

Parts Manual

Rotary Vacuum Pumps E1M18 and E2M18

Description	Part Number
E1M18, 100 /200 V, 50 Hz, or 100-105/200-210 V, 60 Hz, single-phase	A343-15-904
E1M18, 115/230 V, 60 Hz, single phase	A343-15-981
E1M18, 220 V, 50/60 Hz, single phase	A343-15-920
E1M18, 220-240 V, 50 Hz, single-phase	A343-15-912
E1M18, 220-240 V, 50 Hz, or 230-240 V, 60 Hz, single phase	A343-15-903
E1M18, 200-230/ 380-460 V, 50/60 Hz, three-phase	A343-10-940
E1M18, 220-240 V, 50Hz or 230-240 V, 60 Hz, single-phase (Amphenol)	A343-16-903
E2M18, 100 /200 V, 50 Hz, or 100-105/200-210 V, 60 Hz, single-phase	A363-15-904
E2M18, 115/230 V, 60 Hz, single phase	A363-15-981
E2M18, 220 V, 50/60 Hz, single phase	A363-15-920
E2M18, 220-240 V, 50 Hz, single-phase	A363-15-912
E2M18, 220-240 V, 50 Hz, or 230-240 V, 60 Hz, single-phase	A363-15-903
E2M18, 200-230/380-460 V, 50/60 Hz, three phase	A363-10-940
E2M18-FF, 220-230/380-460V, 50/60 Hz, three phase	A363-21-940
E2M18-FF, 100/200V, 50/60 Hz	A363-25-904
E2M18-FF, 200/240V, 50 Hz	A363-25-912



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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 alphabetic character for easy identification.
- identify Blade Kit items and Overhaul Kit items;
- identify individual items and item numbers.

2 PUMP DATA TABLES

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

Table 1 – E1M18 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	IP442

Table 2 – E2M18 data table

3 ADAPTOR SUB-ASSEMBLY

AW/6503/A

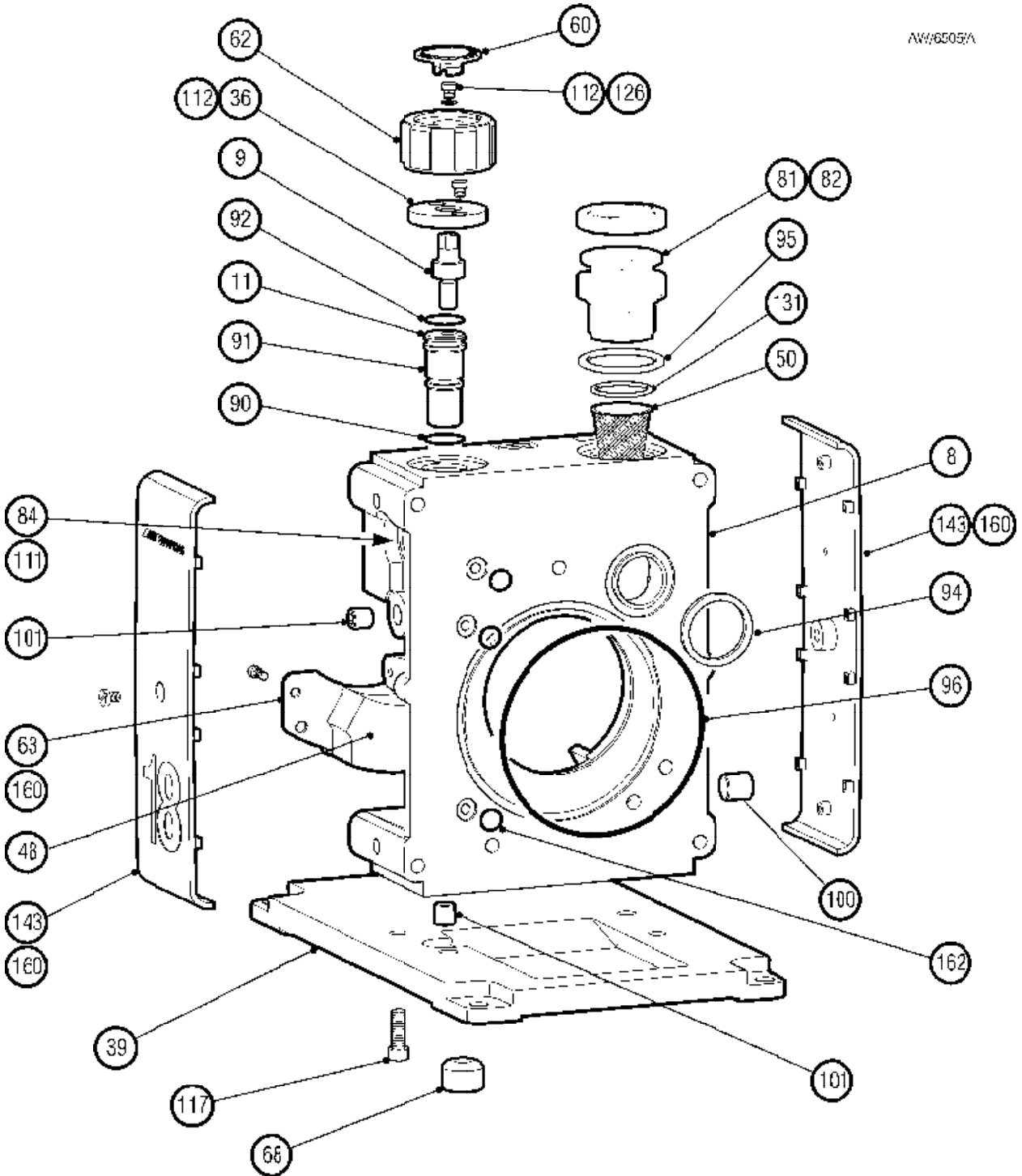


Figure 1 - Adaptor sub-assembly

Item	Description	E1M18 Item No.	Qty	E2M18 Item No.	Qty	Kit No.
8	Adaptor	A34306016	1	A34306016	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

