

Parts Manual

Rotary Vacuum Pumps E1M18 and E2M18

Description	Part Number	Description	Part Number
E1M18, 100 /200 V, 50 Hz, or 100-105/200-210 V, 60 Hz, single-phase	A343-15-904	E1M18, 220-240 V, 50 Hz or 230-240 V, 60 Hz, single-phase (Amphenol)	A343-16-903
E1M18, 110/200-240 V, 50 Hz, or 115-120/200-230 V, 60 Hz, single-phase, fomblin filled	A343-25-984	E1M18, 110/200-240 V, 50 Hz or 115-120/200-230 V, 60 Hz, single phase	A343-17-984
E1M18, 115/230 V, 60 Hz, single phase	A343-15-981	E2M18, 100 /200 V, 50 Hz, or 100-105/200-210 V, 60 Hz, single-phase	A363-15-904
E1M18, 220 V, 50/60 Hz, single phase	A343-15-920	E2M18, 115/230 V, 60 Hz, single phase	A363-15-981
E1M18, 220-240 V, 50 Hz, single-phase	A343-15-912	ATEX E1M18 115 V, 50 Hz, single phase, EExd IIC	A343-18-985
E1M18, 220-240 V, 50 Hz, or 230-240 V, 60 Hz, single phase	A343-15-903	ATEX E1M18 115 V, 60 Hz, single phase, EExd IIC	A343-18-986
E1M18, 200-230/ 380-460 V, 50/60 Hz, three-phase	A343-10-940	ATEX E1M18 115 V, 60 Hz, single phase, EExd IIB	A343-18-987
E1M18, 220-240 V, 50 Hz or 230-240 V, 60 Hz, single-phase (Amphenol)	A343-16-903	ATEX E1M18 230 V, 60 Hz, single phase, EExd IIB	A343-18-988
E1M18, 110/200-240 V, 50 Hz or 115-120/200-230 V, 60 Hz, single phase	A343-17-984	ATEX E1M18 230 V, 50 Hz, single phase, EExd IIC	A343-18-989
E2M18, 100 /200 V, 50 Hz, or 100-105/200-210 V, 60 Hz, single-phase	A363-15-904	ATEX E1M18 230 V, 60 Hz, single phase, EExd IIC	A343-18-990
E2M18, 110/200-240 V, 50 Hz, or 115-120/200-230 V, 60 Hz, single-phase, fomblin filled	A363-25-984	ATEX E1M18 230 V, 50 Hz, single phase, EExd IIB	A343-18-991
E2M18, 115/230 V, 60 Hz, single phase	A363-15-981	ATEX E1M18 400 V, 50 Hz, three phase, EExd IIC	A343-18-992
E2M18, 220 V, 50/60 Hz, single phase	A363-15-920	ATEX E1M18 400 V, 50 Hz, three phase, EExd IIB	A343-18-993
E2M18, 220-240 V, 50 Hz, single-phase	A363-15-912	ATEX E2M18 115 V, 50 Hz, single phase, EExd IIC	A363-18-985
E2M18, 220-240 V, 50 Hz, or 230-240 V, 60 Hz, single-phase	A363-15-903	ATEX E2M18 115 V, 60 Hz, single phase, EExd IIC	A363-18-986
E2M18, 200-230/380-460 V, 50/60 Hz, three phase	A363-10-940	ATEX E2M18 115 V, 60 Hz, single phase, EExd IIB	A363-18-987
E2M18-FF, 220-230/380-460 V, 50/60 Hz, three phase	A363-21-940	ATEX E2M18 230 V, 60 Hz, single phase, EExd IIB	A363-18-988
E2M18-FF, 100/200V, 50/60 Hz	A363-25-904	ATEX E2M18 230 V, 50 Hz, single phase, EExd IIC	A363-18-989
E2M18-FF, 200/240V, 50 Hz	A363-25-912	ATEX E2M18 230 V, 60 Hz, single phase, EExd IIC	A363-18-990
E2M18, 110/200-240 V, 50 Hz or 115-120/200-230 V, 60 Hz, single phase	A363-17-984	ATEX E2M18 230 V, 50 Hz, single phase, EExd IIB	A363-18-991
E1M18, 220-240 V, 50 Hz, or 230-240 V, 60 Hz, single phase	A343-15-903	ATEX E2M18 400 V, 50 Hz, three phase, EExd IIC	A363-18-992
E1M18, 200-230/ 380-460 V, 50/60 Hz, three-phase	A343-10-940	ATEX E2M18 400 V, 50 Hz, three phase, EExd IIB	A363-18-993



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1 How to use this manual

Use this manual to:

- Identify major sub-assemblies.
- Each major sub-assembly is assigned an alphabetical character for each identification.
- Identify Blade kit items and Overhaul kit items.
- Identify individual items and item numbers.
- When you maintain this Edwards product, we recommend you use only Edwards maintenance and service kits.

This manual also provides information about ATEX special items.

2 Pump data tables

Table 1 - E1M18 data table

Item No.	Motor code	Voltage (V)	Phase	Frequency (Hz)	Power (kW)	Enclosure Rating
A343-15-912	A071-09-031	220/240	1	50	0.55	IP22
A343-15-920	A071-10-029	220	1	50/60	0.65	IP22
A343-15-981	A071-10-030	115/230	1	60	0.75	IP44
A343-10-940	A071-09-020	220/240 380/420	3	50	0.55	IP44
A343-15-904	A071-10-031	100/200 100/210	1	50/60	0.55	IP44
A343-15-903	A071-10-028	220/240	1	50/60	0.75	IP44
A343-16-903	A071-10-036	220/240	1	50/60	0.75	IP44
A343-17-984 A343-25-984	A071-10-039	110/200-240 115-120/200-230	1	50/60	0.75/0.9	IP44

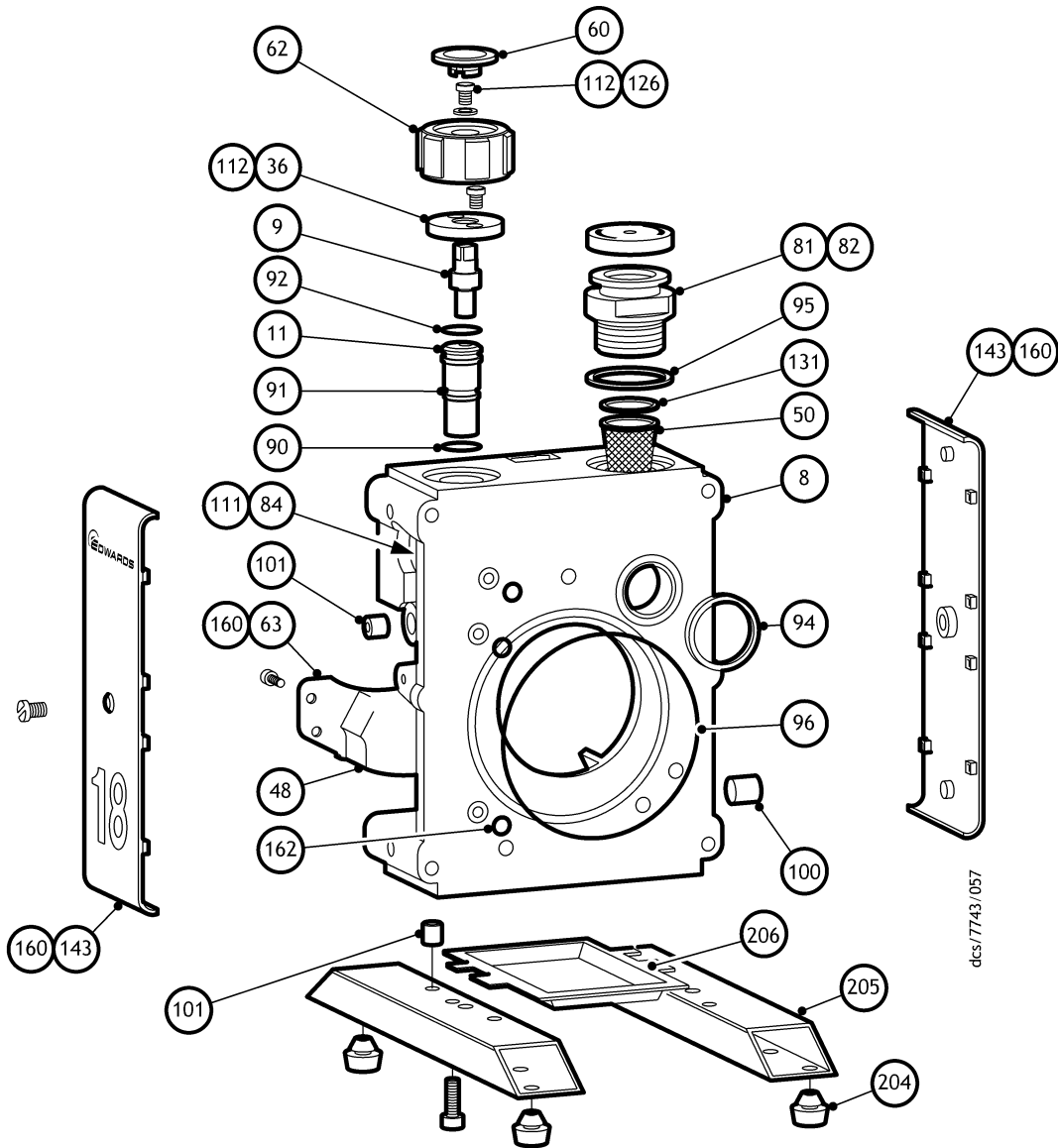
Table 2 - E2M18 data table

Item No.	Motor code	Voltage (V)	Phase	Frequency (Hz)	Power (kW)	Enclosure Rating
A363-15-912 A363-25-912	A071-09-031	220/240	1	50	0.55	IP22
A363-15-920	A071-10-029	220	1	50/60	0.65	IP22
A363-15-981	A071-10-030	115/230	1	60	0.75	IP44
A363-10-940 A363-21-940	A071-09-020	220/240 380/420	3	50	0.55	IP44
A363-15-904 A363-25-904	A071-10-031	100/200 100/210	1	50/60	0.55	IP44
A363-15-903	A071-10-028	220/240	1	50/60	0.75	IP44
A363-17-984 A363-25-984	A071-10-039	110/200-240 115-120/200-230	1	50/60	0.75/0.9	IP44

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3 Adaptor sub-assembly

Figure 1 - Adaptor sub-assembly



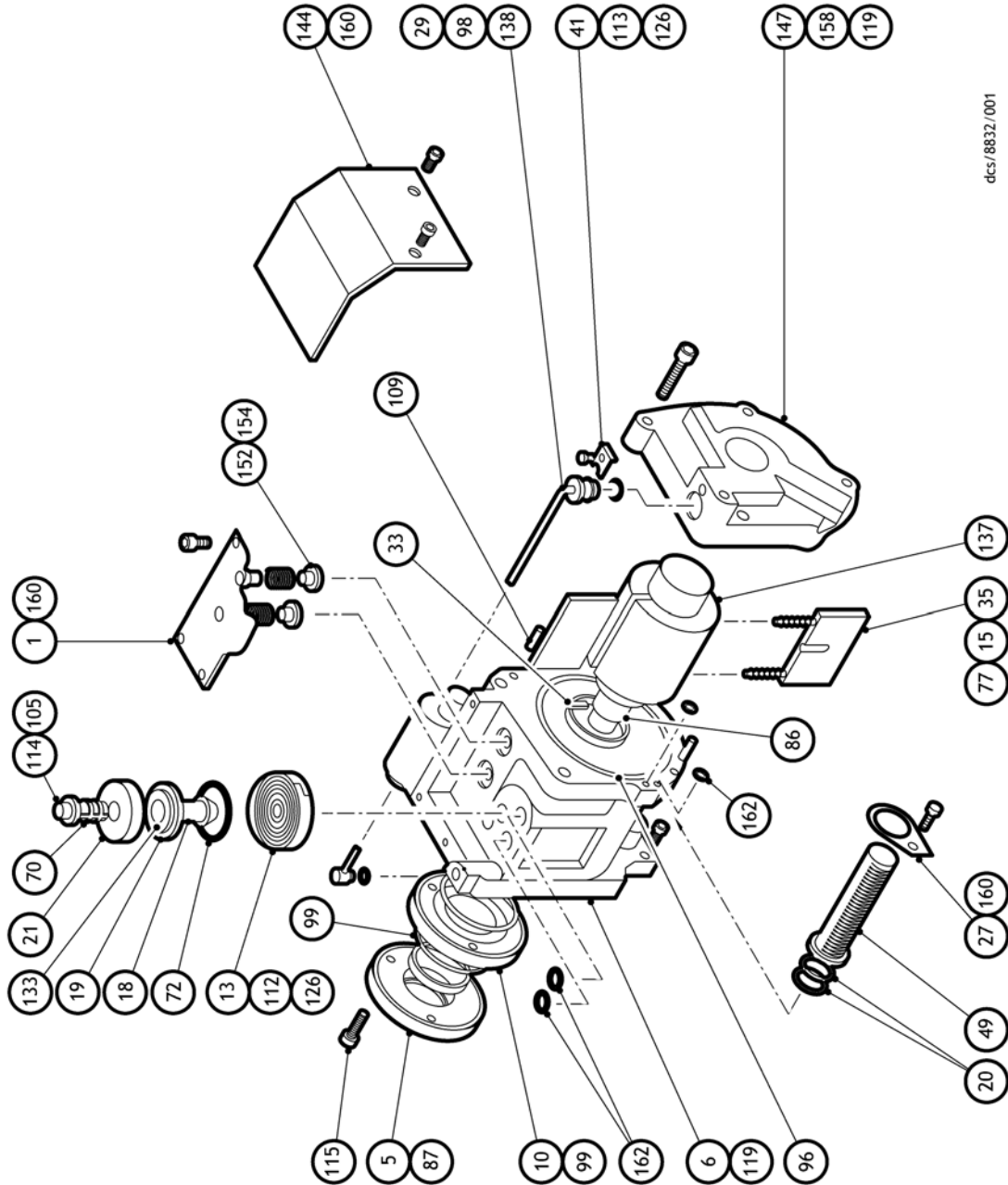
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Table 3 - E1M18 and E2M18 adaptor sub-assembly items

