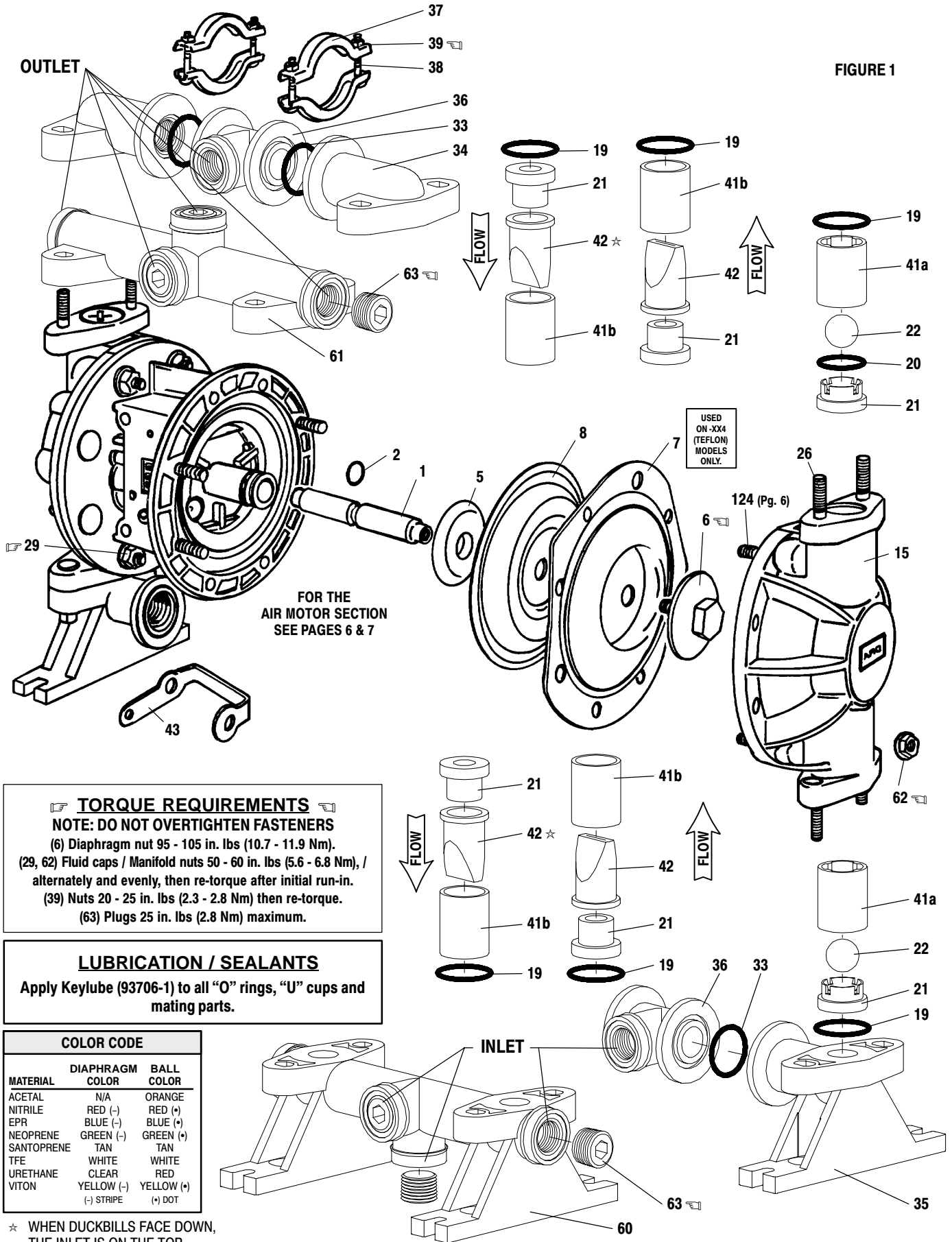


PARTS LIST / 66605X-X FLUID SECTION



FOR THE AIR MOTOR SECTION SEE PAGES 6 & 7

TORQUE REQUIREMENTS

NOTE: DO NOT OVERTIGHTEN FASTENERS

- (6) Diaphragm nut 95 - 105 in. lbs (10.7 - 11.9 Nm).
- (29, 62) Fluid caps / Manifold nuts 50 - 60 in. lbs (5.6 - 6.8 Nm), / alternately and evenly, then re-torque after initial run-in.
- (39) Nuts 20 - 25 in. lbs (2.3 - 2.8 Nm) then re-torque.
- (63) Plugs 25 in. lbs (2.8 Nm) maximum.