Table 3 – E1M18 and E2M18 adaptor sub-assembly items

4 E1M18 HV STATOR SUB-ASSEMBLY

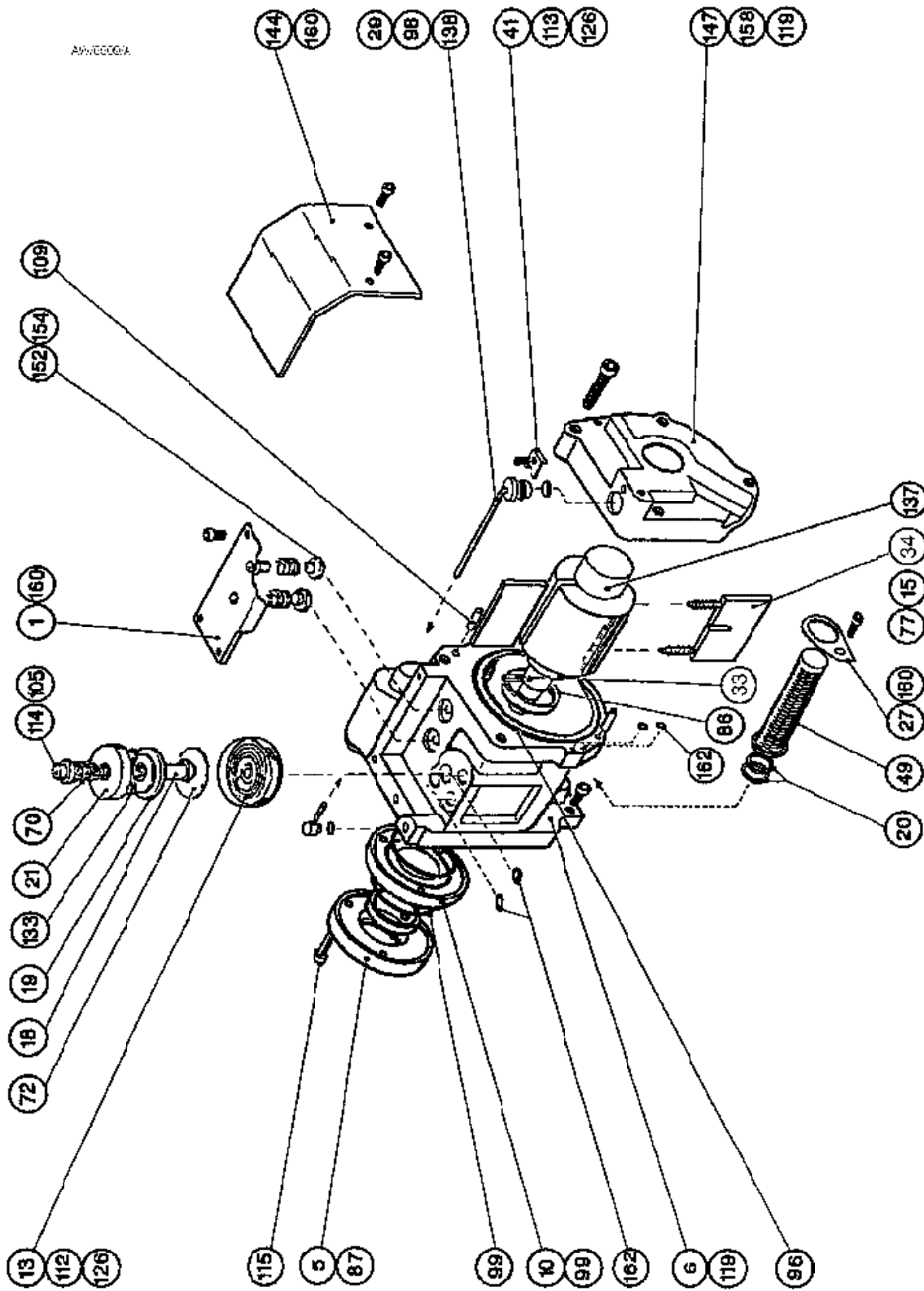


Figure 2 - E1M18 HV stator sub-assembly

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
34	HV blade	A20402618	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 20mm	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 Ø38mm	A21078002	1	
160	Soc hd cap screw, M5 x 10		6	
162	'O' ring		4	2

Table 4 – E1M18 HV stator sub-assembly items

5 OIL BOX SUB-ASSEMBLY

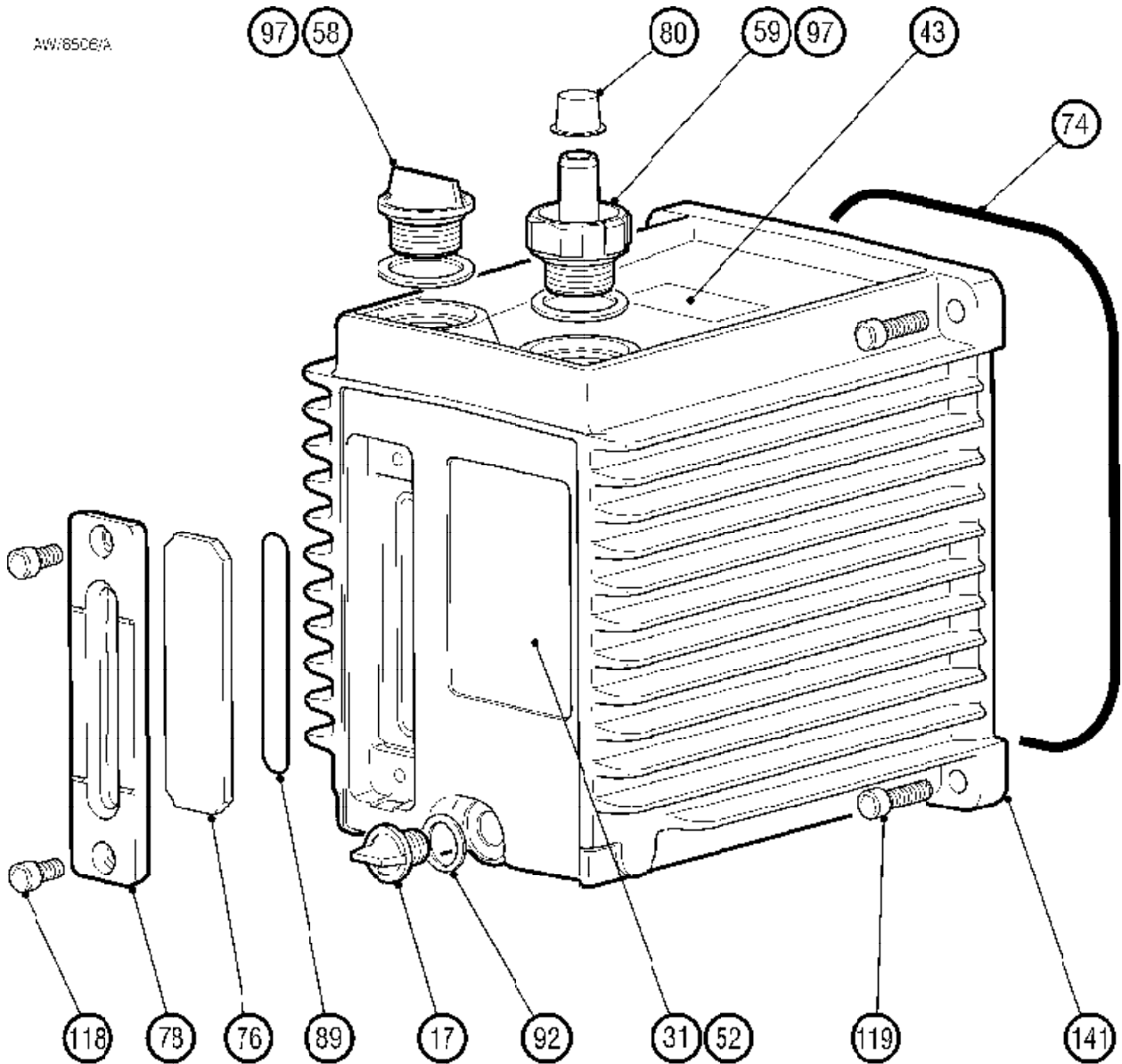


Figure 3 – Oil box sub- assembly

Item	Description	E1M18 Code No.	Qty	E2M18 Code No.	Qty	Kit No.
17	Plug 1/4" 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" BSP	A25908118	1	A25908118	1	
59	Nozzle dia 15 mm tube x 3/4" 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	

Table 5 – E1M18 and E2M18 oil box 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
34	HV blade	A20402618	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	A26401046	1	
138	Ballast line assembly	A36301002	1	
139	LV baffle assembly	A36301004	1	
144	Spray baffle	A25976029	1	
145	LV stator	A36301014	1	
147	Rear cover	A36301015	1	
149	LV blade spring		3	1
151	LV blade	A20402616	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
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

