

**RESERVEDELENLIJST**

**SPARE PARTS**

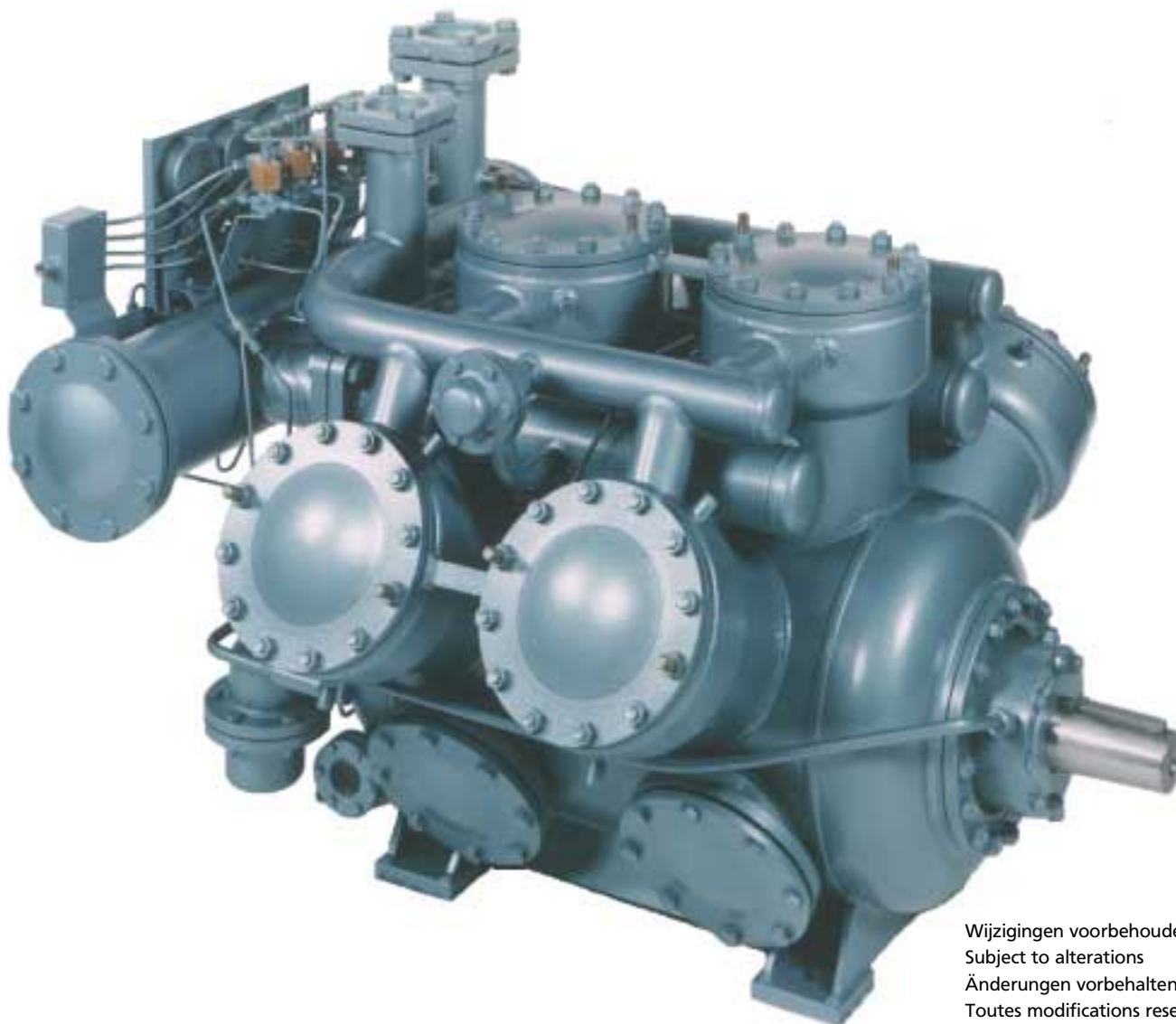
**ERSATZTEILEN**

**PIECES DE RECHANGE**

**PIEZAS DE RECAMBIO**

• **PARTS LIST RC11  
COMPRESSOR &  
ACCESSORIES**

• **PARTS LIST RC11  
HISTORY**



Wijzigingen voorbehouden  
Subject to alterations  
Änderungen vorbehalten  
Toutes modifications réservées  
Salvo modificaciones



This booklet contains:

1. the parts list RC11 of the compressor & accessories
2. the parts list RC11 of the history

**IMPORTANT!!! HOW TO ORDER SPARE PARTS**

When ordering spare parts, please always state:

TYPE

SERIAL NO. | of the compressor, as shown on the type plate

QUANTITY

DESCRIPTION | of the required parts, as shown in the spare parts list  
REF. NO.

Any incomplete specification may cause delay in delivery or shipment of the wrong parts:  
for cases like these no responsibility can be assumed.



The standard illustrated parts list on the following pages is meant for identification and accurate specification of current spare parts. Refer to the Monitron CR instruction manual, Chapter 8, Par. 8.7, if equipped with a Monitron CR-Control. In order to facilitate quick retrieval of the required parts, the list and corresponding figures is divided into the following groups of parts:

GROUP OF PARTS	PARTS LIST Page	CORRESPONDING FIGURE No.:
o Compressor housing with connections and overflow safety valves	2	RC11-1
o Bearing covers and intermediate bearings	5	RC11-2
o Crankshaft	5	RC11-3
o Piston and connecting rod	6	RC11-4
o Cylinder and valve-lifting mechanism	6	RC11-5
o Suction and discharge valve	9	RC11-6
o Rotary shaft seal	9	RC11-7
o Oil pump	10	RC11-8
o Oil filters	13	RC11-9
o Lubricating oil lines	14	RC11-10
o Suction gas strainer	17	RC11-11
o Manual operated capacity control	18	RC11-12
o Electrically operated capacity control	18	RC11-13
o Pressure gauge panel	21	RC11-14
o Safety switch panel	21	RC11-15
o Direct drive	22	RC11-16
o Spare parts for clamp couplings	22	RC11-17
o Standard sets of parts, seals and tools	25	—
o Table of oilit sealings for main connections	25	RC11-18

**Figures**

All parts shown in the figures bear an item number. Assemblies are indicated by a dotted frame with separate item number around the parts included in that particular assembly; the parts themselves bear the same item number, followed by a sequence number (e.g. 2.1, 2.3, 2.3, etc.).

**Parts lists**

The parts are specified by the headings "Item", "Description" "Ref. no." and "Qty" (= Quantity). If an asterisk is used instead of the Ref. no., this means that the relevant part cannot be obtained separately.

When for some part no quantity has been given, the quantity required depends on the compressor size. When determining the required quantity

of parts, it should be considered that the listed quantities relate to the corresponding figure and not to the compressor as a whole. When ordering, for example, valve rings for two discharge valves, the quantities stated in the relevant list must be doubled, because these apply to one discharge valve only.

If a compressor serial number is mentioned in the column "Remarks" behind one or more ref. nos., this means that the relevant part or subassembly has been mounted in all standard compressors bearing this or a higher serial no. when leaving the factory.