LUBRICATION / SEALANTS

Apply Keylube (93706-1) to all "O" rings, "U" cups and mating parts.

COLOR CODE

MATERIAL	DIAPHRAGM COLOR	BALL COLOR
ACETAL	N/A	ORANGE
NITRILE	RED (-)	RED (+)
EPR	BLUE (-)	BLUE (+)
NEOPRENE	GREEN (-)	GREEN (+)
SANTOPRENE	TAN	TAN
TFE	WHITE	WHITE
URETHANE	CLEAR	RED
VITON	YELLOW (-)	YELLOW (+)
	(-) STRIPE	(+) DOT

★ WHEN DUCKBILLS FACE DOWN, THE INLET IS ON THE TOP.

PARTS LIST / 66605X-X AIR MOTOR SECTION

(✓) Indicates parts included in 637141 Air Section Repair Kit.

AIR SECTION PARTS

ITEM	DESCRIPTION (Size in Inches)	QTY	PART NO.	[MTL]
101	Motor Body	(1)	93091	[P]
✓102	"O" Ring (3/32" x 1" o.d.)	(2)	Y325-117	[B]
□103	Sleeve	(1)	93087	[Bz]
□104	Snap Ring (13/16")	(2)	37285	[C]
111	Spool	(1)	93085	[D]
118	Pilot Rod	(1)	93088	[C]
✓119	"O" Ring (1/8" x 3/4" o.d.)	(4)	93075	[U]
□120	Spacer	(3)	115959	[Z]
✓122	Snap Ring (1/2")	(2)	77802	[C]
124	Stud (5/16" - 18 x 1-17/32") shown pg. 5	(8)	93249	[SS]
129	Muffler Assembly	(1)	66972	[P]
129☆	Exhaust Cover (see note 2)		93092	[PS]
✓130	Gasket	(1)	93107	[SY]
131	Bolt (5/16" - 18 x 1-1/4")	(8)	93095	[SS]
✓132	Gasket (see note 1)	(1)	93339-1	[B]

ITEM	DESCRIPTION (Size In Inches)	QTY	PART NO.	[MTL]
133	Washer (9/32" i.d.)	(4)	93096	[SS]
134	Bolt (1/4" - 20 x 5")	(4)	Y6-419-T	[SS]
135	Valve Block	(1)	93090	[P]
136	Plug	(1)	93086	[UH]
✓137	"O" Ring (3/32" x 1-1/2" o.d.)	(1)	Y325-125	[B]
✓138	Packing, "U" Cup (1/8" x 1" o.d.)	(1)	94395	[U]
✓139	Packing, "U" Cup (1/8" x 1.427" o.d.)	(1)	93116	[B]
✓140	Valve Insert	(1)	93276	[CK]
✓141	Valve Plate	(1)	93275	[CK]
142	Washer	(2)	116038	[Z]
143	Plate	(2)	93089	[SS]
201	Muffler (see note 2)		93110	[C]
✓	Keylube "O" Ring Lubricant		93706-1	
	10 Pack of Keylube		637175	

DIAPHRAGM PUMP SERVICE

GENERAL SERVICE NOTES:

- Inspect and replace old parts with new parts as necessary. Look for deep scratches on metallic surfaces, and nicks or cuts in "O" rings.
 - 7/16" Wrench, 1/2" Wrench, 7/16" Socket, 1/2" Socket, Torque Wrench (measuring inch pounds), "O" ring Pick.

