

09WM 系列中压空气压缩机

09WM SERIES MIDDLE PRESSURE AIR COMPRESSOR

零部件手册

PARTS LIST

南京尚爱机电有限公司

Nanjing Shangair Mechanical & Electrical Co., Ltd.

南京尚爱机械制造有限公司

Nanjing Shangair Machinery Manufacturing Co., Ltd.

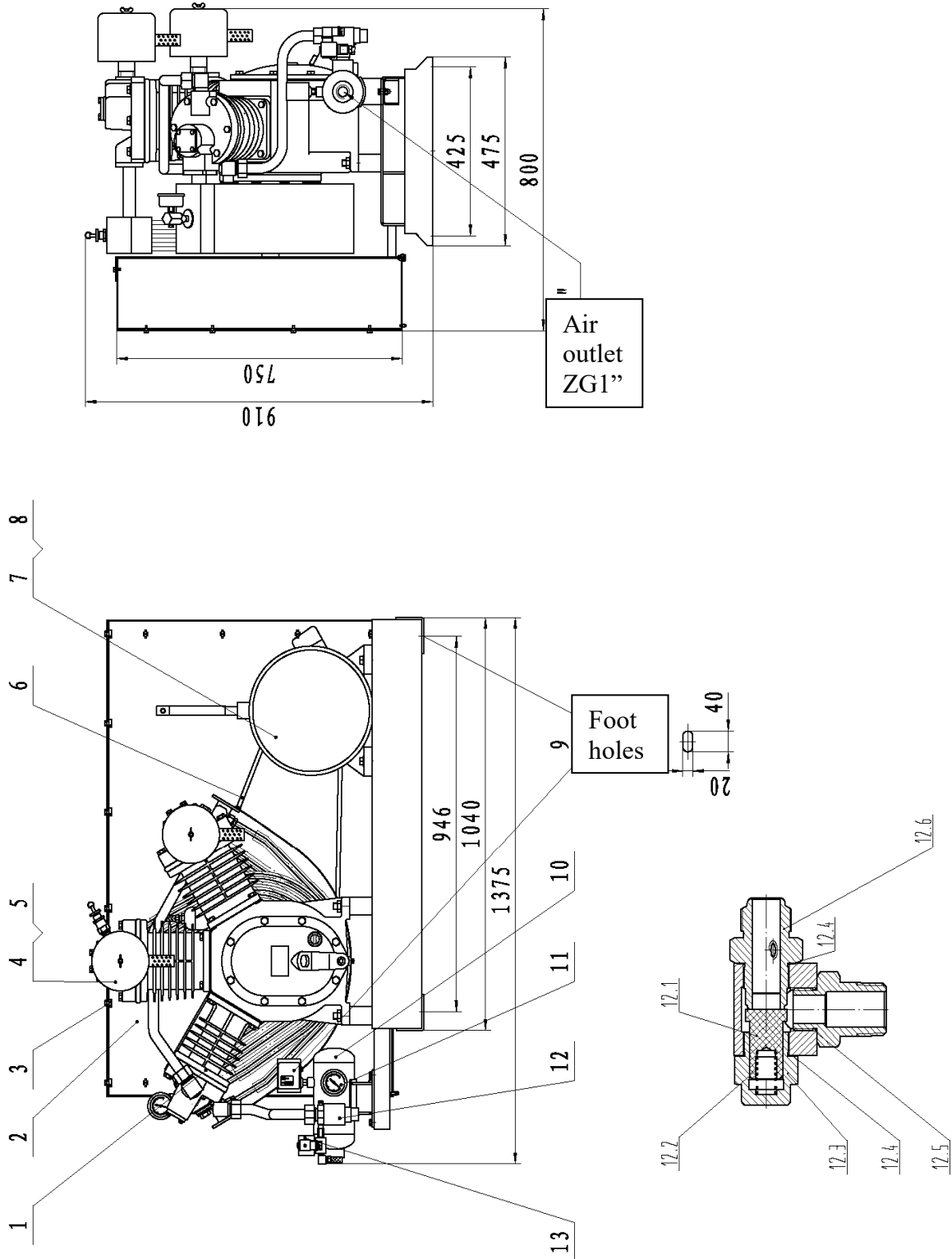
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2015-06-10

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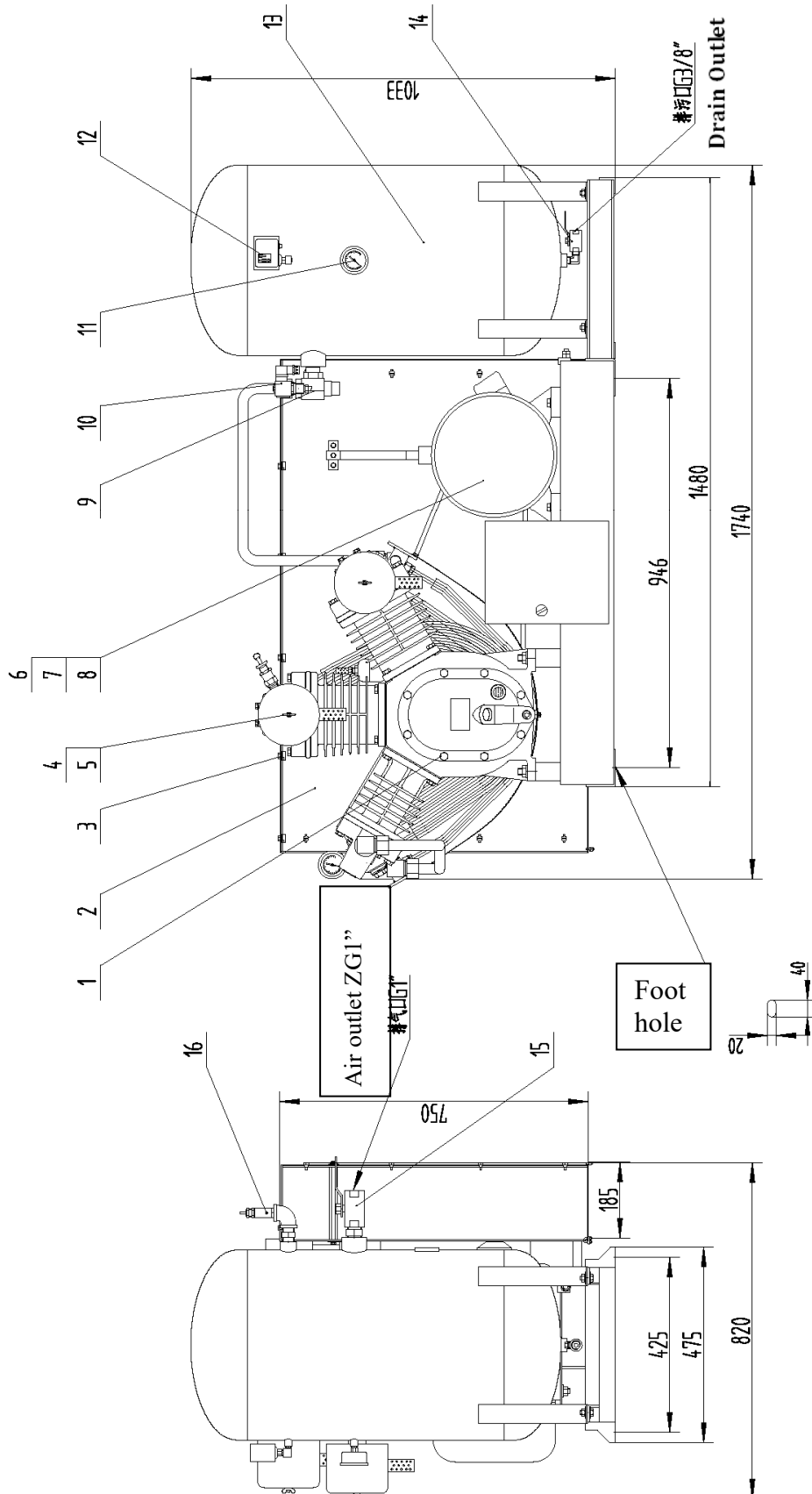
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Figure A: Outline Drawing of 09WM Single-Engine Unit
(air tank excluded)



