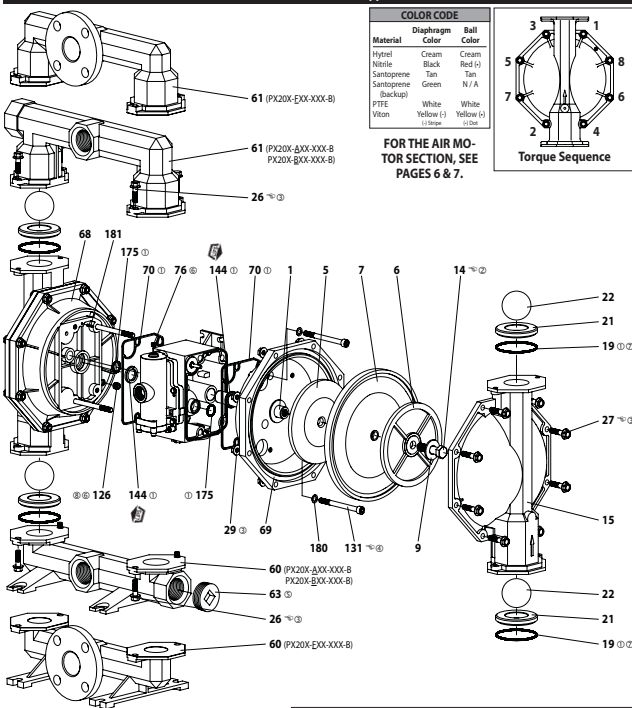
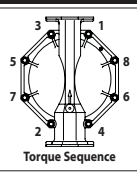


PARTS LIST / PX20X-XXX-XXX-B () FLUID SECTION

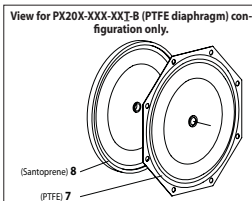


COLOR CODE		
Diaphragm Material	Diaphragm Color	Ball Color
Hydrel	Cream	Cream
Nitrile	Black	Red (+)
Santoprene	Tan	Tan
Santoprene (backpack)	Green	N / A
PTFE	White	White
Viton	Yellow (-)	Yellow (-)



FOR THE AIR MOTOR SECTION, SEE PAGES 6 & 7.

Figure 2



ASSEMBLY TORQUE REQUIREMENTS
NOTE: DO NOT OVERTIGHTEN FASTENERS.
ALL FASTENERS ARE METRIC.

(14) Diaphragm screw, 65 - 70 ft lbs (88.1 - 94.9 Nm).
(26) Screw, 30 - 40 ft lbs (40.7 - 54.2 Nm).
(27) Screw, 30 - 40 ft lbs (40.7 - 54.2 Nm).
(131) Screw, 35 - 40 ft lbs (47.5 - 54.2 Nm).

LUBRICATION / SEALANTS

- Apply Lubriplate FML-2 grease 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.
- Apply Loctite 262™ to threads at assembly.
- Apply PTFE tape to threads.
- Apply Loctite 572™ to threads.
- Not used with PX20X-XXX-XXX-B, -CXX and -GXX.
- Not used with PX20X-XXX-XXX-BQL.

Note: Lubriplate FML-2 is a white food grade petroleum grease.

PARTS LIST / PX20X-XXX-XXX-B () AIR MOTOR SECTION

Indicates parts included in 637421 air section service kit shown below and items (70), (144), (175) and (180) shown on page 4.

