

Parts Manual

XDS35i Scroll Vacuum Pump



**This manual is for use by BOC Edwards
Personnel only.
Do not copy this manual. Do not give
this manual to anyone else.**



Manor Royal, Crawley, West Sussex, RH10 2LW, UK
Telephone: +44 (0) 1293 528844 Fax: +44 (0) 1293 533453
<http://www.bocedwards.com>

This page intentionally blank.

CONTENTS

Section	Title	Page
1	INTRODUCTION	1
	1.1 Scope of this manual	1
	1.2 Parts list	1
2	SCROLL VACUUM PUMP PARTS LIST	2
3	SERVICE KITS	10
	FORMS - RETURN OF BOC EDWARDS EQUIPMENT	

ILLUSTRATIONS

Figure	Title	Page
1	Fixed scroll and fan cover section of pump before 037895060	2
2	Fixed scroll and fan cover section of pump after 037895060	4
3	Orbital scroll and shaft section of pump	6
4	Motor rotor and bellows section of pump	8

TABLES

Table	Title	Page
1	Scroll pump parts list (figure 1 only)	3
2	Scroll pump parts list (figure 2 only)	5
3	Scroll pump parts list (figure 3 only)	7
4	Scroll pump parts list (figure 4 only)	9
5	Service kits listed by item number	10
6	Contents of tip seal and exhaust kit	11
7	Contents of general service kit	11
8	Contents of gas ballast kit	12
9	Contents of fan cover upgrade kit	12
10	Contents of exhaust valve upgrade kit	13

This page intentionally blank.

1 INTRODUCTION

1.1 Scope of this manual

This manual provides information about the component parts of the BOC Edwards XDS35i Scroll Vacuum Pumps.

Exploded views of the pumps are shown in Section 2, together with a list of the component parts and the spares kit from which they are available.

1.2 Parts list

The component parts referenced on figures in this manual are listed on tables 1, 2, 3 and 4. When you read the tables please take note of the following:

- The 'Ref.' number is the number of the component part on the corresponding figure. The Ref. numbers used within this manual are the same numbers as used in the XDS35i General Assembly (GA) drawing.
- The entries in the 'Kit No(s).' column are cross-referenced to the kits in Section 3. The component part is included as part of the referenced maintenance kit(s).
- The O/S Shims and Motor Rotor Shims are listed as 'Special' - please see the table in Section 3 detailing the ranges of shims available in kits.