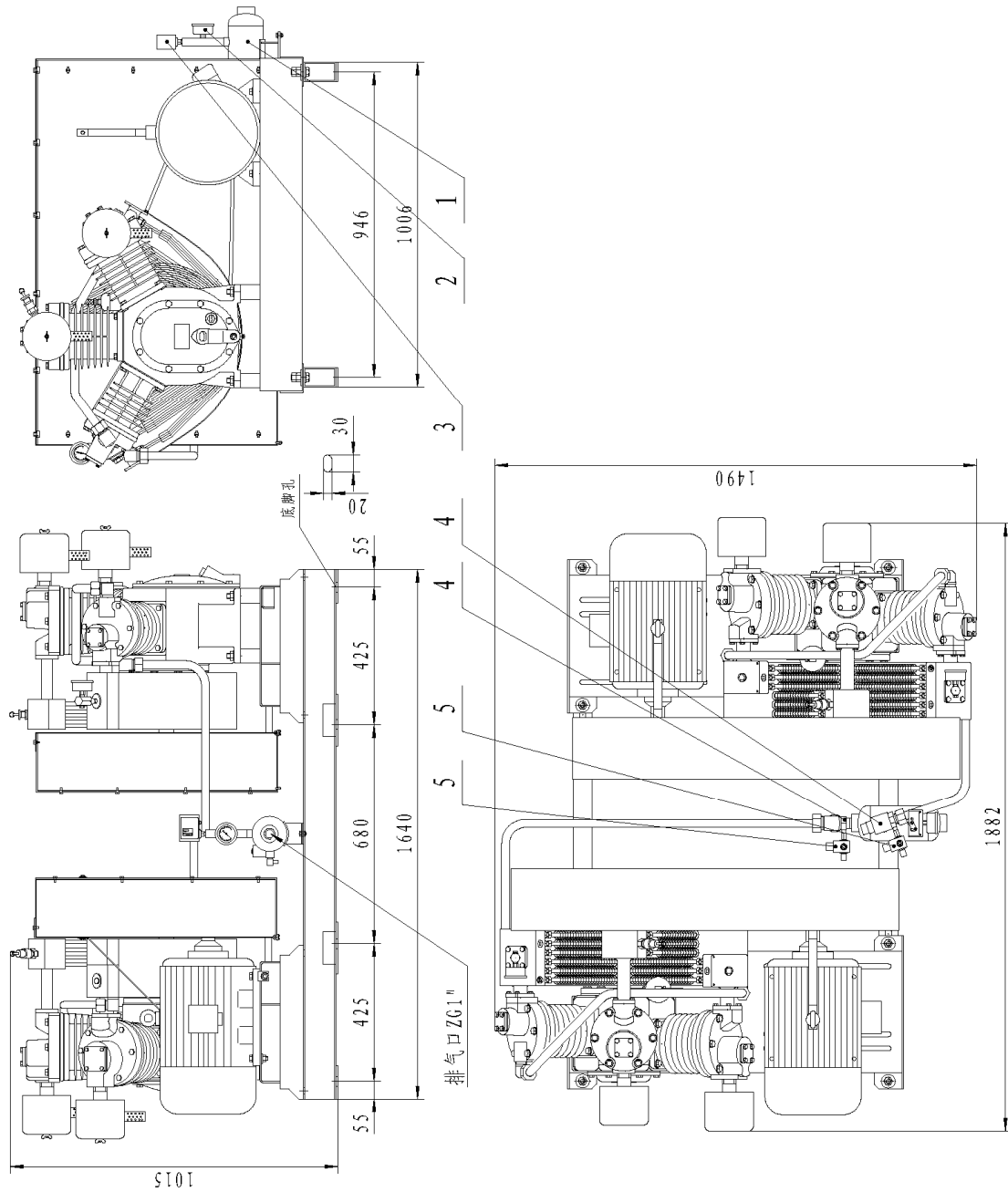
S/N	Code	Specification	Name	Qty	Remark
A-01	2000-09WM	09.WM.00.00	Machine head 09WM	1	
A-02	3016-10000100	10.00.01.00	Protective net 10WW	1	
A-03	3017-JT090039	JT.09.00.39	Protective net locking clasp 3	14	
A-04	3404-005	Suction muffler G1 1/4"	Suction muffler	2	
A-05	3404-009	Suction muffler filter core	filter core	2	
A-06	3602-006	Triangle belt B2388	Triangle belt	4	09WM-1130 09WM-1130 H
A-06	3602-012	Triangle belt B2413	Triangle belt	4	09WM-1530
A-07	3102-005	Y2-160M-4-11	Y2 Motor 11KW/4 poles	1	09WM-1130 09WM-1130 H
A-07	3102-006	Y2-160L-4-15	Y2 Motor 15KW/4 poles	1	09WM-1530
A-08	3020-PD010011	PDL.01.00.11	Belt wheel 206-600	1	09WM-1130
A-08	3020-PD010018	PDL.01.00.18	Belt wheel 220-630	1	09WM-1130 H
A-08	3020-PD010002	PDL.01.00.02	Belt wheel 232-670	1	09WM-1530
A-09	3710-001	4503/68#	Semi-synthesis lubricate oil	3.5L	
A-10	3401-001	Pressure switch KP5	Danfoss	1	
A-11	3015-YQ330100	YQ.33.01.00	Air receiver 108*275	1	
A-12	3405-010	YZ60-6.0/ M14*1.5/ axial	Pressure gauge	1	
A-13	3020-RD050A00	RD.05.0A.00	Stainless steel check valve	1	
A-13.1	3020-RD050AA5	RD.05.0A.A5	Valve core	1	
A-13.2	3020-RD010004	RD.01.00.04	Spring	1	
A-13.3	3020-RD050A04	RD.05.0A.04	Stainless steel guide body	1	
A-13.4	3020-RD050009	RD.05.00.09	Copper pad 38*31*1	2	
A-13.5	3020-RD050010	RD.05.00.10	Copper pad 35*28*1	1	
A-13.6	3020-RD050A01	RD.05.0A.01	Stainless steel valve body	1	
A-14	3402-001	8.0Mpa -1/4NPT-220V	Solenoid valve	1	