Item	Description	E1M18 Item No.	Qty	E2M18 Item No.	Qty	Kit No.
8	Adaptor- spare	A34306716	1	A34306716	1	
9	Ballast spindle	A34301023	1	A34301023	1	
11	Ballast piston	A34301025	1	A34301025	1	
36	Bearing plate	A20514001	1	A20514001	1	
48	Felt pad		1		1	2
50	Inlet filter	A22305037	1	A22305037	1	
60	Ballast insert	A25908174	1	A25908174	1	
62	Ballast knob	A25908171	1	A25908171	1	
63	Clamp plate	A25908041	1	A25908041	1	
81	BSP male adaptor NW25 x 1	C10501203	1	C10501203	1	
82	Protective cover	D32201071	1	D32201071	1	
84	Dowty seal 2 BA		1		1	2
90	O-ring		1		1	2
91	O-ring		1		1	2
92	O-ring		1		1	2
94	O-ring		1		1	2
95	O-ring		1		1	2
96	O-ring		1		1	2
100	Plug taper press 1/4 BSP hollow	H03517003	1	H03517003	1	
101	Plug taper press 1/8 BSP hollow	H03517004	2	H03517004	2	
111	Ch hd screw, M5 x 8 (ms cad pl)		1		1	
112	Soc hd cap screw, M4 x 12		3		3	
117	Soc hd cap screw, M8 x 20		4		4	
126	Plain washer, M4 (ms) large		1		1	
131	Internal circlip	212081133	1	212081133	1	
143	Side panel	A34310017	2	A34310017	2	
160	Soc hd cap screw, M5 x 10		4		4	
162	O-ring		3		3	2
204	Foot - spare	A26501724	4	A26501724	4	
205	Base skid EM18 - spare	A34306718	2	A34306718	2	
206	Drip tray - spare	A34306719	1	A34306719	1	

4 E1M18 HV stator sub-assembly

Figure 2 - E1M18 HV stator sub-assembly



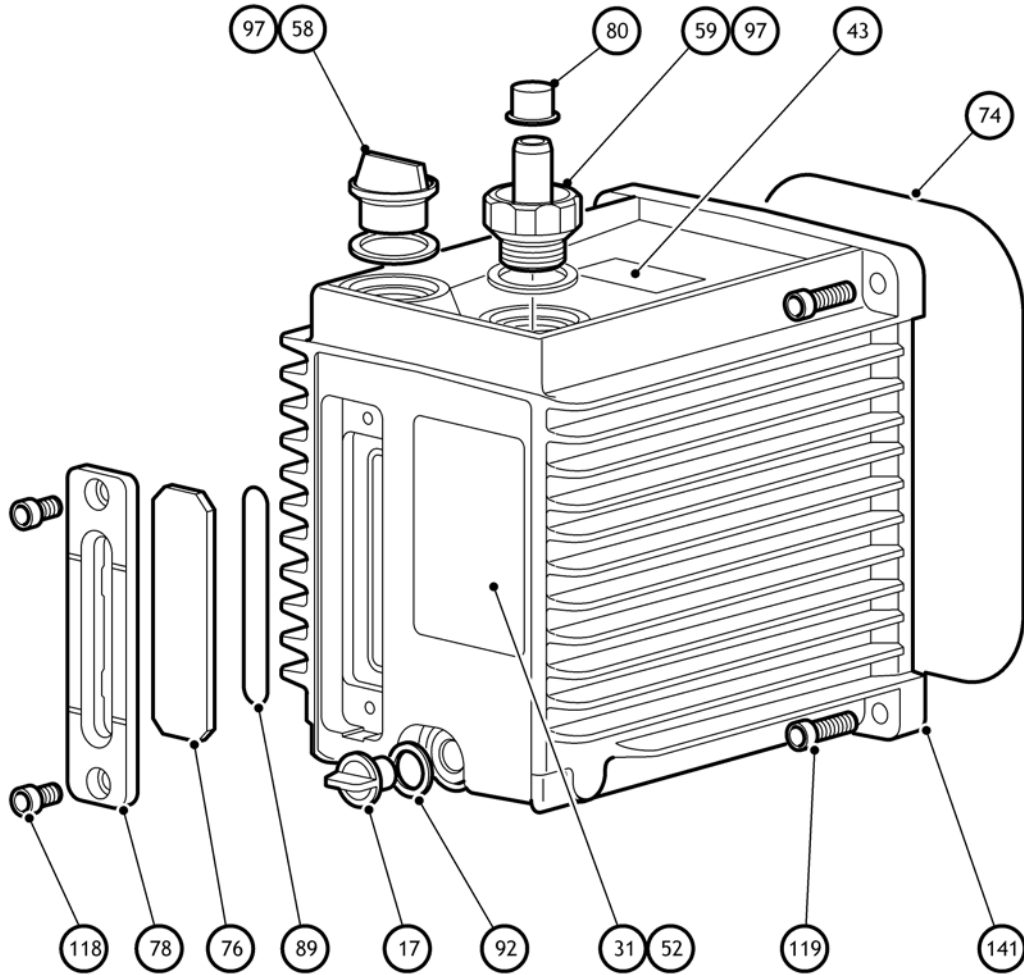
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Table 4 - E1M18 HV stator sub-assembly items

Item	Description	Item No.	Qty	Kit No.
1	High vacuum baffle assembly	A34301003	1	
5	Double seal carrier	A34301040	1	
6	HV stator	A34301010	1	
10	Oil pump housing	A34301024	1	
13	Distributor		1	1
15	HV blade springs	A00307046	2	
18	Distributor sleeve	A34301036	1	
19	Distributor weight	A34301037	1	
20	Filter seal		2	2
21	Distributor cap	A34301038	1	
27	Filter clamp	A34301031	1	
29	Ballast valve		1	2
33	Oil pump blade		1	1
35	HV blade	A20402646	2	
41	Ballast clamp	A20528001	1	
49	Oil filter		1	2
70	Distributor spring		1	2
72	Distributor rubber		1	2
77	HV spring support pin		2	1
86	Oil seal (Viton)		1	2
87	Oil seal (Viton)		1	2
96	O-ring		1	2
98	O-ring (Viton)		2	2
99	O-ring		2	2
105	Large plain washer 2BA (ms cad pl)		1	
109	Parallel dowel Ø6 x 20 mm	212181030	2	
112	Soc hd cap screw, M4 x 12	218091289	1	
113	Soc hd cap screw, M4 x 16		1	
114	Soc hd cap screw, M4 x 35		1	
115	Soc hd cap screw, M5 x 30		3	
119	Soc hd cap screw, M8 x 30		7	
126	Large form C washer M4 (ms cad pl)		1	
133	Waved washer		1	2
137	Rotor	A26401047	1	
138	Ballast line assembly	A34301002	1	
144	Spray baffle	A25976028	1	
147	Rear cover	A34301015	1	
152	Valve pad		2	2
154	Exhaust valve spring		2	2
158	Core plug Ø38 mm	A21078002	1	
160	Soc hd cap screw, M5 x 10		6	
162	O-ring		4	2

5 Oil box sub-assembly

Figure 3 - E1M18 and E2M18 oil box sub-assembly



dcs/8832/002

Table 5 - E1M18 and E2M18 oil box sub-assembly items

Item	Description	E1M18 Item No.	Qty	E2M18 Item No.	Qty	Kit No.
17	Plug 1/4 inch BSP		1		1	2
31	Pump label	A20001356	1	A20001356	1	
43	Exhaust warning label		1		1	2
52	Pump label	A20001354	1	A20001354	1	
58	Filler plug 3/4 inch BSP	A25908118	1	A25908118	1	
59	Nozzle dia 15 mm tube x 3/4 inch BSP	A25908146	1	A25908146	1	
74	Oil box O-ring 194, 5 x 3		1		1	2
76	Sight glass	A29201018	1	A29201018	1	
78	Sight glass bezel	A21035127	1	A21035127	1	
80	Redcap	H01503013	1	H01503013	1	
89	Sight glass O-ring 69, 5 x 3		1		1	
92	Drain plug O-ring 15, 6 x 2, 4		1		1	2
97	Exh / fill plug O-ring 28, 2 x 3, 53		2		2	2
118	M6 x 12 cap screw enp		2		2	
119	M8 x 30 cap screw enp		4		4	
141	Oil box	A34306017	1	A37306017	1	

6 E2M18 HV and LV stator sub-assembly

Figure 4 - E2M18 HV and LV stator sub-assembly

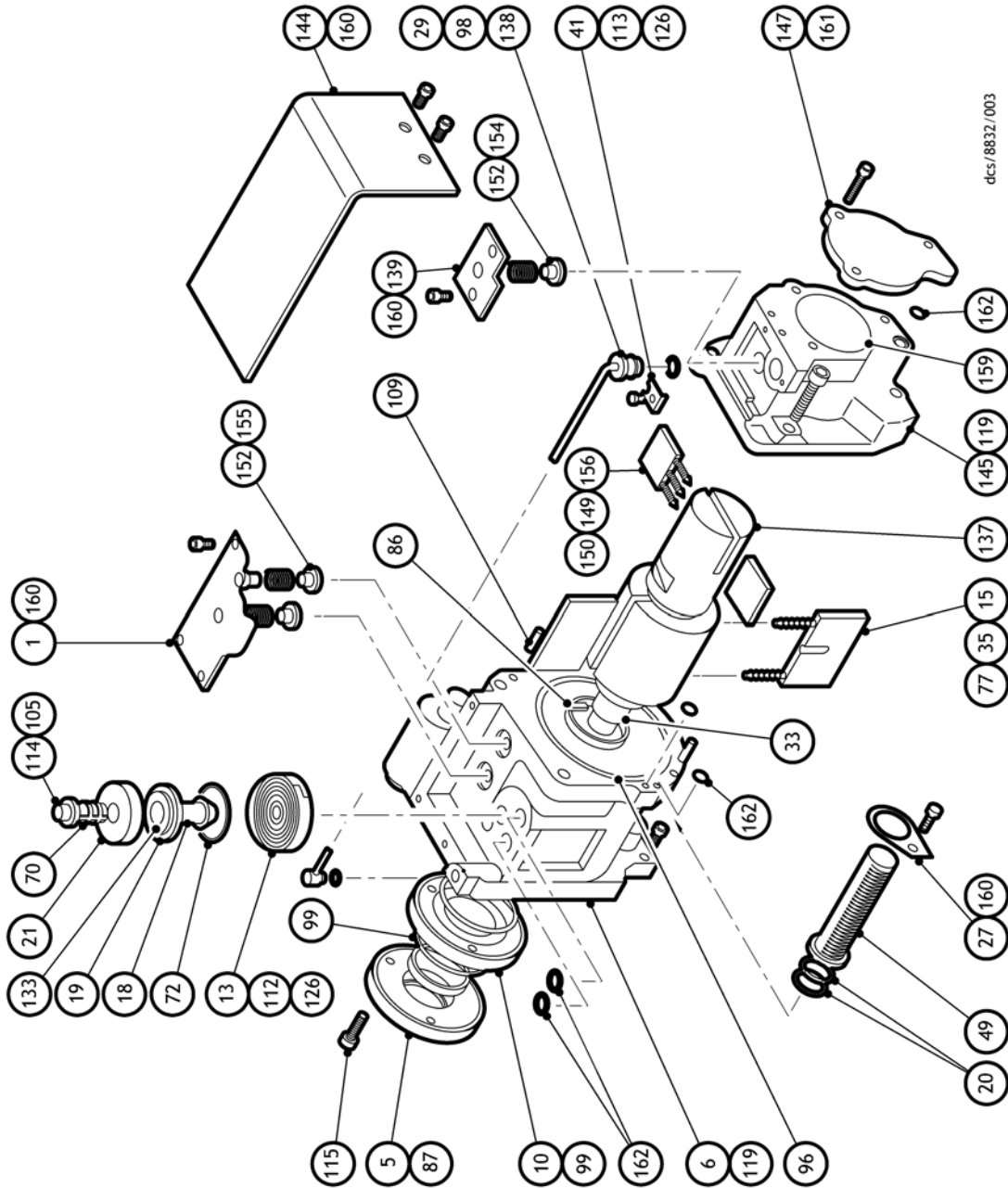


Table 6 - E2M18 HV and LV stator sub-assembly items

Item	Description	Item No.	Qty	Kit No.
1	High vacuum baffle assembly	A34301003	1	
5	Double seal carrier	A34301040	1	
6	HV stator	A34301010	1	
10	Oil pump housing	A34301024	1	
13	Distributor	A34301034	1	
15	HV blade springs		2	1
18	Distributor sleeve	A34301036	1	
19	Distributor weight	A34301037	1	
20	Filter seal		2	2
21	Distributor cap	A34301038	1	
27	Filter clamp	A34301031	1	
29	Ballast valve		1	2
33	Oil pump blade		1	1
35	HV blade	A20402646	2	
41	Ballast clamp	A20528001	2	
49	Oil filter		1	2
70	Distributor spring		1	2
72	Distributor rubber		1	2
77	HV spring support pin		2	1
86	Oil seal (Viton)		1	2
87	Oil seal (Viton)		1	2
96	O-ring		1	2
98	O-ring (Viton)		2	2
99	O-ring		2	2
105	Large plain washer 2BA (ms cad pl)		1	
109	Parallel dowel Ø 6 x 20mm	212181030	2	
112	Soc hd cap screw, M4 x 12		1	
113	Soc hd cap screw, M4 x 16		1	
114	Soc hd cap screw, M4 x 35		1	
115	Soc hd cap screw, M5 x 30		3	
119	Soc hd cap screw, M8 x 30		7	
126	Large form C washer M4 (ms cad pl)		1	
133	Waved washer		1	2
137	Rotor - spare	A26401746	1	
138	Ballast line assembly	A36301002	1	
139	LV baffle assembly	A36301004	1	
144	Spray baffle	A25976029	1	
145	LV stator - spare	A36301714	1	
147	Rear cover	A36301015	1	
149	LV blade spring		3	1
150	LV blade	A20402645	2	
152	Valve pad		3	2
154	Exhaust valve spring		1	2
155	Exhaust valve spring		2	2
156	LV spring support pin		3	1