For the corresponding part or subassembly, not standard any more, applied in compressors with a lower serial no., the history parts list has to be consulted, which is located behind the compressor parts list.

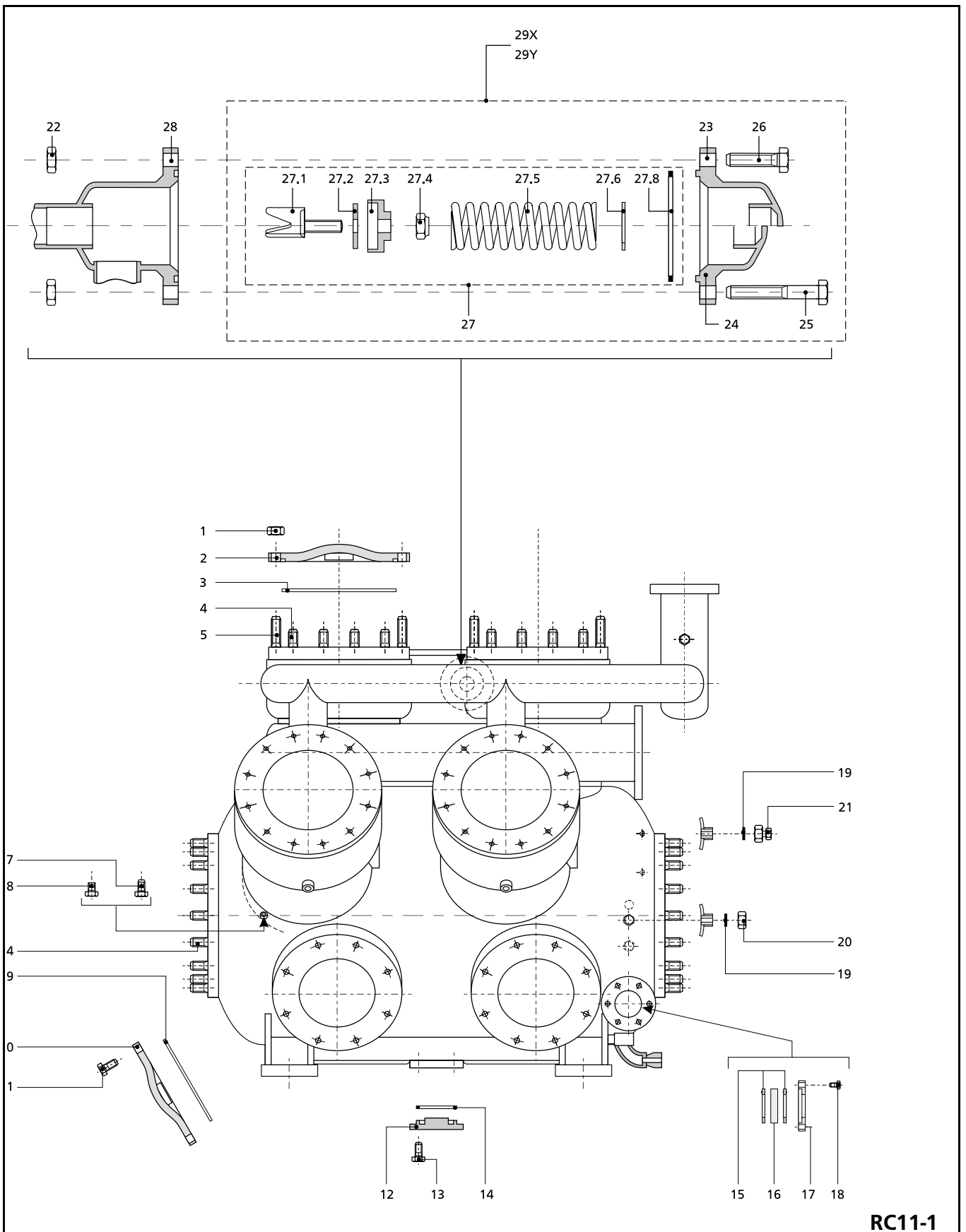
**IMPORTANT! How to order!**

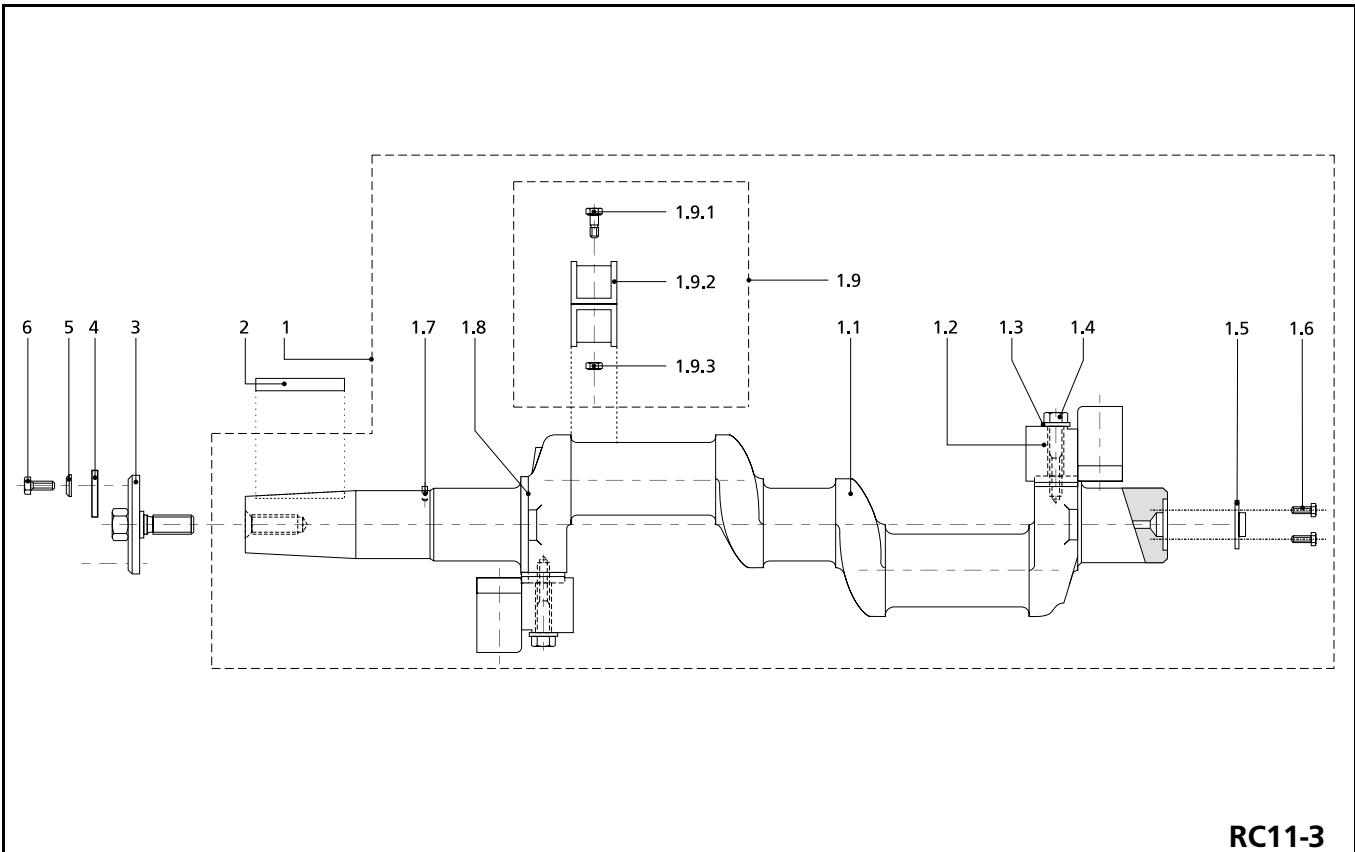
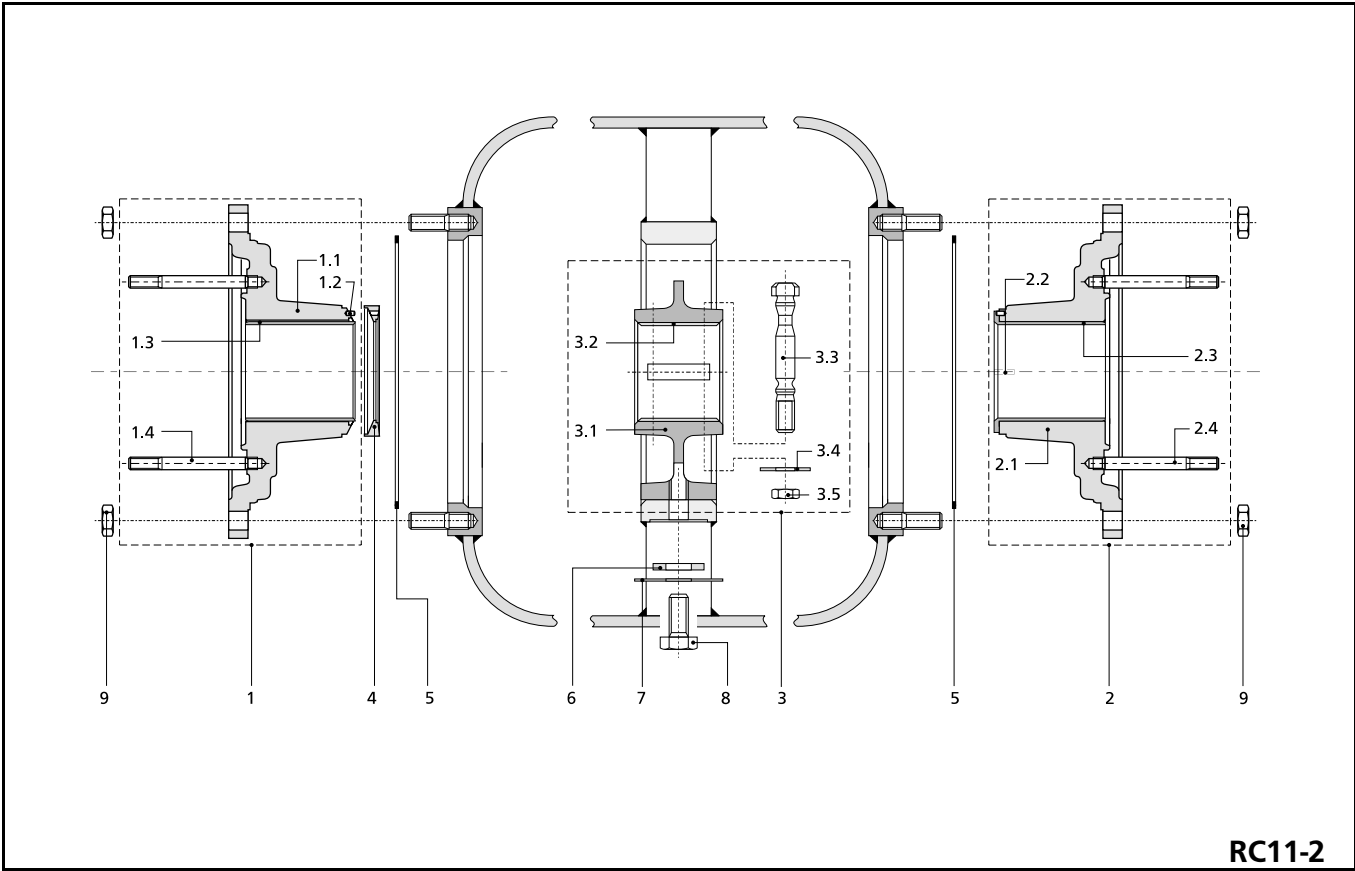
It is emphatically pointed out that a prompt despatch of the correct spare parts can be guaranteed only if the following information is given:

1. Type designation of the compressor
  2. Serial number of the compressor
  3. Quantity, Description and Ref. No. of the required parts.
- |—————| shown on the compressor name plate

Item	Description	Ref. No.	Qty	Remarks	
<b>COMPRESSOR HOUSING WITH CONNECTIONS &amp; OVERFLOW SAFETY VALVES</b>				<b>FIG. RC11-1</b>	
1	Hex. nut M16 <i>For all types except 4-cyl. compressors:</i>	01.15.810	-		
2Aa	Cylinder cover 296P	05.31.996	-	without temp. sensor plug hole	
2Ab	Cylinder cover 296P-G13	05.31.998	-	with temp. sensor plug hole	
3A	Oilit sealing ring 227x241x1.5 <i>Only in 4-cyl. compressors:</i>	09.03.227	-		
2Ba	Cylinder cover 556x296K110	23.17.500	2	without temp. sensor plug hole	
2Bb	Cylinder cover 556x296K110-G13	23.17.510	2	with temp. sensor plug hole	
3B	Oilit gasket 213x542x1.5 <i>For all types:</i>	09.07.213	2		
4	Stud M16x35	01.51.835	-		
5	Stud M16x60	01.51.860	-		
7	Conical plug T13	03.65.013	1	only in HP-cylinders of two-stage compressors	