**Figure B: Outline Drawing of 09WM Single Unit
(air tank included)**



S/N	Code	Specification	Name	Qty	Remark
B-01	2000-09WM	09.WM.00.00	Machine head 09WM	1	
B-02	3016-10000100	10.00.01.00	Protective net 10WW	1	
B-03	3017-JT090039	JT.09.00.39	Protective net locking clasp 3	14	
B-04	3404-005	Suction muffler G11/4"	Suction muffler	2	
B-05	3404-009	Suction muffler filter core	filter core	2	
B-06	3602-015	Triangle belt B2311	Triangle belt	4	09WM-1130-YQ
B-06	3602-014	Triangle belt B2337	Triangle belt	4	09WM-1130H-YQ
					09WM-1530-YQ
B-07	3102-005	Y2-160M-4-11	Y2 Motor 11KW/4poles	1	09WM-1130-YQ
					09WM-1130H-YQ
B-07	3102-006	Y2-160L-4-15	Y2 Motor 15KW/4poles	1	09WM-1530-YQ
B-08	3020-PD010011	PDL.01.00.11	Belt wheel 206-600	1	09WM-1130-YQ
B-08	3020-PD010018	PDL.01.00.18	Belt wheel 220-630	1	09WM-1130H-YQ
B-08	3020-PD010002	PDL.01.00.02	Belt wheel 232-670	1	09WM-1530-YQ
B-09	3020-RD050A00	RD.05.0A.00	Stainless steel check valve	1	
B-10	3402-001	8.0Mpa -1/4NPT-220V	Solenoid valve	1	
B-11	3405-010	YZ60-6.0 /M14*1.5/ axial	Pressure gauge	1	
B-12	3401-001	Pressure switch KP5	Danfoss	1	
B-13	3015-yq350000	YQ.35.00.00	Air tank450*150*30	1	
B-14	3410-006	304 stainless G3/8"	Ball balve	1	drain
B-15	3410-009	304 stainless G1"	Ball balve	1	Air outlet
B-16	3403-AQ013033	AQ.01.30.33	Medium pressure safety valve3.3MPa-ZG1/2"	1	

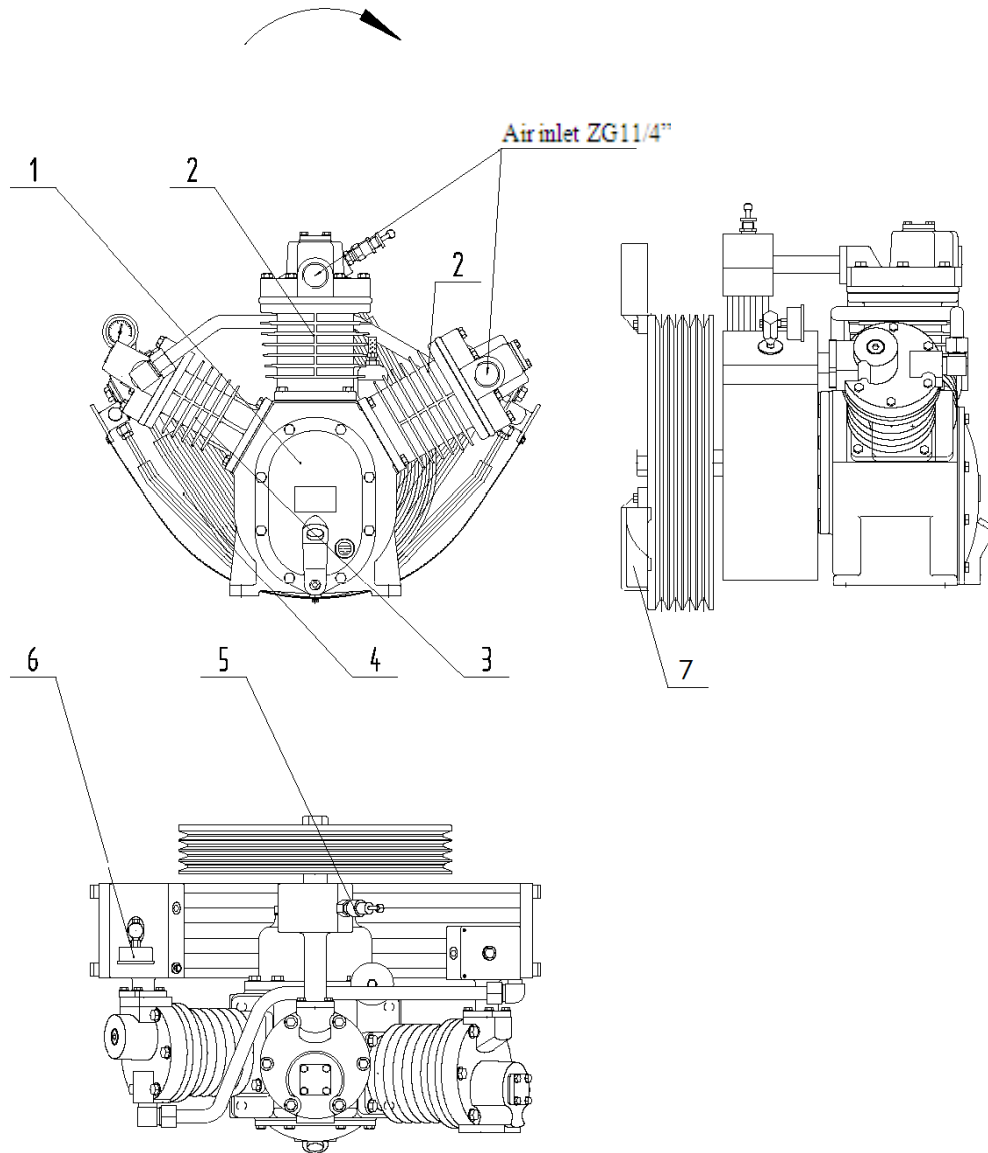
Figure C: Outline Drawing & Spares List of 09WM Double-Engine Unit



