

## 7 Related Documents

### 7.1 Development Views

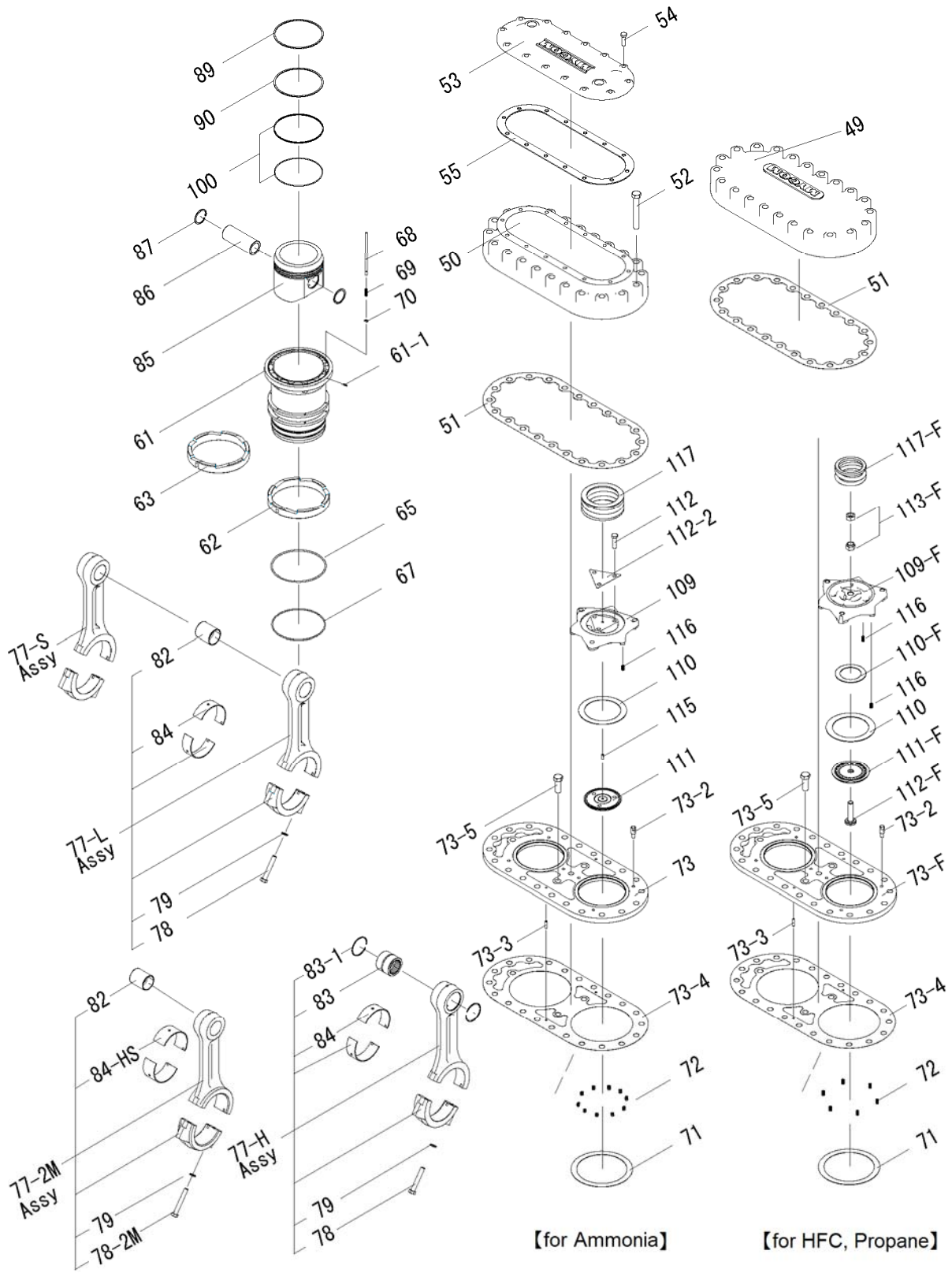


Fig. 7-1 Development view of M-series cylinder part

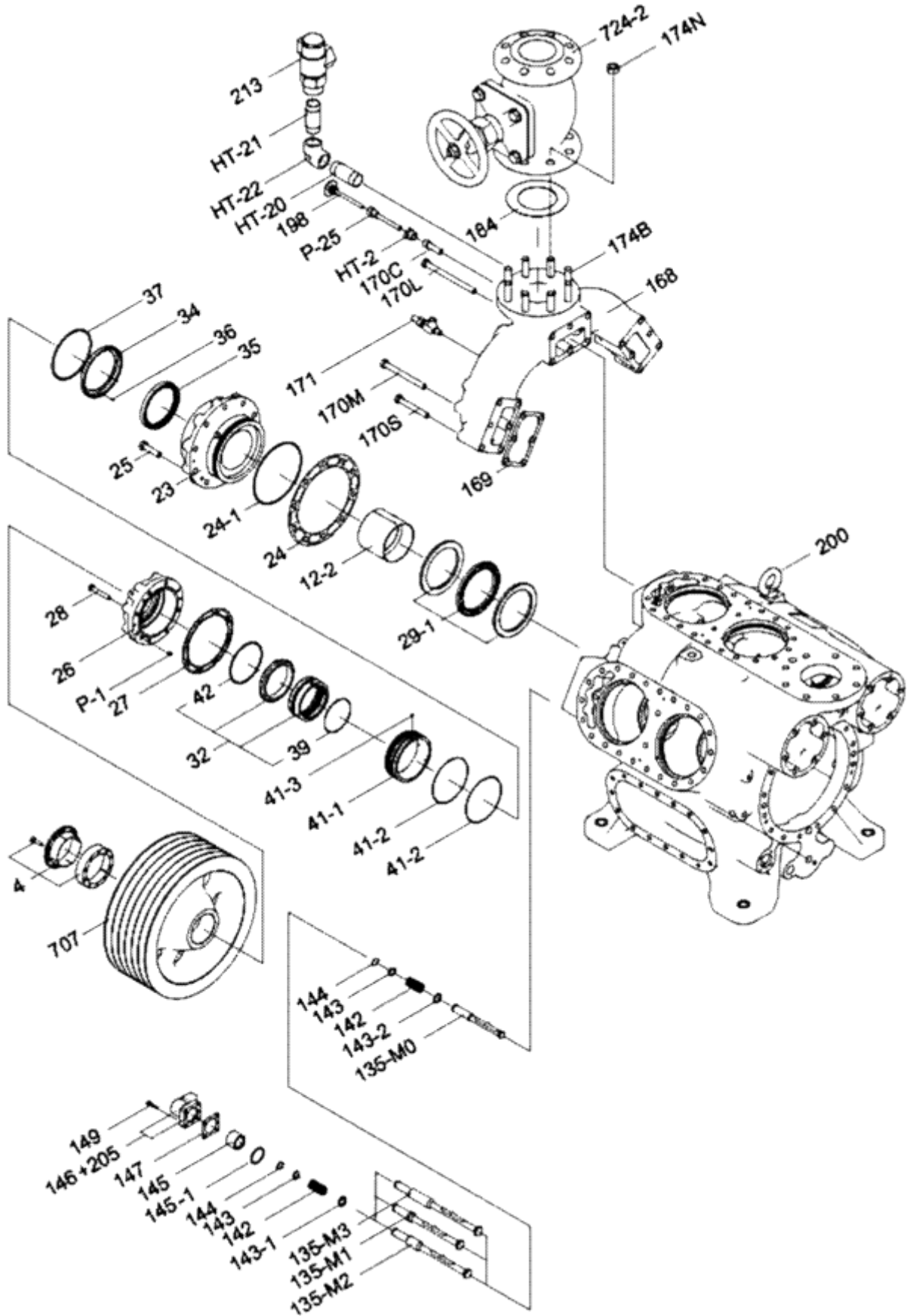


Fig. 7-2 Development view of parts around the 6M case and parts common with others (1/2)