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

7 MOTOR AND ADAPTOR PLATE SUB-ASSEMBLY

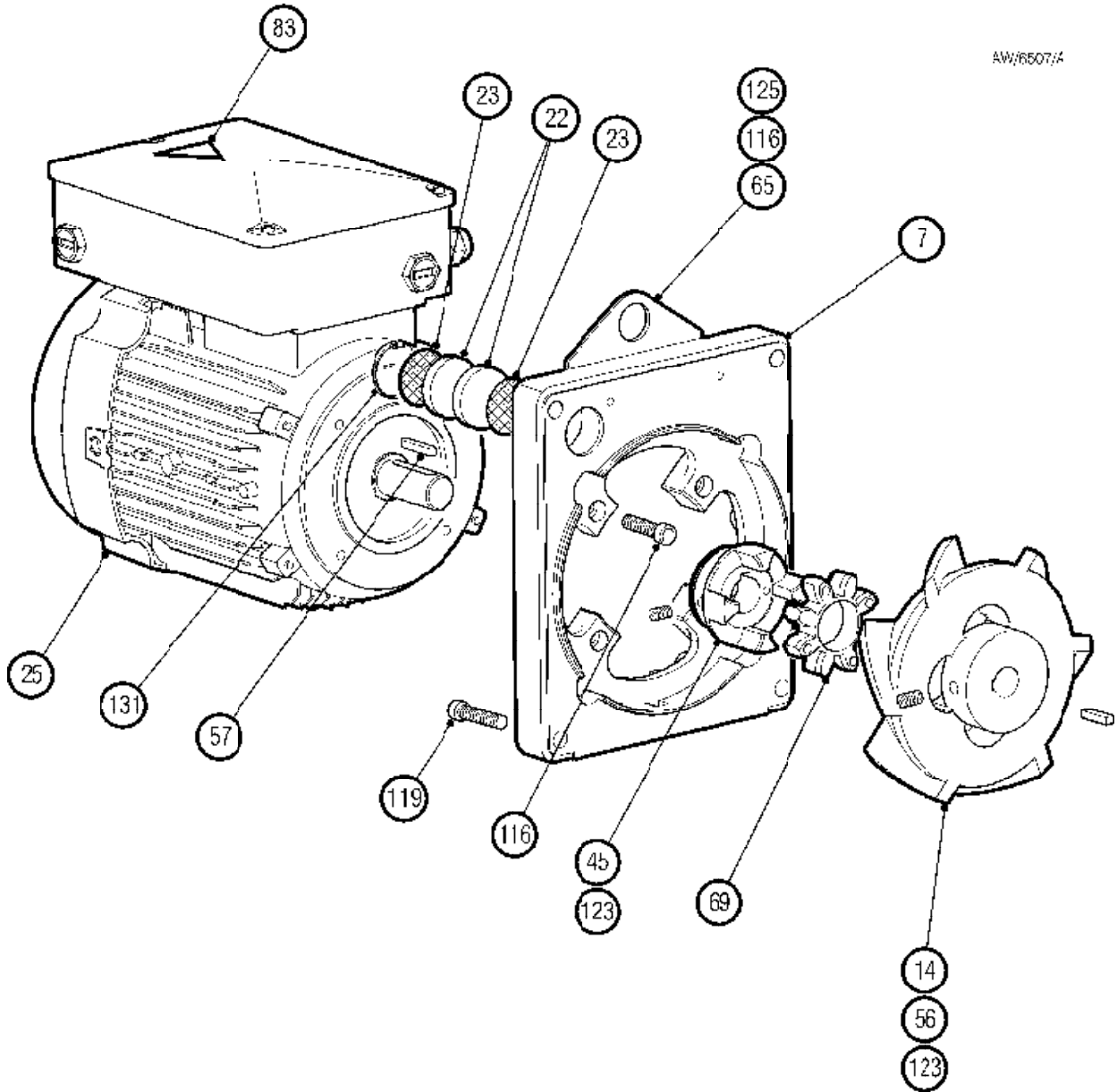


Figure 5 – Motor and adaptor plate sub-assembly

Item	Description	Item No	Qty	Kit No.
7	Motor plate	A34301012	1	
14	Fan	A34301020	1	
22	Ballast filter		2	2
23	Ballast gauze		2	2
25	Motor (see Tables 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	

Table 7 – Motor and adaptor plate sub-assembly items

**8 FOMBLIN FILLED PUMPS
(Also Suitable for Firequel Application)**

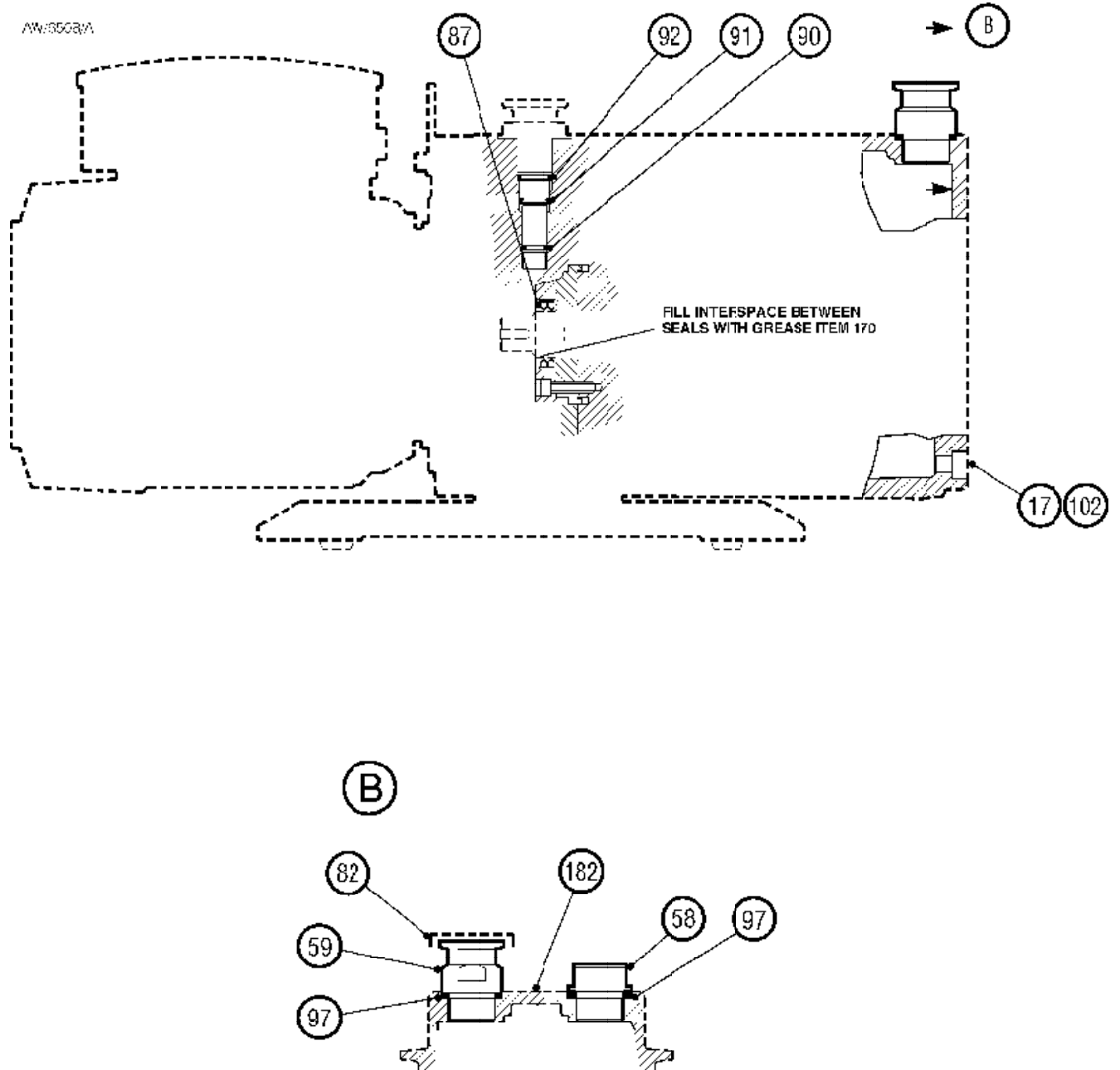


Figure 6 - Fomblin filled pumps

Item	Description	Item No.	Qty	Kit No.
17	Plug ¼" BSP	A25908119	1	
58	Filler plug ¾" 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 ¼" BSP	A26002030	1	
58	Plug ¾" BSP st stl	A26002016	1	
59	Adaptor ¾" 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	
Add the above items to basic pump assembly to code Nos A34325000 and A36325000				

Table 8 - Fomblin filled pumps parts list

A34325940	A07109020	3 PH 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 9 - Outfit Code Nos for E1M18FF