Other spares are same as the ones in Figure A

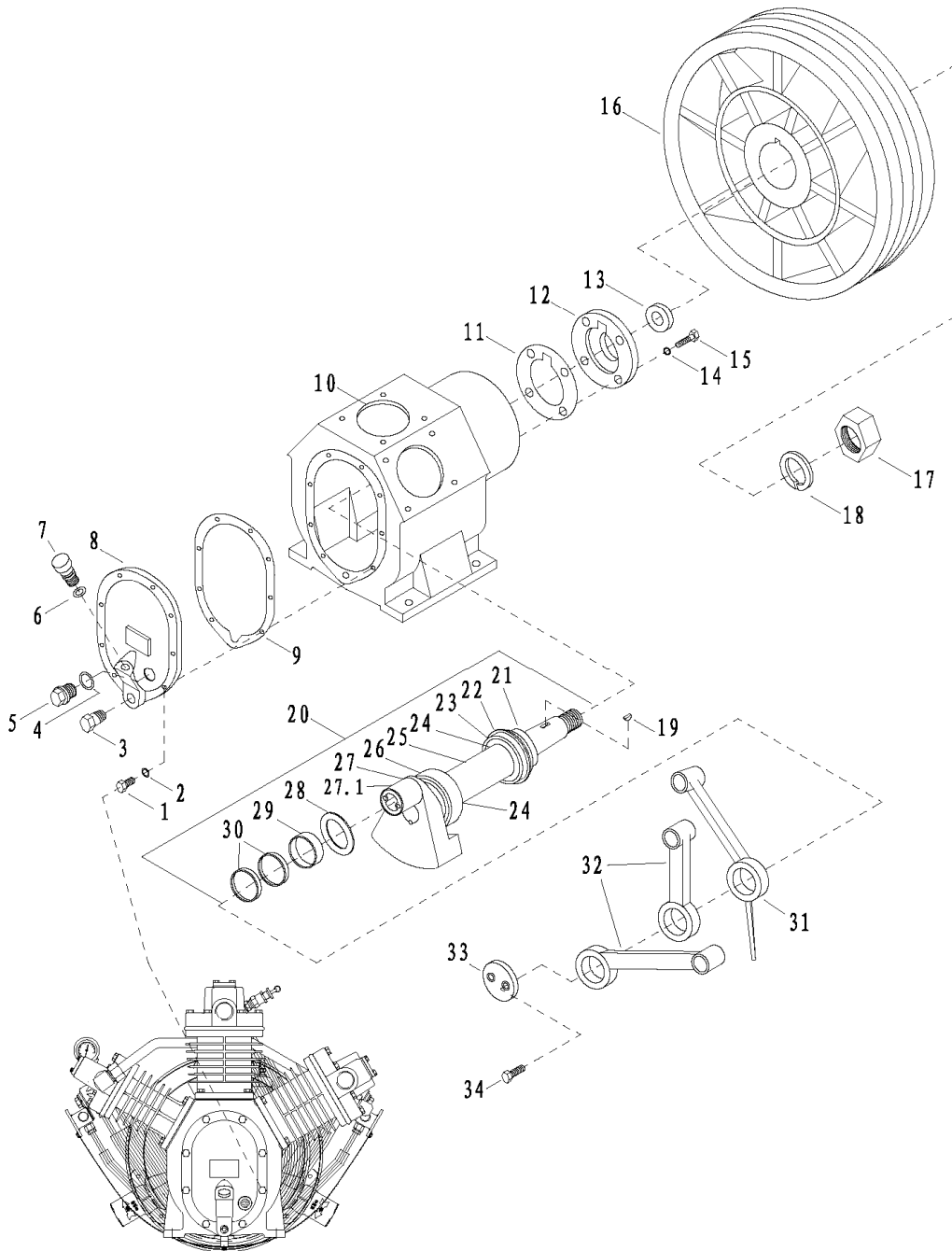
S/N	Code	Specification	Name	Qty	Remark
C-01	3015-YQ330500	YQ.33.05.00	Air tank 108*355	1	
C-02	3405-010	YZ60-6.0/M14*1.5/ axial	Pressure gauge	1	
C-03	3401-001	Pressure switch KP5	Danfoss	1	
C-04	3020-RD050A00	RD.05.0A.00	Stainless steel check valve	2	
C-05	3402-001	8.0Mpa-1/4NPT-220V	Solenoid valve	2	

Figure D: Outline Drawing & Spares List of 09WM Main Engine



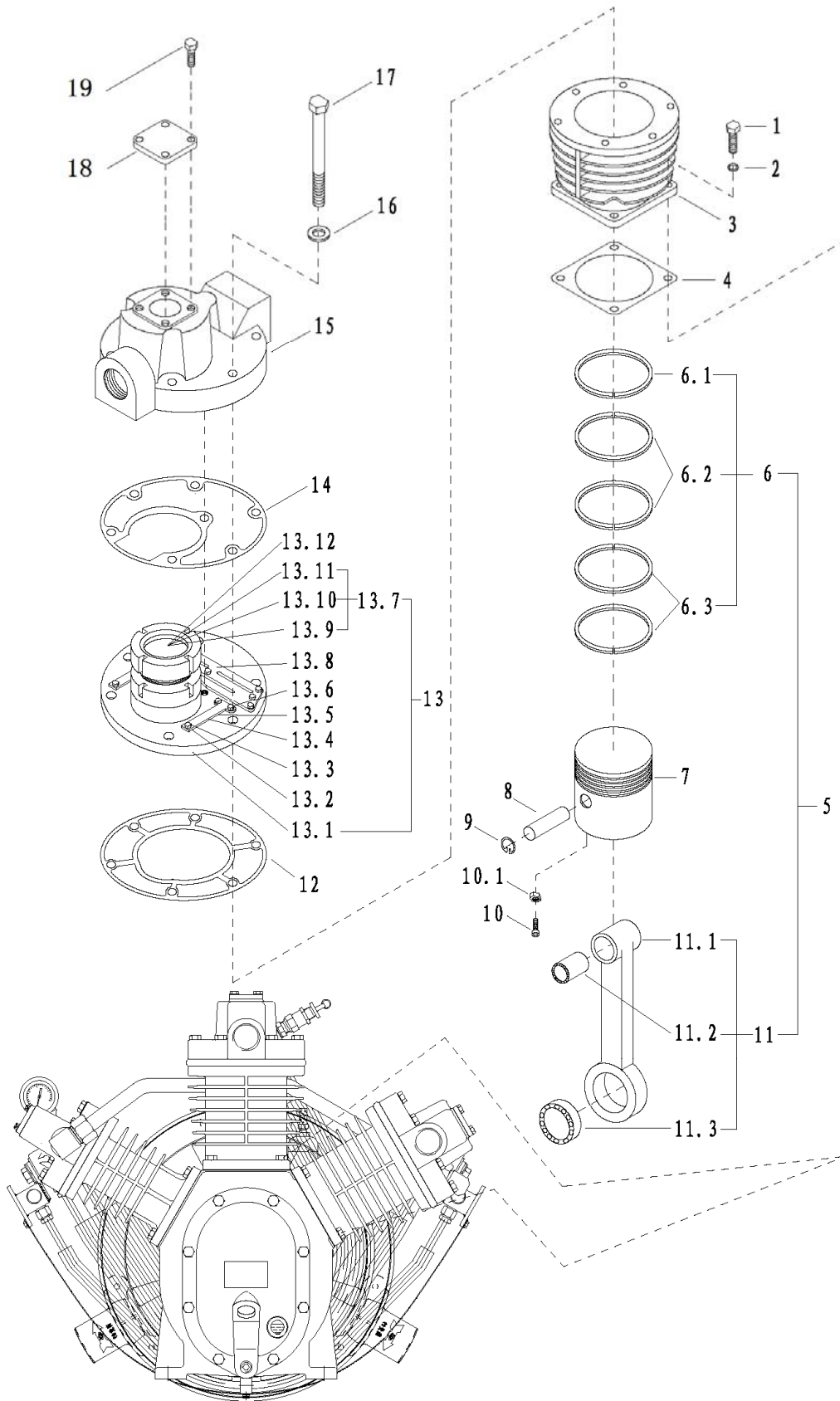
S/N	Code	Specification	Name	Qty	Remark
D-01	3001-09010102	Drawing 1	Crankcase parts	1	
D-02	2012-09WM0200	Drawing 2	First-stage cylinder piston parts	2	
D-03	2012-09WM0300	Drawing 3	Second-stage cylinder piston parts	1	
D-04	2014-09WM0500	Drawing 4	Intercooler parts	1	
D-05	3403-AQ060407	AQ.06.04.07	Safety valve 0.7MPa-G1/2"	1	
D-06	3405-006	YZ60-1.0/M14*1.5/axial	Pressure gauge	1	
D-07	3012-09WM0007-01	09.WM.00.07-01	Plastic fan	3	