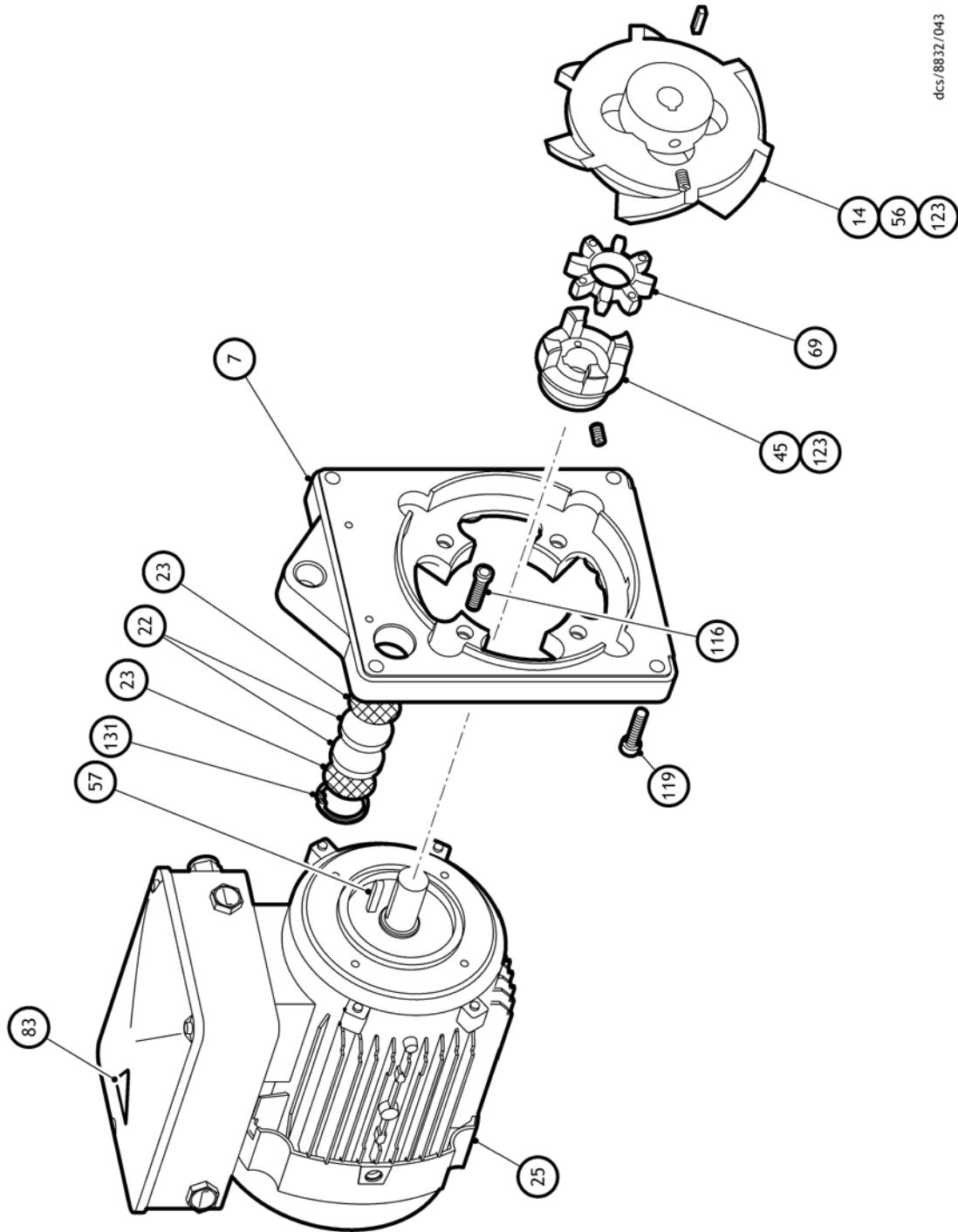
Table 6 - E2M18 HV and LV stator sub-assembly items (continued)

Item	Description	Item No.	Qty	Kit No.
159	O-ring		1	2
160	Soc hd cap screw, M5 x 10		8	
161	Soc hd cap screw, M5 x 16		3	
162	O-ring		5	2

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7 Motor and adaptor plate sub-assembly

Figure 5 - Motor and adaptor plate sub-assembly



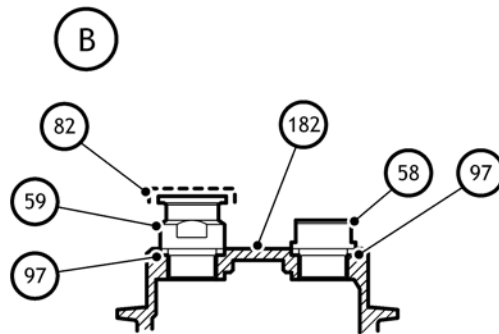
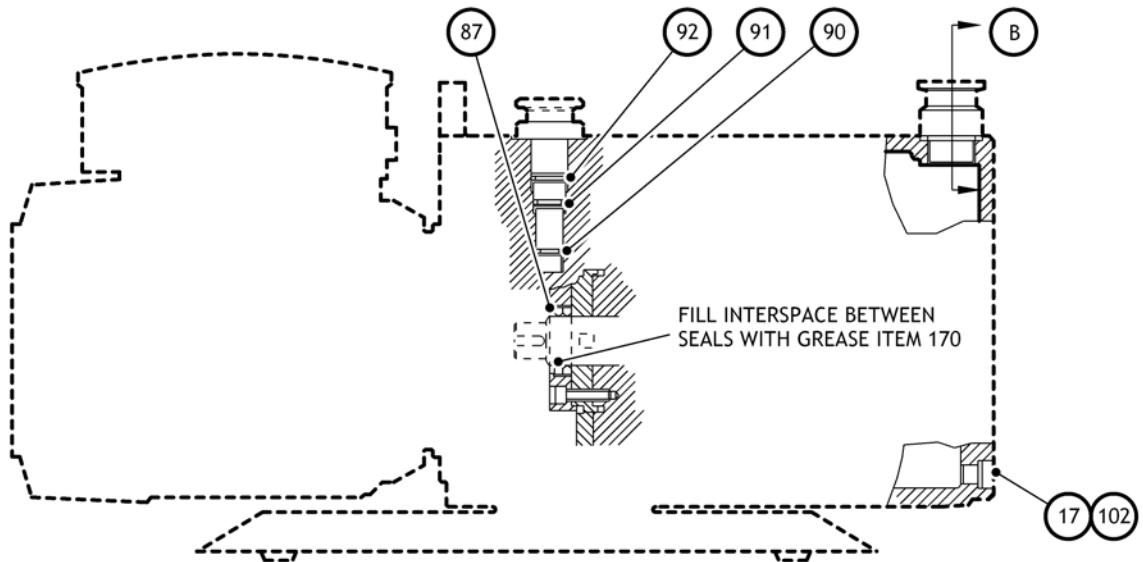
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Table 7 - Motor and adaptor plate sub-assembly items

Item	Description	Item No.	Qty	Kit No.
7	Motor plate - spare	A34301719	1	
14	Fan	A34301020	1	
22	Ballast filter		2	2
23	Ballast gauze		2	2
25	Motor (see Table 1 and 2)		1	
45	Coupling boss	A21071042	1	
56	Key 5 x 5 x 16 mm lg	A24301010	1	
57	Key 6 x 6 x 27 mm lg	A24301015	1	
69	Coupling element		1	2
83	Warning label	E20001063	1	
116	Soc hd cap screw, M6 x 20		4	
119	Soc hd cap screw, M8 x 30		4	
123	Soc set screw hollow M8 x 16		2	
131	Internal circlip	218081133	1	

8 Fomblin filled pumps (also suitable for Firequel application)

Figure 6 - Fomblin filled pumps



dcsl/8832/044

Table 8 - Fomblin filled pumps parts list

Item	Description	Item No.	Qty	Kit No.
17	Plug 1/4 inch BSP	A25908119	1	
58	Filler plug 1/4 inch BSP	A25908118	1	
59	Exhaust nozzle assembly	A25908146	1	
85	O-ring 0156-24 (Viton)	H02122037	1	
90	O-ring (Nitrile)	H02120033	1	
91	O-ring (Nitrile)	H02120035	1	
92	O-ring (Nitrile)	H02120037	1	
97	O-ring (Nitrile)	H02125026	1	
Delete the above items from basic pump assembly to suit code No A34325000 and A36325000				
17	Plug 1/4 inch BSP	A26002030	1	
58	Plug 3/4 inch BSP st stl	A26002016	1	
59	Adaptor 3/4 inch BSP NW25	C10501014	1	
82	Protective cap NW25	D32201071	1	
87	Oil seal DPSM 18.40.7 (Viton)	H02109067	1	
90	O-ring (Viton)	H02122033	1	
91	O-ring 13.6 ID 2.4 sect BS 0136-24	H02122035	1	
92	O-ring 15.6 ID 2.4 sect BS 0156-24	H02122037	1	
97	O-ring (Viton)	H02126026	2	
102	O-ring (Viton)	H02122012	1	
170	Grease dry RT15 100g	H11350013	1	
182	Label (Fomblin)	A20001274	1	

- Notes:** 1. Add the above items to basic pump assembly code Nos A34325000 and A36325000
2. Items above are fitted as standard for pump assemblies A343-25-984 and A363-25-984

Table 9 - Outfit code numbers for E1M18FF

A34325940	A07109020	3 Phase Universal			
Outfit code	Motor code	Watts	Volts	PH	Hz
A34325904	A07110031	650	100/200	1	50
		750	100-105/200-210	1	60
A34325912	A07105931	550	220-240	1	50

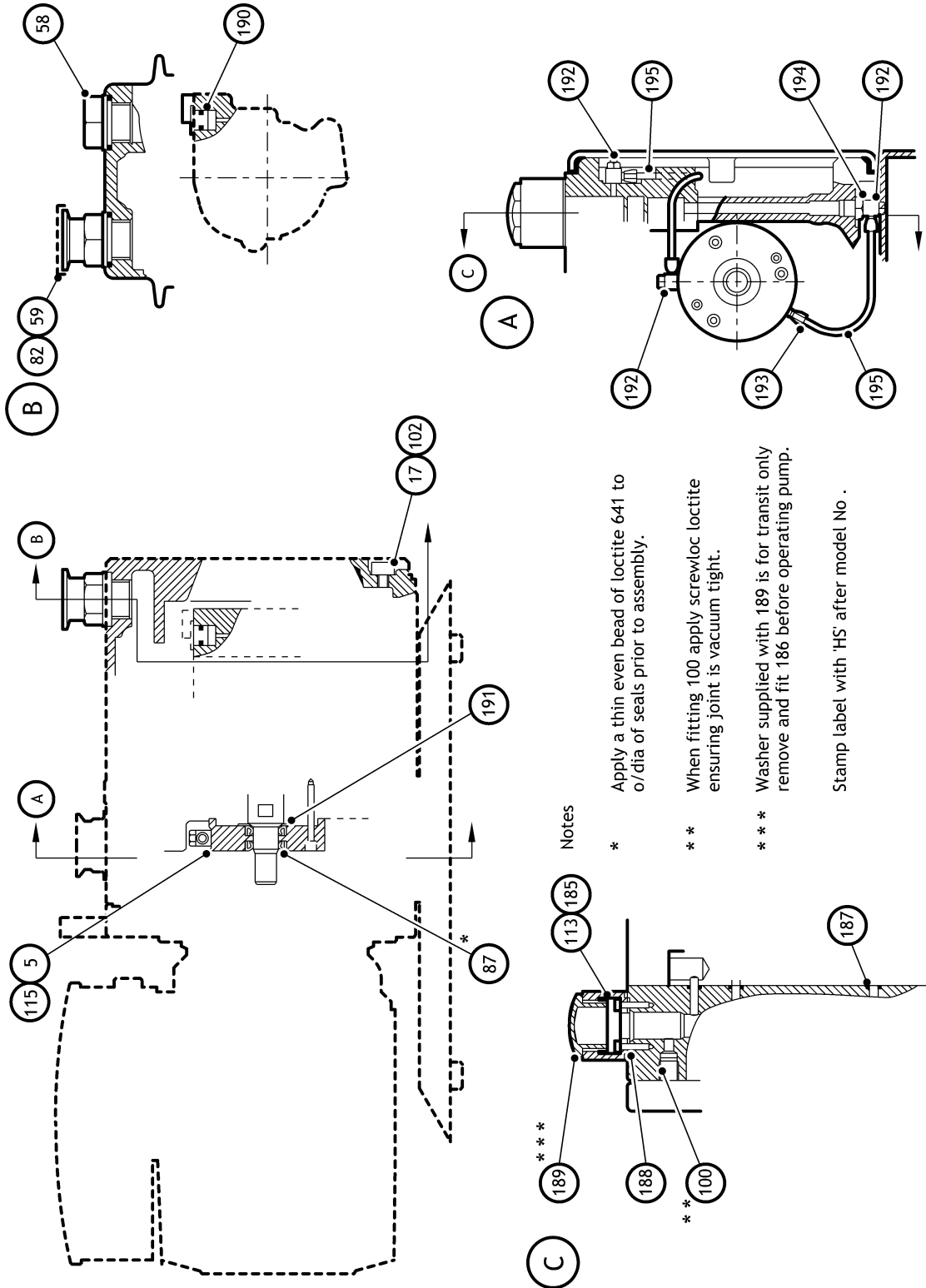
Table 10 - Outfit code numbers for E2M18FF

A36321940	A07109020	3 Phase Universal			
Outfit code	Motor code	Watts	Volts	PH	Hz
A36325904	A07110031	650	100/200	1	50
		750	100-105/200-210	1	60
A36325912	A07109031	550	220-240	1	50

9 Hermetically sealed pumps

Figure 7 - Hermetically sealed pumps

540/2E328/045



- Notes
- * Apply a thin even bead of loctite 641 to o/dia of seals prior to assembly.
 - ** When fitting 100 apply screwloc loctite ensuring joint is vacuum tight.
 - *** Washer supplied with 189 is for transit only remove and fit 186 before operating pump.
- Stamp label with 'HS' after model No .