A36321940	A07109020	3 PH 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

Table 10 - Outfit Code Nos for E2M18FF

9 HERMETICALLY SEALED PUMPS

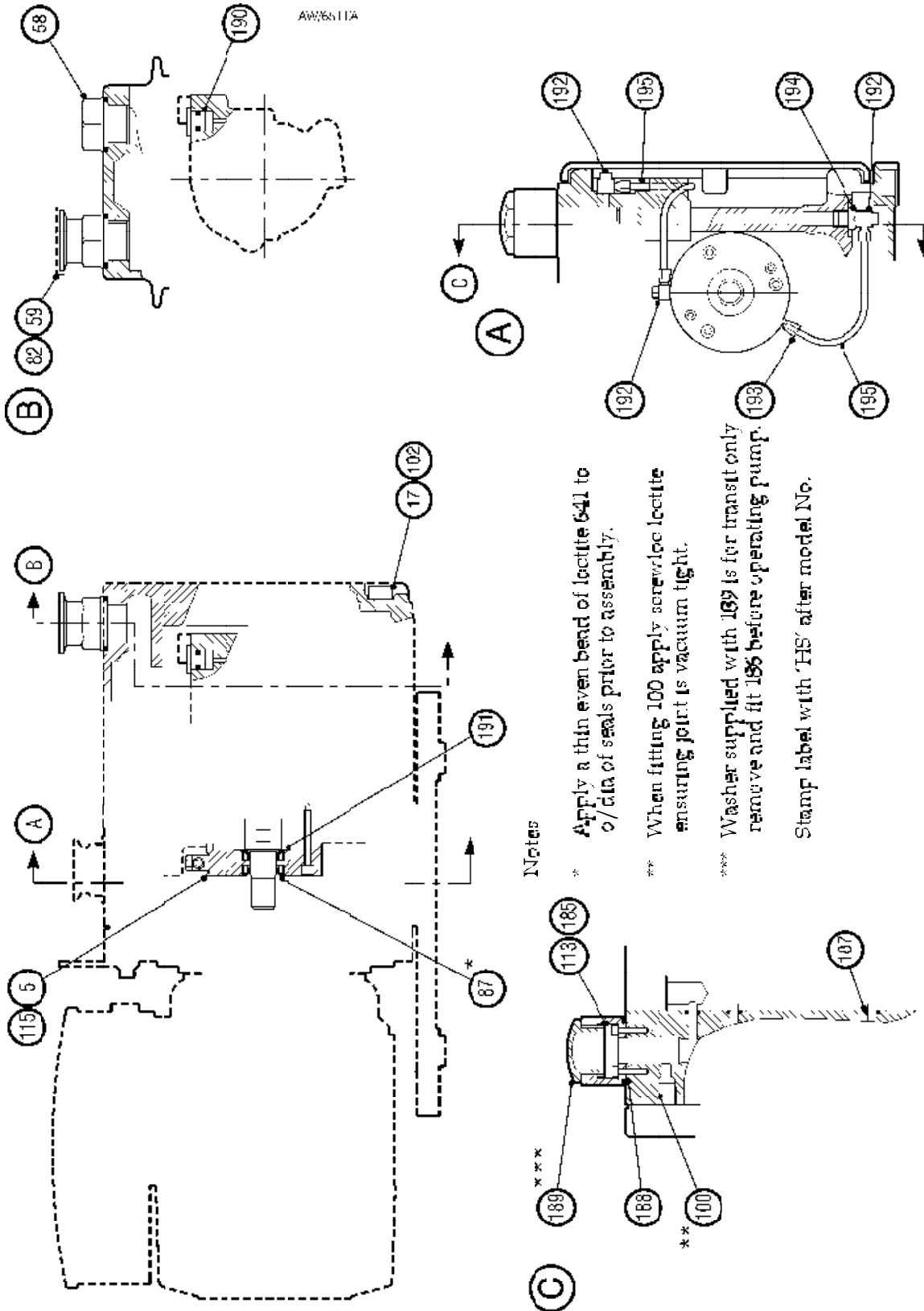


Figure 7 - Hermetically sealed pumps

Item	Description	A34315000 Item No	Qty	A36315000 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 ¼ " 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 ¾" 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" BSP	H02104001	2	H02104001	2
87	Oil seal DPSM 18-40-7 (Viton)	H02100067	1	H02100067	1
101	Hollow taper pressure plug 1/8" 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

Assemble pumps to Drg No A36315000 sht 1 and sht 2 less items above.

Ta ble 11 - Her meti cally sealed pumps parts list sht 1 of 2

Item	Description	Item No	Qty
5	Oil seal housing	A34305001	1
17	Plug ¼" BSP	A26002030	1
58	Plug ¾" BSP	A26002016	1
59	Adaptor NW25 x ¾" BSP	C10501014	1
82	Protective cap NW25	D32201071	1
87	Oil seal 18-30-7	H02105040	2
100	Hollow taper pressure plug ¼" 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

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

Table 11 - Hermetically sealed pumps parts list sht 2 of 2

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

Table 12 - Outfit Code Nos for E1M18HS

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

Table 13 - Outfit Code Nos for E2M18HS

10 BLADE KITS (KIT 1)

The kits are supplied with support Instructions A36301840. The Blade Kit for E1M18 (A34301041) is detailed below in Table 14.

Item	Item No	Description	Qty
15	A00307046	Blade springs HV	2
33	A20402537	Oil pump blade	1
1134	A36301018	2 blade pack HV	1
77	A29203002	Blade pins HV	2

Table 14 – E1M18 Blade Kit items

The Blade Kit for E2M18 (A36301020) is detailed below in Table 15.

Item	Item No	Description	Qty
15	A00307046	Blade springs HV	2
33	A20402537	Oil pump blade	1
1134	A36301018	2 blade pack HV	1
77	A29203002	Blade pins HV	2
149	A00906077	Blade springs LV	3
1151	A36301019	2 blade pack LV	1
156	A29203003	Blade pins LV	3

Table 15 – E2M18 Blade Kit items

11 CLEAN AND OVERHAUL KIT (KIT 2)

The kit is supplied with support Instructions A36301840. The Clean and Overhaul Kit for E1/E2M18 (A36301131) is detailed below in Table 16.

Item	Item No	Description	Qty
17*	A25908119	Drain plug ¼ 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

Table 16 – E1M18 and E2M18 Clean and Overhaul Kit items

*Note: For later series pumps

**12 INTERIM OIL BOX ASSEMBLY SPARES REPLACEMENT
PART No A36301801**

No drawing available

Figure 8 - 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" BSP N6 50 % GF GRY KM90	1
A26002027	Plug 1/8" 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" BSP	1
218231290	Cap screw S Stl M4 x 16	6

Table 17 - Interim oil box assembly spares replacement Part No A36301801

APPENDIX 1

Exhaust Warning Label

This warning label item (43) shown in Figure 9 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.