2 SCROLL VACUUM PUMP PARTS LIST

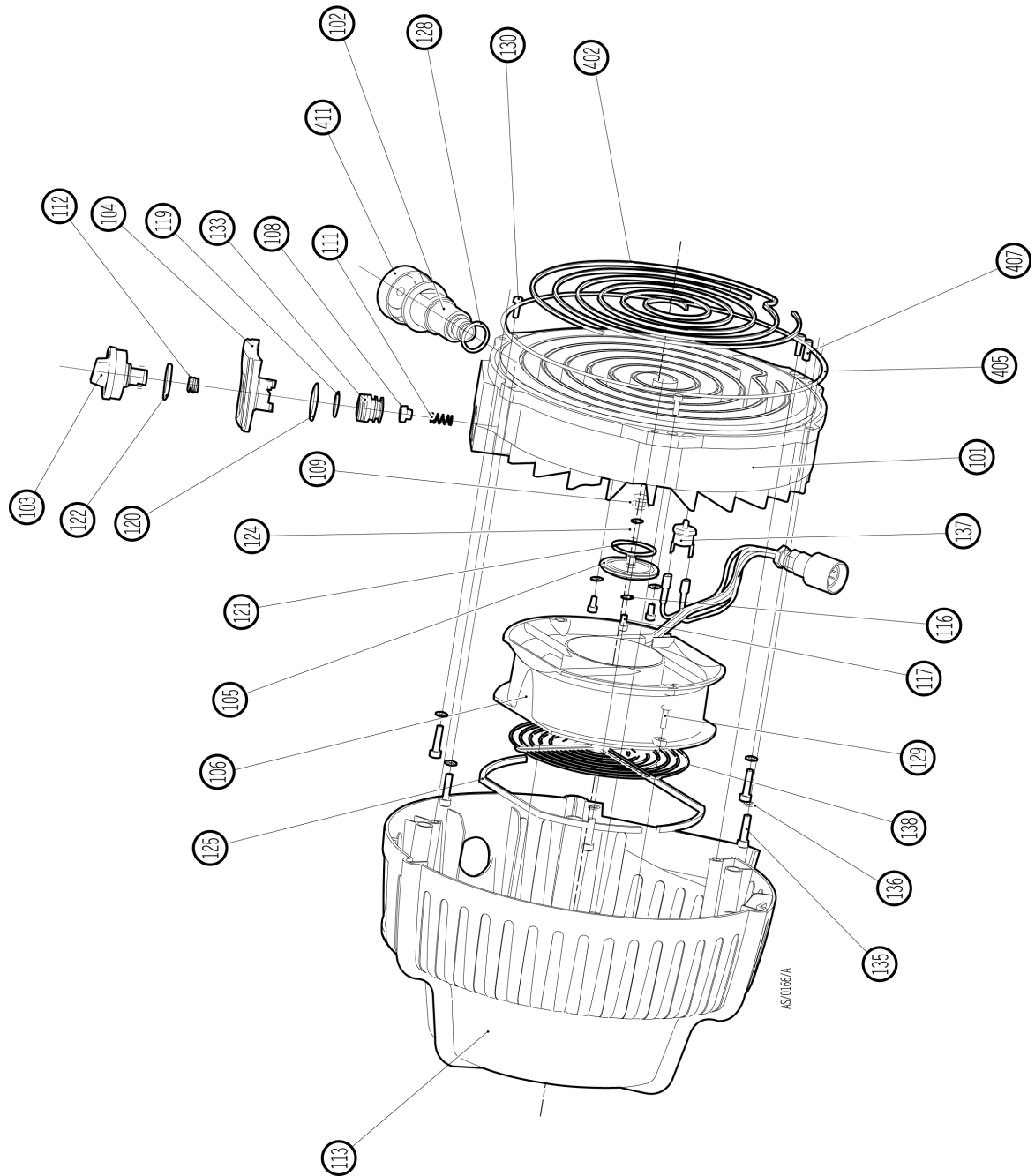


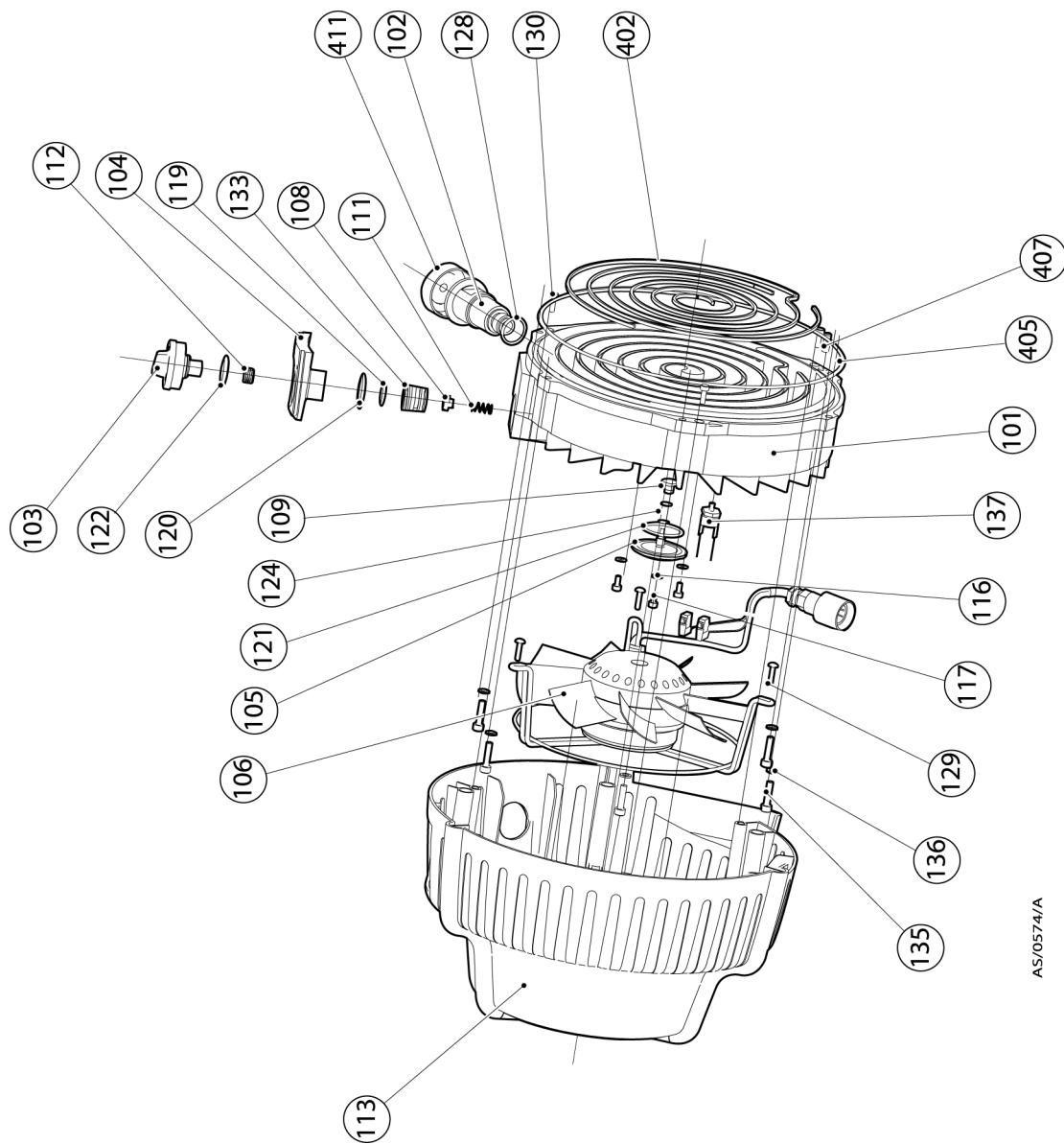
Figure 1 - Fixed scroll and fan cover section of pump before 037895060

Ref.	Description	Product Quantity	Packed Quantity	Kit No. (s)
101	Fixed scroll, coated, XDS30	1	1	4
102	Adaptor NW25 x 3/8" BSP st stl	1	1	35
103	Ballast knob sub-assembly	1	1	3
104	Gas ballast insert XDS10	1	1	3
105	Exhaust valve cap	1		#
106	Fan sub assembly XDS20/30	1		*
108	Gas ballast check valve pad	1	1	3
109	Exhaust valve pad	1		#
111	NRV Spring 7.6 o/d 17.5 long 'C'	1	1	3
112	Compression spring	1	1	3
113	Fan cover XDS20/30	1		*
116	Washer normal SS M4	3	3	1
117	M4 x 8 SOC Cap screw st stl	3	3	1
119	'O' ring VIT 14.6 id x 2.4 sec 'P'	1	1	3
120	'O' ring VIT 0.937 id x 0.103 sec 'N'	1	1	3
121	'O' ring VIT 29.6 id x 2.4 sec 'P'	1	1	1
122	'O' ring VIT 21.5 id x 3.0 sec 'O'	1	1	3
124	Spring 9.27 o/d x 19.5 long 'C'	1	1	1
125	Fan seal	2		*
128	'O' ring VIT 19.6 id x 2.4 sec 'P'	1	1	1, 35
129	S. Tap SCR PZ Pan st stl No. 8 x 5/8"	2	2	7
130	SCR Cap st stl M4 x 12	3	3	1
133	NRV Plug assy m/cd	1	1	3
135	Screw M5 x20 SKT caphead s/s	6	6	1
136	M5 Washer - s/coil rect	6	6	1
137	Therm snap switch 90° C	1	4	49
138	Fan guard FG-17(S9) chrome PL	1		*
402	Tip seal XDS30	2	2	1
405	'O' ring VIT 246.0 id x 3.0 sec 'P'	1	1	1
407	Dowel pin st stl dia 6 x 16 long	1	2	4
411	KF25 flange ring cover K40	1	1	2, 35

Table 1 - Scroll pump parts list (figure 1 only)

Note: * For replacement of parts 106, 113, 125 and 138, replace fan and cover assembly with fan and cover upgrade kit A73001808 (50).

