

DATA SHEET, SERVICE & OPERATING MANUAL

B15

**AIR OPERATED
DOUBLE DIAPHRAGM PUMP**

**All Aluminium Models
Inc. Lube Free**



P.H.A. sas

14 Z.A. LES PIBOULES
84300 LES TAILLADES
FRANCE
TEL. 04.90.78.19.99
FAX 04.90.78.09.00
E-Mail : contact@pha.fr

PARTS LIST

REF No.	PART NUMBER	DESCRIPTION	QTY
1	15-156	SUCTION MANIFOLD	1
2	SEE TABLE	O-RING ◆	4
3	SEE TABLE	VALVE SEAT ◆	4
4	SEE TABLE	VALVE BALL ◆	4
5	SA10033	FRONTPLATE ASSEMBLY	2
6	15-008	OUTER COVER	2
7	1H114	BACKPLATE	2
8	SEE TABLE	DIAPHRAGM ◆	2
9	15-155	DISCHARGE MANIFOLD	1
10			
11	15-009	INNER COVER	2
12	G507	O-RING □	2
13	15-158	VALVE CHEST	1
14	D250	SOCKET CAP SCREW M6 x 12	4
15	C174	WASHER – SPRING M6	4
16	D338	SOCKET CAP SCREW M6 x 30	14
17	C007	WASHER M6	14
18	D014	SOCKET CAP SCREW M6 x 20	6
19	C174	WASHER – SPRING M6	6
20	B017	NUT M6	12
21	G516	O-RING □	6
22	15-011	VALVE BLOCK PLUG	2
23	D276	SOCKET C'SUNK SCREW M4 x 12	4
24	G020	O-RING □	2
25	15-013	VALVE BLOCK	1
26	1H009	VALVE CARRIER	1
27	1A025	SLIDE VALVE	1
28	15-001	VALVE PLATE	1
29	G517	O-RING □	2
30	15-199	GASKET □	1
31	06-034	SILENCER	1
32	G375	O-RING □	2
33	G021	O-RING (SEE TABLE FOR LUBE FREE OPTION) □	4
34	SA10036	DIAPHRAGM SHAFT	1
35	15-163	DIAPHRAGM SHAFT BUSH	2
36	G246	O-RING □	4
37	15-049	DIAPHRAGM - BACK-UP ◆	2
38	15-033	DIAPHRAGM ◆	2
39			

PARTS LIST - cont.

ELASTOMER TABLE				
REF. No.	2	3	4	8
DESCRIPTION	O-RING	VALVE SEAT	VALVE BALL	DIAPHRAGM
MATERIAL				
BUNA-N	G251	15-002	15-017	1H011
NEOPRENE	G437	15-003	15-014	1H049
EPDM	G394	15-004	15-015	1H206
VITON	G395	15-005	15-016	1H051
PTFE	G429	-	1H017	REF. 37 & 38
ONE-PIECE PTFE	-	-	-	15-195
ALUMINIUM	-	15-109	-	-
STAINLESS STEEL	-	15-110	1H087	-
POLYURATHANE	-	-	-	1H050
DELIRIN	-	15-054	1H072	-
POLYESTER	-	-	-	1H022
SANTOPRENE®	-	-	-	15-219