Drawing 1: Crankcase Components one set



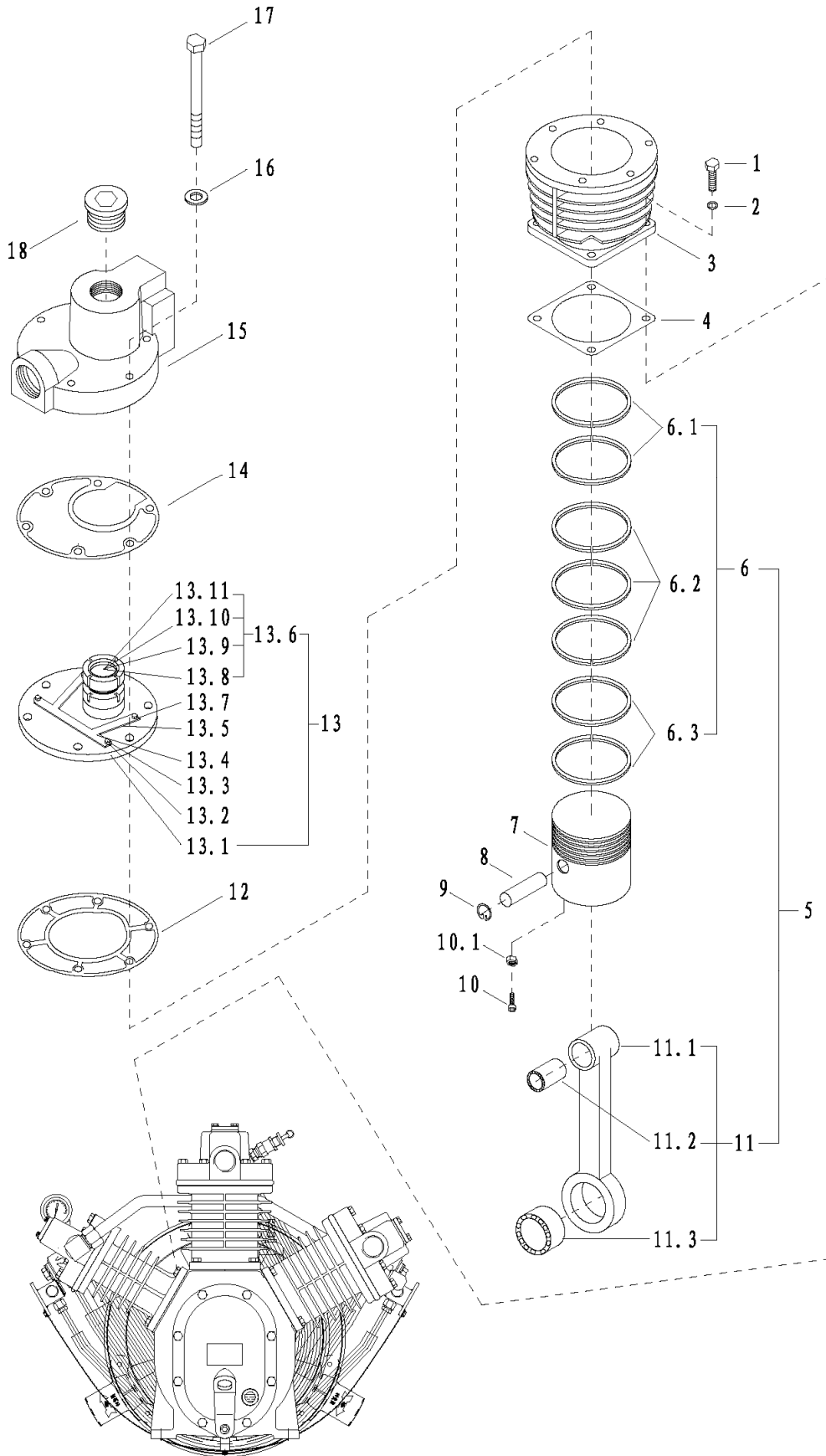
S/N	Code	Specification	Name	Qty	Remark
1-01	3501-003	Bolt M10*30-8.8	Bolt	8	
1-02	3505-014	Flat washer 10	Flat washer (red copper)	8	
1-03	3020-JT040012	JT.04.00.12	Oil discharging plug ZG1/2"	1	
1-04	3603-011	O ring 25*3.55	O ring	1	
1-05	3020-YB010000	YB.01.00.00	Oil indicator	1	
1-06	3603-010	O ring 23.5*3.55	O ring	1	
1-07	3012-09010006	09.01.00.06	Oil filling cover	1	
1-08	3003-09010003	09.01.00.03	Crankcase cover	1	
1-09	3014-09010004	09.01.00.04	gasket for crankcase cover	1	
1-10	3001-09010102	09.01.01.02	Crankcase assy	1	
1-11	3014-09010008	09.01.00.08	gasket for bearing end cover	1	
1-12	2017-09010200	09.01.02.00	Bearing end cover(double oil seal)	1	
1-13	3604-002	FB45*62*12	Lip-type seal ring	2	need to stock
1-14	3505-014	Flat washer 10	Flat washer (red copper)	4	
1-15	3501-003	Bolt M10*30-8.8	bolt	4	
1-16	3002-09010010	09.01.00.10	Fan wheel	1	
1-17	3504-007	Nut M30*2	Nut	1	
1-18	3505-004	Spring washer 30	Spring washer	1	
1-19	3506-001	6*10*25	Semicircular key	1	
1-20	2011-09WM0400	09.WM.04.00	Crankshaft assy	1	
1-21	3012-09040005	09.04.00.05	Hot pressing circlip	1	
1-22	3012-09040006	09.04.00.06	Stop circlip	1	
1-23	3601-014	NUP309EN-TVP2	roller bearing	1	
1-24	3012-09040007	09.04.00.07	Washer 56*45	2	
1-25	3012-09040004	09.04.00.04	Bushing	1	
1-26	3601-018	NUP409E-TVP2	roller bearing	1	
1-27	2021-09040100	09.04.01.00	Crankshaft component	1	
1-27.1	3712-001	LOCTITLE 620	LOCTITLE glue	0.5bottle	
1-28	3012-09040008	09.04.00.08	Stop circlip	1	
1-29	3601-004	NA55*80*25-02	Inner ring 63.3*55*25	1	
1-30	3601-002	NA55*80*18-02	Inner ring 63.3*55*18	2	
1-31	2015-090302GG	09.03.02.GG	Connecting rod with long oil needle GG(bearing included)	1	
1-32	2015-090202GG	09.02.02.GG	Connecting rod without oil needle GG(bearing included)	2	
1-33	3012-09WM0004	09.WM.00.04	Connecting rod baffle plate	1	
1-34	3501-036	Bolt M10*20	Bolt	2	

Drawing 2: First-Stage Cylinder Piston Conrod Parts (two sets)