For parts 105 and 109, replace using exhaust valve upgrade kit A73001809 (51).



AS/0574/A

Figure 2 - Fixed scroll and fan cover section of pump after 037895060

Ref.	Description	Product Quantity	Packed Quantity	Kit No. (s)
101	Fixed scroll, coated, XDS30	1	1	4
102	Adaptor NW25 x 3/8" BSP st stl	1	1	35
103	Ballast knob sub-assembly	1	1	3
104	Gas ballast insert XDS10	1	1	3
105	Exhaust valve cap	1		40, 51
106	Fan sub assembly XDS20/30	1		7, 50
108	Gas ballast check valve pad	1	1	3
109	Exhaust valve pad	1		1, 51
111	NRV Spring 7.6 o/d 17.5 long 'C'	1	1	3, 51
112	Compression spring	1	1	3
113	Fan cover XDS20/30	1		9
116	Washer normal ss M4	3	3	1
117	M4 x 8 SOC Cap screw st stl	3	3	1
119	'O' ring VIT 14.6 id x 2.4 sec 'P'	1	1	3
120	'O' ring VIT 0.937 id x 0.103 sec 'N'	1	1	3
121	'O' ring VIT 29.6 id x 2.4 sec 'P'	1	1	1, 51
122	'O' ring VIT 21.5 id x 3.0 sec 'O'	1	1	3
124	Spring 9.27 o/d x 19.5 long 'C'	1	1	1
128	'O' ring VIT 19.6 id x 2.4 sec 'P'	1	1	1, 35
129	S. Tap SCR PZ Pan st stl no. 8 x 5/8"	3	3	7, 50
130	SCR Cap st stl M4 x 12	3	3	1
133	NRV Plug assy m/cd	1	1	3
135	Screw M5 x 20 SKT caphead s/s	6	6	1
136	M5 Washer - s/coil rect	6	6	1
137	Therm snap switch 90° C	1	4	49
402	Tip seal XDS30	2	2	1
405	'O' ring VIT 246.0 id x 3.0 sec 'P'	1	1	1
407	Dowel pin st stl diameter 6 x 16 long	1	2	4
411	KF25 flange ring cover K40	1	1	2, 35

Table 2 - Scroll pump parts list (figure 2 only)