8	Non-return valve 5	06.27.505	-	in all cylinders of single stage compressors and in LP-cylinders of two-stage compressors	
9	Oilit sealing ring 180x196x1.5	09.03.180	-		
10	Service cover 260	05.31.260	-		
11	Hex. head bolt M16x40	01.10.840	-		
12	Blind flange 60BA	05.05.960	1	only in compressors with separate oil reservoir	
13	Hex. head bolt M16x35	01.10.835	4		
14	Oilit sealing ring 67x81x1.5	09.03.067	1		
15	Oilit sealing ring 50x65x1.5	09.03.050	4		
16	Sight glass 65x15	12.26.065	2		
17	Sight glass cover 65	05.16.065	2		
18	Hex. head bolt M8x30	01.10.430	12		
19	Alu sealing ring 10x18x1	09.12.010	2		
20	Cap nut GK21R	01.17.021	1		
21	Socket coupling 6G21	03.37.216	1		
22-26	Housing of safety valves 12/21 bar				
22	Hex. nut M10	01.15.510	6		
23	Housing top half 28x44	48.13.032	1	on 12 bar-type valve only	
24	Housing top half 28x30	48.13.031	1	on 21 bar-type valve only	
25	Hex. head bolt M10x60	01.10.560	2	on 21 bar-type valve only	
or	Hex. head bolt M10x55	01.10.555	2	on 12 bar-type valve only	
26	Hex. head bolt M10x40	01.10.540	4		
27	Set of valve parts RC11-R-NH3	48.27.523	1		
27.1	Valve guide 29M10	48.40.629	1	from compr. serial no. 82.10.6450 <sup>1)</sup>	
27.2	Valve disc 10x38x3	09.42.380	1		
27.3	Spring cup 22	48.65.022	1		
27.4	Lock nut M10	01.45.500	1		
27.5	Spring 7.5x37.5x9.5x129	11.31.757	1		
27.6	Adjustment ring 28x34x1	11.15.271	-		Qty depends on adjustment
27.8	Oilit sealing ring 77x87x1.5	09.03.077	1		
28	Housing bottom half	48.02.256	1		
29X	Set of valve parts 12 bar LP	48.27.513	1		
29Y	Set of valve parts 21 bar HP	48.27.521	1		