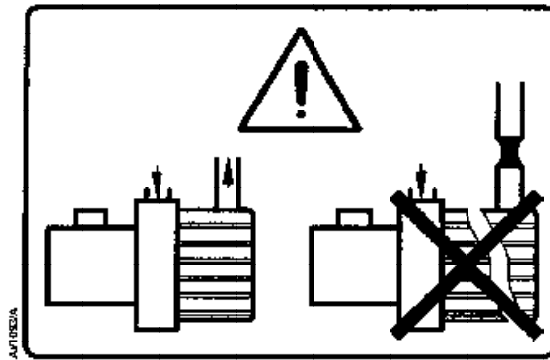
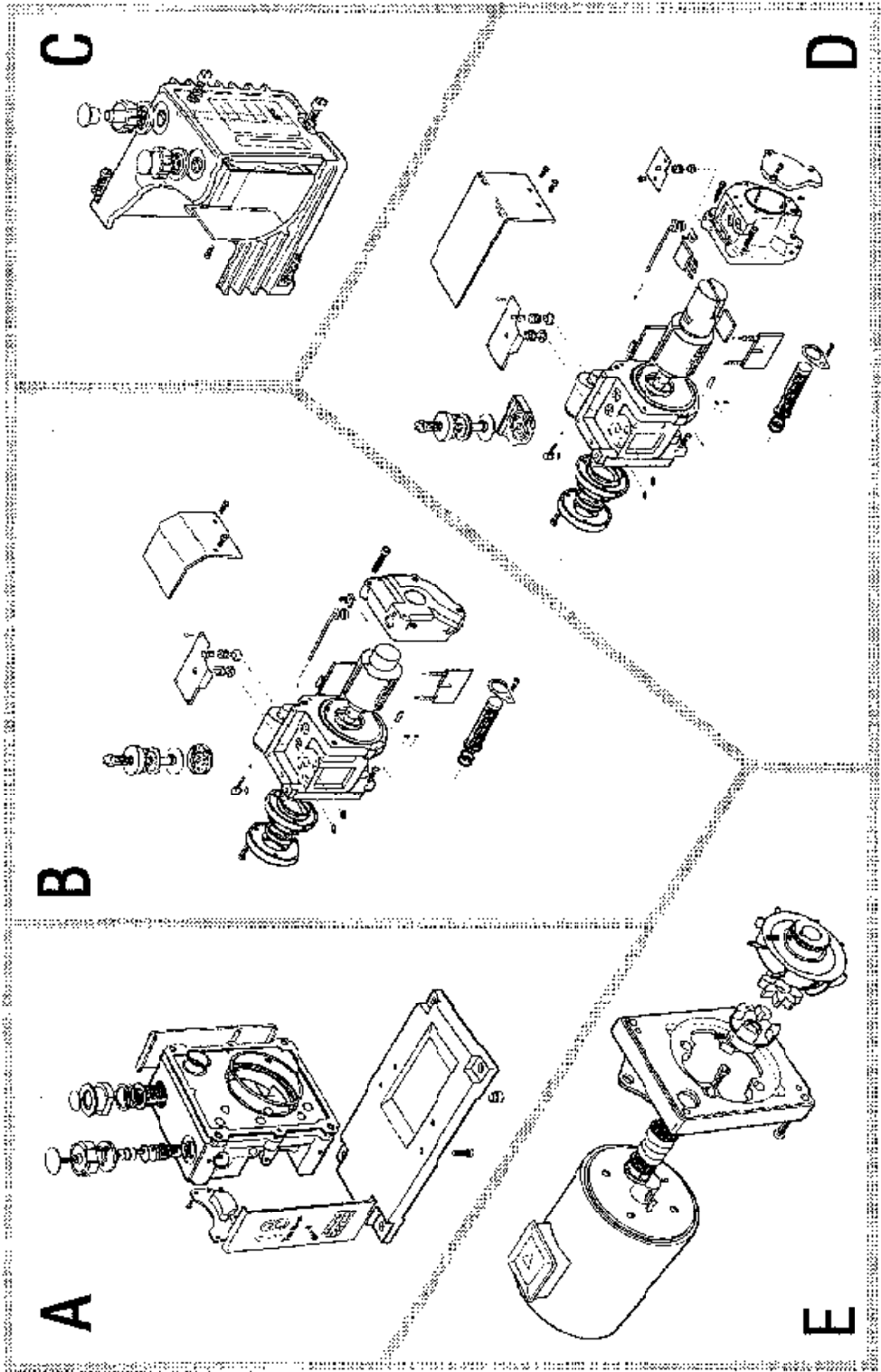


Figure 9 – Exhaust Warning Label (ECDs S0924 and S1060)

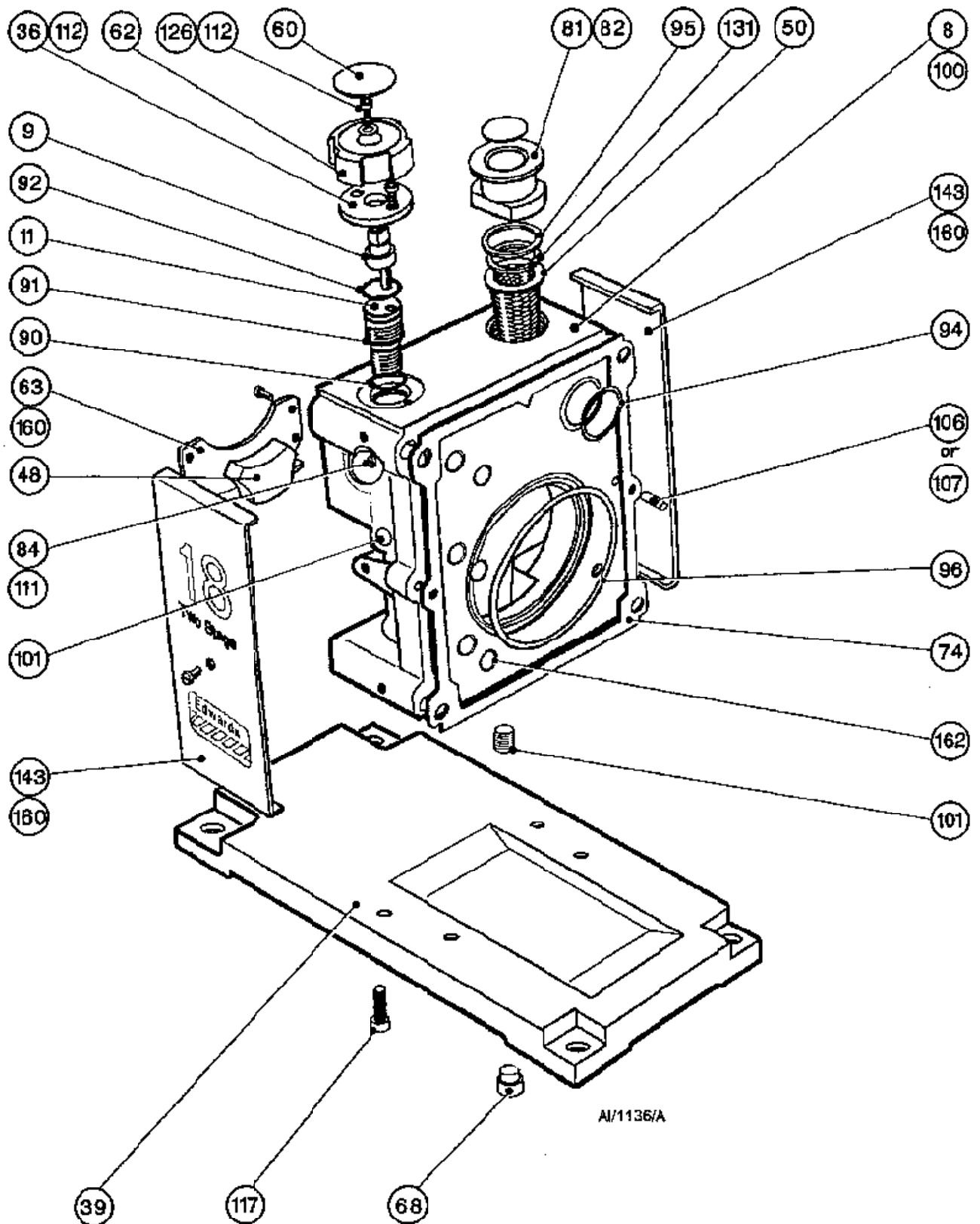
This label must be fitted to pumps of earlier manufacture when clean and overhaul is performed. The label is included in the kit. The old label item (32) must be discarded from the pump.