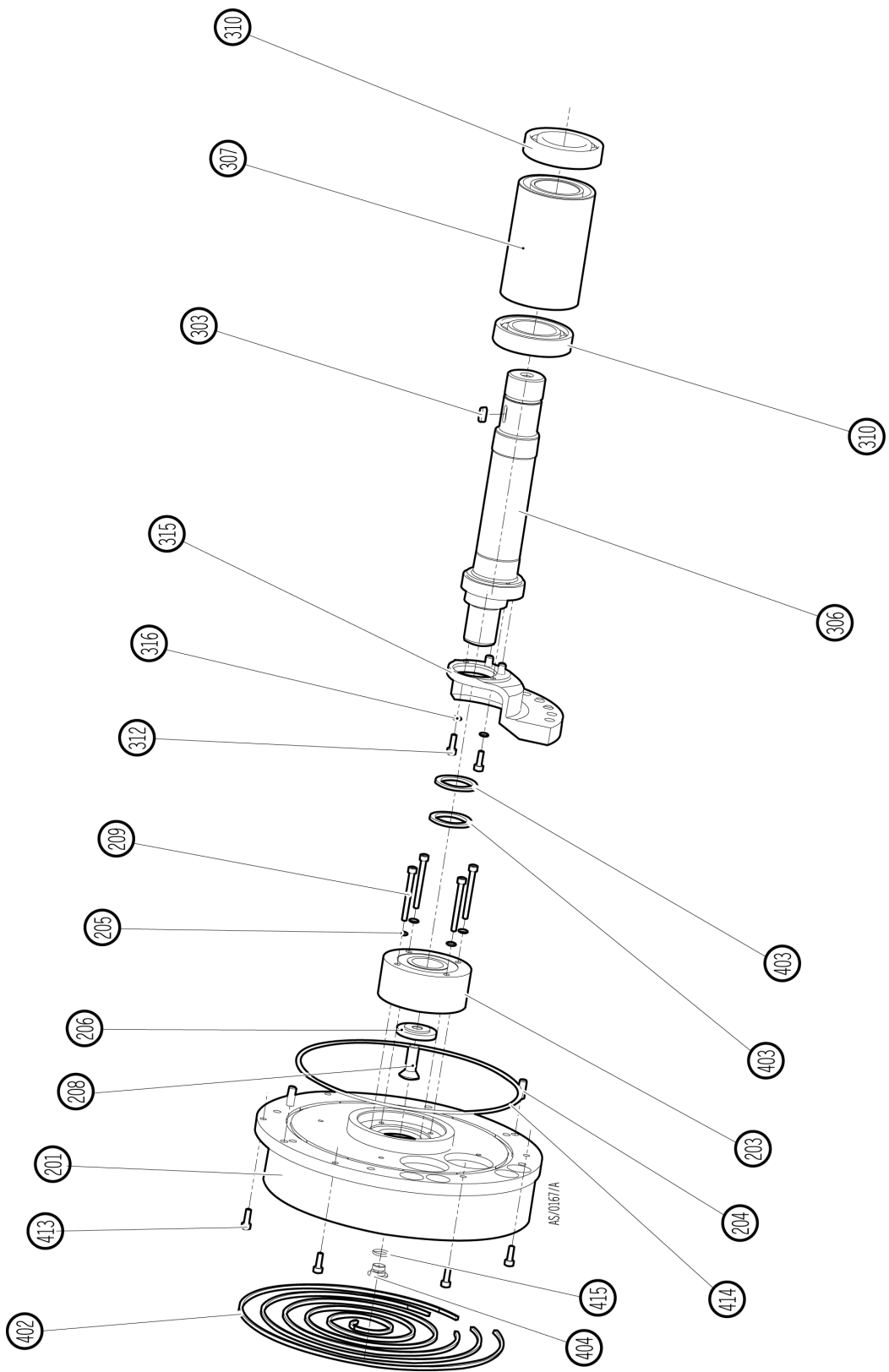


Figure 3 - Orbital scroll and shaft section of pump

Ref.	Description	Product Quantity	Packed Quantity	Kit No. (s)
201	Orbiting scroll, XDS35i	1	1	5
203	Angular contact bearing	1	1	2
204	Dowel pin st stl diameter 6 x 16 long	2	2	5
205	M4 Washer s/coil	4	6	2
206	Shaft end cap	1	1	2
208	SCR M8 x 25 CSK SKT HD	1	1	2
209	M4 x 40 long s/hd CAP SCW CO	4	4	2
303	Key 4 x 4 x 12 long form B-BS4235 PT1	1	1	2
306	Shaft, twin brg, clear/int	1	1	37
307	Bearing spacer pair	1	1	38
310	A/C BRG, 7007BEG 2RS - P5	2	2	2
312	SCR Cap st stl M4 x 12	2	2	2
315	Counter balance sub-assy	1	1	39
316	M4 Washer s/coil	2	6	2
402	Tip Seal XDS30	2	2	1
403	OS shim data generic XDS20/30	2	10	Special
404	Plug, orbiting scroll	1	1	2
414	'O' ring VIT 174.5 id x 3.0 sec 'N'	1	1	2
415	'O' ring VIT 11.1 id x 1.6 sec 'P'	1	1	2

Table 3 - Scroll pump parts list (figure 3 only)