Table 11 - Hermetically sealed pumps parts list

Item	Description	E1M18 Item No.	Qty	E2M18 Item No.	Qty
5	Seal carrier	A34301040	1	A34301040	1
9	Ballast spindle	A34301023	1	A34301023	1
11	Ballast piston	A34301025	1	A34301025	1
17	Plug 1/4 inch BSP	A25908119	1	A25908119	1
29	Ballast valve	A25908117	1	A25908117	1
36	Bearing plate	A20514001	1	A20514001	1
48	Felt pad	A22302017	1	A22302017	1
50	O-ring ref 0116-24	H02120033	1	H02120033	1
51	O-ring ref 0136-24	H02120035	1	H02120035	1
52	O-ring ref 0156-24	H02120037	1	H02120037	1
58	Filler plug 3/4 inch BSP	A25908118	1	A25908118	1
59	Exhaust nozzle assembly	A25908146	1	A25908146	1
60	Ballast insert	A25908174	1	A25908174	1
62	Ballast knob	A25908171	1	A25908171	1
63	Clamp plate	A25908041	1	A25908041	1
84	Dowty seal 2BA	H02104012	1	H02104012	1
85	Dowty seal 1/8 inch BSP	H02104001	2	H02104001	2
87	Oil seal DPSM 18-40-7 (Viton)	H02100067	1	H02100067	1
101	Hollow taper pressure plug 1/8 inch BSP	H03517004	1	H03517004	1
111	Ch hd screw M5 x 8 MS	218022327	1	218022327	1
112	Soc hd cap screw M4 x 12	218091289	1	218091289	1
115	Soc hd cap screw M5 x 30	218091333	3	218091333	3
126	Plain washer form 'C' M4 mild stl	218080607	1	218080607	1
138	Ballast line assembly	A34301002	1	A36301002	1
162	O-ring Ref 0066-24	H02120028	3	H02120028	3

Note: Assemble pumps to Drawing No A36315000 sheet 1 and sheet 2 less items above.

Table 12 - Hermetically sealed pumps parts list

Item	Description	Item No.	Qty
5	Oil seal housing	A34305001	1
17	Plug 1/4 inch BSP	A26002030	1
58	Plug 3/4 inch BSP	A26002016	1
59	Adaptor NW25 x 3/4 inch BSP	C10501014	1
82	Protective cap NW25	D32201071	1
87	Oil seal 18-30-7	H02105040	2
100	Hollow taper pressure plug 1/4 inch BSP	H03517003	1
102	O-ring	H02122012	1
113	Soc hd cap screw M4 x 16 lg Grade 12-9	218091290	2
	Festo reducing adaptor D-MSI-1/32	H03521003	1
	Festo male connector CK-MS-PK-3	H03521002	1
115	Soc hd cap screw M5 x 35 lg Grade 12-9	218091384	3
185	Reservoir	A34305002	1
186	Split washer (supply in poly bag)	A26405008	1
187	Special seal	A26501033	3
188	Gasket	A27159636	1
189	Oil level indicator	A27162004	1
190	Ballast plug	A27225001	1
191	Oil seal Simrit BADUO	H02109051	1
192	Festo Swivel Elbow LOC-M5-PK-3	H03521001	3
195	Festo PP3 Polyamide tube	2182786612	A/R

Note: Add items listed above to complete pumps to basic Code Nos A34320000 and A36320000

Table 13 - Outfit code number for E1M18HS

Outfit code	Motor code	Watts	Volts	PH	Hz
A34320512	A07109031	550	220/240	1	50
A34325940	A07109020	3 Phase Universal			

Table 14 - Outfit code number for E2M18HS

Outfit code	Motor code	Watts	Volts	PH	Hz
A36320912	A07109031	550	220/240	1	50
A36321940	A07109020	3 Phase Universal			

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10 ATEX special items

Figure 8 - ATEX special items

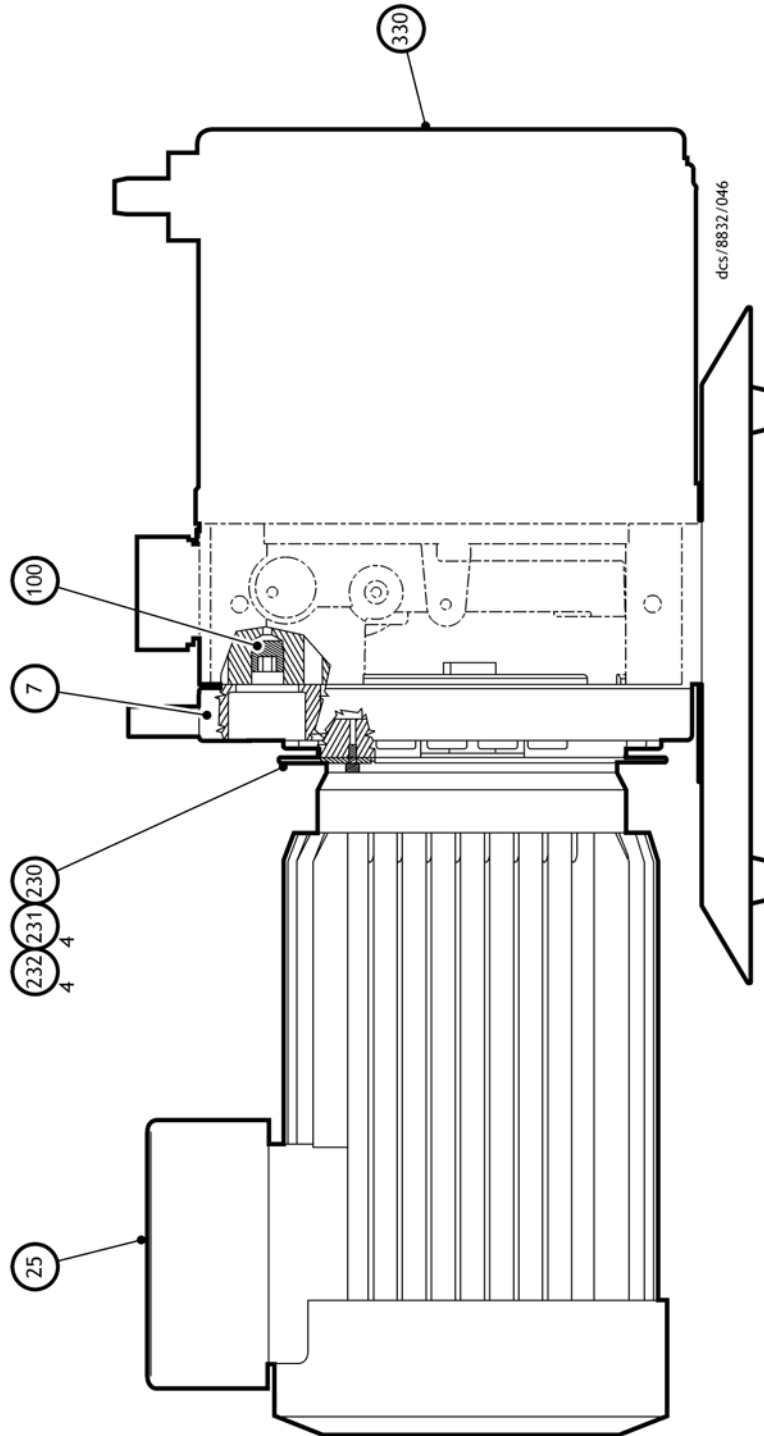


Table 15 - ATEX special items

Item No.	Code No.	Description	Quantity
7	A343-18-019	Motor plate - spare	1
25	See Table 4	1 phase/3 phase flameproof motor	1
100	H035-17-003	1/4 inch BSPT Taper plug	1
330	A200-01-870	ATEX Label (gas group IIB)	1
330	A200-01-873	ATEX Label (gas group IIC)	1

Table 16 - ATEX flameproof motors

1 phase / 3 phase flameproof motors	
Part Number	Description
A071-26-001	115 V, 1 phase, 50 Hz, 0.75 kW, EExd IIC
A071-26-002	115 V, 1 phase, 60 Hz, 0.75 kW, EExd IIC
A071-26-003	115 V, 1 phase, 60 Hz, 0.75 kW, EExd IIB
A071-26-004	230 V, 1 phase, 60 Hz, 0.75 kW, EExd IIB
A071-26-005	230 V, 1 phase, 50 Hz, 0.75 kW, EExd IIC
A071-26-006	230 V, 1 phase, 60 Hz, 0.75 kW, EExd IIC
A071-26-007	230 V, 1 phase, 50 Hz, 0.75 kW, EExd IIB
A071-26-008	400 V, 3 phase, 50 Hz, 0.75 kW, EExd IIC
A071-26-009	400 V, 3 phase, 50 Hz, 0.75 kW, EExd IIB

Note: Assemble pump as per page 6 of drawing A343-06-000 and A363-06-000.

11 Blade kits (kit 1)

The kits are supplied with support instructions A36301840. The Blade kit for E1M18 (A34301041) is detailed below in Table 17.

Table 17 - E1M18 blade kit items

Item	Item No	Description	Qty
15	A00307046	Blade springs HV	2
33	A20402537	Oil pump blade	1
1135	A36301022	2 blade pack HV	1
77	A29203002	Blade pins HV	2

Note: The Blade kit for E2M18 (A36301020) is detailed below in Table 18.

Table 18 - E2M18 blade kit items

Item	Item No	Description	Qty
15	A00307046	Blade springs HV	2
33	A20402537	Oil pump blade	1
1135	A36301022	2 blade pack HV	1
77	A29203002	Blade pins HV	2
149	A00906077	Blade springs LV	3
1150	A36301021	2 blade pack LV	1
156	A29203003	Blade pins LV	3

12 Clean and overhaul kit for E1M18 and E2M18 pumps (kit 2)

The kit is supplied with support instructions A36301840. The Clean and Overhaul kit for E1/E2M18 (Hydrocarbon filled pumps) (A36301131) is detailed below in Table 19. For PFPE filled pumps see Clean and Overhaul kit (PFPE filled pumps) (A363-01-136) as detailed in Table 20.

Table 19 - E1M18 and E2M18 clean and overhaul kit items (hydrocarbon filled pumps)

Item	Item No	Description	Qty
17*	A25908119	Drain plug 1/4 inch BSP	1
17	A00714012	Oil plug 1/8 BSP	2
20	A01403030	Filter seal	2
22	A02308043	Gas ballast filter	2
23	A02308044	Gas ballast gauze	2
29	A25908117	Gas ballast valve	1
43	A20001293	Exhaust warning label	1
48	A22302017	Felt pad	1
49	A22305008	Oil filter assembly	1
69	A26501032	Coupling element	1
70	A27102032	Distributor spring	1
72	A27159430	Distributor rubber	1
74	A27159635	Gasket	1
74*	H02122108	Oil box O-ring	1
84	H02104012	Dowty seal	1
85	H02104001	Dowty seal	2
86	H02109064	Inner shaft oil seal	1
87	H02109067	Outer shaft spiro seal	2
89	H02122083	Sight glass O-ring	1
90	H02120033	Gas ballast O-ring	1
91	H02120035	Gas ballast O-ring	1
92	H02122037	Gas ballast O-ring	1
92*	H02122037	Drain plug O-ring	1
94	H02120067	O-ring	1
95	H02120072	Inlet O-ring	1
96	H02120089	O-ring	2
97	H02125026	O-ring	2
98	H02126116	O-ring	2
99	H02120078	O-ring	2
133	218990201	Waved washer	1
152	A26501029	Valve pad	3
154	A27102030	Valve spring LV	2
155	A27102033	Valve spring HV	2
159	H02120057	O-ring	1
162	H02120028	O-ring	8

* For later series pumps

Clean and overhaul kit for E1M18 and E2M18 pumps (kit 2)

Table 20 - E1M18 and E2M18 clean and overhaul kit items (PFPE filled pumps)

Item No.	Part Number.	Description	Qty.
	A20001369	Spares kit label	1
	A21001113	215 x 170 x 60 internal dims	1
	A36301840	Working instructions E1/2M 1C0	1
	B20418053	4 x 6 polythene bag	3
	B20418056	6 x 8 polythene bag	1
	B20418062	9 x 12 polythene bag 500 gauge	1
	C20418006	Jiffy bag No3	1
	182355009	Bubble wrap D90 375 wide perf	0.44
0017	A26002030	1/4 inch BSP blanking plug DP80/EM5	1
0020	A01403030	Oil filter seal	2
0022	A02308043	Pad	2
0023	A02308044	Gauze	2
0029	A25908117	Gas ballast valve 450CA30	1
0043	A20001293	Exhaust warning label	1
0048	A22302017	Felt pad	1
0049	A22305008	Filter assembly E2M 18/28	1
0069	A26501032	Coupling element	1
0070	A27102032	Compression spring	1
0072	A27159430	Distributor rubber	1
0074	H02122108	O-ring Viton 194.5 ID x 3.0 sec!p!	1
0084	H02104012	Dowty bonded seal 2BA	1
0086	H02109064	Oil seal Viton 30 x 40 x 7	1
0087	H02109067	Viton spiroseal E1 M/E2M-2/5/8BO	2
0089	H02122083	O-ring Viton 69.5 ID x 3.0 sec!p!	1
0090	H02122033	O-ring Viton 11.6 ID x 2.4 sec!p!	1
0091	H02122035	O-ring Viton 13.6 ID x 2.4 sec!p!	1
0092	H02122037	O-ring Viton 15.6 x 2 .4 sec!p!	1
0094	H02120067	O-ring BS 4518 0275-30 (Nit)	1
0095	H02120072	O-ring Nitrile 35.5 ID x 3.0 sec!p!	1
0096	H02120089	O-ring vor 0995-30	2
0097	H02126026	O-ring Viton 1.109 ID x .139 sec!p!	2
0098	H02126116	O-ring Viton 0.299 ID x .103 sec!p!	2
0099	H02120078	O-ring Nitrile 44.5 ID x 3.0 sec!p!	2
0102	H02122012	O-ring Nitrile 14.1 ID x 1.9 sec!p!	1
0133	218990201	Waved washer	1
0152	A26501029	Valve pad	3
0154	A27102030	Compression spring	2
0155	A27102033	Compression spring	2
0159	H02120057	O-ring Nitrile 61.6 ID x 2.4 sec!p!	1
0162	H02120028	O-ring Nitrile 6.6 ID x 2.4 sec!p!	8