Removed pages retained for information purposes

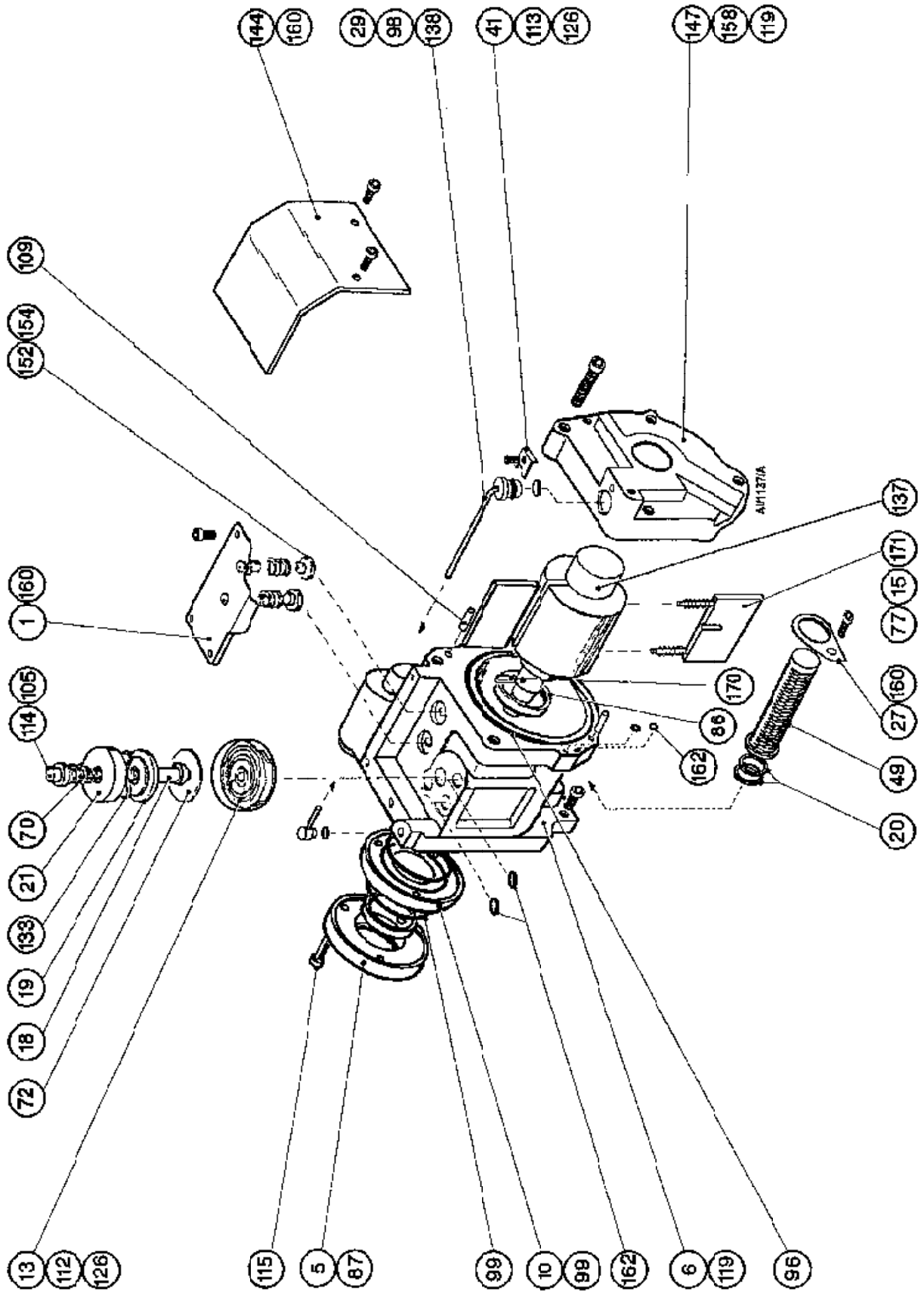
3 MAJOR SUB ASSEMBLIES



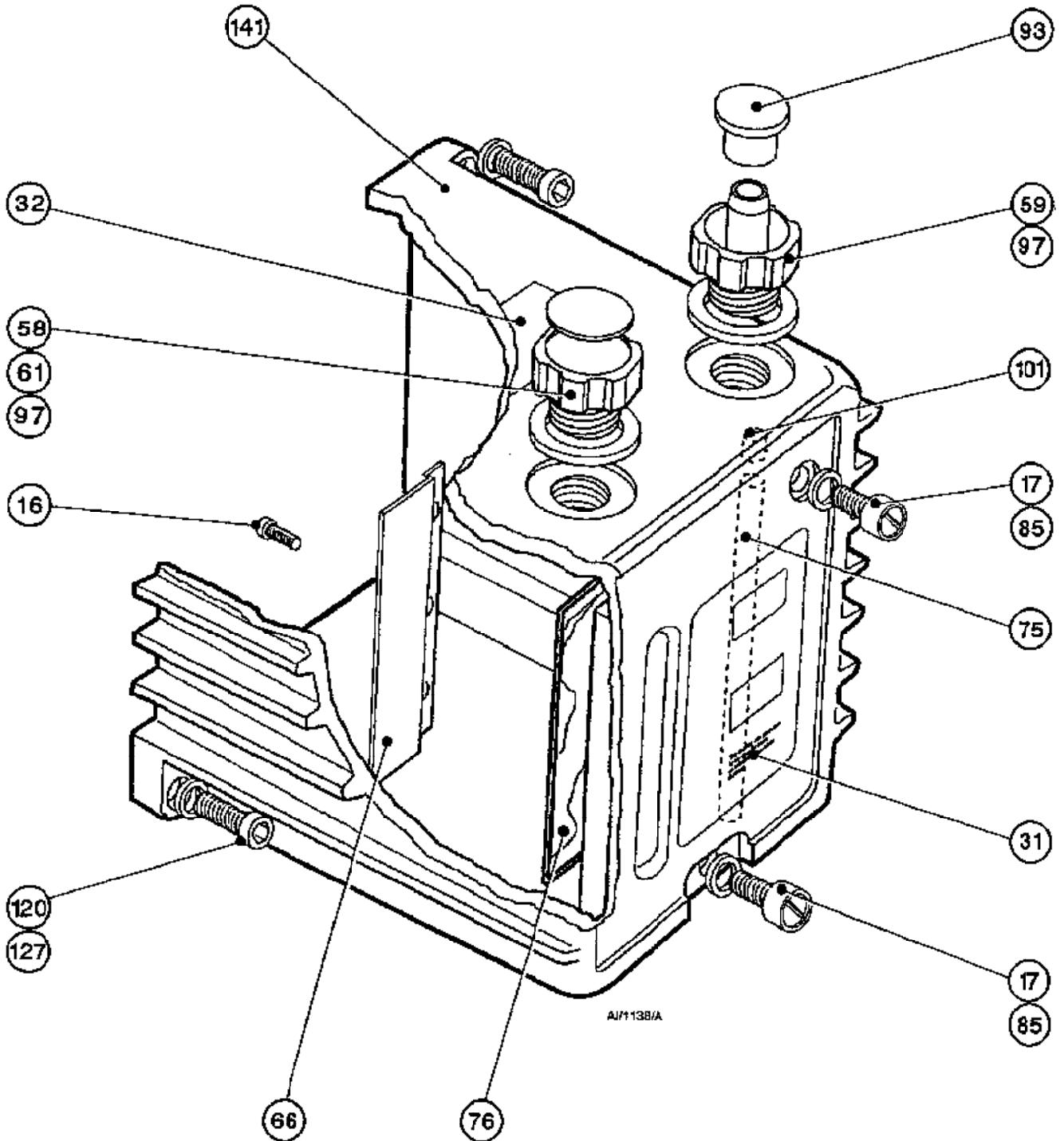
(A) Adaptor sub-assembly



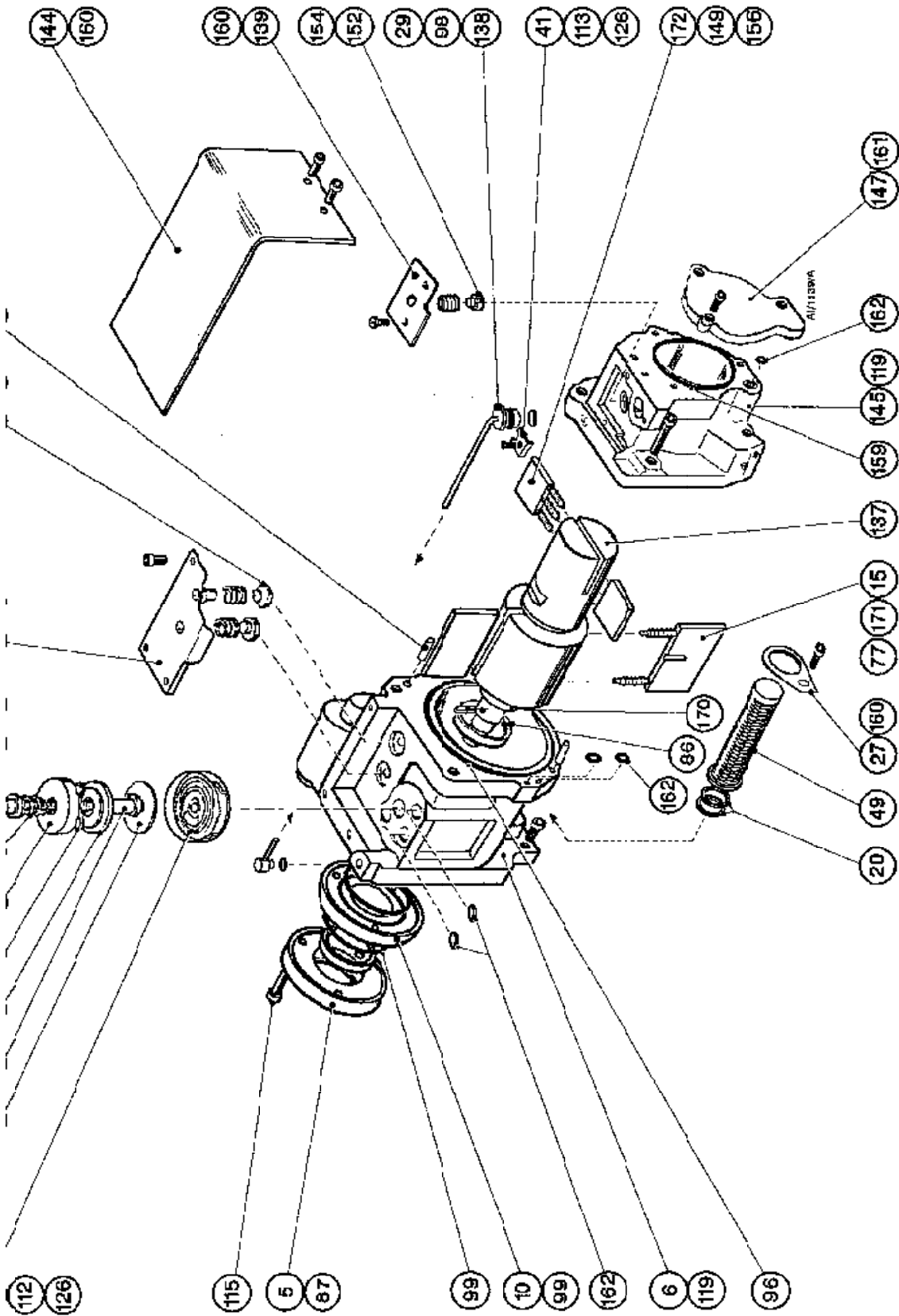
(B) E1M18HV stator sub-assembly



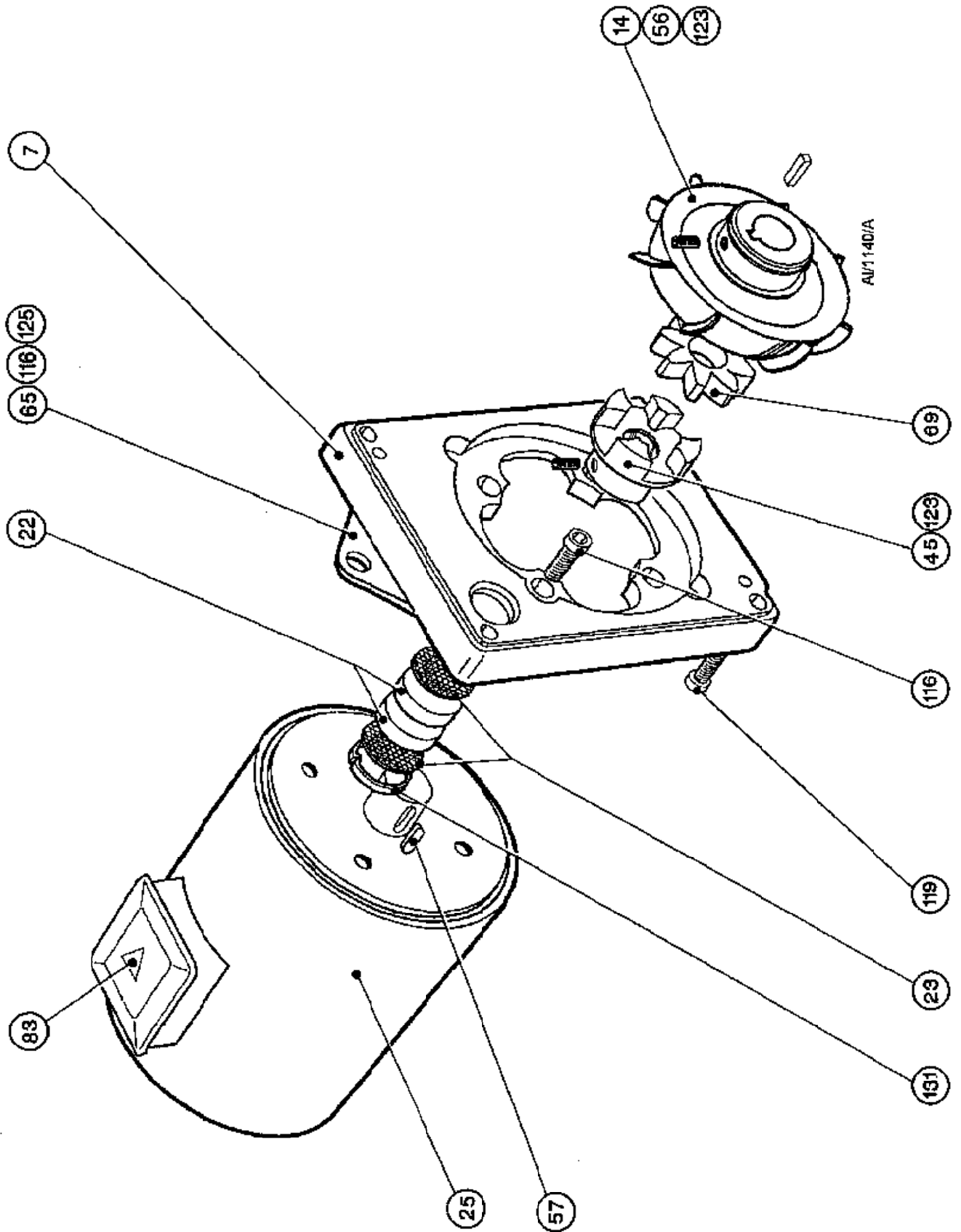
(C) Oil box sub-assembly



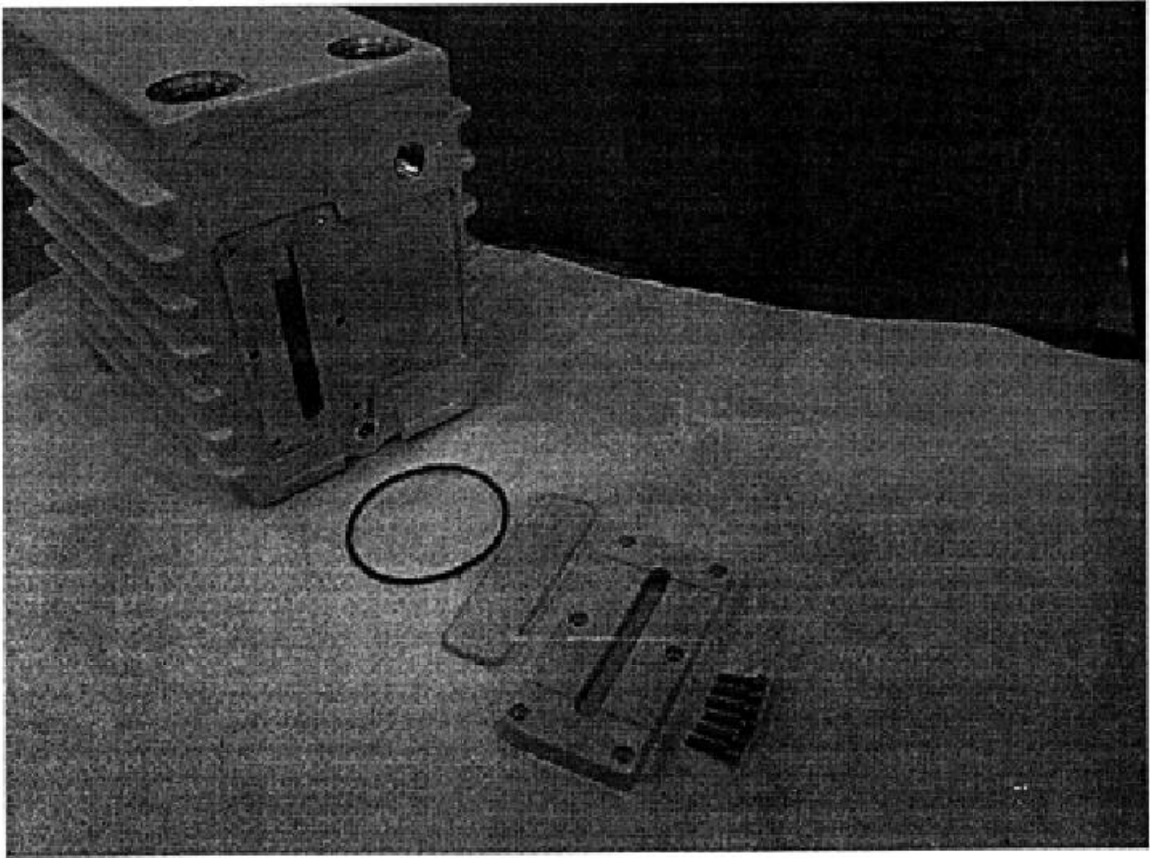
(D) E2M18HV and LV stator sub-assembly



(E) Motor and adaptor plate sub-assembly



Interim oil sight glass assembly



Return of BOC Edwards Equipment - Procedure (Form HS1)

Introduction

Before you return your equipment you must warn your supplier if the substances you used (and produced) in the equipment can be dangerous. You must do this to comply with health and safety at work laws.

You must complete the Declaration (HS2) on the next page and send it to your supplier before you dispatch the equipment. If you do not, your supplier will assume that the equipment is dangerous and he will refuse to accept it. If the Declaration is not completed correctly, there may be a delay in processing your equipment.

Guidelines

Take note of the following guidelines:

- Your equipment is **'uncontaminated'** if it has not been used or if it has only been used with substances that are not dangerous. Your equipment is **'contaminated'** if it has been used with any dangerous substances.
- If your equipment has been used with radioactive substances, you must decontaminate it before you return it to your supplier. You must send independent proof of decontamination (for example a certificate of analysis) to your supplier with the Declaration (HS2). Phone your supplier for advice.
- We recommend that contaminated equipment is transported in vehicles where the driver does not share the same air space as the equipment.

PROCEDURE

Use the following procedure:

1. Contact your supplier and obtain a Return Authorisation Number for your equipment.
2. Turn to the next page(s), photocopy and then complete the Declaration (HS2).