LUBE FREE COMPONENTS

REF No.	DESCRIPTION	PTFE	QTY
33	O-RING (CENTRE SECTION)	15-018	4

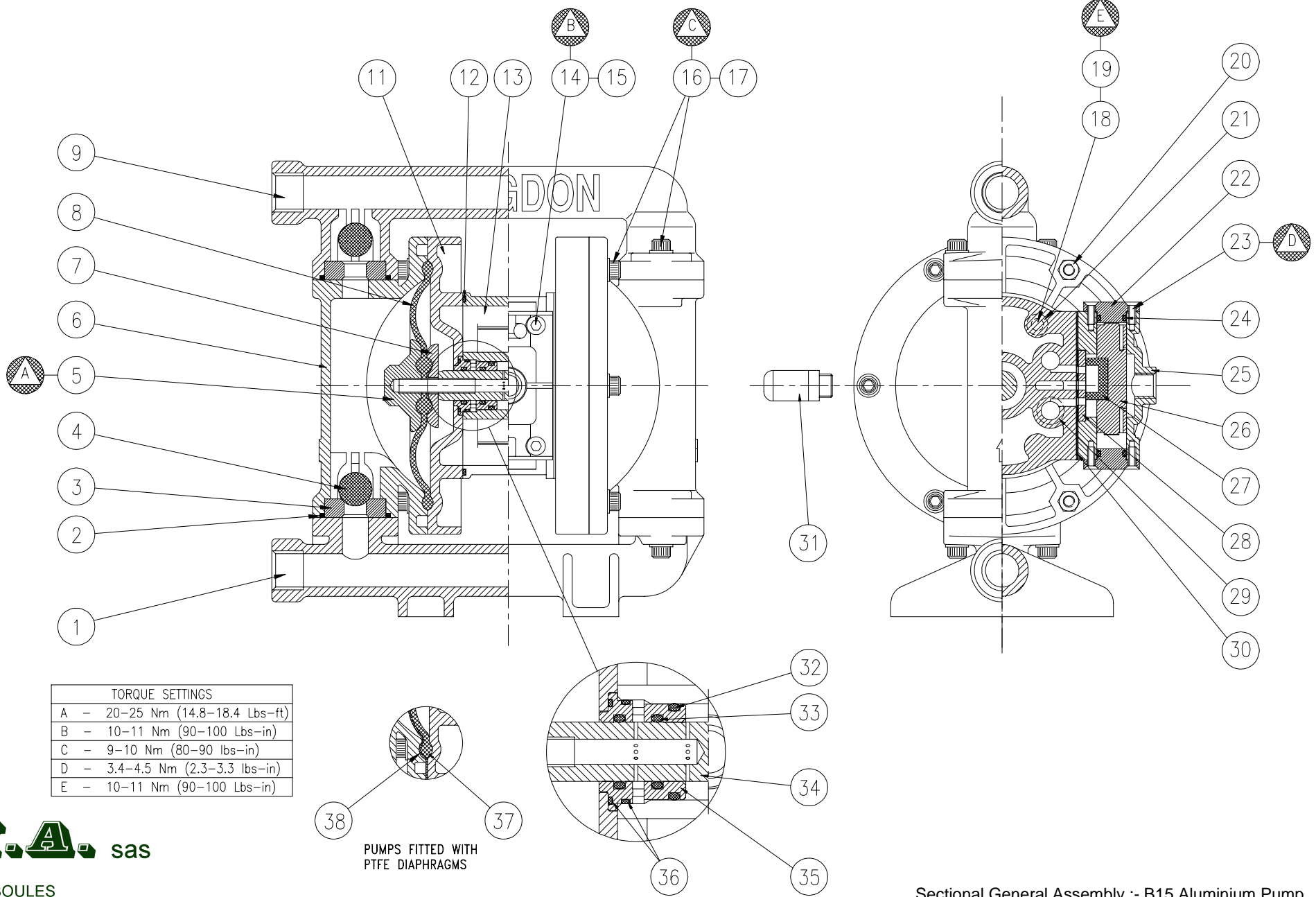
◆ - These items are available in a recommended spares kit. Please refer to your local stockist / distributor for details.

□ - These items are available in a recommended spares kit - SA10400 - Air side Kit
Lube Free Air Side Kit - SA10434

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TORQUE SETTINGS	
A	- 20-25 Nm (14.8-18.4 Lbs-ft)
B	- 10-11 Nm (90-100 Lbs-in)
C	- 9-10 Nm (80-90 lbs-in)
D	- 3.4-4.5 Nm (2.3-3.3 lbs-in)
E	- 10-11 Nm (90-100 Lbs-in)

38 PUMPS FITTED WITH PTFE DIAPHRAGMS

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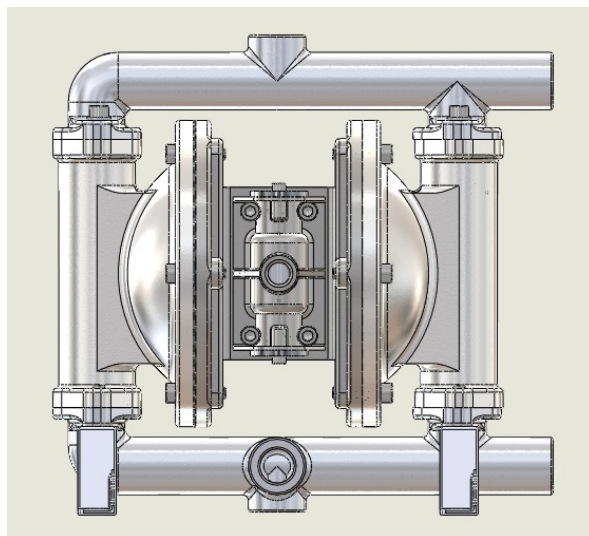
Sectional General Assembly :- B15 Aluminium Pump.
 Refer to page 6 Parts List table for item Ref. Nos.