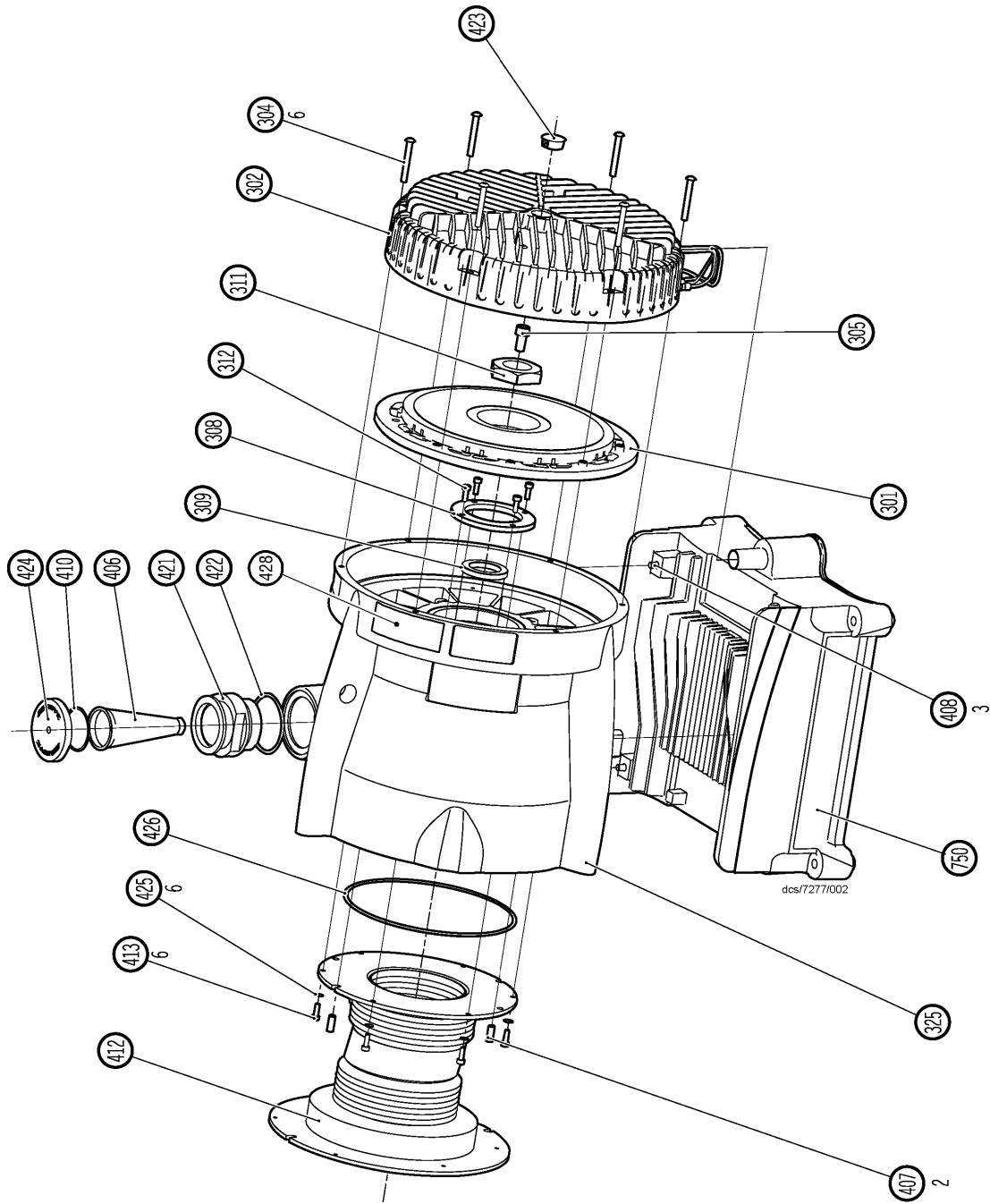


Figure 4 - Motor rotor and bellows section of pump

Ref.	Description	Product Quantity	Packed Quantity	Kit No. (s)
301	Motor rotor	1	1	46
302	Stator assembly	1	1	47
304	Screw M5 x 40 PZ PAN	6	6	2
305	M8 x 16mm SKT head cap screw	1	1	37
308	Bearing retaining plate	1	1	41
309	Motor rotor shim-generic	1	10	Special
311	Nut thin MS M30 x 2.0 to BS3692	1	1	2
312	SCR cap st stl M4 x 12	4	18	2
325	Motor housing finish m/c-twin	1	1	48
406	Filter assy E1/E2M 40/80	1	1	10
407	Dowel pin st stl diameter 6 x 16 long	2	2	48
408	SCR Cap HT NI M6 x 65 long	3	3	2
410	Circlip	1	1	2, 36
412	Bellows with pressed shield	1	1	6
413	SCR Cap st stl M4 x 12	6	6	2
416	Rating label (not shown)	1	10	43
417	Product label (not shown)	1	10	44
418	Side flash label (not shown)	2	10	45
421	NW40 to 1 1/2" BSP nickel plate	1	1	36
422	'O' ring VIT 49.5 id x 3.0 sec 'P'	1	1	2, 36
423	Blanking plug, 19mm	1	1	2
424	Protection cap NW40	1	1	2, 36
425	M4 shakeproof ss washer	6	6	2
426	'O' ring VIT 159.5 id x 3.0 sec 'P'	1	1	2
427	Service label	1	10	8, 53
428	ATEX label	1	10	54
750	Inverter	1	1	8

Table 4 - Scroll pump parts list (figure 4 only)

3 SERVICE KITS

The Service kits available for the Scroll pump range are listed in table 5 below.

Kit No.	Kit P/N & Ref No.	Description	Pack Qty
1	A73001801	Tip seal & exhaust service kit XDS35i	1