AIR MOTOR PARTS				
Item	Description (size)	Qty	Part No.	Mtl
101	Center Body (PX20X-XXX-XXX-B)	(1)	94028	[A]
	(PX20X-XXX-XXX-B)	(1)	94109	[SS]
103	Bushing	(1)	94092	[DI]
105	Screw (M6 x 1 - 6g x 20 mm)	(4)	95887	[SS]
111	Spool	(1)	95651	[DI]
118	Actuator Sleeve (0.259" x 2.276" long)	(2)	94083	[DI]
121	Pin	(2)	94084	[DI]
127	90° St. Elbow (1-1/2 - 1-1/2 NPT)	(1)	94860	[C / I]
128	Set Screw (1/4" - 20 x 1/4")	(2)	Y29-42-S	[SS]
132	Gasket	(1)	94099	[B]
133	Lockwasher (1/4") (PX20X-XXX-XXX-B)	(3)	Y117-416-C	[C]
	(PX20X-XXX-XXX-B)	(3)	Y14-416-T	[SS]
134	Screw (M6 x 1 - 6g x 30 mm)	(4)	96358	[SS]
135	Valve Housing (PD20X-XXX-XXX-B)	(1)	96334-1	[A]
	(PD20X-XXX-XXX-B)	(1)	96337-1	[SS]
	(PE20A-XXX-XXX-B)	(1)	96334-2	[A]
	(PE20S-XXX-XXX-B)	(1)	96337-2	[SS]
136	Plug (PX20X-XXX-XXX-B)	(1)	96335	[A]
	(PX20X-XXX-XXX-B)	(1)	96339	[SS]
137	"O" Ring (1.16" x 2" o.d.)	(1)	Y325-32	[B]
138	"U" Cup (3/16" x 1.792" o.d.)	(1)	95966	[B]
139	"U" Cup (3/16" x 1.14" o.d.)	(1)	Y186-50	[B]
140	Valve Insert	(1)	95650	[CK]
141	Valve Plate	(1)	95659	[CK]
146	"O" Ring (0.922" x 1.116" o.d.)	(1)	Y325-118	[B]
147	"O" Ring (1.018" x 1.12" o.d.)	(2)	Y325-202	[B]

MATERIAL CODE

[A] = Aluminum	[D] = Acetal
[B] = Nitrile	[E] = Iron
[C] = Brass	[G] = Santoprene
[CK] = Carbon Steel	[SS] = Stainless Steel
[DI] = Ceramic	[U] = Polyurethane

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 Lubriplate FML-2 grease.
- Do not over-tighten fasteners. Refer to torque specification block on view.
- Re-torque fasteners following restart.
- SERVICE TOOLS - To aid in the installation of (168) "O" rings onto the (167) pilot piston, use tool # 204130-T, available from ARO.

PILOT VALVE DISASSEMBLY

- A light tap on (118) actuator pin should expose the opposite (121) sleeve, (167) pilot piston and other parts.
- Remove (170) sleeve. Inspect inner bore of sleeve for damage.

PILOT VALVE REASSEMBLY

- Clean and lubricate parts not being replaced from service kit.
- Install new (171) and (172) "O" rings. Replace (170) sleeve.

AIR MOTOR PARTS

Item	Description (size)	Qty	Part No.	Mtl
166	Track Gasket	(1)	94026	[B]
167	Pilot Piston (includes 168 and 169)	(1)	67164	[DI]
168	"O" Ring (3/32" x 5/8" o.d.)	(2)	94433	[U]
169	"U" Cup (1/8" x 7/8" o.d.)	(1)	Y240-9	[B]
170	Piston Sleeve	(1)	94081	[B]
171	"O" Ring (1.162" x 1.18" o.d.)	(1)	Y325-119	[B]
172	"O" Ring (1.16" x 1.18" o.d.)	(1)	Y325-22	[B]
173	"O" Ring (1.16" x 1.30" o.d.)	(2)	Y325-26	[B]
174	"O" Ring (1.16" x 1.12" o.d.)	(2)	Y325-202	[B]
176	Diaphragm (check valve)	(2)	94102	[Sp]
199	Track Gasket	(1)	95666	[B]
200	Gasket	(1)	95665	[B]
201	Muffler Kit (includes item 127)	(1)	67213	[B]
233	Adapter Plate (PX20X-XXX-XXX-B)	(1)	96336	[A]
	(PX20X-XXX-XXX-B)	(1)	96338	[SS]
240	Screw (M6 x 1 - 6g x 16 mm)	(2)	95991	[SS]
241	Track Gasket	(1)	96344	[B]
242	"O" Ring (1.162" x 1.18" o.d.)	(1)	Y325-5	[B]
243	"O" Ring (1.16" x 5/8" o.d.)	(1)	Y325-204	[B]
244	"O" Ring (1.18" x 7/8" o.d.)	(1)	Y325-208	[B]
	Lubriplate FML-2 grease	(1)	94276	
	Lubriplate Grease Packets (10)		637308	

- Install new (168) "O" rings and (169) seal - Note the lip direction. Lubricate and replace (167) pilot piston.
- Reassemble remaining parts. Replace (173 and 174) "O" rings.