<sup>1)</sup> For compressors with a lower serial number, refer to the history parts list in this book.







Item	Description	Ref. No.	Qty	Remarks
<b>BEARING COVERS AND INTERMEDIATE BEARINGS</b>				<b>FIG. RC11-2</b>
1	Bearing cover assy RC11SC	*	1	Drive side
1.1	Bearing cover RC11C	21.18.822	1	from compr. serial no. 93.10.2000 <sup>1)</sup>
1.2	Cylindrical pin 4x8	11.06.408	1	
1.3	Bearing bush 90x96x103	11.46.291	1	Oil pump side
1.4	Stud M12x95	01.51.695	8	
2	Bearing cover assy K110MSB	*	1	
2.1	Bearing cover K110M	21.16.821	1	
2.2	Cylindrical pin 4x8	11.06.408	1	
2.3	Bearing bush 90x96x107	11.46.191	1	
2.4	Stud M12x130	01.51.616	8	
3	Bearing block 90M	11.69.901	-	in 6-9-12 cyl. compressors only
3.1	Bearing block halves 90M	*	1	in two pieces
3.2	Bearing shell 90x81	11.44.890	1	in two pieces
3.3	Hexagon bolt M16x80	01.10.880	4	
3.4	Washer M16	11.13.801	4	
3.5	Dowel pin 6x18x3	11.06.619	1	
	Dowel pin 6x18	11.06.617	1	
4	Bronze thrust ring 96x127x16	11.68.970	1	from compr. serial no. 93.10.2000 <sup>1)</sup>
5	Oilit sealing ring 252x265x1.5	09.03.252	2	1.5 mm thick
	Oilit sealing ring 252x265x1	09.02.252	2	1 mm thick
6	Washer M20x49	11.13.149	2	for each intermediate bearing
7	Locking plate M20S	11.14.142	2	
8	Hex. head bolt M20x40	01.10.140	2	
9	Hex. nut M16	01.15.810	32	
<b>CRANKSHAFT</b>				<b>FIG RC11-3</b>
1A	Crankshaft E-RC211S	22.19.202	1	2-cyl. compressor
	ditto K-RC211S (with approval)	22.19.212	1	
1B	Crankshaft E-RC311S	22.19.302	1	3-cyl. compressor
	ditto K-RC311S (with approval)	22.19.312	1	
1C	Crankshaft E-RC411S	22.19.402	1	4-cyl. compressor
	ditto K-RC411S (with approval)	22.19.412	1	
1D	Crankshaft E-RC611S	22.19.602	1	6-cyl. compressor
	ditto K-RC611S (with approval)	22.19.612	1	
1E	Crankshaft E-RC911S	22.19.902	1	9-cyl. compressor
	ditto K-RC911S (with approval)	22.19.912	1	
1F	Crankshaft E-RC1211S	22.19.002	1	12-cyl. compressor
	ditto K-RC1211S (with approval)	22.19.012	1	
1.1	Crankshaft E/K-RC11	*	1	2-, 3-, 4- and 6-cyl. compressor 9- and 12 cyl. compressor
1.2	Counterbalance weight	*	2	
1.3	Locking plate 2M16	11.14.840	4	2-, 3-, 4- and 6-cyl. compressor 9- and 12-cyl. compressor
1.4	Hex. head bolt M16x80	01.10.880	4	2-, 3-, 4- and 6-cyl. compressor 9- and 12 cyl. compressor
1.5	Carrier disc 65x11	11.25.111	1	
1.6	Locking bolt M6x16	01.65.316	4	
1.7	Cylindrical pin 6x10	11.06.610	1	
1.8	Steel thrust ring 100x128x10	11.68.109	1	
1.9	Spacer assembly 90x116x60SM	11.12.990	1	in 2-cyl. compressors only!
1.9.1	Fitted bolt M8x10x10	01.24.410	2	
1.9.2	Spacer 90x116x60E	*	1	
1.9.3	Lock nut M8	01.45.400	2	
2	Key 22x14x120	11.02.012	1	to be supplied with flywheel or direct drive
3	Hub locking disc M24x108	19.15.211	1	
4	Locking plate M24xM12	11.14.248	1	
5	Washer M12	11.13.601	1	
6	Hex. head bolt M12x40	01.10.640	4	