2	A73001802	General service kit XDS35i	1
3	A73001803	Ballast kit XDS35i	1
4	A73001719	Fixed scroll XDS35i	1
5	A73001716	Orbiting scroll XDS35i	1
6	A73001722	Bellow XDS35i	1
7	A73001707	Fan kit XDS35i	1
8	A21918715	Inverter XDS35i	1
9	A25908788	Fan cover XDS35i	1
10	A22305035	Inlet filter assembly	1
11	A73001753	O/S shim kit 2.200mm	10
12	A73001754	O/S shim kit 2.235mm	10
13	A73001755	O/S shim kit 2.260mm	10
14	A73001756	O/S shim kit 2.285mm	10
15	A73001757	O/S shim kit 2.310mm	10
16	A73001758	O/S shim kit 2.335mm	10
17	A73001759	O/S shim kit 2.360mm	10
18	A73001760	O/S shim kit 2.385mm	10
19	A73001761	O/S shim kit 2.400mm	10
20	A73001762	O/S shim kit 2.410mm	10
21	A73001763	O/S shim kit 2.600mm	10
22	A73001764	O/S shim kit 2.800mm	10
23	A73001765	O/S shim kit 3.000mm	10
24	A73001772	Motor rotor shim kit 5.725mm	10
25	A73001773	Motor rotor shim kit 5.700mm	10
26	A73001774	Motor rotor shim kit 5.675mm	10
27	A73001775	Motor rotor shim kit 5.650mm	10
28	A73001776	Motor rotor shim kit 6.625mm	10
29	A73001777	Motor rotor shim kit 5.600mm	10
30	A73001778	Motor rotor shim kit 5.575mm	10
31	A73001779	Motor rotor shim kit 5.550mm	10
32	A73001780	Motor rotor shim kit 5.525mm	10
33	A73001781	Motor rotor shim kit 5.500mm	10
34	A73001782	Motor rotor shim kit 5.475mm	10
35	A73001804	Exhaust adaptor kit	1
36	A73001805	Inlet adaptor kit	1
37	A73001743	Shaft XDS35i	1