SERVICE & OPERATING MANUAL
AIR OPERATED DOUBLE DIAPHRAGM PUMP

B15 & X15

**All Stainless Steel Models
Inc. Lube Free**

**This pump is Atex approved for use
in potentially explosive atmospheres
Group II category 2**



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PARTS LIST

REF No.	PART NUMBER	DESCRIPTION	QTY
1	D215	SOCKET CAP SCREW M6 x 20	4
2	C048	WASHER M6	16
3	15-154	MANIFOLD	2
4	SEE TABLE	O-RING ◆	4
5	1H221	BALL CAGE	2
6	SEE TABLE	VALVE BALL ◆	4
7	1H160	VALVE SEAT - DISCHARGE	2
8	SEE TABLE	O-RING ◆	2
9	06-034	SILENCER	1
10	15-288	CENTRE SECTION	1
11	SA10036	DIAPHRAGM SHAFT	1
12	15-295	DIA. SHAFT SEAL (SEE BELOW FOR LUBE FREE OPTION) □	4
	15-018	LUBE FREE SEAL (FOR "DRY AIR" APPLICATIONS) □	4
13	15-182	DIAPHRAGM SHAFT BUSH	2
14	G189	O-RING □	4
-			
16	H125	CIRCLIP	2
17	15-153	OUTER COVER	2
18	SA10034	FRONTPLATE ASSEMBLY	2
19	SEE TABLE	DIAPHRAGM ◆	2
20	15-219	DIAPHRAGM - BACK-UP ◆	2
21	1H114	BACKPLATE	2
22	D250	SOCKET CAP SCREW M6 x 12	4
23	C305	SPRING WASHER M6	8
24	1H009	VALVE CARRIER	1
25	G020	O-RING □	2
26	D276	SOCKET C'SUNK SCREW M4 x 12	4
27	15-011	VALVE BLOCK PLUG	2
28	15-013	VALVE BLOCK	1
29	1A025	SLIDE VALVE	1
30	15-001	VALVE PLATE	1
31	1H020	GASKET □	1
32	15-157	BASE LEG	2
33	D349	SOCKET CAP SCREW M6 x 25	16
34	1H159	VALVE SEAT - SUCTION	2

PARTS LIST - cont.

REF No.	PART NUMBER	DESCRIPTION	QTY
THE FOLLOWING PARTS ARE USED ON ATEX CERTIFIED PUMPS (see page 7)			
37	SA10289	GROUNDING LEAD ASSY. M6	1
38	SP467	ATEX I/D TAG	1
39	SP472	TIE-LOK TIE	1
9	15-258	SILENCER (REPLACES 06-034)	1

ELASTOMER TABLE

REF No.	DESCRIPTION	BUNA-N	NEOPRENE	EPDM	VITON	SANTOPRENE®	QTY
4	O-RING	G227	G240	G234	G238	-	4
6	VALVE BALL	15-017	15-014	15-015	15-016	-	4
8	O-RING	G228	G241	G235	G239	-	2
19	DIAPHRAGM	1H011	1H049	1H206	1H051	15-219	2

ELASTOMER TABLE - cont

REF No.	DESCRIPTION	PTFE	ONE-PIECE PTFE	POLY-ESTER	POLYURE-THANE	DELIN	ST. STEEL	QTY
4	O-RING	G236	-	-	-	-	-	4
6	VALVE BALL	1H017	-	-	-	1H072	1H087	4
8	O-RING	G237	-	-	-	-	-	2
19	DIAPHRAGM	15-033 & ITEM 20	15-195	1H022	1H050	-	-	2

MANIFOLD OPTIONS - MULTI PORTING

REF No.	DESCRIPTION	STANDARD END PORTED	CENTRE PORTED	VERTICAL PORTED	QTY
3	MANIFOLD	15-154	15-298	15-299	2 PER OR MIX AS REQ'D

◆ - These items are available in a recommended spares kit. Please refer to your local stockist / distributor for details.