FLUID SECTION DISASSEMBLY

- Remove (34) top manifold / (36) swivel assembly.
Note: Manifold options involve single piece manifolds (60 / 61) or three piece swivel type manifolds with clamps.
- Remove (41) ball cages, (22) balls, (19 and 20) "O" rings and (21) seats. Note: If cages are difficult to remove at this step, it may be helpful to proceed through step 5 and remove them once they are accessible from the inside of the fluid cap.
- Remove (35) bottom manifolds / (36) swivel assembly.
- Remove (19) "O" rings, (21) seats and (22) balls.
- Remove (15) fluid caps.
- Remove (6) diaphragm nut, (8) [(7) Teflon Models only] diaphragm(s) and (5) diaphragm washer from (1) diaphragm connecting rod.
- Remove (1) connecting rod from air motor.
- Carefully remove remaining (6) diaphragm nut, (8) [(7) Teflon Models] diaphragm and (5) diaphragm washer from (1) connecting rod. Do not mar surface of connecting rod.
- Remove (2) "O" ring from connecting rod.
- Remove (37) clamps from top and bottom manifold / swivel assemblies.
- Remove (33) "O" rings from (36) swivels.

Note 1: Part No.93339-1 One-Piece Gasket replaces the following parts (not shown) in models manufactured prior to October 1988, Y325-10 (4), Y325-12, 93093, 93094, Y325-8.

Note 2: The (129☆) Exhaust Cover and (201) Muffler were standard until 9/92. They are available separately for service or piped exhaust applications.

Note 3: A Major Valve Service Assembly is available separately which includes items: 111, 132, 135 - 141. Order part no 66362.

MATERIAL CODE

[B] = Nitrile	[D] = Acetal	[SY] = Syn-Seal
[Bz] = Bronze	[P] = Polypropylene	[U] = Polyurethane
[C] = Carbon Steel	[PS] = Polyester	[UH] = UHMW-PE
[CK] = Ceramic	[SS] = Stainless Steel	[Z] = Zinc

FLUID SECTION REASSEMBLY

- Reassemble In reverse order.
- Lubricate (1) connecting rod and (2) "O" ring with Key-Lube or equivalent "O" ring lubricant.
- Install (5) diaphragm washers with i.d. chamfer toward diaphragm.
- When replacing Teflon diaphragms, install the 93465 Santoprene diaphragm behind the Teflon diaphragm.
- When installing (41) cage, ball guides must line up with notches in (21) seat to prevent damage.
- Before installing (35), (34) manifolds, (19) "O" ring should be properly seated on the o.d. of (41) ball cage.
- Before tightening (39) nut on (38) carriage bolts on (36) swivels, attach the manifold / swivel assembly to the fluid caps. Rotate (36) swivel to desired position and tighten each of the nuts approx. 8 - 9 turns, then finish tightening (29) nuts.

□ "Smart Parts" keep these items on hand in addition to the Service Kits for fast repair and reduction of down time.

PARTS LIST / 66605X-X AIR MOTOR SECTION

TORQUE REQUIREMENTS
NOTE: DO NOT OVERTIGHTEN FASTENERS.
 (134) Torque to 15 - 20 in. lbs (1.7 - 2.3 Nm), wait 10 minutes, then re-torque to 15 - 20 in. lbs (1.7 - 2.3 Nm).