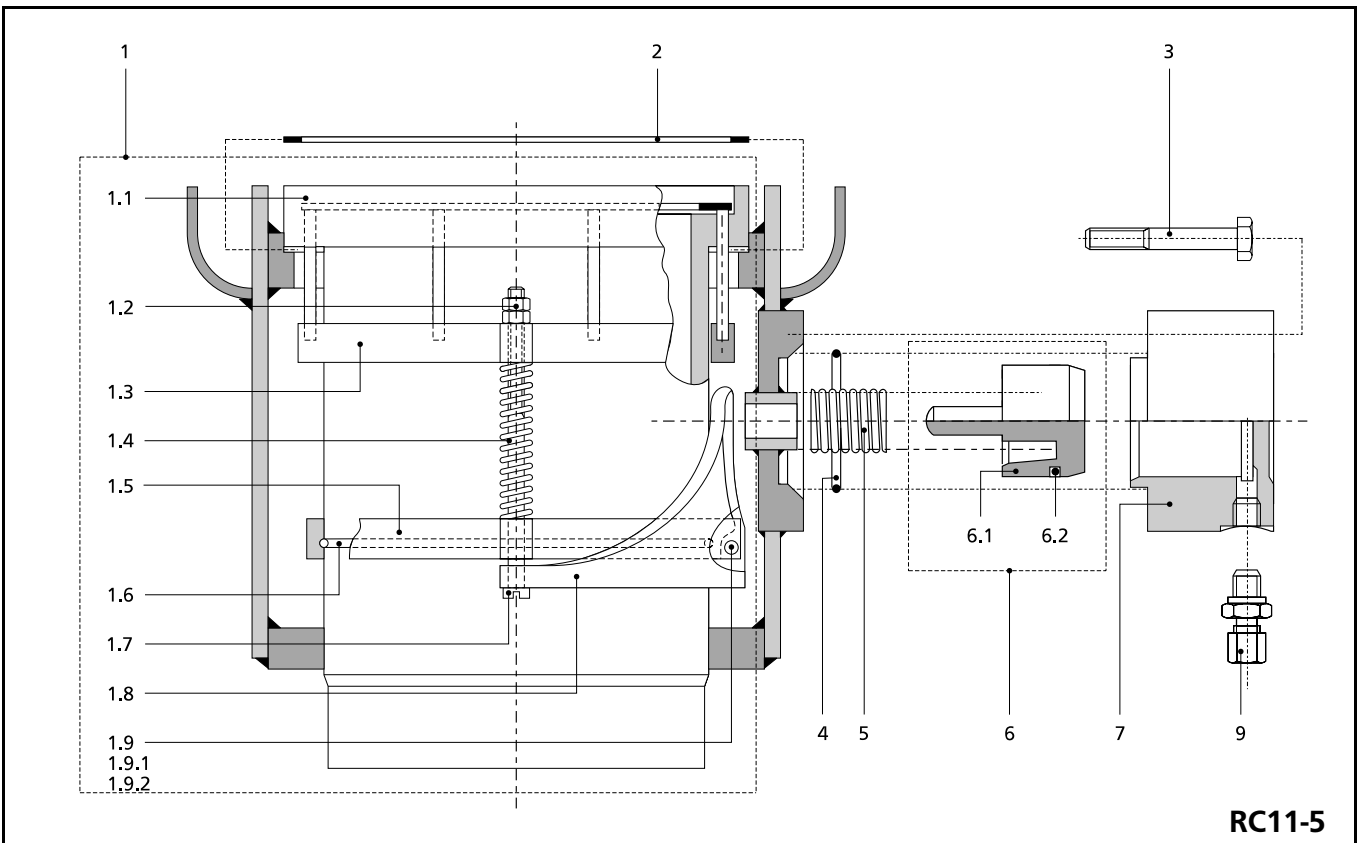
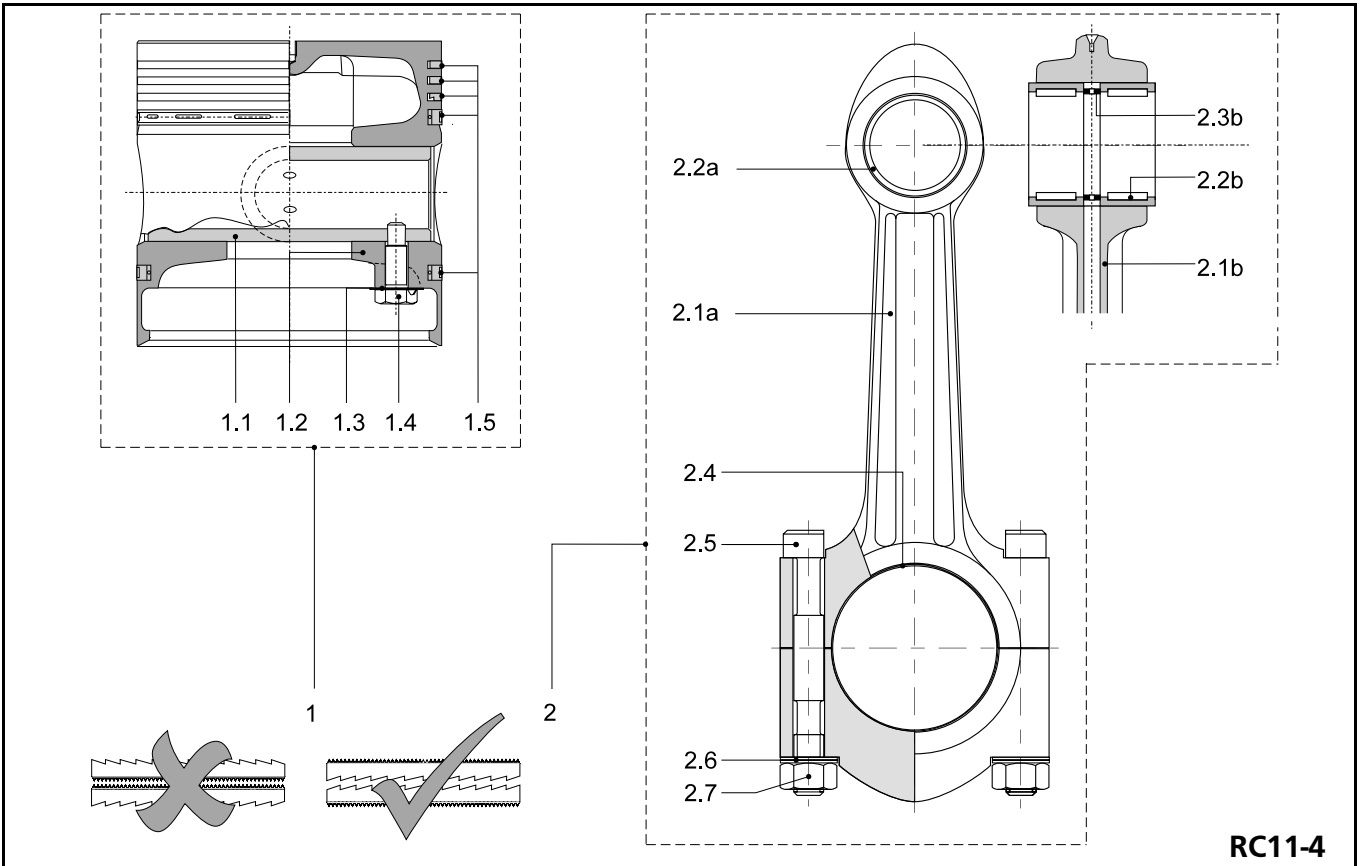
<sup>1)</sup> For compressors with a lower serial number, refer to the history parts list in this book.