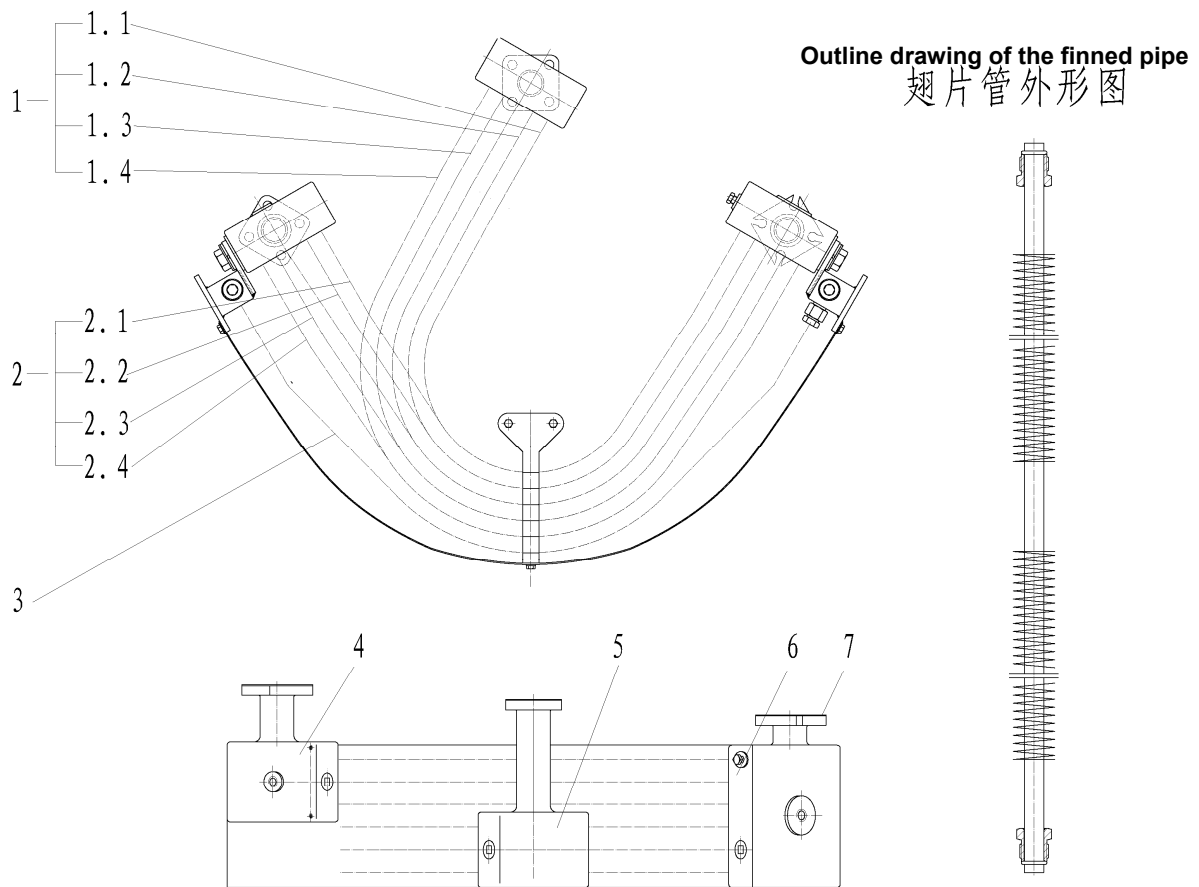
S/N	Code	Specification	Name	Qty	Remark
2-01	3501-008	Bolt M12*35-8.8	Bolt	4	
2-02	3505-015	Flat washer 12	Flat washer	4	
2-03	3005-09010015	09.01.00.15	First-stage cylinder 130	1	
2-04	3014-09010016	09.01.00.16	Cylinder gasket	1	
2-05	2012-09WM0200	09.WM.02.00	First-stage piston conrod	1	
2-06	3605-H130-122	H130-122	130 Piston ring -122	1	
2-06.1	3605-H130-01	H130-01	130 Barrel- face ring	1	
2-06.2	3605-H130-02	H130-02	130 Taper-face ring	2	
2-06.3	3605-H130-03	H130-03	130 oil scraping ring	2	
2-07	3009-09020007	09.02.00.07	First-stage piston 130*25(09)	1	
2-08	3011-09020005	09.02.00.05	First-stage piston pin 25*118*6/130	1	
2-09	3506-006	Lockring 25	Lockring	2	
2-10	3502-008	Bolt M8*25	Bolt	2	
2-10.1	3504-012	Nut M8	Nut	2	
2-11	2015-090202GG	09.02.02.GG	Connecting rod without oil needle 18GG(bearing included)	1	
2-11.1	3010-09020200	09.02.02.00	Connecting rod shank without oil needle	1	
2-11.2	3601-020	RNA 25*37*30	Needle roller bearing	1	
2-11.3	3601-001	NA55*80*18-01	Needle roller bearing	1	
2-12	3014-09010014	09.01.00.14	ower gasket of the first-stage valve board	1	
2-13	2013-09060000	09.06.00.00	First-stage gas valve components 130	1	
2-13.1	3006-09060001	09.06.00.01	First-stage gas valve plate	1	
2-13.2	3012-11060003	11.06.00.03	Lift retainer washer 2	8	
2-13.3	3501-022	Bolt M5*16-8.8	Bolt	13	
2-13.4	3021-09060003	09.06.00.03	Reed valve plate 0.6*5.1	8	
2-13.5	3012-11060004	11.06.00.04	Lift retainer washer 3	5	
2-13.6	3012-09070003	09.07.00.03	Lift retainer board	2	
2-13.7	3020-ZL010000	ZL.01.00.00	direct-flow valve	1	
2-13.8	3012-09060002	09.06.00.02	First-stage lift retainer board	1	
2-13.9	2013-ZL010100	ZL.01.01.00	Direct-flow valve core assy	1	
2-13.10	3021-zl01a004	ZL.01.A0.04	Reed valve plate 0.457*4.1	10	
2-13.11	3501-059	Bolt M4*6-8.8	Bolt	10	
2-13.12	3603-019	O ring 57*2.8	O ring	1	
2-14	3014-09010013	09.01.00.13	upper gasket of first-stage valve board	1	
2-15	3007-09010012	09.01.00.12	First-stage cylinder cover	1	
2-16	3505-015	Flat washer 12	Flat washer	6	
2-17	3501-014	Bolt M12*65-8.8	Bolt	6	
2-18	3019-07010013	07.01.00.13	sealing cover	1	
2-19	3501-031	Bolt M8*20	Bolt	4	