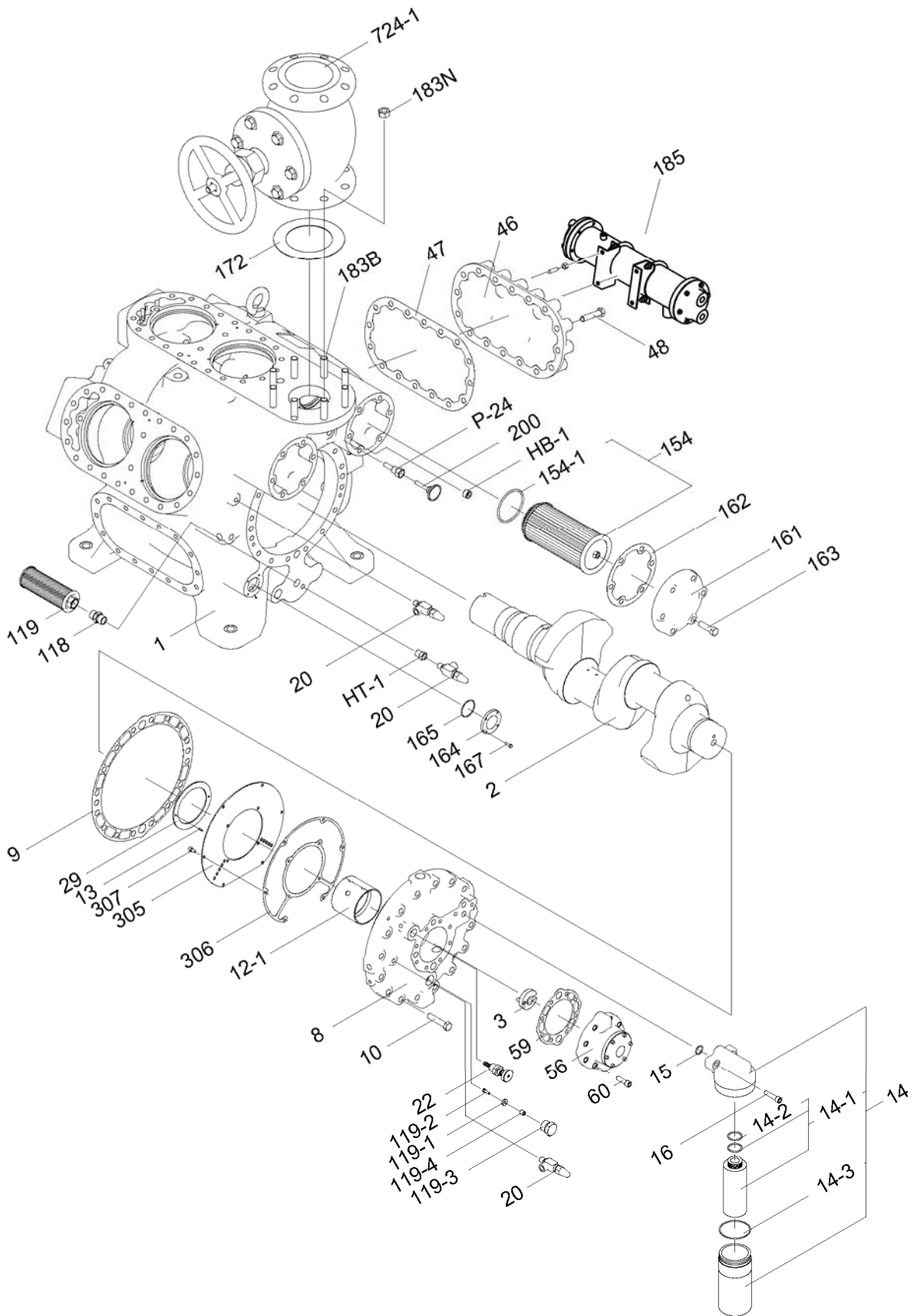


Fig. 7-3 Development view of parts around the 6M case and parts common with others (2/2)