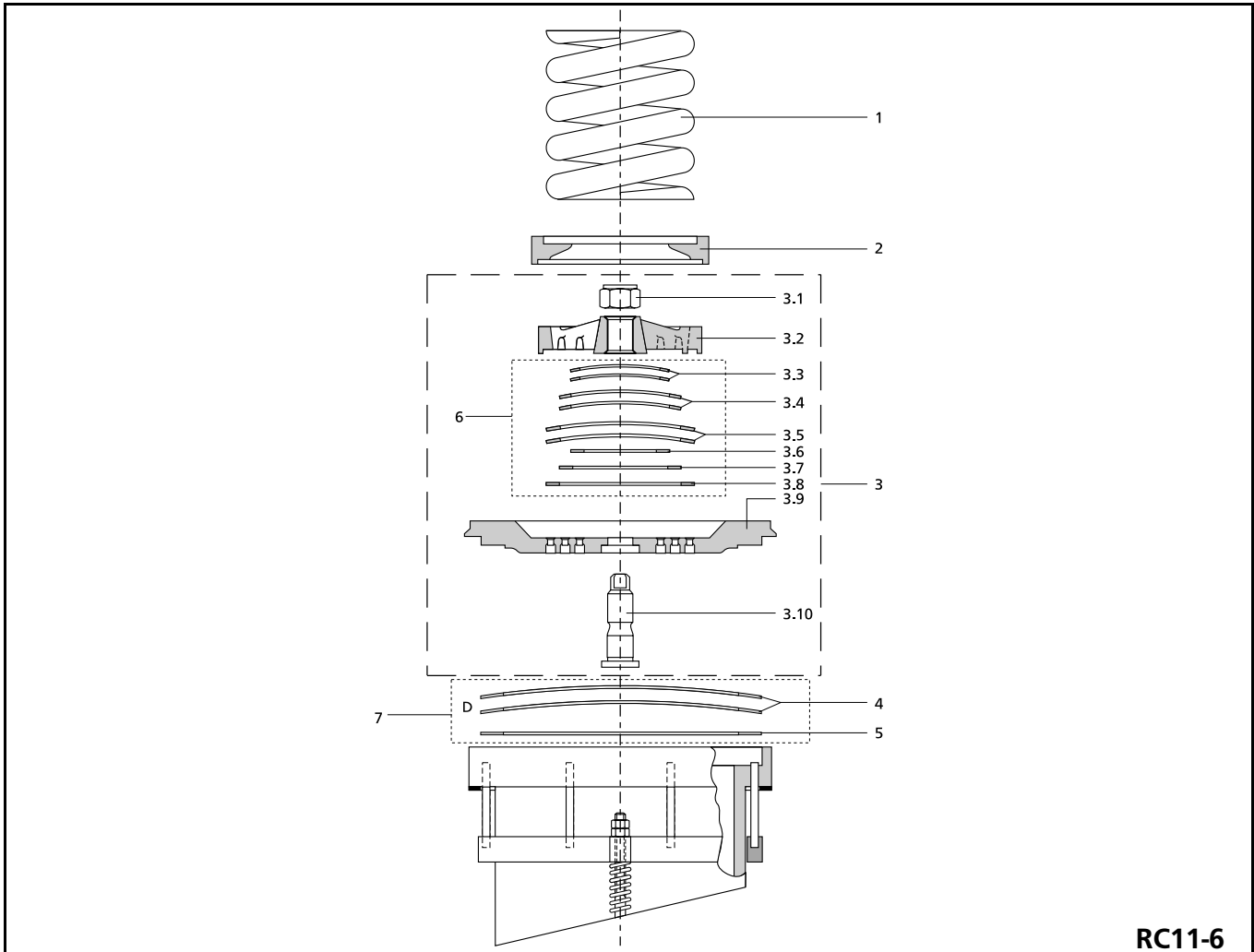
Item	Description	Ref. No.	Qty	Remarks
<b>PISTON AND CONNECTING ROD</b>				<b>FIG. RC11-4</b>
1	Piston assembly S160x50x160K110M	24.17.011	1	
1.1	Gudgeon pin 36x50x148RC11	24.18.320	1	
1.2	Piston	*	1	
1.3	Locking plate M12S	11.14.642	1	
1.4	Locking bolt M12x35	01.44.635	1	
1.5	Set of piston rings	09.74.160	1	
2a	Con rod assembly S275RC11LD	24.19.510	—	only in single-stage compressors and in LP-cylinders of two-stage compressors
2.1a	Con rod (aluminium alloy)	*	1	
2.2a	Bearing bush 50x62x60	11.46.652	1	
2b	Con rod assembly S275RC11HD	24.19.520	—	from serial no. 80.10..... <sup>1)</sup>
2.1b	Con rod (aluminium alloy)	*	1	
2.2b	Needle bearing NK50/25	11.63.451	2	
2.3b	Distance bush 52x62x10	11.16.562	1	only in HP-cylinders of two-stage compressors
2.4	Bearing shell 90x53	11.44.590	1	
2.5	Con rod bolt MF16	01.11.810	2	
2.6	Retaining ring set	11.39.800	2	
2.7	Hex. nut MF16	01.47.805	2	

<b>CYLINDER AND VALVE LIFTING MECHANISM</b>				<b>FIG. RC11-5</b>
1	Cylinder assembly 160RC11S	23.19.110	1	
1.1	Cylinder liner 160RC11	23.18.010	1	
1.2	Hex. nut M6	01.15.310	4	
1.3	Pressure ring 160xD110	27.16.510	1	2)
1.4	Spring 2x10x27x110	11.31.209	2	
1.5	Supporting ring 160K110	27.16.570	1	
1.6	Spring wire 0.75x3.1	11.32.081	1	
1.7	Cylinder head screw M6x140	01.68.314	2	
1.8	Semi-circular lever K110	27.16.610	1	
1.9	Fork pin 6x55S	11.07.355	1	
1.9.1	plit pin 1.5x10	11.08.010	1	
1.9.2	Washer	11.13.301	1	
2	Oilit sealing ring 207x216x1	09.02.206	1	
	Oilit sealing ring 207x216x1.25	09.01.206	1	1.25 mm thick
	Oilit sealing ring 207x216x1.5	09.03.206	1	1.5 mm thick
3	Hex. head bolt M10x70	01.10.570	4	
4	O-ring 3.53x59.0	09.52.376	1	
5	Spring 3.2x25x3.5x42.5	11.31.325	1	not to be used for HP-cylinders of two-stage compressors!
6	Control piston assembly RC11	27.18.670	1	
6.1	Control piston 51x39	*	1	
6.2	O-ring 3.5x44	09.52.350	1	
7	Piston housing K110	27.16.650	1	
9	Nipple coupling 6G13	03.38.136	1	

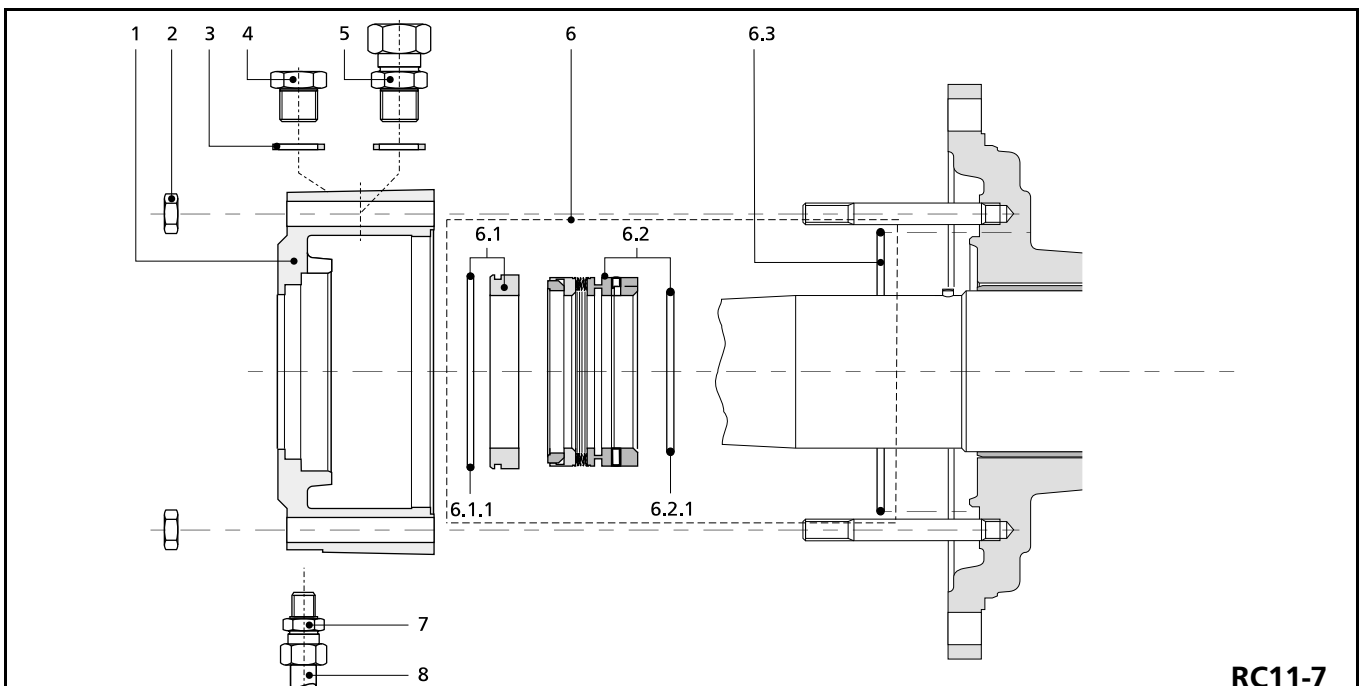
<sup>1)</sup> For compressors with a lower serial number, refer to the history parts list in this book.