3. Remove all traces of dangerous gases: pass an inert gas through the equipment and any accessories which will be returned to your supplier. Drain all fluids and lubricants from the equipment and its accessories.
4. Disconnect all accessories from the equipment. Safely dispose of the filter elements from any oil mist filters.
5. Seal up all of the equipment's inlets and outlets (including those where accessories were attached). You may seal the inlets and outlets with blanking flanges or heavy gauge PVC tape.
6. Seal contaminated equipment in a thick polythene bag. If you do not have a polythene bag large enough to contain the equipment, you can use a thick polythene sheet.
7. If the equipment is large, strap the equipment and its accessories to a wooden pallet. Preferably, the pallet should be no larger than 510mm x 915mm (20" x 35"); contact your supplier if you cannot meet this requirement.
8. If the equipment is too small to be strapped to a pallet, pack it in a suitable strong box.
9. If the equipment is contaminated, label the pallet (or box) in accordance with laws covering the transport of dangerous substances.
10. Fax or post a copy of the Declaration (HS2) to your supplier. The Declaration must arrive before the equipment.
11. Give a copy of the Declaration to the carrier. You must tell the carrier if the equipment is contaminated.
12. Seal the original Declaration in a suitable envelope; attach the envelope securely to the outside of the equipment package. **WRITE YOUR RETURN AUTHORISATION NUMBER CLEARLY ON THE OUTSIDE OF THE ENVELOPE OR ON THE OUTSIDE OF THE EQUIPMENT PACKAGE.**

Return of BOC Edwards Equipment - Declaration (Form HS2)

Return Authorisation Number: _____

You must:

- Know about all of the substances which have been used and produced in the equipment before you complete this Declaration
- Read the Procedure (HS1) on the previous page before you attempt to complete this Declaration
- Contact your supplier to obtain a Return Authorisation Number and to obtain advice if you have any questions
- Send this form to your supplier before you return your equipment