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13 E2M18 O-ring sealed oil box conversion kit

Figure 9 - E2M18 O-ring sealed oil box conversion kit

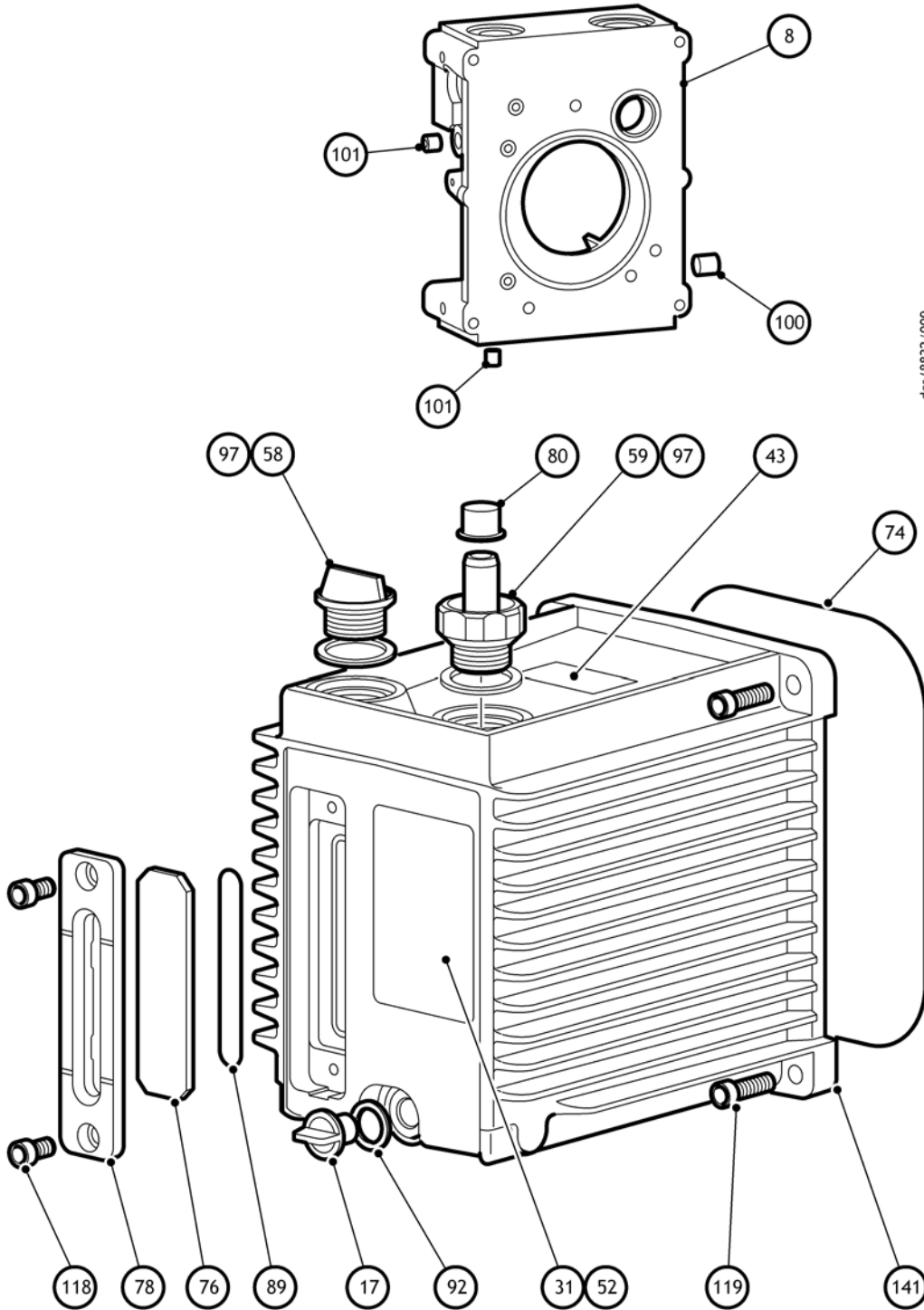


Table 21 - E2M18 O-ring sealed oil box conversion kit

Item No.	Code No.	Description	Qty
8	A34306016	Adaptor machining E1/2M18	1
17	A52908119	Oil drain plug N6 25% GF grey ¼ BSP	1
31	A20001356	Pump label	1
43	A20001293	Exhaust warning label	1
52	A20001354	Pump label (common wet pumps)	1
58	A25908118	Filler plug 3/4 inch BSP	1
59	A25908146	Nozzle dia 15 to 3/4 inch BSP N6 50% GF grey	1
74	H02122108	O-ring Viton 194.5 I/D x 3.0 Sec (oil box)	1
76	A29201018	Sight glass (RV)	1
78	A21035127	Bezel (pressure die casting)	1
80	H01503013	Redcap plug Aq330-13	1
89	H02122083	O-ring Viton 69.5 I/D x 3.0 Sec (sight glass)	1
92	H02122037	O-ring Viton 15.6 I/D x 2.4 Sec	1
97	H02125026	O-ring Nitrile 1.109 inch I/D x 0.139 inch Sec	2
100	H03517003	1/4 inch BSPT Taper pressure plug	1
101	H03517004	1/8 inch BSPT Taper pressure plug	2
118	218092369	SCR CAP HD M6 x 12 HT	2
119	27522-050	SCR CAP HD M8 x 30 MS ENP	4
141	A37306017	Oil box machining E2M18/28	1

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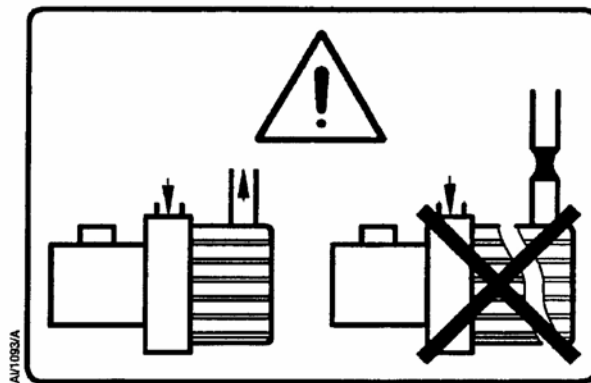
Appendix A1 Exhaust warning label

This warning label item (43) shown in [Figure A1](#) supersedes label item (32), and is fitted as standard to pumps from the following serial numbers onward:

E1M18 - Serial Number 03475.

E2M18 - Serial Number 28670.

Figure A1 - Exhaust warning label (ECDs S0924 and S1060)



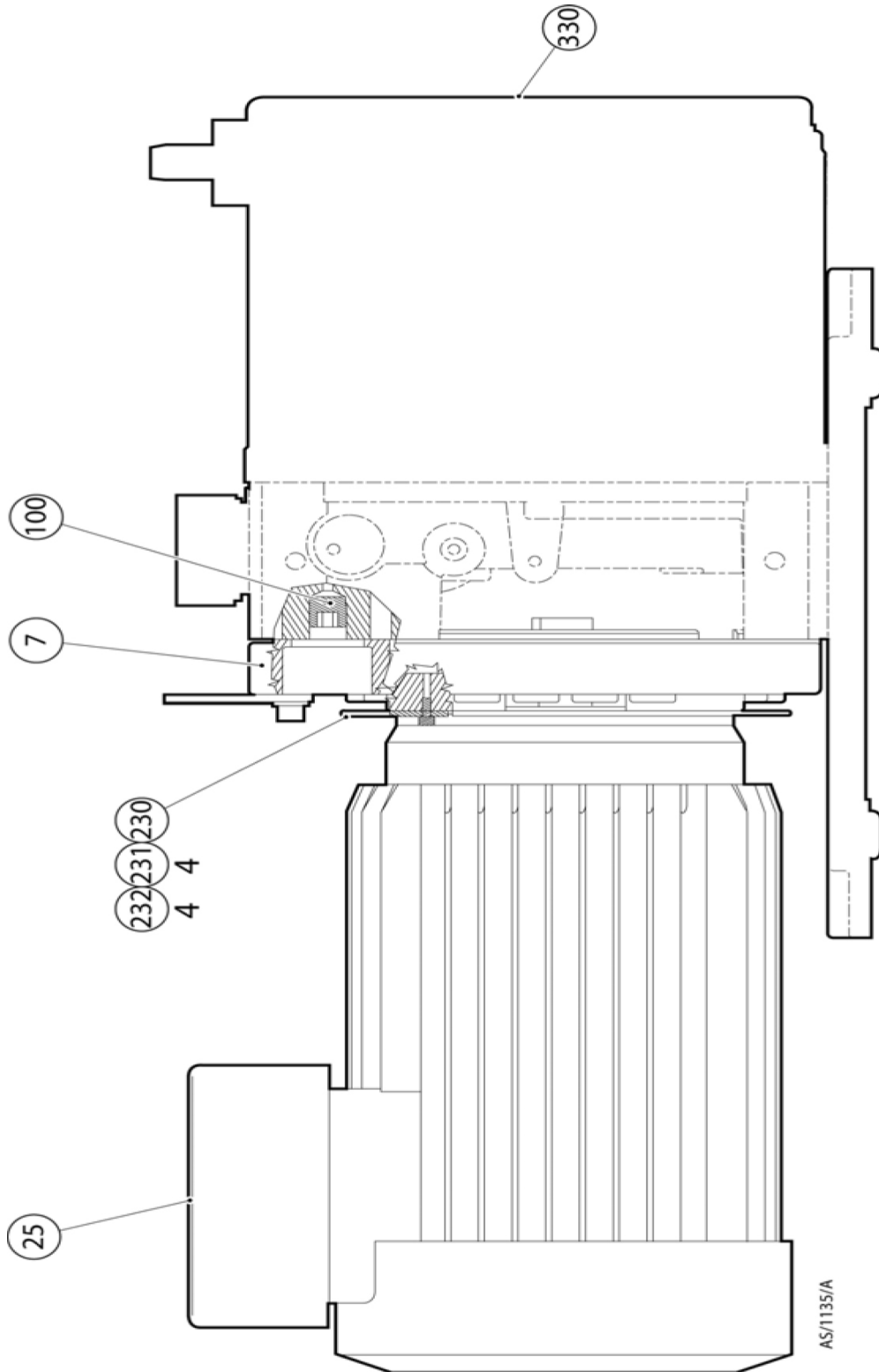
This label must be fitted to pumps of earlier manufacture when clean and overhaul is performed. The label is included in the kit. The old label item (32) must be discarded from the pump.

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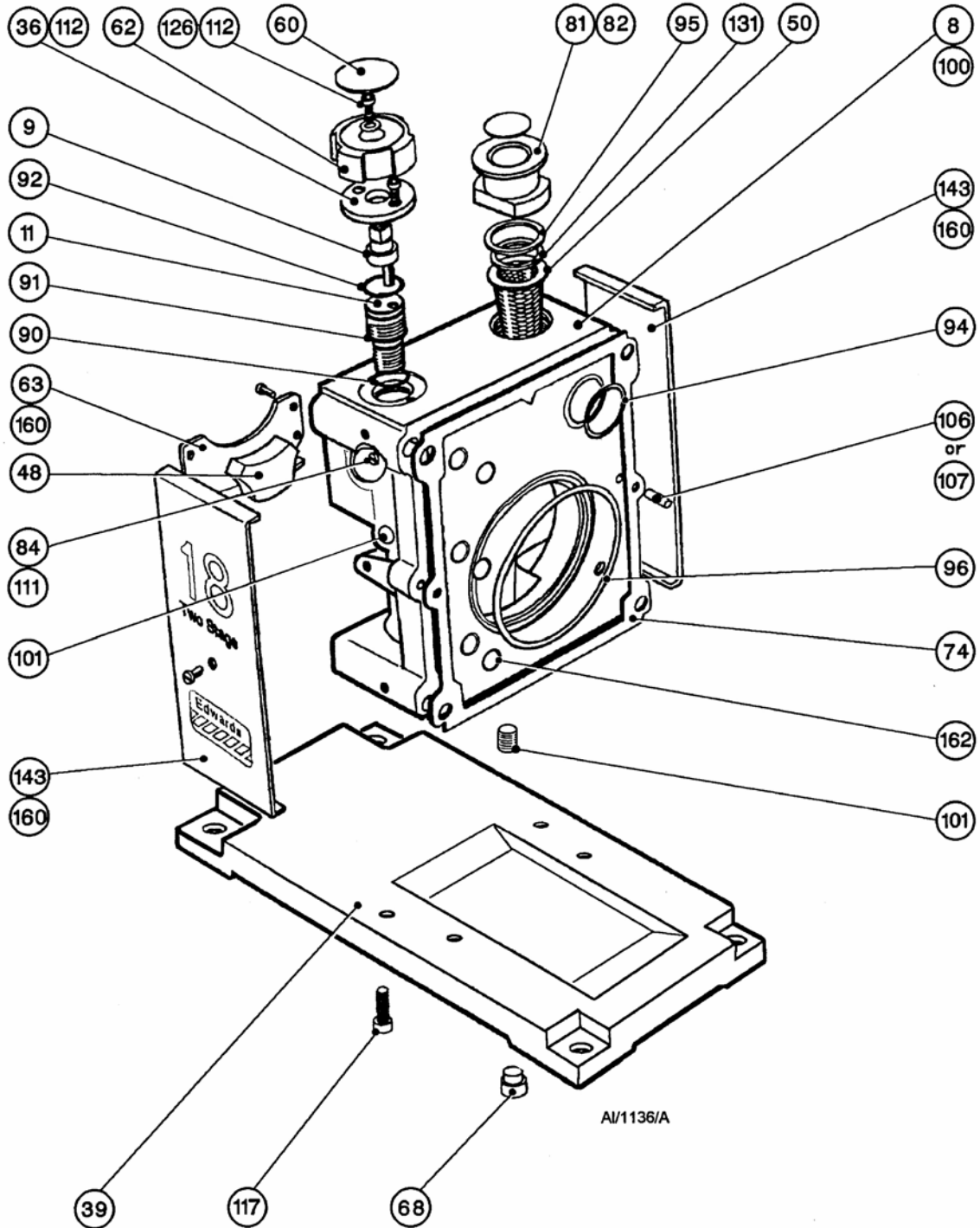
Appendix B1 Removed pages

The following pages have been retained for information purposes only.