Drawing 3: Second-Stage Cylinder Piston Conrod Parts one set



S/N	Code	Specification	Name	Qty	Remark
3-01	3501-008	Bolt M12*35-8.8	Bolt	4	
3-02	3505-015	Flat washer 12	Flat washer	4	
3-03	3005-09WM0001	09.WM.00.01	Second-stage cylinder75*185.1	1	
3-04	3014-09010016	09.01.00.16	Cylinder gasket	1	
3-05	2012-09WM0300	09.WM.03.00	2nd stage piston conrod parts	1	
3-06	3605-H75-232	H75-232	75 Piston ring -232	1	
3-06.1	3605-H75-01	H75-01	75 Barrel-face ring	2	
3-06.2	3605-H75-02	H75-02	75 Taper-face ring	3	
3-06.3	3605-H75-03	H75-03	75 Oil scraper ring	2	
3-07	3009-40030001	40.03.00.01	Second-stage piston 75(11)	1	
3-08	3011-40030003	40.03.00.03	Piston Pin 25*65*6/75	1	
3-09	3506-006	Locking 25	Locking	2	
3-10	3502-002	Bolt M6*25	Bolt	2	
3-10.1	3504-011	Nut M6	Nut	2	
3-11	2015-090302GG	09.03.02.GG	Connecting rod with long oil needle 25GG(bearing included)	1	
3-11.1	3010-09030200	09.03.02.00	Connecting rod shaft with long oil needle 25GG	1	
3-11.2	3601-020	RNA25*37*30	needle roller bearing	1	
3-11.3	3601-003	NA55*80*25-01	needle roller bearing 80*63.3*25/	1	
3-12	3014-40010008	40.01.00.08	lower gasket of second-stage valve board	1	
3-13	2013-07050000	07.05.00.00	2nd stage gas valve parts 60-75	1	
3-13.1	3006-07050001	07.05.00.01	2nd stage gas valve plate 70	1	
3-13.2	3012-11060004	11.06.00.04	Lift retainer washer 3	1	
3-13.3	3501-022	Bolt M5*16-8.8	Bolt	4	
3-13.4	3012-07050002	07.05.00.02	2nd stage lift retainer plate	1	
3-13.5	3021-30020001	30.02.00.01	Reed valve plate 0.8*5.1	3	
3-13.6	3020-ZLA30000	ZL.A3.00.00	direct-flow valve	1	
3-13.7	3012-11060003	11.06.00.03	Lift retainer washer 2	3	
3-13.8	2013-ZLA30100	ZL.A3.01.00	Direct-flow valve core assy	1	
3-13.9	3021-ZL010004	ZL.01.00.04-	Reed valve plate 0.6*4.1	6	
3-13.10	3501-059	Bolt M4*6-8.8	Bolt	6	
3-13.11	3020-ZLA30007	ZL.A3.00.07	upper copper pad	1	
3-14	3014-34010001	34.01.00.01	Upper copper pad of 2nd stage valve plate	1	
3-15	3007-07010012	07.01.00.12	Second-stage cylinder cover	1	
3-16	3505-015	Flat washer 12	Flat washer	6	
3-17	3501-014	Bolt M12*65-8.8	Bolt	6	
3-18	3020-JT040002	JT.04.00.02	Screw plug ZG1"	1	

Drawing 4: Intercooler

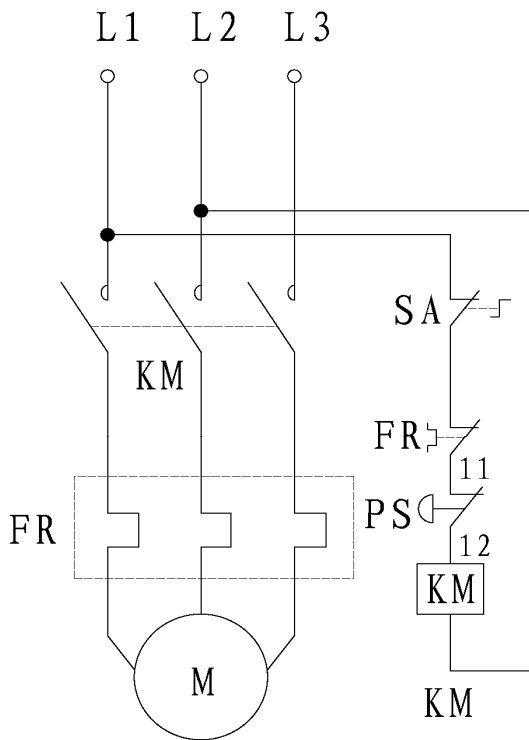


S/N	Code	Specification	Name	Qty	Remark
4-0	2014-09WM0500	09.WM.05.00	Intercooler parts	1	
4-01		09.05.00.30	Finned tube	1set	
4-1.1	3013-09050012	09.05.00.12	Finned tube 1087 (594+443)	2	
4-1.2	3013-09050013	09.05.00.13	Finned tube 1153 (638+465)	1	
4-1.3	3013-09050015	09.05.00.15	Finned tube 1285 (726+509)	1	
4-1.4	3013-09050016	09.05.00.16	Finned tube 1351 (770+531)	2	
4-02		09.05.00.29	Finned tube	1set	
4-2.1	3013-09050007	09.05.00.07	Finned tube 924 (437+437)	1	
4-2.2	3013-09050008	09.05.00.08	Finned tube 968 (459+459)	2	
4-2.3	3013-09050010	09.05.00.10	Finned tube 1056 (503+503)	2	
4-2.4	3013-09050011	09.05.00.11	Finned tube 1100 (525+525)	1	
4-03	3013-31040001	31.04.00.01	After cooler Finned tube	6	
4-04	3008-09050017	09.05.00.17	First-stage air collector(side)	1	
4-05	3008-09050018	09.05.00.18	First-stage air collector(central)	1	
4-06	3008-09050019	09.05.00.19	Second-stage air collector	1	
4-07	3014-09050024	09.05.00.24	Air collector gasket	3	

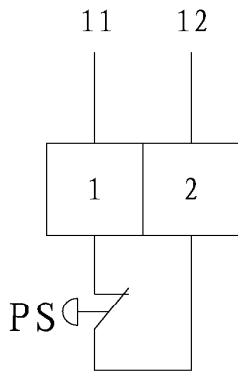
Table 5: Complete Sealing Gaskets List of 09WM Machine Head
(a summary to all above-mentioned gaskets)

S/N	Code	Specification	Name	Qty	Remark
5-01	3014-09010004	09.01.00.04	Gasket, crankcase cover	1	Need to stock
5-02	3014-09010008	09.01.00.08	Gasket, bearing end cover	1	Need to stock
5-03	3014-09010016	09.01.00.16	Gasket, cylinder	3	Need to stock
5-04	3014-09050024	09.05.00.24	Gasket, air collector	3	Need to stock
5-05	3014-09010014	09.01.00.14	Lower gasket of 1st stage valve board	2	Need to stock
5-06	3014-09010013	09.01.00.13	Upper gasket of 1st stage valve board	2	Need to stock
5-07	3014-40010008	40.01.00.08	Lower gasket of 2nd stage valve board	1	Need to stock
5-08	3014-34010001	34.01.00.01	Upper red copper pad of 2nd stage valve board	1	Need to stock
5-09	3603-011	O ring 25*3.55	O ring	1	Need to stock
5-10	3603-010	O ring 23.5*3.55	O ring	1	Need to stock