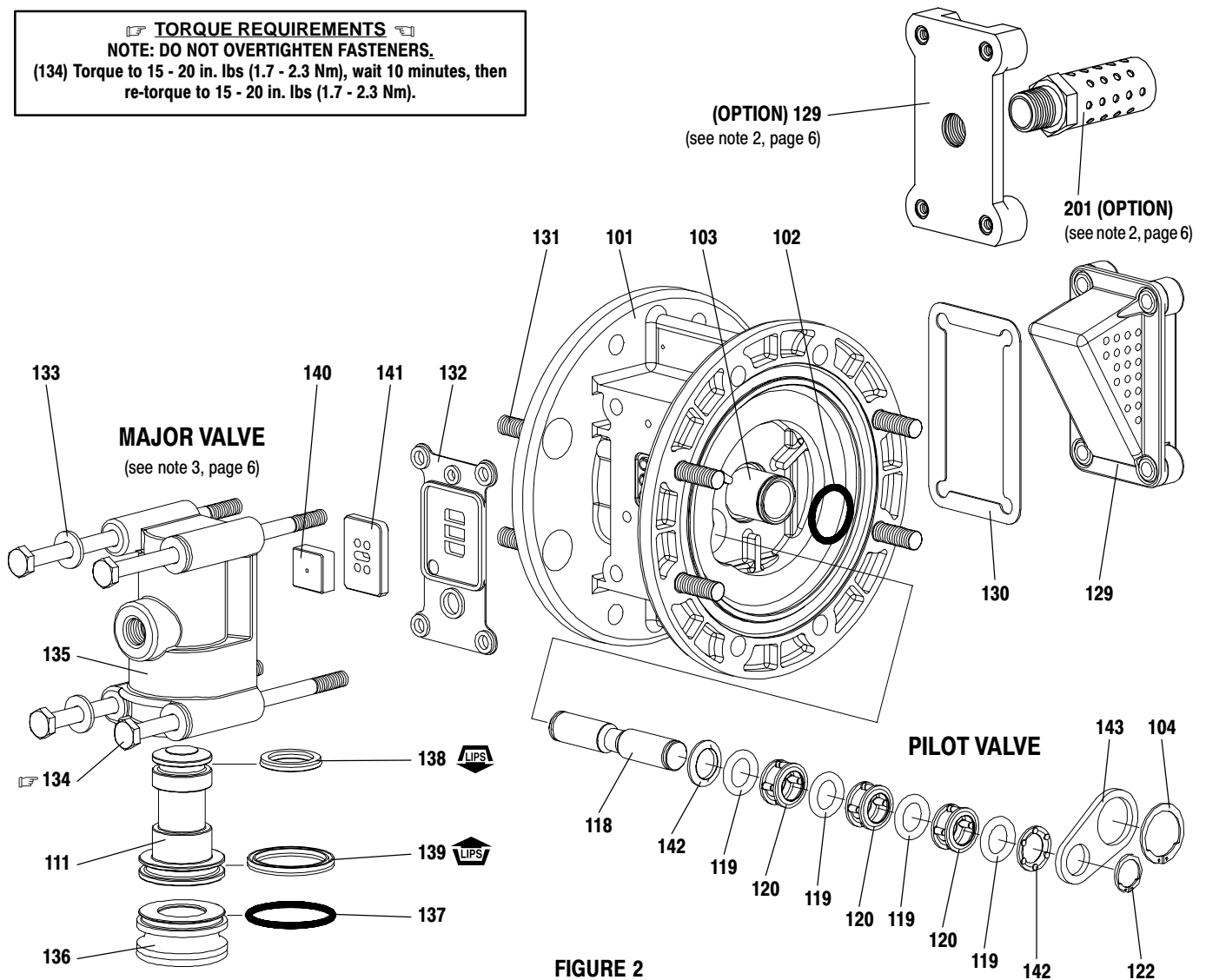


FIGURE 2

AIR MOTOR SECTION SERVICE

Service is divided into two parts - 1. Pilot Valve, 2. Major Valve.
 • Air Motor Section Service is continued from Fluid Section repair.

PILOT VALVE DISASSEMBLY

1. Remove (122) and (104) snap rings.
2. Remove (143) plates.
3. Remove (103) sleeve and (102) "O" rings.
4. Remove (118) piston, (142) washers, (119) "O" rings and (120) spacers from (101) center body.

PILOT VALVE REASSEMBLY

1. Assemble (119) "O" rings, (120) spacers and (142) washers on (118) pilot rod.
2. Insert the stack into the (101) body. Sleeve (103) may be used to assist pressing stack into body.
3. Install (103) sleeve and (102) "O" rings into (101) body.
4. Install (143) plates and (122) and (104) snap rings.

MAJOR VALVE DISASSEMBLY

1. Remove (129) exhaust cover and (130) gasket.
2. Pull (135) valve block assembly from (101) body.
3. Remove (134) bolts, (133) washers and (132) gasket from (135) valve block.
4. Remove (141) valve plate and (140) valve insert.
5. Remove (136) plug and (111) spool.

MAJOR VALVE REASSEMBLY

1. Install new (139) and (138) "U" cups on (111) spool - **LIPS MUST FACE EACH OTHER.**
2. Insert (111) spool into (135) valve block.
3. Install (137) "O" ring on (136) plug, insert plug into (135) valve block.
4. Install (140) valve insert and (141) valve plate into (135) valve block. Note: After 9/92, parts (140, 141) are white (ceramic), the dished side of the (140) valve insert should be against the shiny face of (141) valve plate for best performance.
5. Replace (132) gasket and install valve block assembly on (101) body.