<sup>2)</sup> from compr. serial no. 89.08.2100 the two threaded holes M6 in the pressure ring to fix the cylinder head screws (item 1.7, Ref. No. 01.68.314) are replaced by non-threaded holes with a dia. of 6.8 mm.





**RC11-6**



**RC11-7**

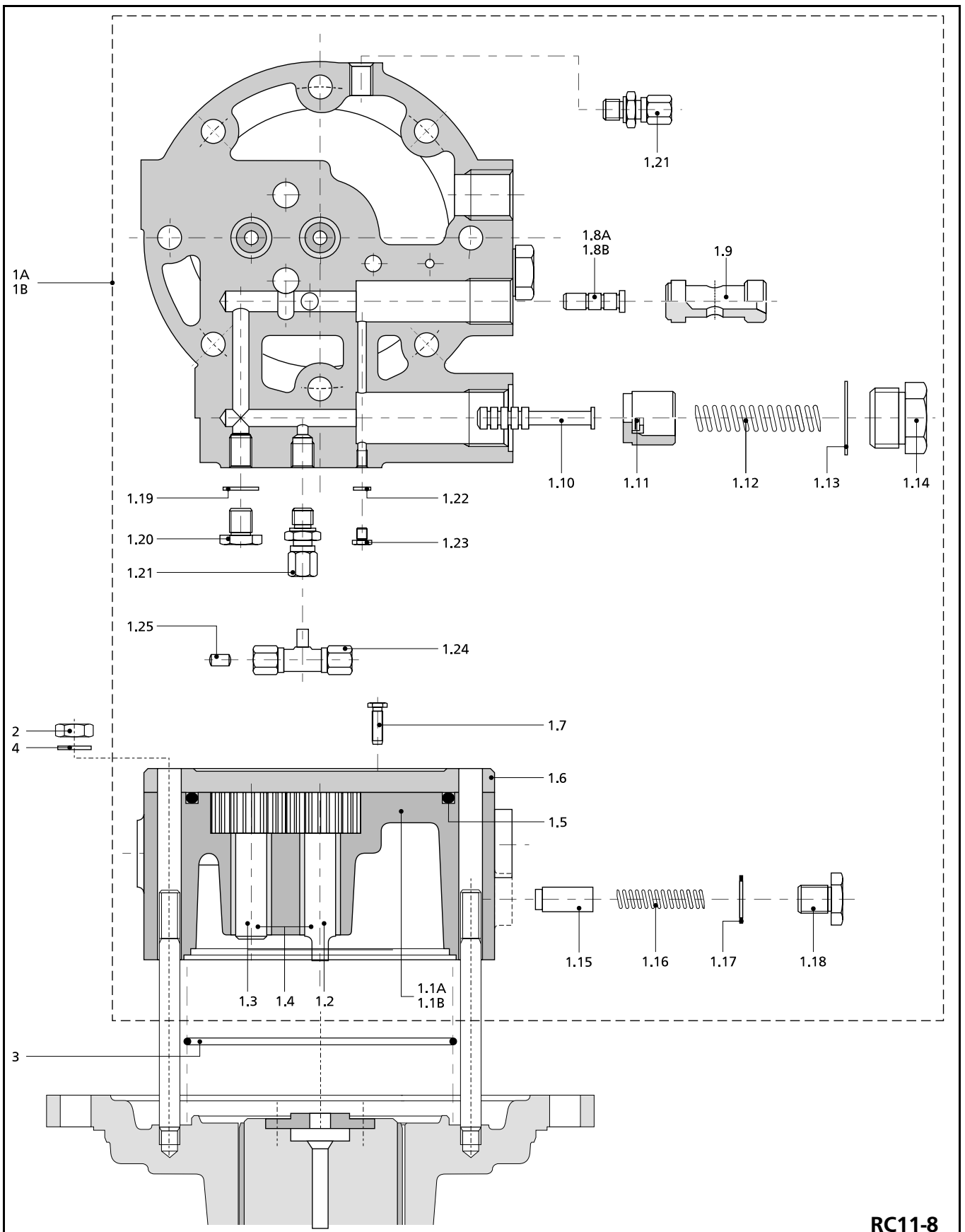
Item	Description	Ref. No.	Qty	Remarks
<b>SUCTION AND DISCHARGE VALVE</b>				<b>FIG. RC11-6</b>
1	Spring 18x88x2.4x115	11.31.181	1	from compr. serial no. 88.01.1500 <sup>1)</sup>
2	Spring cup 160RC11	27.18.410	1	
3	Discharge valve assembly 160RC11	27.19.111	1	
3.1	Locking Nut M16	01.45.800	1	
3.2	Stroke limiter discharge valve 160RC11A	27.18.360	1	
3.3	Sinusoidal spring 58x69	*	2	
3.4	Sinusoidal spring 76x87	*	2	
3.5	Sinusoidal spring 94x105	*	2	
3.6	Valve ring 58x69x1	*	1	
3.7	Valve ring 76x87x1	*	1	
3.8	Valve ring 94x105x1	*	1	from compr. serial no. 88.01.1500 <sup>1)</sup>
3.9	Valve seat 160RC11	27.18.265	1	
3.10	Fitted bolt M16x47	01.24.863	1	
4	Sinusoidal spring 171x200	*	2	
5	Valve ring 171x200x1	*	1	
6	Set of discharge valves and springs	20.38.031	1	one set per cylinder
7	Set of suction valve and springs	20.38.032	1	one set per cylinder