□ - These items are available in a recommended spares kit - ASK15SS - Air side Kit
Lube Free Air Side Kit - ASK15SS-LF

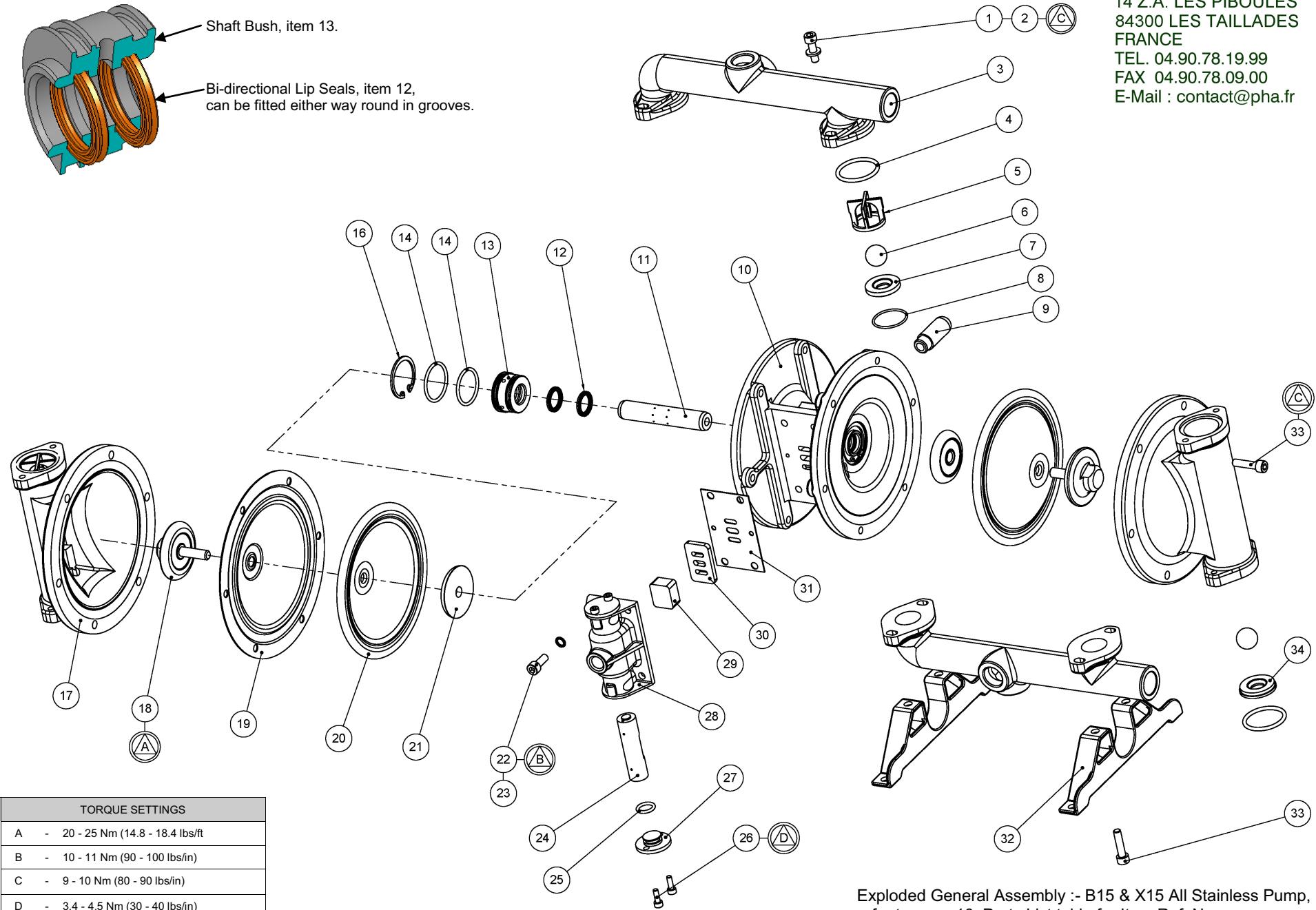
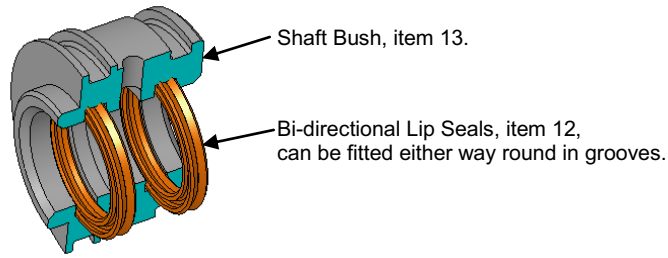
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HG-CF-910 Rev. P - 15.02.10