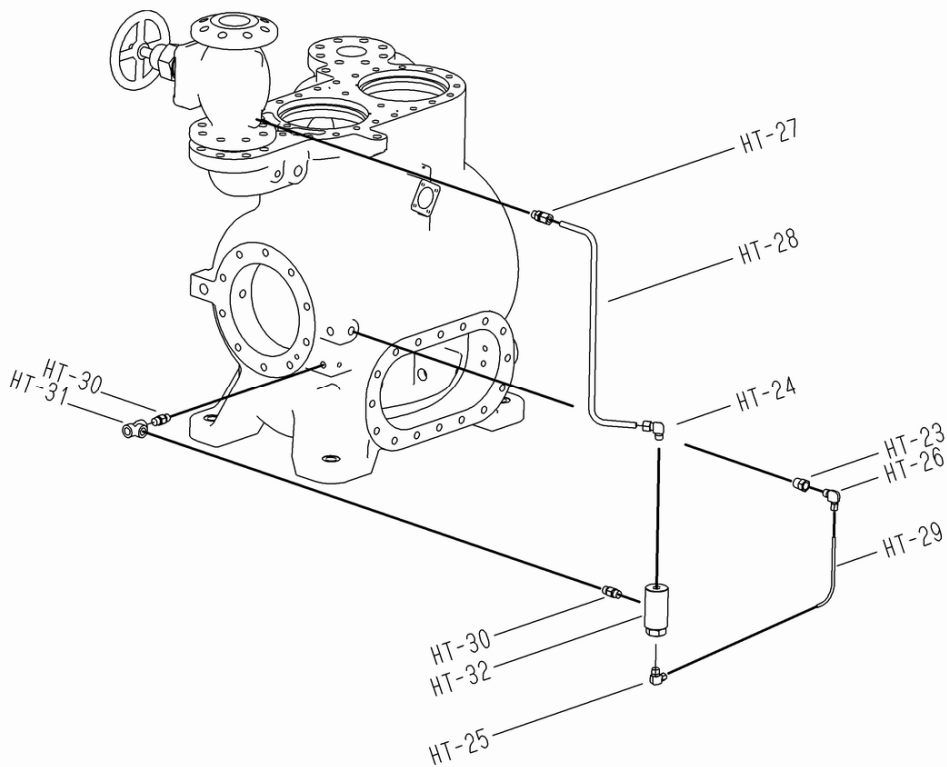
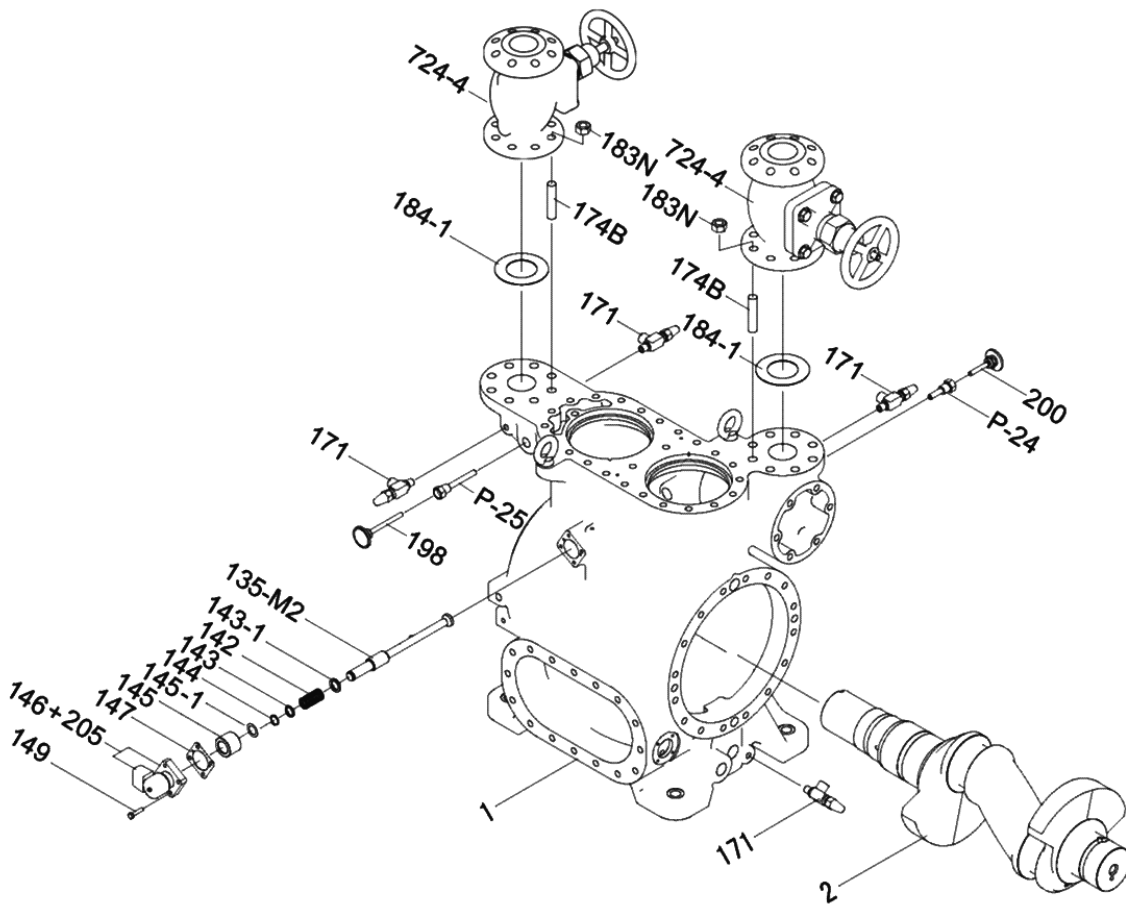