SECTION 1 : EQUIPMENT

Equipment model _____

Serial Number _____

Has the equipment been used, tested or operated?

yes Go to Section 2 no Go to Section 4

FOR SEMICONDUCTOR APPLICATIONS ONLY :

Tool Reference Number _____

Process _____

Failure Date _____

Serial Number of Replacement Equipment _____

SECTION 2 : SUBSTANCES IN CONTACT WITH THE EQUIPMENT

Are any of the substances used or produced in the equipment

- Radioactive yes no
- Biologically active yes no
- Dangerous to human health and safety? yes no

If you have answered 'no' to all of these questions, go to Section 4.

Your supplier will not accept delivery of any equipment that is contaminated with radioactive substances, unless you:

- Decontaminate the equipment
- Provide proof of decontamination

YOU MUST CONTACT YOUR SUPPLIER FOR ADVICE BEFORE YOU RETURN SUCH EQUIPMENT

SECTION 3 : LIST OF SUBSTANCES IN CONTACT WITH THE EQUIPMENT

Substance name	Chemical symbol	Precautions required (for example, use protective gloves, etc.)	Action required after spillage or human contact
1			
2			
3			
4			
5			
6			

SECTION 4 : RETURN INFORMATION

Reason for return and symptoms of malfunction: _____

If you have a warranty claim:

- who did you buy the equipment from ? _____
- give the supplier's invoice number _____

SECTION 5 : DECLARATION

Print your name: _____ Print your job title: _____

Print your organisation: _____

Print your address: _____

Telephone number: _____ Date of equipment delivery: _____

I have made reasonable enquiry and I have supplied accurate information in this Declaration. I have not withheld any information. I have followed the Return of BOC Edwards Equipment Procedure (HS1) on the previous page.

Signed: _____ Date _____

Addresses

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AUSTIN, TX
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Toll free (Canada only): 800 387 4076
Fax: +(1) 905 845 4924

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Fax: +(81) 3 5470 6521
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