TORQUE SETTINGS	
A	- 20 - 25 Nm (14.8 - 18.4 lbs/ft)
B	- 10 - 11 Nm (90 - 100 lbs/in)
C	- 9 - 10 Nm (80 - 90 lbs/in)
D	- 3.4 - 4.5 Nm (30 - 40 lbs/in)

Exploded General Assembly :- B15 & X15 All Stainless Pump, refer to page 10, Parts List table for Item Ref. Nos.

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B15

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DOUBLE DIAPHRAGM PUMP**

**Stainless Steel / Aluminium
Models - Inc. Lube Free**



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PARTS LIST

HG-CF-909 Rev. J - 12/01/05

REF No.	PART NUMBER	DESCRIPTION	QTY
1	SEE TABLE	O-RING	4
2	1H159	VALVE SEAT - SUCTION	2
3	SEE TABLE	VALVE BALL	4
4	SA10034	FRONTPLATE ASSEMBLY	2
5	15-153	OUTER COVER	2
6	SEE TABLE	O-RING	2
7	1H160	VALVE SEAT - DISCHARGE	2
8	15-154	MANIFOLD	2
9	1H221	BALL CAGE	2
10	SEE TABLE	DIAPHRAGM	2
11	1H114	BACKPLATE	2
12	15-009	INNER COVER	2
13	G507	O-RING	2
14	15-158	VALVE CHEST	1
15	D250	SOCKET CAP SCREW	4
16	C305	WASHER	4
17	D215	SOCKET CAP SCREW	12
18	C048	WASHER	12
19	B017	NUT	12
20	G516	O-RING	6
21	D014	SOCKET CAP SCREW	6
22	15-011	VALVE BLOCK PLUG	2
23	D276	SOCKET C'SUNK SCREW	4
24	G020	O-RING	2
25	15-013	VALVE BLOCK	1
26	1H009	VALVE CARRIER	1
27	1A025	SLIDE VALVE	1
28	15-001	VALVE PLATE	1
29	G517	O-RING	2
30	15-199	GASKET	1
31	15-157	BASE LEG	2
32	D349	SOCKET CAP SCREW	4
33	C174	SPRING WASHER	4
34	06-034	SILENCER	1
35	G375	O-RING	2
36	G021	O-RING (SEE TABLE FOR LUBE FREE OPTIONS)	4
37	SA10036	DIAPHRAGM SHAFT	1
38	15-163	DIAPHRAGM SHAFT BUSH	2
39	G246	O-RING	4

Page 8

PARTS LIST - cont.

REF No.	PART NUMBER	DESCRIPTION	QTY
40	15-049	DIAPHRAGM - BACK-UP	2
41	15-033	DIAPHRAGM	2

ELASTOMER TABLE

REF No.	DESCRIPTION	BUNA-N	NEOPRENE	EPDM	VITON	SANTOPRENE®	QTY
1	O-RING	G227	G240	G234	G238	-	4
3	VALVE BALL	15-017	15-014	15-015	15-016	-	4
6	O-RING	G228	G241	G235	G239	-	2
10	DIAPHRAGM	1H011	1H049	1H206	1H051	15-219	2

ELASTOMER TABLE - cont

REF No.	DESCRIPTION	PTFE	ONE-PIECE PTFE	POLY-ESTER	POLYURE-THANE	DELRIN	ST. STEEL	QTY
1	O-RING	G236	-	-	-	-	-	4
3	VALVE BALL	1H017	-	-	-	1H072	1H087	4
6	O-RING	G237	-	-	-	-	-	2
10	DIAPHRAGM	Ref Items 40 & 41	15-195	1H022	1H050	-	-	2