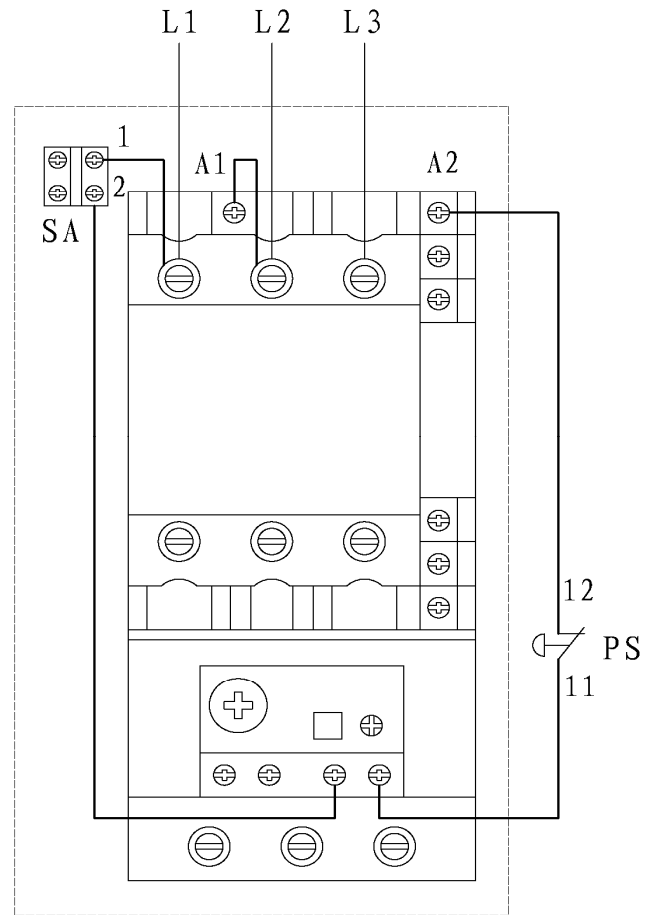
Drawing 5: Circuit Diagram of Single-Engine Unit (air tank excluded)



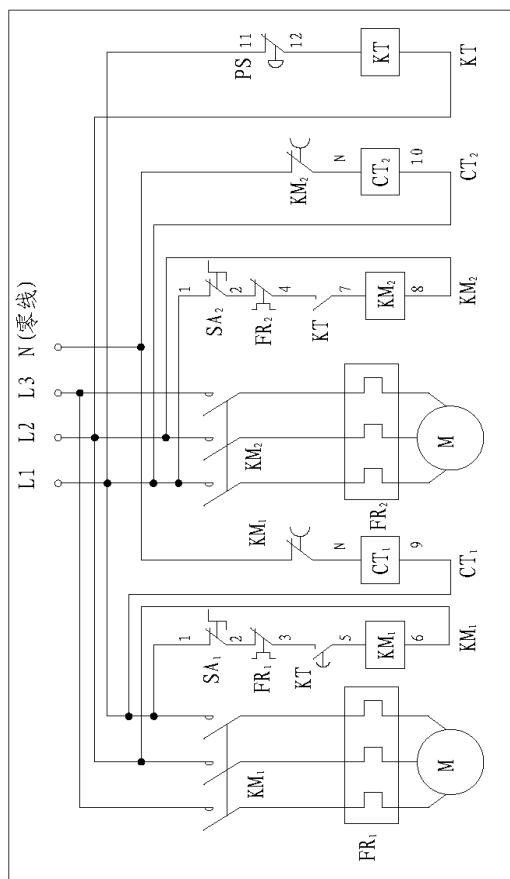
Wiring terminals
接线端子图



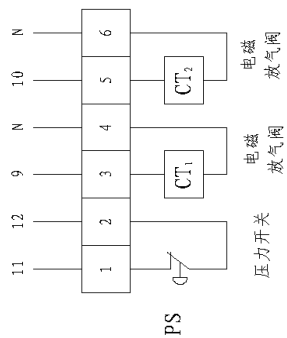
PS
压力开关
Pressure Switch



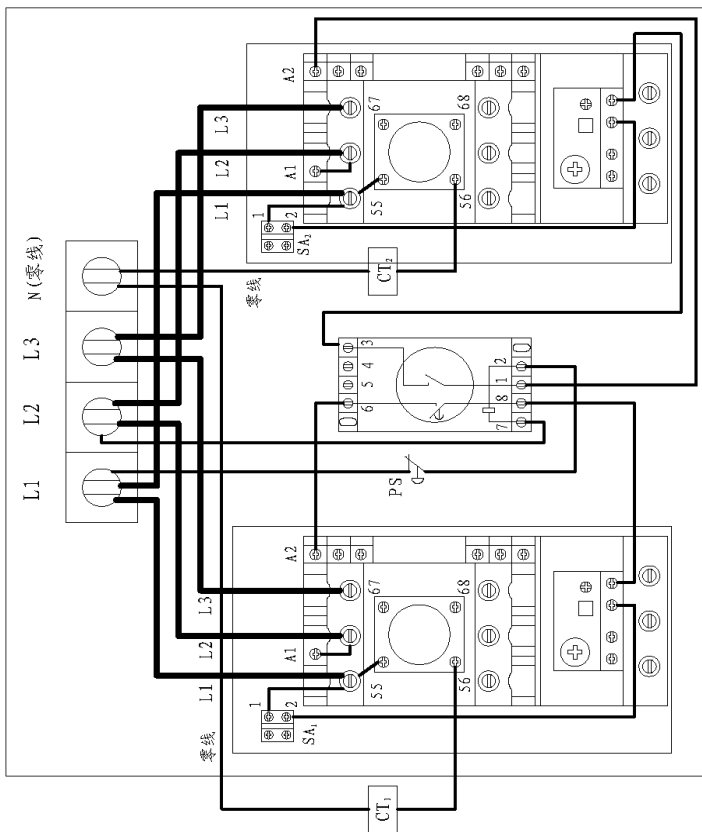
Drawing 6: Circuit Diagram of Double-Engine Unit



Wiring terminals
接线端子图



Pressure Switch Solenoid valve
压力开关 电磁 电磁 电磁
压力开关 电磁 电磁 电磁
压力开关 电磁 电磁 电磁
压力开关 电磁 电磁 电磁



Commonly Used Electrical Components Table

Notes: SA: Rotary switch FR: Thermal relay KM: AC contactor KT: Time relay

SN	Specification	Specification	Name	Brand	Remarks
6-01	3301-003	CJX2-4011/380	AC contactor	CHINT	Single-engine 11KW
6-01	3301-010	LC1D4011/380V	AC contactor	SCHNEIDER	Double-engine 11KW
6-02	3301-004	CJX2-5011-380V	AC contactor	CHINT	Double-engine 15KW
6-02	3301-011	LC1-D5011/380V/	AC contactor	SCHNEIDER	Double-engine 15KW
6-03	3302-007	JRS1-40-80/Z-32A	Thermal relay	CHINT	Double-engine 11KW
6-03	3302-008	LR2-D3353	Thermal relay	SCHNEIDER	Double-engine 11KW
6-04	3302-004	JRS1-40-80/Z-40A	Thermal relay	CHINT	Double-engine 15KW
6-04	3302-013	LR2-D3355	Thermal relay	SCHNEIDER	Double-engine 15KW
6-05	3303-006	SK4-222	Delay	DELIXI	
6-06	3303-001	JSZ3/A-A/30S	Time relay	CHINT	
6-07	3305-005	Button Switch NP2-ED25	Button switch	CHINT	