Table 5 - Service kits listed by item number

Kit No.	Kit P/N & Ref No.	Description	Pack Qty
38	A73001745	Bearing spacer kit	1
39	A73001724	Counter balance kit	1
40	A72701723	Exhaust valve cap	1
41	A73001747	Bearing retaining plate	1
42	A22301720	Fan guard FG-17(S9) chrome PL	1
43	A73001717	Rating label XDS20/30	10
44	A73001718	Product label scroll pump	10
45	A73001720	Side flash label XDS35i	10
46	A73001770	Motor rotor	1
47	A73001708	Stator assembly	1
48	A73001735	Motor housing finish M/C-TWIN	1
49	A73001806	90° Thermal snap switch kit	4
50	A73001808	Fan cover upgrade kit	1
51	A73001809	Exhaust valve upgrade kit	1
52	A73001810	Inlet Strainer kit	1
53	A73001811	Service label kit	10
54	A20001815	ATEX label kit	10

Table 5 - Service kits listed by item number (continued)

Ref	Description	Pack Quantity
109	Exhaust valve pad	1
116	M4 washer - normal st stl	3
117	M4 x 8 SOC cap screw st stl	3
121	'O' ring VIT 29.6 id x 2.4	1
124	Spring - 9.27 o/d x 19.5 long	1
128	'O' ring VIT 19.6 id x 2.4	1
130	M4 x 12 SOC cap screw st stl	3
135	M5 x 20 SOC cap screw st stl	6
136	M5 washer - s/coil rect	6
402	XDS30 tip seal	2
405	'O' ring VIT 246.0 id x 3.0	1

Table 6 - Contents of tip seal and exhaust kit

Ref	Description	Pack Quantity
203	Angular contact bearing	1
205	M4 washer - s/coil	6
206	Shaft end cap	1
208 [#]	M8 x 25 SOC csk screw st stl	1
208 [*]	M8 x 35 SOC csk screw st stl	1
209	M4 x 40 SOC cap screw	4
303	4 x 4 x 12 key form B-BS4235 PT1	1
304	M5 x 40 pan PZ screw	6

Table 7 - Contents of general service kit

Ref	Description	Pack Quantity
310	A/C BRG, 7007BEG 2RS - P5	2
311	M30 x 2 thin nut MS to BS3692	1
312/413	M4 x 12 SOC cap screw st stl	18
316	M4 washer - s/coil	6
404	Orbital scroll plug	1
408	M6 x 65 SOC cap screw HT NI	3
410	Circlip	1
411	KF25 flange ring cover	1
414	'O' ring VIT 174.5 id x 3.0 sec 'N'	1
415	'O' ring VIT 11.1 id x 1.6 sec 'P'	1
422	'O' ring VIT 49.5 id x 3.0 sec 'P'	1
423	19mm blanking plug	1
424	NW40 protective cap	1
425	M4 washer - shakeproof st stl	6
426	'O' ring VIT 159.5 id x 3.0 sec 'P'	1

Table 7 - Contents of general service kit (continued)

Note: # Use this screw for pumps pre serial number 046166503.
 * Use this screw for pumps post serial number 046166503.

Ref	Description	Pack Quantity
103	Ballast knob sub-assembly	1
104	Gas ballast knob insert XDS10	1
108	Gas ballast check valve pad	1
111	NRV spring 7.6 o/d x 17.5 long	1
112	Compression spring	1
119	'O' ring VIT 14.6 id x 2.4 sec 'P'	1
120	'O' ring VIT 0.937 id x 0.103 sec 'N'	1
122	'O' ring VIT 21.5 id x 3.0 sec 'O'	1
133	NRV plug assy	1

Table 8 - Contents of gas ballast kit

Ref	Description	Pack Quantity
106	Fan assembly	1
113	Fan Cover	1
129	No. 8 x 5/8" screw	3

Table 9 - Contents of fan cover upgrade kit

Ref	Description	Pack Quantity
105	Exhaust valve cap	1
109	Exhaust valve pad	1
121	'O' ring Vit 29.6 id x 2.4 sec 'P'	1
124	Spring 9.27 o/d x 19.5 long	1

Table 10 - Contents of exhaust valve upgrade kit

This page intentionally blank.