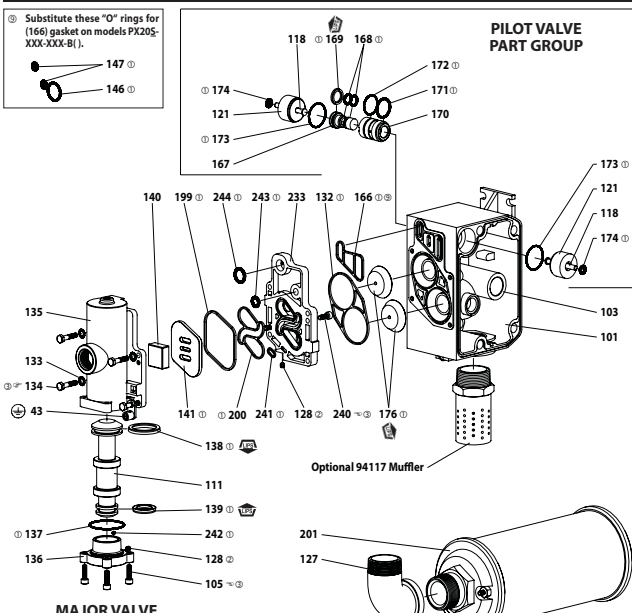
MAJOR VALVE DISASSEMBLY

- Remove (135) valve block and (233) adapter plate, exposing (132 and 166) gaskets and (176) checks.
- Remove (233) adapter plate, releasing (140) valve insert, (141) valve plate, (199, 200 and 241) gaskets and (243 and 244) "O" rings.
- Remove (136) plug and (137) "O" ring, releasing (111) spool.

MAJOR VALVE REASSEMBLY

- Install new (138 and 139) "U" cups on (111) spool - **LIPS MUST FACE EACH OTHER.**
- Install (111) spool into (135) valve block.
- Install (137 and 242) "O" rings on (136) plug and assemble plug to (135) valve block, securing with (105) screws.
- Install (140) valve insert, (141) valve plate, (199) gasket and (243 and 244) "O" rings into (135) valve block. NOTE: Assemble (140) valve insert with "dished" side toward (141) valve plate. Assemble (141) valve plate with part number identification toward (140) valve insert.
- Assemble (200 and 241) gaskets and (233) adapter plate to (135) valve block, securing with (240) screws.
- Assemble (132 and 166) gaskets and (176) checks to (101) center body.
- Assemble (135) valve block and components to (101) center body, securing with (134) screws.

PARTS LIST / PX20X-XXX-XXX-B () AIR MOTOR SECTION



Substitute these "O" rings for (166) gasket on models PX20X-XXX-XXX-B ().

147
146

PILOT VALVE PART GROUP

Figure 3

ASSEMBLY TORQUE REQUIREMENTS
NOTE: DO NOT OVERTIGHTEN FASTENERS.
ALL FASTENERS ARE METRIC.

(105) Screw, 40 - 50 in. lbs (4.5 - 5.6 Nm).
(134) Screw, 40 - 50 in. lbs (4.5 - 5.6 Nm).
(240) Screw, 40 - 50 in. lbs (4.5 - 5.6 Nm).

LUBRICATION / SEALANTS

- Apply Lubriplate FML-2 grease 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.

A replacement major valve service assembly is available separately, which includes the following:
637374-2 for models PD20X-XXX-XXX-B: 105 (4), 111, 128 (2), 132, 133 (3), 134 (4), 135, 136, 137, 138, 139, 140, 141, 166, 176 (2), 199, 200, 233, 240 (2), 241, 242, 243 and 244.
637374-3 for models PE20A-XXX-XXX-B: 76, 105 (4), 111, 128 (2), 132, 133 (3), 134 (4), 135, 136, 137, 138, 139, 140, 141, 166, 176 (2), 199, 200, 233, 240 (2), 241, 242, 243 and 244.
637374-4 for models PD20S-XXX-XXX-B: 105 (4), 111, 128 (2), 132, 133 (3), 134 (4), 135, 136, 137, 138, 139, 140, 141, 146, 147, 176 (2), 199, 200, 233, 240 (2), 241, 242, 243 and 244.
637374-5 for models PE20S-XXX-XXX-B: 76, 105 (4), 111, 128 (2), 132, 133 (3), 134 (4), 135, 136, 137, 138, 139, 140, 141, 146, 147, 176 (2), 199, 200, 233, 240 (2), 241, 242, 243 and 244.