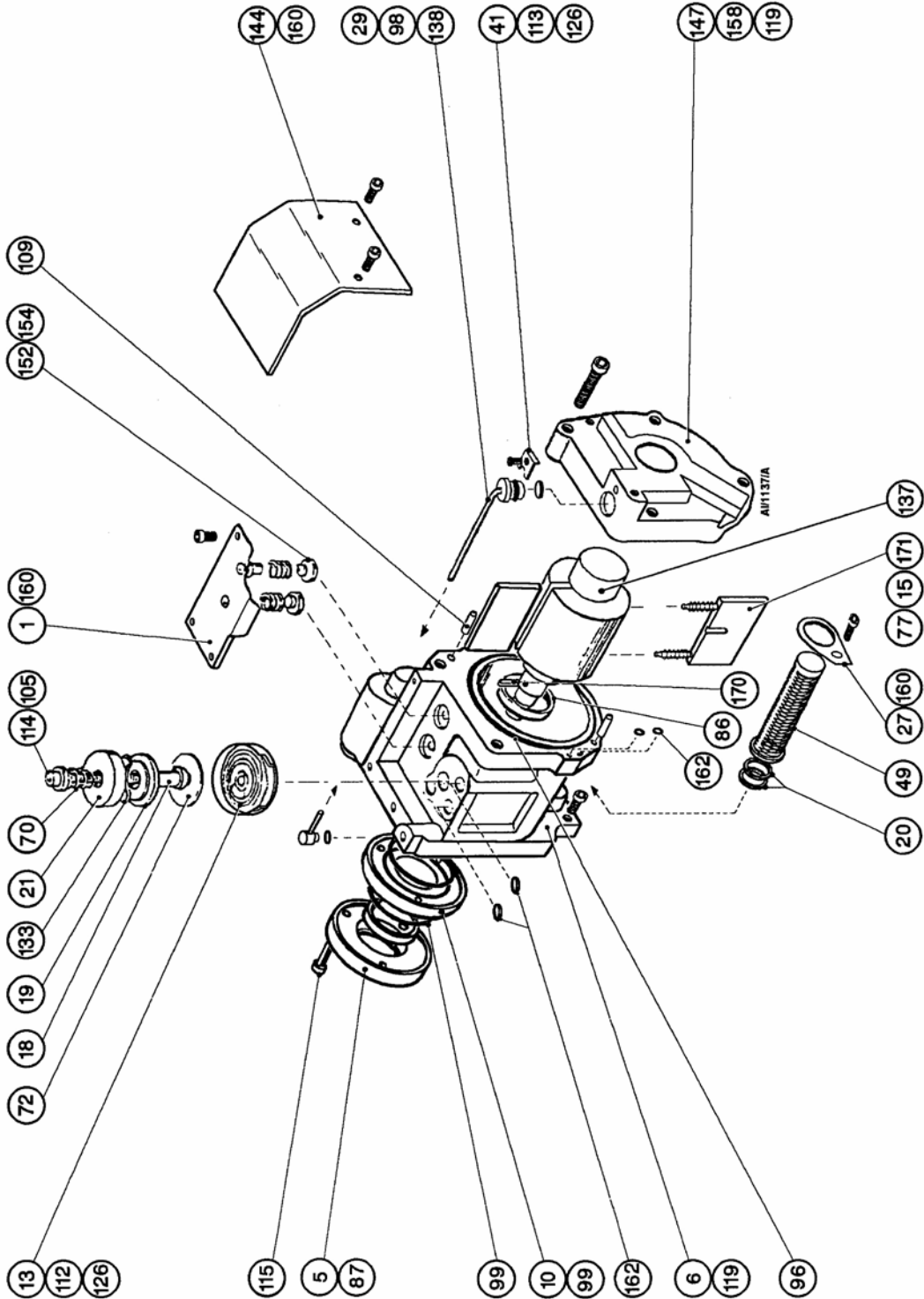
B1.1 3 Major sub assemblies



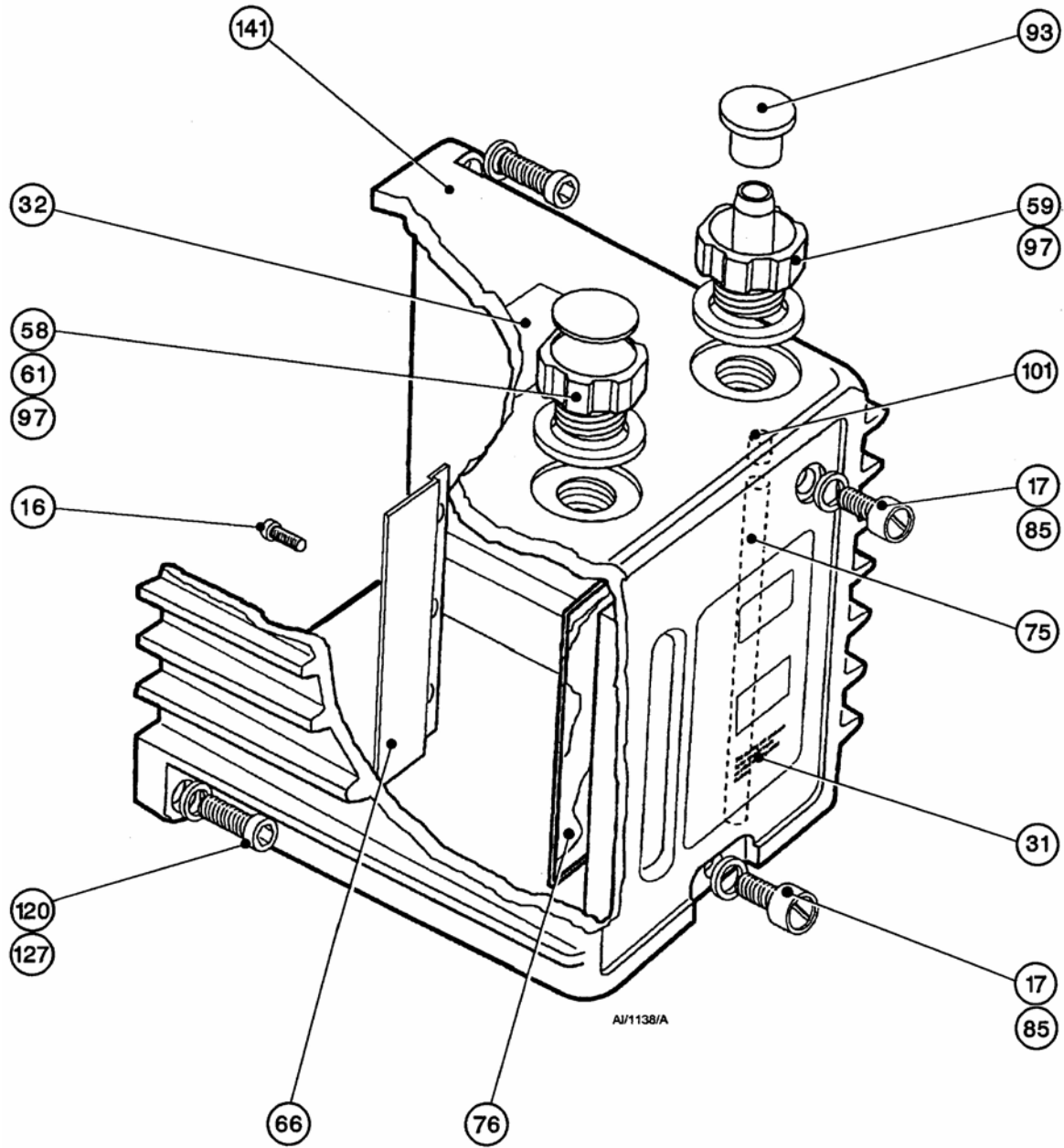
B1.1.1 (A) Adaptor sub-assembly



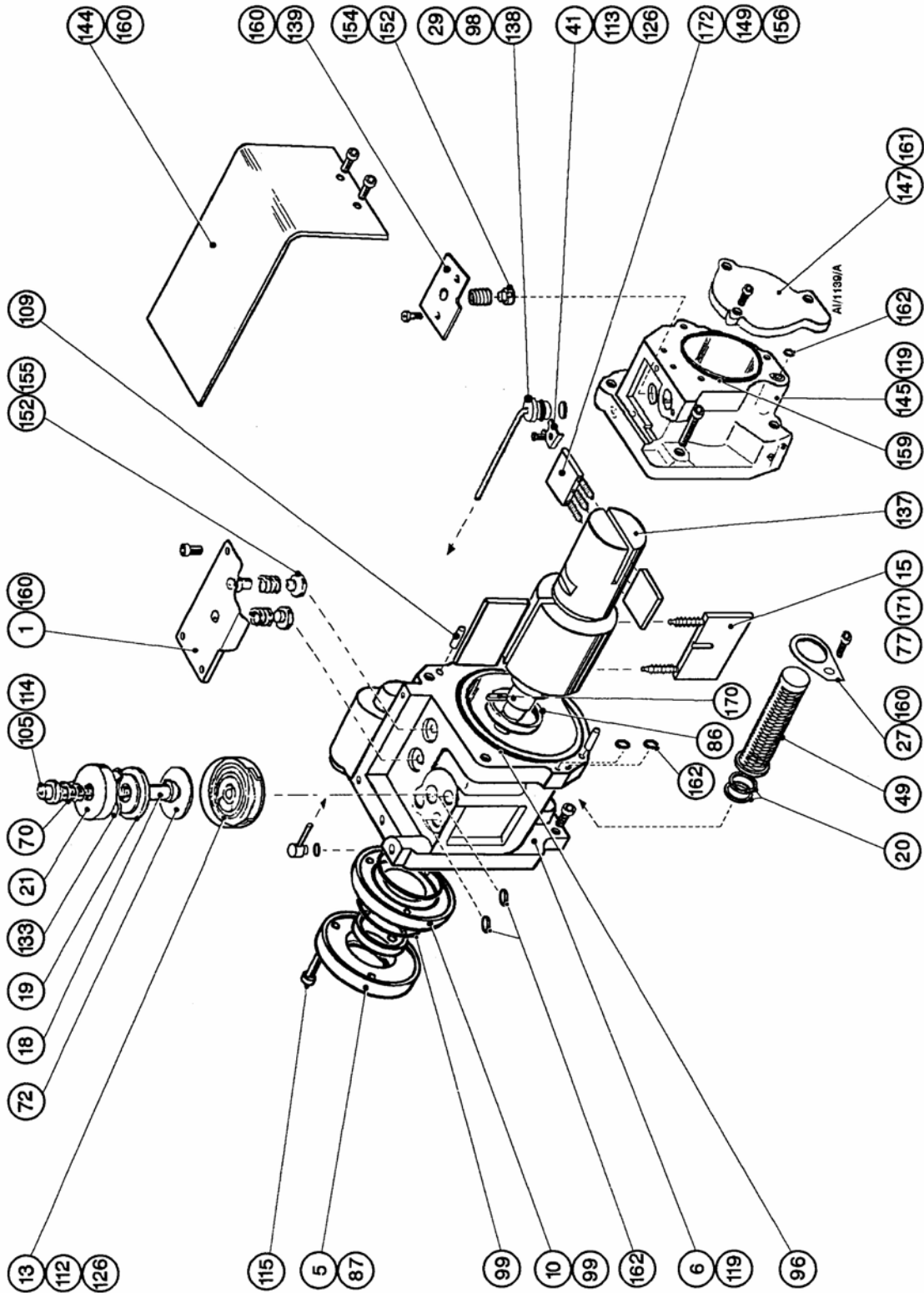
B1.1.2 (B) E1M18HV stator sub-assembly



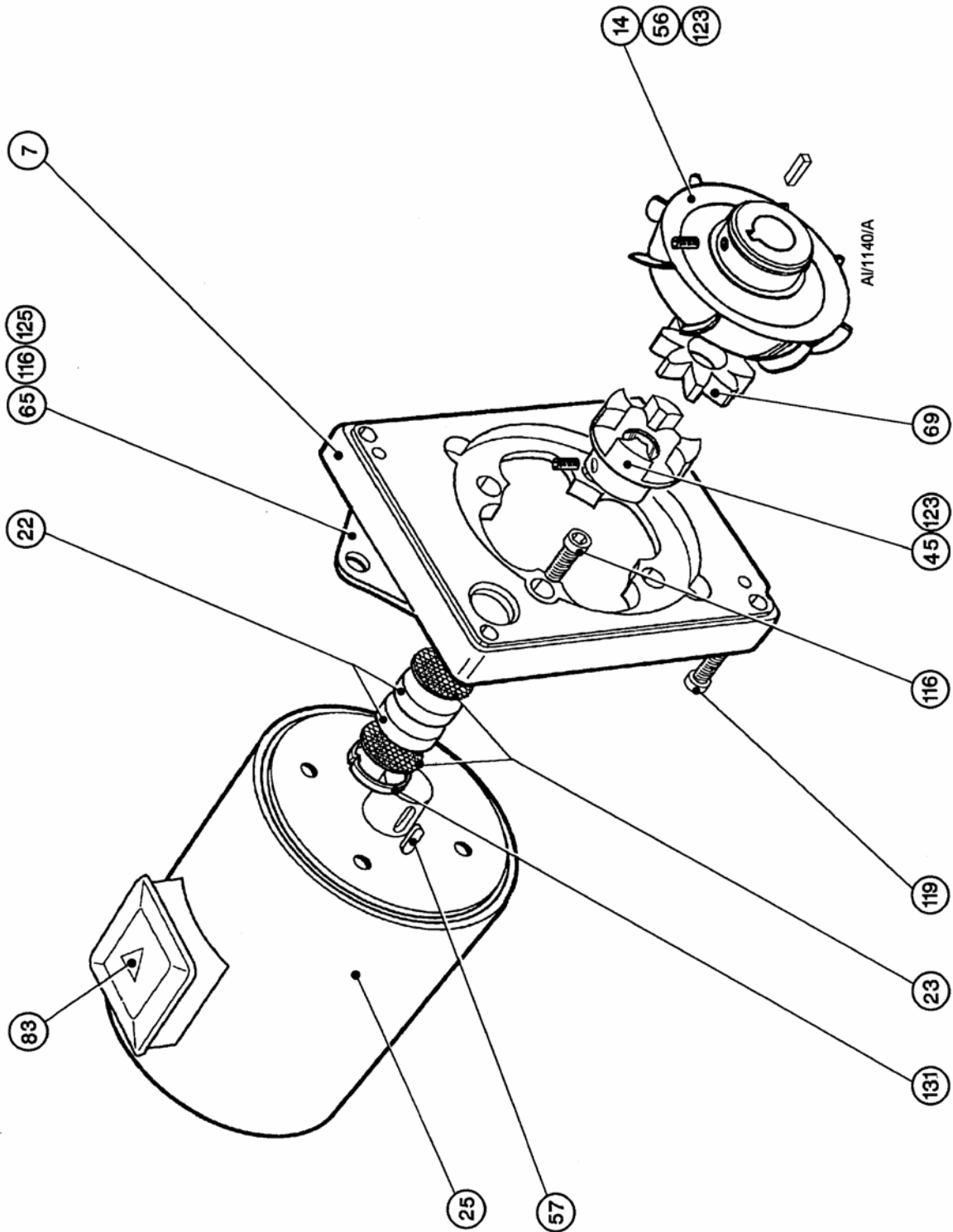
B1.1.3 (C) Oil box sub-assembly



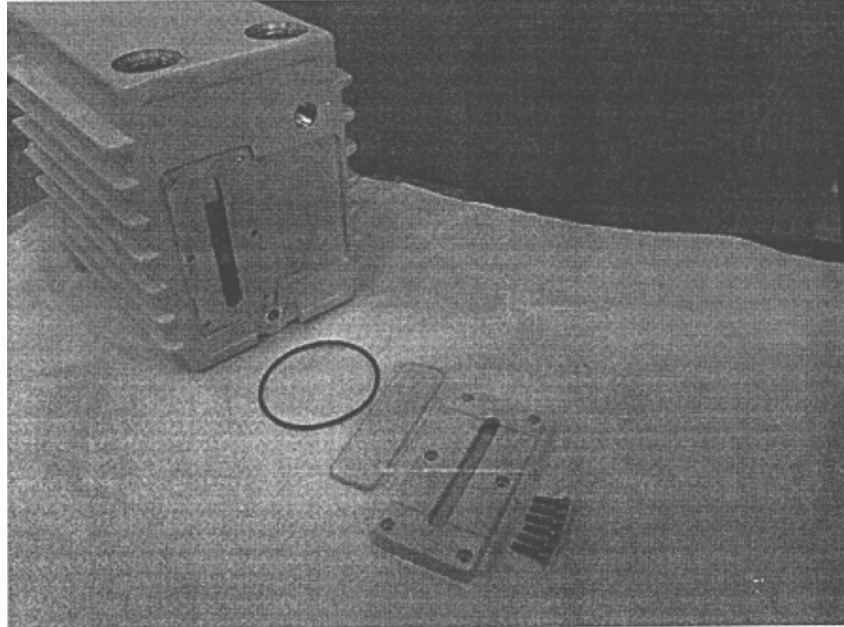
B1.1.4 (D) E2M18HV and LV stator sub-assembly



B1.1.5 (E) Motor and adaptor plate sub-assembly



B1.2 Interim oil sight glass assembly



B1.3 Interim oil box assembly spares replacement Part no A36301801

No drawing available

Figure B1 - Interim oil box assembly spares replacement Part No A36301801

Table B1 - Interim oil box assembly spares replacement Part No A36301801

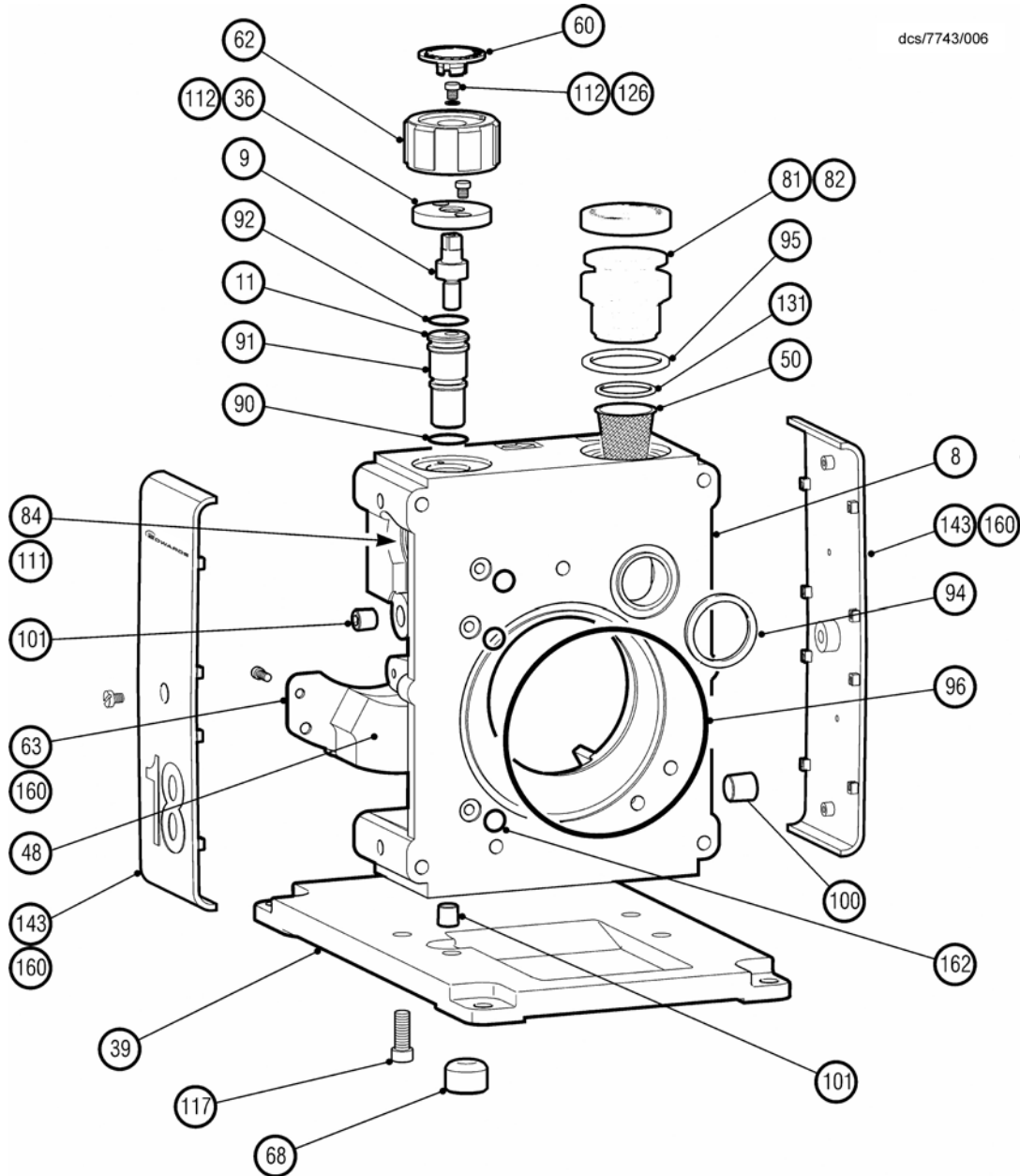
Item No	Description	Qty
A20001369	Spares kit label	1
A21001019	Carton	1
A25908118	Oil fill plug N6 25 % GF GRY K40	1
A25908146	Nozzle 3/4 inch BSP N6 50 % GF GRY KM90	1
A26002027	Plug 1/8 inch BSP	2
A27159635	Oilbox gasket	1
A27858001	Drain tube	1
A29201018	Sight glass (RV)	1
A36301012	Oilbox c/w MOD sight glass M/C	1
A36301016	Sight glass clamp E2M28	1
H02122009	'O' ring 11.1 ID x 1.6 section (P) (Viton)	2
H02122083	'O' ring 69.5 ID x 3.0 section (P) (Viton)	1
H02125026	'O' ring 1.109 ID x 139 section (P) (Nit)	2
H03517004	Taper pressure plug 1/8 inch BSP	1
218231290	Cap screw S Stl M4 x 16	6

Appendix C1 Removed pages