Fig. 7-4 Development view of parts around the 2M case

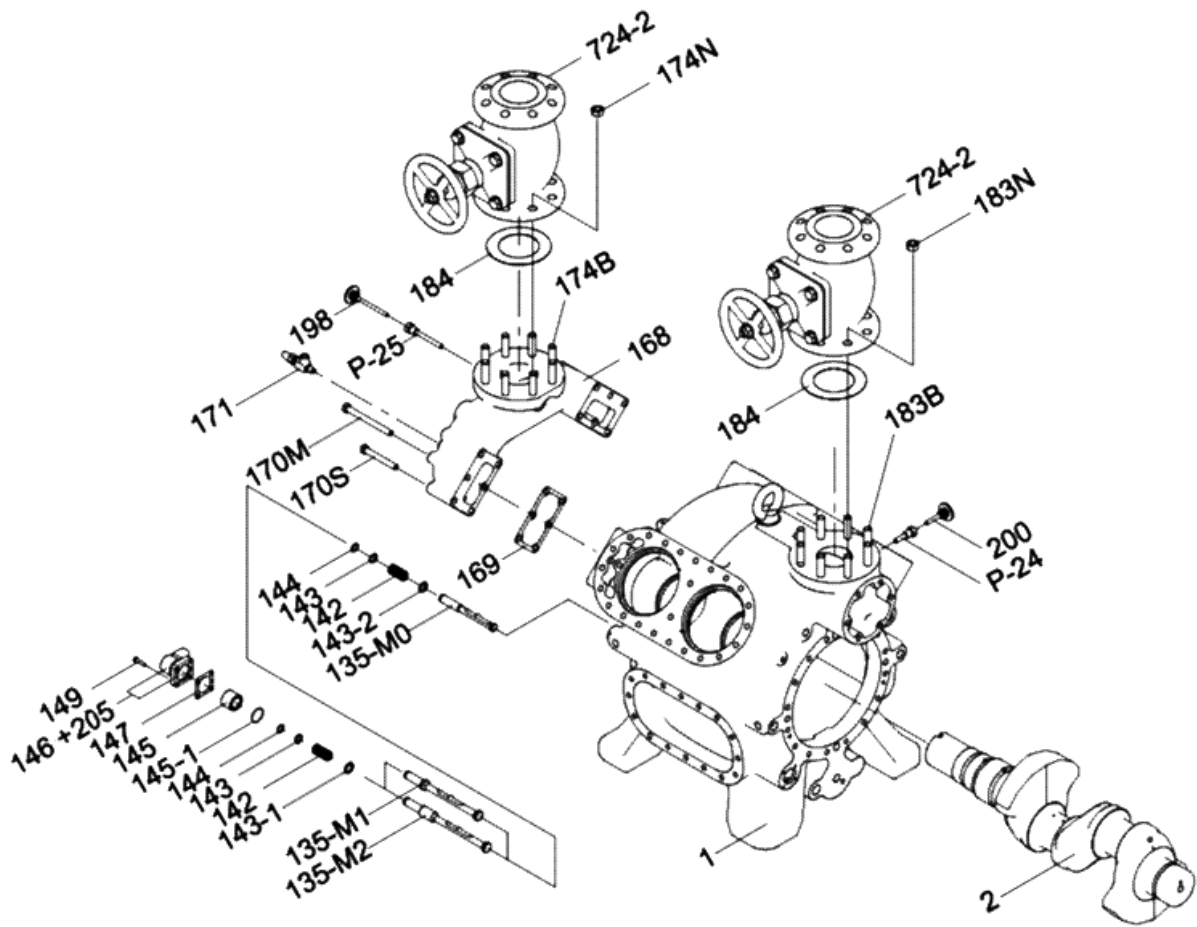


Fig. 7-5 Development view of parts around the 4M case

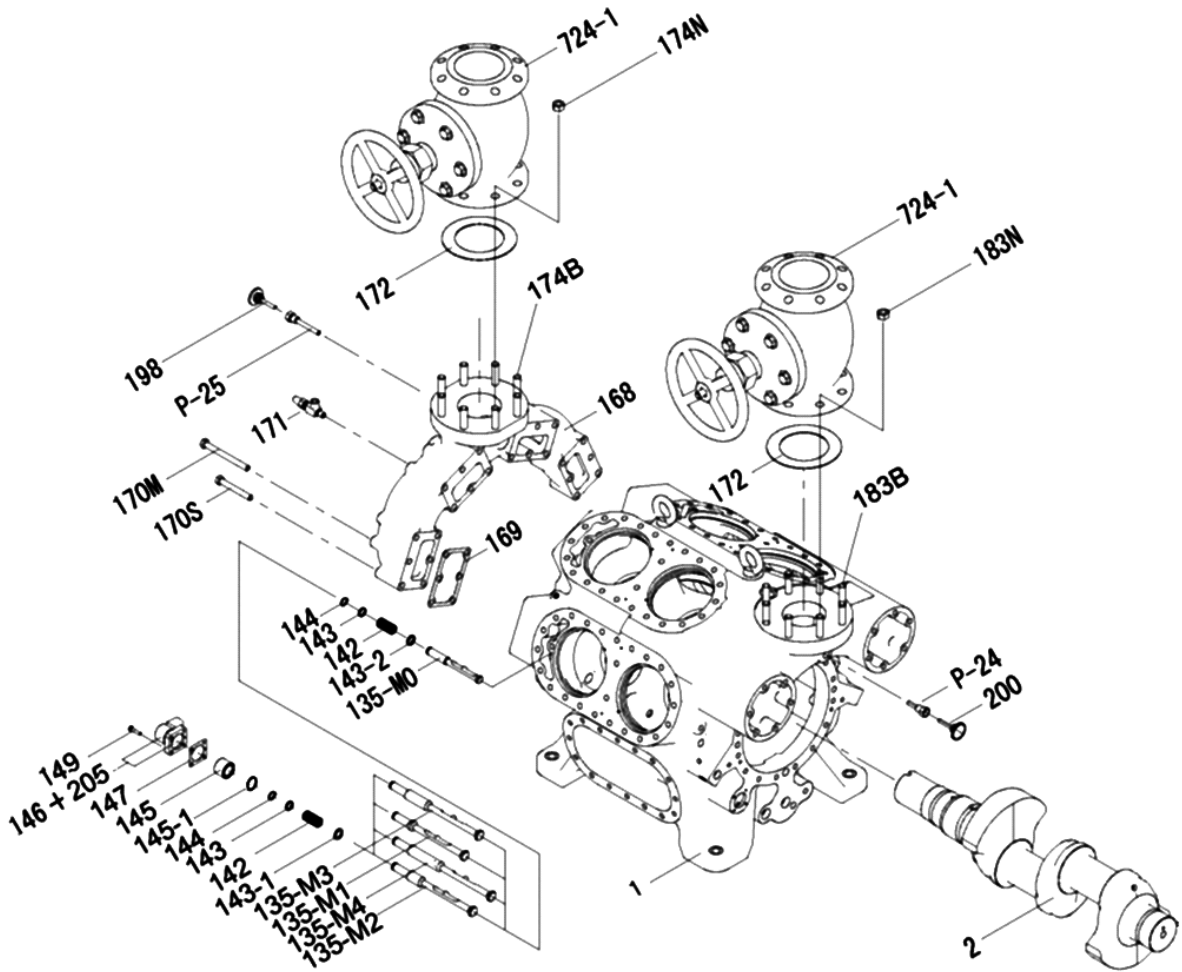


Fig. 7-6 Development view of parts around the 8M case

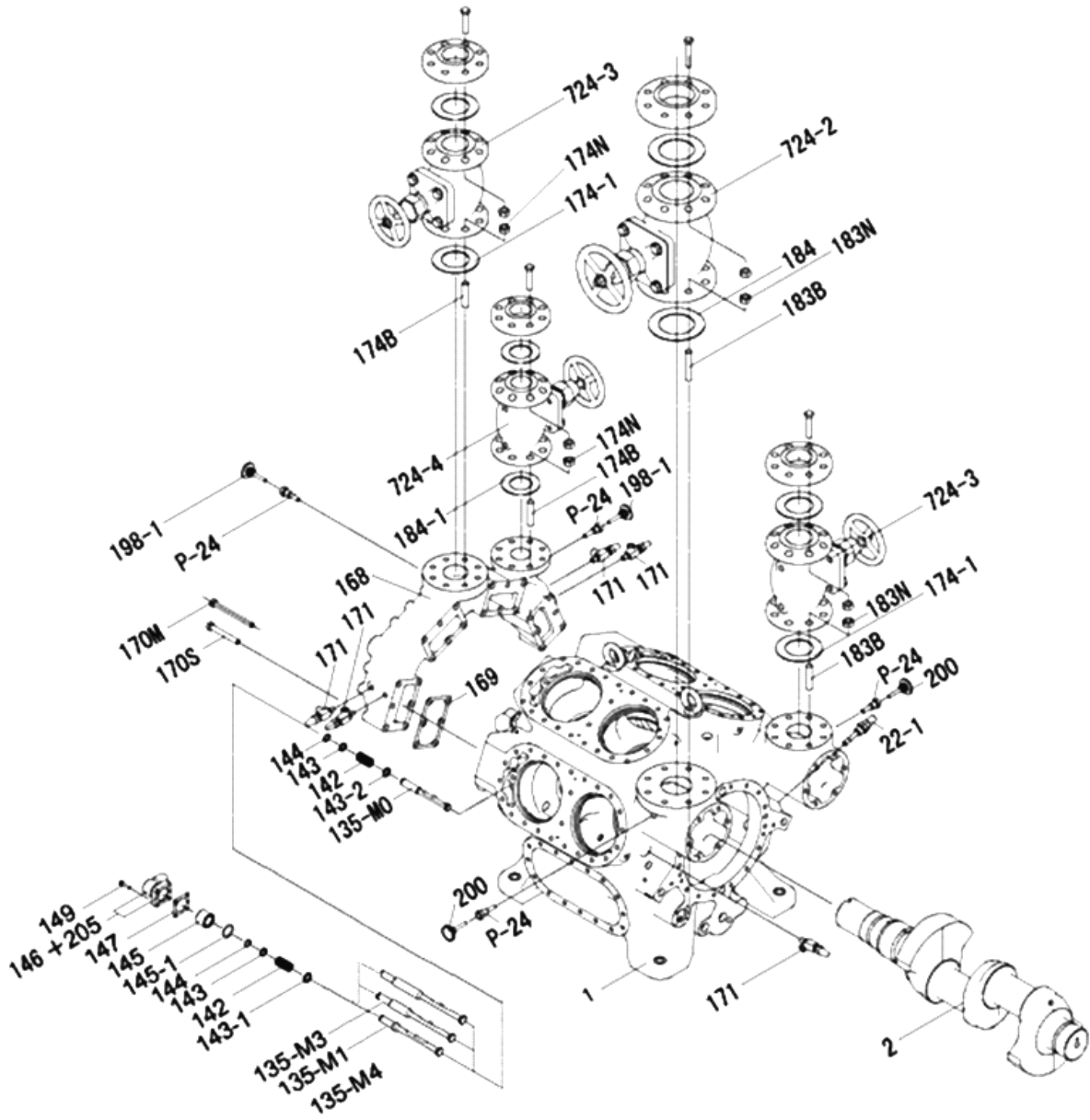


Fig. 7-7 Development view of parts around the 62M case

## 7.2 Configuration Table of the Parts

Table 7-1 Parts Configuration Table

Item No.	Part name	Code No.	Qty.					Remarks
			2 M	4 M	6 M	8 M	62 M	
1	Crankcase	CR00102-MMM02	1	-	-	-	-	2M
1	Crankcase	CR00102-MMM04	-	1	-	-	-	4M
1	Crankcase	CR00102-MMM06	-	-	1	-	-	6M
1	Crankcase	CR00102-MMM08	-	-	-	1	-	8M
1	Crankcase	CR00102-MMM062	-	-	-	-	1	62M
2	Crankshaft	CR00202-M02	1	-	-	-	-	2M
2	Crankshaft	CR00202-M04	-	1	-	-	-	4M
2	Crankshaft	CR00202-M06	-	-	1	-	-	6M
2	Crankshaft	CR00202-M08	-	-	-	1	-	8M
2	Crankshaft	CR00202-M062	-	-	-	-	1	62M,62M-FM
3	Drag crank	CR00300-B12	1					Same as 12WB
4	Mechlock	CR00400-M	1					
8	Main bearing head	CR00802-M	1					
9	Main bearing gasket	CR00900-M	1					
10	Hexagon head bolt, main bearing head	NB111016-075	16					M16x75-10.9
12-1	Main bushing (pump side)	CR01200-M1	1					
12-2	Main bushing (seal side)	CR01220-MS	1					
13	Spring pin, thrust washer	NE3205-010V	2					5x10AV
14	Oil filter assembly	CR01400-M	1					20µm
14-1	Element assembly, oil filter	CR01410-M	1					
14-2	O-ring, oil filter element	PAAS568-222	2					AS568-222
14-3	O-ring, oil filter case	PA12-090	1					JIS B 2401 G90
15	O-ring, Oil filter head	PA12-025	2					JIS B 2401 G25
16	Hexagon socket head cap screw, oil filter	NB35412-050	2					M12xL50-12.9
16-1	Plane washer for item No.16	ND-110-12	2					M12
20 171	Service valve For oil drain/initial oil charge, gas purge, connection for suction/discharge/oil pressure	NF067-0303	5	6			8	R3/8xRc 3/8
22	Oil pressure regulating valve	NL152-SFX	1					Same as WA、WB (R3/4)
22-1	High stage return oil valve assembly		-	-	-	-	1	
23	Bearing head	CR02300-M	1					
23	Bearing head	CR02300-M62FM	-	-	-	-	1	62M-FM
24	Gasket, bearing head	CR02400-M	1					
24-1	O-ring, bearing head	PA12-200	1					JIS B 2401 G200
25	Hexagon head bolt, bearing head	NB111016-065	10					M16x65-10.9
26	Shaft seal cover	CR02600-M	1					
27	Gasket, shaft seal cover	CR77200-M	1					
28	Hexagon head bolt, shaft seal cover	NB111012-075	8					M12x75-10.9
29	Thrust washer (pump side)	CR01210-M	1					
29-1	Thrust roller bearing	CR02900-M	1					
32	Mechanical seal assembly	CR03200-MH	1					Type:MM-1 HNBR



