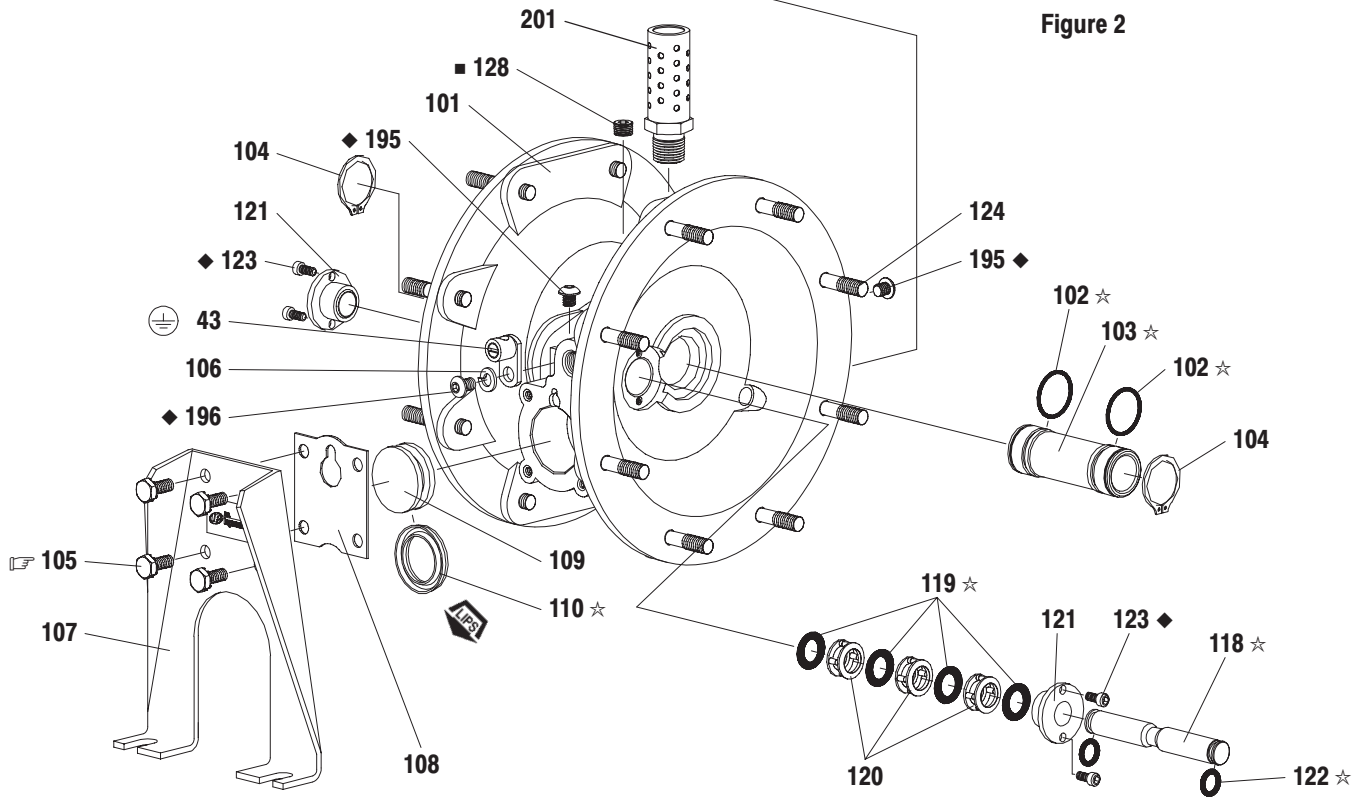
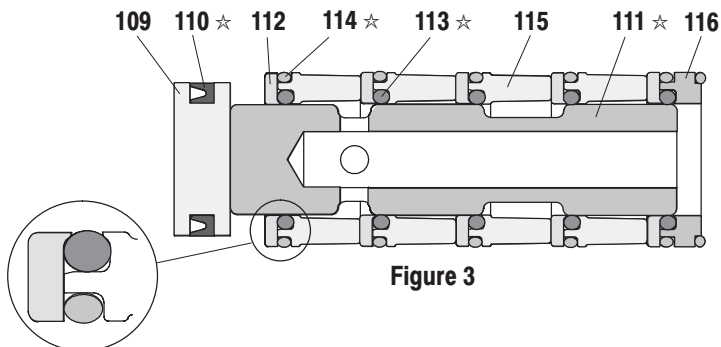


Figure 2



MAJOR VALVE CROSS SECTION DETAIL



PILOT VALVE

TORQUE REQUIREMENTS
 NOTE: DO NOT OVERTIGHTEN FASTENERS
 (105) 40 - 50 in. lbs (4.5 - 5.6 Nm),
 apply Loctite Nickel Antiseize to threads.

LUBRICATION / SEALANTS

- ★ Apply Key-Lube grease to all "O" rings, "U" Cups & mating parts.
- ◆ Apply Loctite 271 to threads.
- Apply pipe sealant to threads.