The following pages have been retained for information purposes only.

C1.1 3 Adaptor sub-assembly

Figure C1 - Figure 1 Adaptor sub-assembly



dcx/7743/006

Table C1 - Table 1 - E1M18 and E2M18 adaptor sub-assembly items

Item	Description	E1M18 Item No.	Qty	E2M18 Item No.	Qty	Kit No.
8	Adaptor -Spare	A34306716	1	A34306716	1	
9	Ballast spindle	A34301023	1	A34301023	1	
11	Ballast piston	A34301025	1	A34301025	1	
36	Bearing plate	A20514001	1	A20514001	1	
39	Baseplate	A21035060	1	A21035060	1	
48	Felt pad		1		1	2
50	Inlet filter	A22305037	1	A22305037	1	
60	Ballast insert	A25908174	1	A25908174	1	
62	Ballast knob	A25908171	1	A25908171	1	
63	Clamp plate	A25908041	1	A25908041	1	
68	Isolator rubber	A26501031	4	A26501031	4	
81	BSP male adaptor NW25 x 1	C10501203	1	C10501203	1	
82	Protective cover	D32201071	1	D32201071	1	
84	Dowty seal 2 BA		1		1	2
90	O-ring		1		1	2
91	O-ring		1		1	2
92	O-ring		1		1	2
94	O-ring		1		1	2
95	O-ring		1		1	2
96	O-ring		1		1	2
100	Plug taper press 1/4 BSP hollow	H03517003	1	H03517003	1	
101	Plug taper press 1/8 BSP hollow	H03517004	2	H03517004	2	
111	Ch hd screw, M5 x 8 (ms cad pl)		1		1	
112	Soc hd cap screw, M4 x 12		3		3	
117	Soc hd cap screw, M8 x 20		4		4	
126	Plain washer, M4 (ms) large		1		1	
131	Internal circlip	212081133	1	212081133	1	
143	Side panel	A34310017	2	A34310017	2	
160	Soc hd cap screw, M5 x 10		4		4	
162	O-ring		3		3	2