Item No.	Part name	Code No.	Qty.					Remarks
			2 M	4 M	6 M	8 M	62 M	
34	Retainer, oil seal	CR03400-M	1					
35	Oil seal	CR03500-M	1					AB4399A0
36	Spring pin, seal retainer	NE3203-010	1					3x10AW
37	O-ring, oil seal retainer	PA12-160	1					JIS B 2401 G160
39	O-ring, mechanical seal collar	PAH82-245	1					AS568-245 HNBR
41-1	Shower flushing sleeve	CR04100-M	1					
41-2	O-ring, shower flushing sleeve	PA62-033 PA62-035	2					AS568-257
41-3	Hexagon socket set screw, shower flushing sleeve	NA83606-008	3					M6x8
42	O-ring, mechanical seal mating ring	PAH80-130	1					JIS B 2401 P130 HNBR
46	Hand hole cover	CR04500-M	1	2				Window less
47	Gasket, hand hole cover	CR04700-M	1	2				
48	Hexagon head bolt, hand hole cover	NB111016-075	16	32				M16x75-10.9
49	Head cover (air cooled)	CR04900-M	1	2	3	4	4	Air cooled specification
50	Head cover (water cooled)	CR04900-MW	1	2	3	4	4	Water cooled specification
51	Gasket, head cover	CR05100-M	1	2	3	4	4	
52	Hexagon head bolt, head cover	NB111016-115	22	44	66	88	88	M16x115-10.9
53	Head jacket cover	CR05300-M	1	2	3	4	4	Water cooled specification
54	Hexagon head bolt, head jacket cover	NB17010-035	14	28	42	56	56	M10x35-SUS/Water cooled specification
55	Gasket, head jacket cover	CR05500-M	1	2	3	4	4	For water cooled head cover
56	Oil pump	CR05600-M	1					MG
56	Oil pump assembly	CR0569-M	1					with Gasket
59	Gasket, oil pump	CR05900-M	1					
60	Hexagon socket head cap screw, oil pump	NB35412-040	8					M12x40-12.9
61	Cylinder sleeve	CR06100-M	2	4	6	8	8	
61-1	Spring pin, cylinder sleeve	NE3203-010	2	4	6	8	8	3x10AW
62	Cam ring (rightward sloped)	CR06200-MR	-	4	6	4	-	
63	Cam ring (leftward sloped)	CR06200-ML	1	-	-	4	4	
65	Retaining ring	CR06500-M	1	4	6	8	4	
67	O-ring, cylinder sleeve	PA62-036	2	4	6	8	8	AS568-258
68	Lift pin	CR06800-M	6	24	36	48	24	Φ6xL155
-	Lift pin set	CR06809-M	2	4	6	8	8	Each 6 (Lift pin, spring, E5-ring)
69	Spring, lift pin	CR06900-M	6	24	36	48	24	KK1090
70	Stop ring, lift pin	NG13-E5	6	24	36	48	24	E5
71	Suction plate valve	CR07100-M	2	4	8	6	8	
72	Spring, suction valve	CR07200-M	20	40	60	80	80	Type: <b>IV</b> for NH <sub>3</sub>
			12	24	36	48	48	Type: <b>IV</b> for HFC, Propane
-	Spring set, suction valve	CR0729-M	2	4	6	8	8	
73	Valve plate	CR07300-M2 CR07300-M3	1	2	3	4	4	For NH <sub>3</sub> , pay attention to the stamped specification "N3"
73-F	Valve plate	CR07300-MF	1	2	3	4	4	For HFC and propane, pay attention to the stamped specification "F"