LUBE FREE COMPONENTS

REF No.	DESCRIPTION	PTFE	QTY
36	O-RING (CENTRE SECTION)	15-018	4

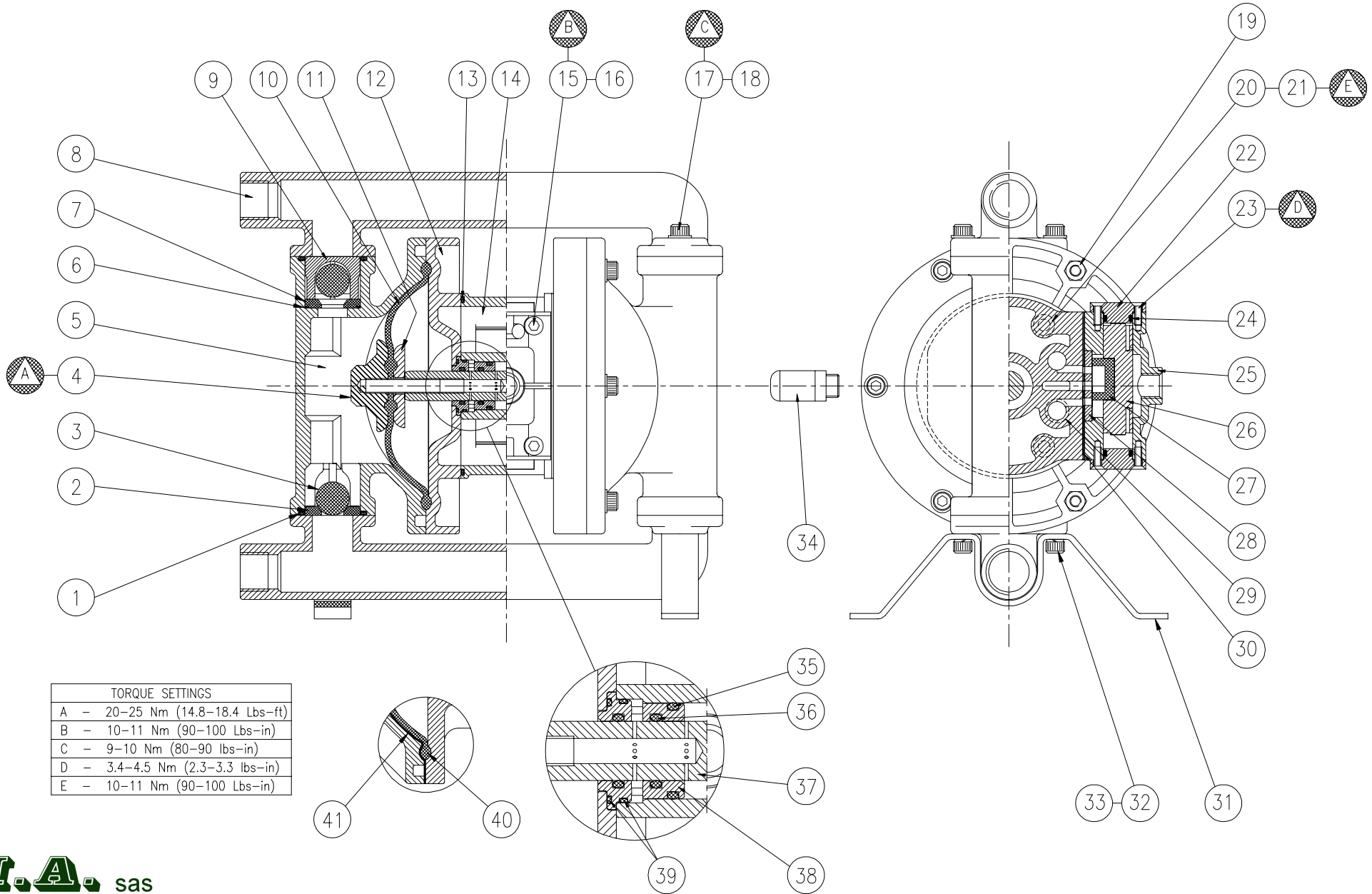
◆ - These items are available in a recommended spares kit. Please refer to your local stockist / distributor for details.

□ - These items are available in a recommended spares kit - SA10400 - Air side Kit Lube Free Air Side kit - SA10434

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Sectional General Assembly :- B15 SA Model Pump.
Refer to page 6 Parts List table for item Ref. Nos.