C1.2 7 Motor and adaptor plate sub-assembly

Figure C2 - Figure 2 - Motor and adaptor plate sub-assembly

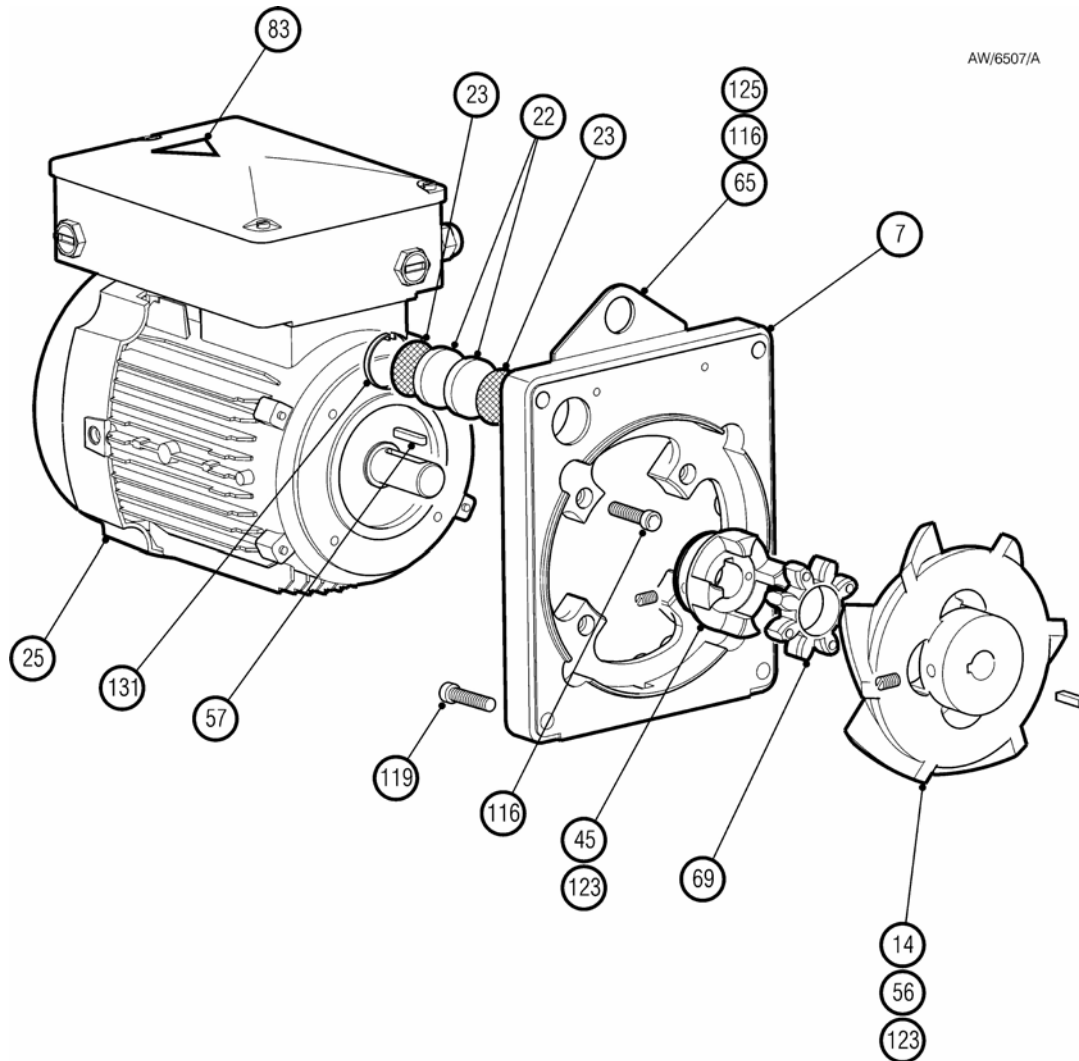
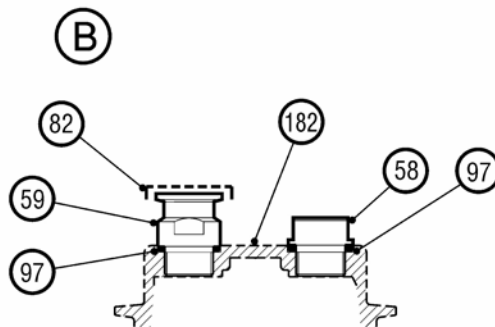
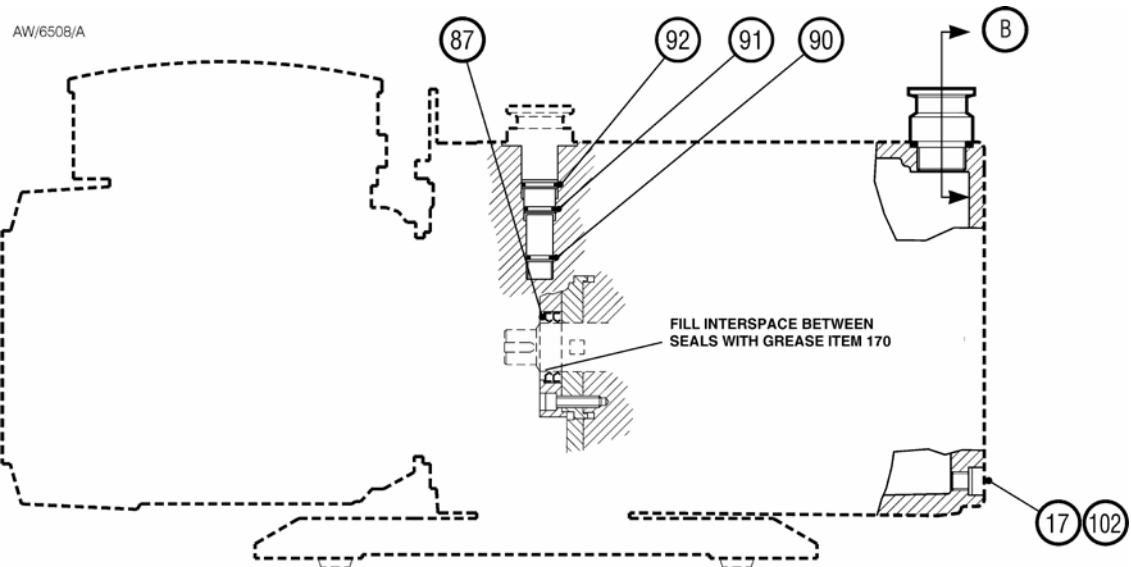


Table C2 - Table 7 - Motor and adaptor plate sub-assembly items

Item	Description	Item No.	Qty	Kit No.
7	Motor plate - Spare	A34301712	1	
14	Fan	A34301020	1	
22	Ballast filter		2	2
23	Ballast gauze		2	2
25	Motor (see Table 1 and 2)		1	
45	Coupling boss	A21071042	1	
56	Key 5 x 5 x 16 mm lg	A24301010	1	
57	Key 6 x 6 x 27 mm lg	A24301015	1	
65	Lifting plate	A65401023	1	
69	Coupling element		1	2
83	Warning label	E20001063	1	
116	Soc hd cap screw, M6 x 20		6	
119	Soc hd cap screw, M8 x 30		4	
123	Soc set screw hollow M8 x 16		2	
125	Plain washer M6 (ms Ni Pl)		2	
131	Internal circlip	218081133	1	

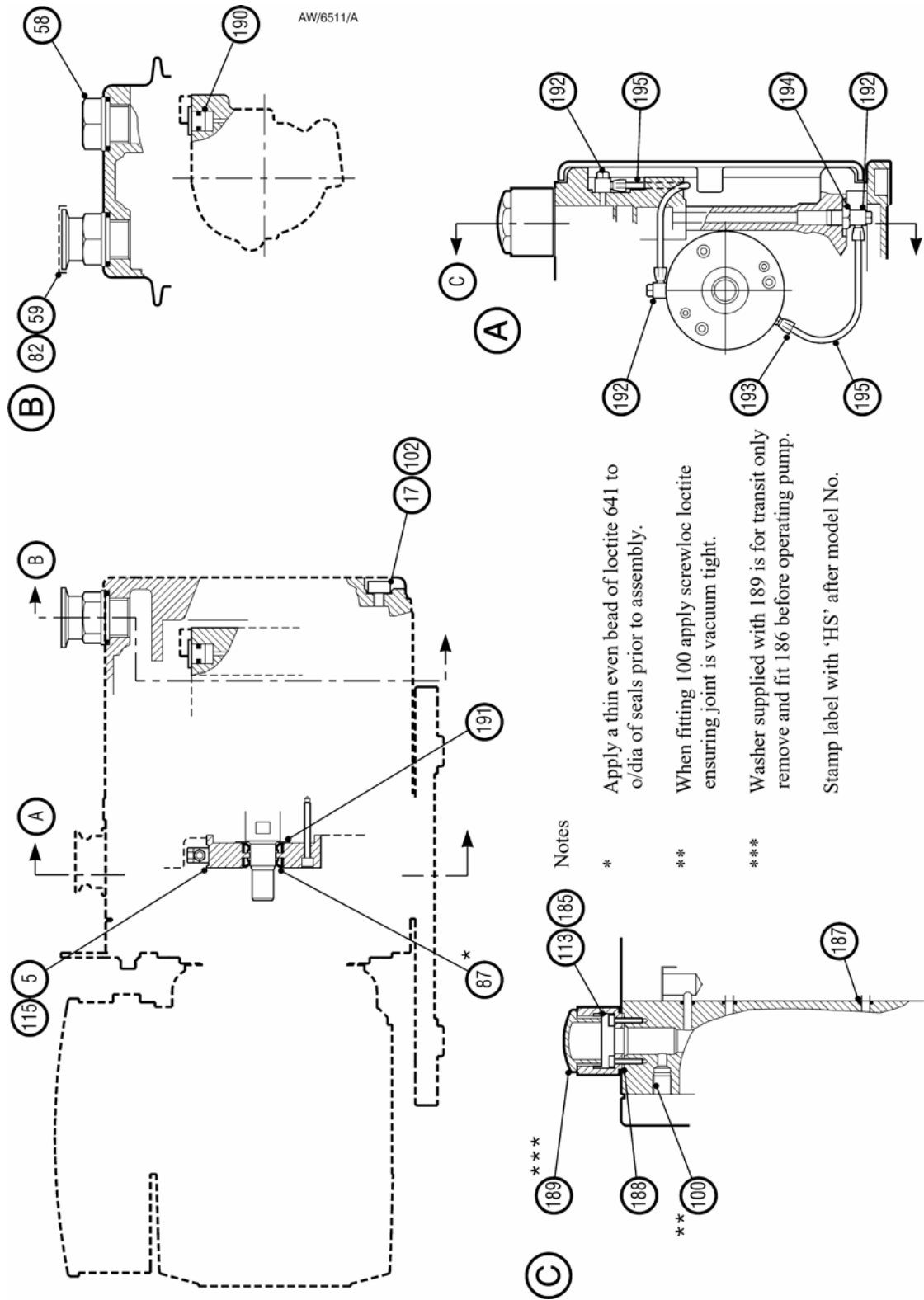
C1.3 8 Fomblin filled pumps (Also suitable for Firequel application)

Figure C3 - Figure 6 - Fomblin filled pumps



C1.4 9 Hermetically sealed pumps

Figure C4 - Figure 7 - Hermetically sealed pumps



C1.5 10 ATEX special items

Figure C5 - Figure 8 - ATEX special items

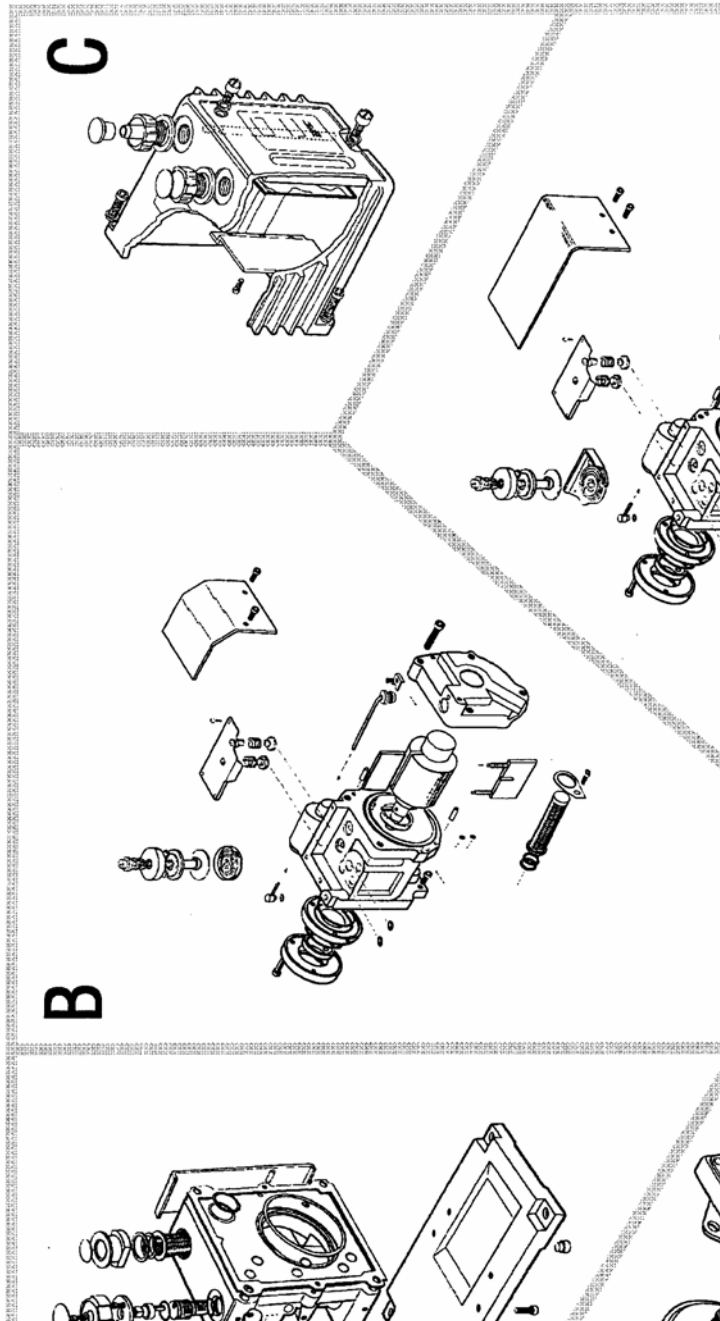


Table C3 - Table 15 - ATEX special items

Item No.	Code No.	Description	Quantity
7	A343-18-012	ATEX motor plate	1
25	See Table 4	1 phase/3 phase flameproof motor	1
100	H035-17-003	1/4 inch BSPT Taper plug	1
230	A343-18-001	Finger guard	1
330	A200-01-870	ATEX Label (gas group IIB)	1
330	A200-01-873	ATEX Label (gas group IIC)	1

Table C4 - Table 16 - ATEX flameproof motors

1 phase / 3 phase flameproof motors	
Part Number	Description
A071-26-001	115 V, 1 phase, 50 Hz, 0.75 kW, EExd IIC
A071-26-002	115 V, 1 phase, 60 Hz, 0.75 kW, EExd IIC
A071-26-003	115 V, 1 phase, 60 Hz, 0.75 kW, EExd IIB
A071-26-004	230 V, 1 phase, 60 Hz, 0.75 kW, EExd IIB
A071-26-005	230 V, 1 phase, 50 Hz, 0.75 kW, EExd IIC
A071-26-006	230 V, 1 phase, 60 Hz, 0.75 kW, EExd IIC
A071-26-007	230 V, 1 phase, 50 Hz, 0.75 kW, EExd IIB
A071-26-008	400 V, 3 phase, 50 Hz, 0.75 kW, EExd IIC
A071-26-009	400 V, 3 phase, 50 Hz, 0.75 kW, EExd IIB

Assemble pump as per page 6 of drawing A343-06-000 and A363-06-000.