Item No.	Part name	Code No.	Qty.					Remarks
			2 M	4 M	6 M	8 M	62 M	
73-2	Stud bolt, discharge valve cage	CR07500-M	6	12	18	24	24	
73-3	Parallel pin, valve plate	NE2006B-025	2	4	6	8	8	Parallel pin B type 6x25st
73-4	Gasket, valve plate	CR77800-M	1	2	3	4	4	
73-5	Hexagon head bolt, valve plate	NB111016-045	3	6	9	12	12	M16x45-10.9
73-2	Stud bolt, discharge valve cage	CR07500-M	6	12	18	24	24	
77-S Assy	Connecting rod (No.1)	CR07600-M1	-	-	2	4	2	W36,L310, bushing
77-L Assy	Connecting rod (No.2)	CR07600-M2	-	4	4	4	4	W46,L310, bushing
77-H Assy	Connecting rod (High stage)	CR07600-M3	-	-	-	-	2	W36,L310, Needle bearing
77-2M Assy	Connecting rod (2M)	CR07600-M4P	2	-	-	-	-	W56,L310, bushing
78	Hexagon head bolt, connecting rod	CR07800-M	-	8	12	16	16	M12x80-10.9
78-2M	Hexagon head bolt, connecting rod	NB111012-090	4	-	-	-	-	M12x90-10.9
79	Disk Lock Washer, connecting rod	CR07900-M	4	8	12	16	16	NL12
82	Bushing, connecting rod	CR08200-MF	2	4	6	8	6	Φ45xL56xt2.5
83	Connecting rod needle bearing	CR08300-M	-	-	-	-	2	Φ45xΦ59xL52
83-1	Spiral retaining ring	CR83100-M	-	-	-	-	4	Φ59
84	Bearing halves	CR08400-M	-	8	12	16	16	Same shape for upper and lower
-	Bearing halves set	CR08409-M	-	4	6	8	8	
84-HS	Bearing halves	CR08400-HS	4	-	-	-	-	Same shape for upper and lower Same shape for HS
85	Piston	CR08500-ALM	2	4	6	8	8	
86	Piston pin	CR08600-M	2	4	6	8	8	
87	Retaining ring, piston pin	NG11-045	4	8	12	16	16	H45
-	Retaining ring set, piston pin	CR8709-M	2	4	6	8	8	
89	Piston ring (1st)	CR08900-MSPBF	2	4	6	8	8	SP-PC-BF2.5
90	Piston ring (2nd)	CR08900-MFCT	2	4	6	8	8	FC-T2.0
100	Oil control ring (3rd) with coil	CR08900-MSPDM	2	4	6	8	8	SP-PC-DM3.0
-	Piston ring set	CR0899-M	2	4	6	8	8	
109	Discharge valve cage	CR10900-T1	2	4	6	8	2	For Ammonia, for single-stage or high-stage of compound 2-stage compressor stamped "T1"
109	Discharge valve cage	CR10900-M2	2	4	6	8	6	For Ammonia, for booster or low-stage of compound 2-stage compressor stamped "N2"
109-F	Discharge valve cage (F specification)	CR10900-MF	2	4	6	8	8	For HFC and propane stamped "F"
110	Discharge plate valve	CR11000-M	2	4	6	8	8	For NH <sub>3</sub> , HFC and propane
110-F	Inside discharge plate valve (F specification)	CR11000-MF	2	4	6	8	8	For HFC and propane
111	Discharge valve seat	CR11100-M	2	4	6	8	8	For NH <sub>3</sub> Not stamped
111-F	Discharge valve seat (F specification)	CR11100-MF	2	4	6	8	8	For HFC and propane Not stamped
112	Hexagon head bolt, discharge	NB111010-040	6	12	18	24	24	M10x40-10.9 For NH <sub>3</sub>

Item No.	Part name		Code No.	Qty.					Remarks
				2 M	4 M	6 M	8 M	62 M	
	valve seat								
112-F	Hexagon head bolt, discharge valve seat (F specification)		CR11200-MF	2	4	6	8	8	For HFC and propane
112-2	Retainer, discharge valve seat bolt		CR77900-M	2	4	6	8	8	For NH <sub>3</sub> , pay attention to the stamped specification "N2"
113-F	Discharge valve nut (F specification)		NC150-16	2	4	6	8	8	Hard rock nut M16 For HFC and propane
114	Spring set, discharge valve		CR1169-M	2	4	6	8	8	For NH <sub>3</sub>
114	Spring set, discharge valve		CR1169-M	3	6	2	2	12	For HFC and propane
115	Parallel pin, discharge valve seat		NE2006B-015	2	4	6	8	8	Parallel pin B - 6x15st
116	Spring, discharge valve		CR11600-AB4	24	48	72	96	96	Type IV For NH <sub>3</sub>
				36	72	108	144	144	Type IV For HFC and propane
117	Spring, safety head		CR11700-M	2	4	6	8	8	For NH <sub>3</sub>
117-F	Spring, safety head (F specification)		CR11700-MF	2	4	6	8	8	For HFC and propane
118	Nipple	R3/4 xL80	NN420-080	2	2	2	-	-	For oil strainer and oil cooler piping
		R3/4 xL100	NN420-100	-	-	-	2	2	
119	Oil strainer		CR11900-M	1					100 mesh
119-1	Magnet		CR11910-M	1					Φ20xΦ8x5
119-2	Hexagon head bolt, magnet		NB111006-015	1					M8x15-10.9
119-3	Hexagon head plug, magnet		CR11930-M	1					Hexagon head plug (special, R1")
119-4	Spacer, magnet			1					
135-M0	Unloader push rod (No.0)		CR13500-M60	-	2	3	4	3	L208, Same for all suction side cylinder
135-M1	Unloader push rod (No.1)		CR13500-M61	-	1	1	1	1	L286.5, for discharge side
135-M2	Unloader push rod (No.2)		CR13500-M62	1	1	1	1	-	L322.5, for discharge side
135-M3	Unloader push rod (No.3)		CR13500-M63	-	-	1	1	1	L358.5, for discharge side
135-M4	Unloader push rod (No.4)		CR13500-M64	-	-	-	1	1	L394.5, for discharge side
142	Spring, unloader device		CR14200-M	1	4	6	8	6	KS4091
143	Washer (No1), unloader push rod		CR14300-M1	1	4	6	4	6	Φ27xΦ22.2x3
143-1	Washer (No2), unloader push rod		CR14300-M2	1	2	3	4	3	Φ32.8xΦ23x3
143-2	Washer (No3), unloader push rod		CR14300-M3	-	2	3	4	3	Φ29.8xΦ23x3
144	Retaining ring, unloader push rod		NGIS-022	1	4	6	8	6	ISTW22
-	Unloader push rod assembly 6M-0		CR13509-M60	-	2	3	4	3	Include parts No.142 to No.144
-	Unloader push rod assembly 6M-1		CR13509-M60	-	1	1	1	1	
-	Unloader push rod assembly 6M-2		CR13509-M60	1	1	1	1	0	
-	Unloader push rod assembly 6M-3		CR13509-M60	-	-	1	1	1	
-	Unloader push rod assembly 6M-4		CR13509-M60	-	-	-	1	1	
145	Unloader piston		CR14500-M	1	2	3	4	3	Φ48
145-1	O-ring, unloader piston		PA11-032	-	2	3	4	2	JIS B 2401 P32
146+205	Unloader Cover (built in solenoid valve)		KF121A-B	1	2	3	4	3	SB36A, same as K and L-series
147	Gasket, unloader cover		CR14700-K	1	2	3	4	3	Same as K and L-

Item No.	Part name	Code No.	Qty.					Remarks	
			2 M	4 M	6 M	8 M	62 M		
								series	
149	Hexagon head bolt, unloader cover	NB111008-035	4	8	12	16	12	M8xL35-10.9 (Same as K and L-series)	
154	Suction filter With O-ring	CR15400-M	1	1	2	2	2	200 mesh (75 μm)	
154-1	O-ring, suction filter	PA11-100	1	1	2	2	2	JIS B 2401 P100	
161	Suction filter cover	CR16100-M	1	1	2	2	2		
162	Gasket, suction filter cover	CR77000-M	1	1	2	2	2		
163	Hexagon head bolt, suction filter cover	NB111016-055	6	6	12	12	12	M16x55-10.9	
164	Oil sight glass	CR16400-HK	1						
165	O-ring, oil sight glass	PAAS568-137	1					AS568-137	
167	Hexagon head bolt, oil sight glass	NB111016-020	4					M6x20-10.9	
168	Discharge manifold	CR16800-6M	-	1	1	1	1		
169	Gasket, discharge manifold	CR16901-M1	-	2	3	4	4	M1500 E1	
170L	Hexagon head bolt (No.1), discharge manifold	NB111016-200	-	-	3	-	-	M16x200-10.9	
170M	Hexagon head bolt (No.2), discharge manifold	NB111016-170	-	8	10	20	18	M16x170-10.9	
170S	Hexagon head bolt (No.3), discharge manifold	NB111016-120	-	4	4	4	6	M16x120-10.9	
170C	Hexagon socket head cap screw (No.4), discharge manifold	NB35416-055	-	-	1	-	-	M16x55-12.9	
172	Gasket, Shut-off valve	PL300-125	-	-	1	2	-	ANSI #300 5", t1.5	
174-1	Gasket, Shut-off valve	PL300-080	-	-	-	-	2	ANSI #300 3", t1.5	
174B, 183B	Hexagon head bolt, Shut-off valve	NB56520-095N2	16	16	16	16	32	M20xL95 Stud bolt	
174N, 183N	Hexagon head bolt, Shut-off nut	NC140-20	16	16	16	16	32	M20	
184	Gasket, Shut-off valve	PL300-100	-	2	1	-	1	ANSI #300 4", t1.5	
184-1	Gasket, Shut-off valve	PL300-065	2	-	-	-	1	ANSI #300 2-1/2", t1.5	
185	Oil cooler (water cooled)	CR18500-TBMW	-	1					T-TCF-0.5 (Old type)
			-	1					OC-1050-WM (New type)
		CR18500-TAW	1	-					T-TCF-0.15
198	Thermometer, discharge side	LC1203314	1	1	1	1	-	BT-T-50 (50—200°C)	
198-1	Thermometer, discharge side	LC1203313	1	-	-	-	2	BT-T-50 (0—150°C)	
200	Thermometer, suction side	LC1203311	-	1	1	1	2	BT-T-50 (-50—+50°C)	
208	Eyebolt	NB600-20	2	-	-	-	-	M20	
		NB600-24	-	-	2	2	2	M24	
		NB600-30	-	1	-	-	-	M30	
213	Safety valve		-	-	-	1	-	32A	
			-	-	1	-	1	25A	
			1	1	-	-	1	20A	
305	Blow-by gas plate	CR30500-M	1						
306	Gasket, blow-by gas plate	CR30600-M	1						
307	Hexagon socket head cap screw, blow-by gas plate	NB35408-015	10					M8x15-12.9	
707	Flywheel	CR70700-M	1					for belt drive	
-	Direct coupling, Type: E4-05-NF-40R/145R	MH14-05NF	1					for direct coupling	
-	Direct coupling, Type: G4-05-NF-40R/145R		1					for direct coupling	
-	Hexagon head bolt, direct	NB15012-060-1.2	6 (E4) or 8 (G4)					M12xP1.25x60	

Item No.	Part name	Code No.	Qty.					Remarks
			2 M	4 M	6 M	8 M	62 M	
	coupling	5						
-	Hexagon head bolt, sub ring	NB15012-080	6					for direct coupling, M12xL80
724-1	Shut-off valve		-	-	1	2	-	GVFM (ANSI) 5"
724-2	Shut-off valve		-	2	1	-	1	GVFM (ANSI) 4"
724-3	Shut-off valve		-	-	-	-	2	GVFM (ANSI) 3"
724-4	Shut-off valve		2	-	-	-	1	GVFM (ANSI) 2-1/2"
HB-1	Screw plug	MSW-24	-	-	2	2	-	MSW24
HB-2	Hexagon socket set screw	NA83610-035	-	4				M10x35, for attaching oil cooler
HB-3	Hexagon socket set screw	NA83608-035	4	-				M8x35, for attaching oil cooler
HN-1	Hexagon nut	NC140-10	-	4				M10 for attaching oil cooler
HN-2	Hexagon nut	NC140-08	4	-				M8 for attaching oil cooler
HT-1	Bushing (R1/2×Rc3/8)	NF031-0403	-	1				For oil drain
HT-2	Bushing (R3/4×Rc1/2)	NF031-0604	-	-	1	-	-	For thermometer at discharge
HT-3	Bushing (R3/4×Rc3/8)	NF031-0603	1					For initial oil charge
HT-4	Bushing (Rc5/4×R3/4)	NF031-1006	2					For Oil cooler piping
HT-5	Street elbow (High pressure, R3/4×Rc3/4)	NN130-06	-	-	1	-	-	For Oil cooler piping
HT-6	Connection (L-type, R3/4×Φ27)	NJ3-2706	3	3	4	3	3	For Oil cooler piping
HT-7	Connection (L-type, R1/4×Φ10)	NJ3-1002NE	-	-	4	-	-	For oil drain
HT-8	Connection (I-type, R3/4×Φ27)	NJ2-2706	1	1	-	1	1	For Oil cooler piping
HT-9	Connection (I-type, R1/4×Φ10)	NJ2-1002NE	-	4	-	-	-	
HT-10	Connection (I-type, R3/8×Φ6)	NJ2-0603NE	3				4	For suction, discharge and oil pressure
HT-11	Connection (I-type, R1/8×Φ6)	NJ2-0601NE	1					For seal drain
HT-12	Pipe, oil cooler	QA11-020	2	2	2	2	2	20A steel pipe, fixed length
HT-13	Pipe, oil drain	QA1102-10	-	2	2	-	-	Φ10 annealed pipe, fixed length
HT-14	Pipe, seal drain	QA1102-06	1					Φ6 annealed pipe, fixed length
HT-15	Hose nipple (R3/8)	NM52-020	3				4	For oil drain, initial oil charge and purging
HT-16	Hose nipple (R3/4)	NM53-0650	2	6	8	10	10	For water cooled head cover and OC cooling water
HT-17	Street elbow (R3/4×Rc3/4)	NN130-06	2	5	7	9	9	For water cooled head cover and OC cooling water
HT-18	Hose band (20A)	PN905-020	2	4	6	8	8	For water cooled head cover
HT-19	Blade hose (20A)	PN015-020(m)	2m	3m	3m	4m	4m	For water cooled head cover
HT-20	Nipple		-	-	-	1	-	R5/4xL100
		NN425-100	-	-	1	-	1	R1"xL100
		NN420-100	-	2	-	-	1	R3/4xL100
		NN420-050	2	-	-	-	-	R3/4xL50
HT-21	Nipple (Special)		-	-	-	1	-	NPT5/4xR5/4xL100
			-	-	1	-	1	NPT1"xR1"xL100

Item No.	Part name	Code No.	Qty.					Remarks
			2 M	4 M	6 M	8 M	62 M	
HT-22	Elbow (High pressure)	NN120-10	-	-	-	1	-	Rc5/4xRc5/4
		NN120-08	-	-	1	-	1	Rc1"xRc1"
		NN120-06	1	1	-	-	1	Rc3/4xRc3/4
HT-23	Bushing (R1/2xRc1/4)	NF031-0402	1	-				for equalizing valve (start up)
HT-24	Connection (L-type, R3/8xΦ12)	NJ3-1203NE	1	-				for equalizing valve (start up)
HT-25	Connection (L-type, R3/8xΦ6)	NJ3-0603NE	1	-				for equalizing valve (start up)
HT-26	Connection (L-type, R1/4xΦ6 Throttle)	NJ3-0602SNE	1	-				for equalizing valve (start up)
HT-27	Connection (I-type, R3/8xΦ12)	NJ2-1203NE	1	-				for equalizing valve (start up)
HT-28	Pipe, high pressure gas for equalizing valve (startup)	QA1102-12	1	-				Φ12 annealed pipe, fixed length
HT-29	Pipe, oil for equalizing valve (startup)	QA1102-06	1	-				Φ6 annealed pipe, fixed length
HT-30	Hexagon nipple (R3/8)	NF01-03	2	-				for equalizing valve (start up)
HT-31	T socket (High pressure) Rc3/8	NN210-03	1	-				for equalizing valve (start up)
HT-32	Equalizing valve (startup)		1	-				
P-1	Plug (R1/4 orifice Φ3)	NF06-008	1					For seal oil drain, Drilling to NF06-008
P-2	Plug (R1/8)	NF06-004	1	3	4	5	3	For unloader and seal oil supply
P-3	Plug (R1/4)	NF06-008	7	8	8	12	11	For seal oil drain, oil drain and relief
P-4	Plug (R3/8)	NF06-010	3	3	3	3	3	For suction chamber and shaft
P-5	Plug (R1/2)	NF06-015	5	6	6	5	5	For MBH, OS return and internal oil line
P-6	Plug (R3/4)	NF06-020	2	9	5	8	7	For unloader, internal oil line and oil supply
P-7	Plug (R1")	NF06-025	3	5	6	5	5	For heater, MBH, pressure equalizer
P-8	Plug (R1"1/4)	NF06-032	-	-	-	1	-	For safety valve
P-24	Thermometer plug	NL051-04M	1	1	1	1	4	R1/2xL50
P-25	Thermometer plug	KS111-05	1	1	1	1	-	R1/2xL100
-	O-ring set for 2M	CR71009-2M	1	-	-	-	-	
-	O-ring set for 4M	CR71009-4M	-	1	-	-	-	
-	O-ring set for 6M	CR71009-6M	-	-	1	-	-	
-	O-ring set for 8M	CR71009-8M	-	-	-	1	1	
-	Gasket set for 2M	CR71119-2M	1	-	-	-	-	
-	Gasket set for 4M	CR71119-4M	-	1	-	-	-	
-	Gasket set for 6M	CR71119-6M	-	-	1	-	-	
-	Gasket set for 8M	CR71119-8M	-	-	-	1	-	
-	Gasket set for 62M	CR71119-62M	-	-	-	-	1	
-	Indentation tools for main bushing	CR7039-M	1					

**CAUTION**

- In this Table 7-1 unless otherwise noted, the part code of the O-ring is the one assigned to NBR-70 which is standard material. When the material of the O-ring is other than NBR-70, a different part code is used for each material.  
If you are using O-rings made from other than the standard material, please contact Mayekawa when placing an order.

## 7.3 List of Tightening Torques for Bolts and Nuts

Table 7-2 List of tightening torques for bolts and nuts

Item No.	Part name	Material	Qty.					Remarks	torque	
			2 M	4 M	6 M	8 M	62 M		N-m	kgf-cm
10	Hexagon head bolt, main bearing head	SCM435	16					M16x75-10.9	120	1200
307	Hexagon socket head cap screw, blow-by gas plate	SCM435	10					M8x15-12.9	40	400
16	Hexagon socket head cap screw, oil filter	SCM435	2					M12x50-12.9	80	800
60	Hexagon socket head cap screw, oil pump	SCM435	8					M12x40-12.9	80	800
119-2	Hexagon head bolt, magnet	SCM435	1					M8x15-10.9	-	
25	Hexagon head bolt, bearing head	SCM435	10					M16x65-10.9	120	1200
41-3	Hexagon socket set screw, shower flushing sleeve	SCM435	3					M6x8	-	
28	Hexagon head bolt, shaft seal cover	SCM435	8					M12x75-10.9	80	800
48	Hexagon head bolt, hand hole cover	SCM435	16	32				M16x75-10.9	120	1200
73-5	Hexagon head bolt, valve plate	SCM435	3	6	9	12	12	M16x45-10.9	120	1200
112	Hexagon head bolt, discharge valve seat	SCM435	6	12	18	24	24	M10x40-10.9	60	600
113-F	Discharge valve nut (No.1) (For F Specification)	Same as S45C	2	4	6	8	8	Hard rock nut M16, For HFC and propane	120	1200
	Discharge valve nut (No.2) (For F Specification)	Same as S45C	2	4	6	8	8	Hard rock nut M16, For HFC and propane	60	600
52	Hexagon head bolt, head cover	SCM435	22	44	66	88	88	M16x115-10.9	120	1200
54	Hexagon head bolt, head jacket cover	SUS304	14	28	42	56	56	M10x35-SUS/ Water cooling head cover specs	-	
78	Hexagon head bolt, connecting rod	SCM435	-	8	12	16	16	M12x80	60	600
78-2 M	Hexagon head bolt, connecting rod	SCM435	2	-	-	-	-	M12x90-10.9	90	900
149	Hexagon head bolt, unloader cover	SCM435	4	8	12	16	8	M8x35-10.9 (Same as K and L-series)	40	400
163	Hexagon head bolt, suction filter cover	SCM435	6	6	12	12	12	M16x55-10.9	120	1200
170L	Hexagon head bolt (No.1), discharge manifold	SCM435	-	-	3	-	-	M16x200-10.9	120	1200
170 M	Hexagon head bolt (No.2), discharge manifold	SCM435	-	8	10	20	18	M16x170-10.9	120	1200
170 S	Hexagon head bolt (No.3), discharge manifold	SCM435	-	4	4	4	6	M16x120-10.9	120	1200
170 C	Hexagon socket head cap screw (No.4), discharge manifold	SCM435	-	-	1	-	-	M16x55-12.9	120	1200
167	Hexagon head bolt, oil sight glass	SCM435	4					M16x20-10.9	15	150
4	Hexagon socket head cap screw, mechlock	-	10					M12	78.5	785
14	Oil filter case	Aluminum	1					M100xP2.0	60	600
-	Spacer nut, direct coupling	-	12(E4) / 16(G4)					M18	220	2200
-	Hexagon head bolt, direct coupling hub	SCM435	6(E4) / 8(G4)					M12xp1.25x60 (compressor side)	80	800