<b>ROTARY SHAFT SEAL</b>				<b>FIG. RC11-7</b>
1	Shaft seal housing FA110	26.08.200	1	from compr. serial no. 90.11.1950 <sup>1)</sup>
2	Hex. nut M12	01.15.610	8	
3	Alu sealing ring 21.5x27x1	09.12.022	1	
4	Plug G21	01.36.216	1	
5	Nipple coupling 16G21	03.38.212	1	
6	Shaft seal assembly 085-B	09.62.920	1	from compr. serial no. 90.11.1950 <sup>1)</sup>
6.1	Counter-slip ring assembly	*	1	
6.1.1	O-ring 101.1x3.53	09.52.390	1	
6.2	Slip ring assembly	*	1	
6.2.1	O-ring 84.95x4.0	09.52.340	1	
6.3	O-ring 3x150	09.52.311	1	
7	Nipple coupling 12G13	03.38.131	1	
8	Bent steel precision tube 12x1.5	*	1	

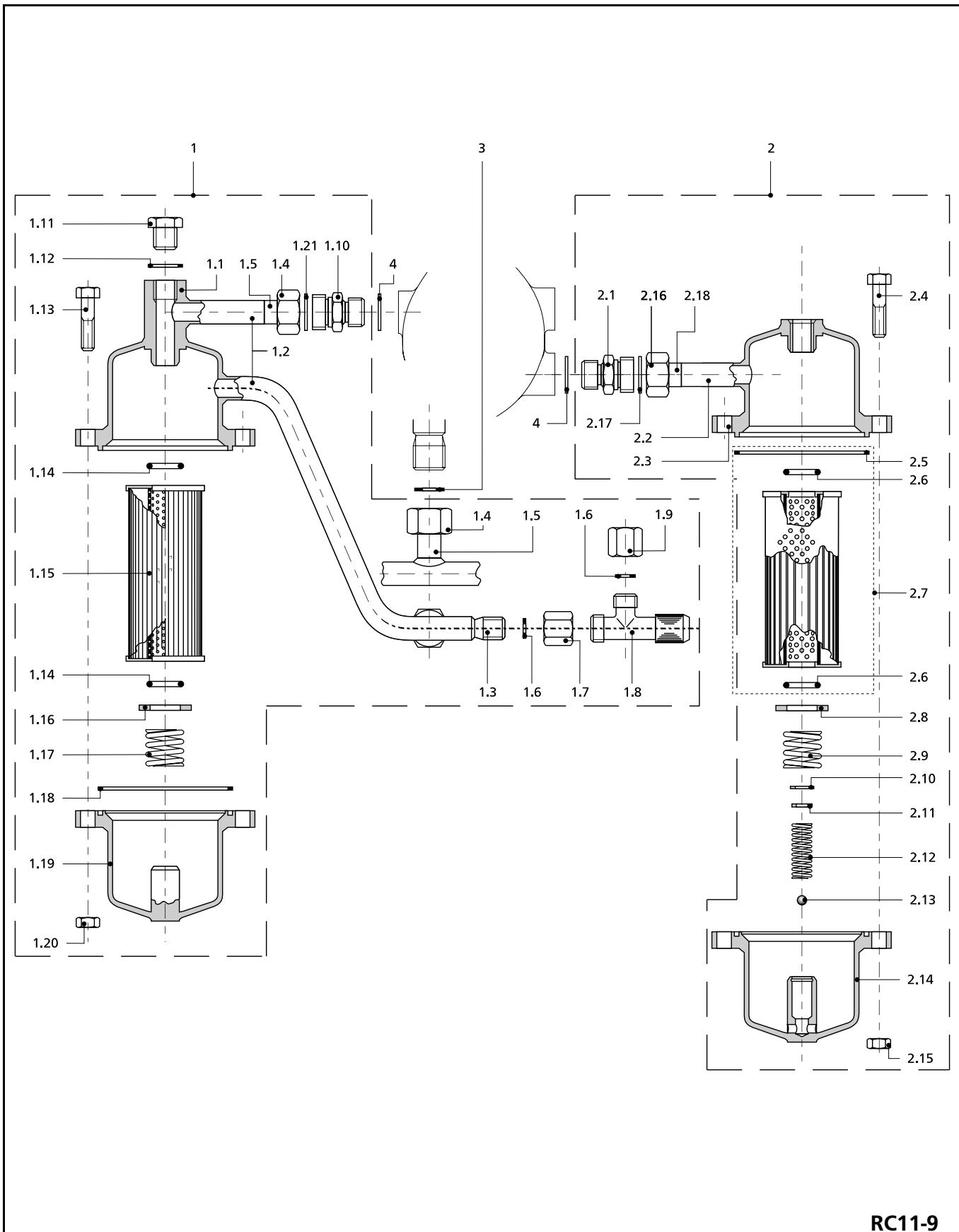
<sup>1)</sup> For compressors with a lower serial number, refer to the history parts list in this book.

Item	Description	Ref. No.	Qty	Remarks
<b>OIL PUMP</b>				<b>FIG. RC11-8</b>
<i>- For all compressor types except types RC5111 and RC10211 with a serial number of 89.03.1200 and over:</i>				
1A	Gear pump RC11	18.10.185	1	
1.1A	Pump housing RC11A	26.18.510	1	
1.8A	Control plunger 12RC11A	26.08.915	1	
<i>- For compressor types RC5111 and RC10211 irrespective of the serial number:</i>				
1B	Gear pump RC11	18.10.180	1	
1.1B	Pump housing RC11	26.18.500	1	
1.8B	Control plunger B FA110M	26.08.911	1	
<i>- For all compressor types irrespective of the serial number:</i>				
1.2	Gear wheel 4x9 D18	19.37.809	1	obtainable as complete set only
1.3	Gear wheel 4x9 D18	19.37.859	1	
1.4	Bearing bush 18x24x61	11.46.718	2	
1.5	O-ring 5.33x146.1	09.52.544	1	
1.6	Pump cover RC11	26.18.600	1	
1.7	Hex. head bolt M6x20	01.10.320	2	
1.8	See above			
1.9	Control piston 24K110M	26.16.821	1	Differential pressure regulator
1.10	Plunger 10K110M	26.16.801	1	
1.11	Piston assembly 30K110	26.17.830	1	
1.11A	Piston assembly 30K110G	26.17.835	1	Hydraulic relay
1.12	Spring 1.1x15x15x97	11.31.117	1	
1.13	Alu sealing ring 34x44x1	09.12.034	1	Hydraulic relay (with hole)*
	or O-ring 3x33	09.52.300	1	
1.14	Plug G33	01.36.336	1	
1.15	Plunger 14K110M	26.16.811	1	Relief valve
1.16	Spring 2.1x11.3x13.5x70.5	11.31.222	1	
1.17	Alu sealing ring 17x21x1	09.12.016	1	
1.18	Plug G17	01.36.176	1	
1.19	Alu sealing ring 13.5x20x1	09.12.014	1	
1.20	Plug G135	01.36.134	1	
1.21	Nipple coupling 6G13	03.38.136	2	
1.22	Alu sealing ring 6.5x11x1	09.12.007	1	
1.23	Hex. head bolt M6x10	01.10.310	1	
1.24	Tee-coupling E6x6x6	03.40.306	1	
1.25	Cylindrical pin 6x12	11.06.612	1	
2	Hex. nut M12	01.15.610	8	
3	O-ring 3x150	09.52.311	1	

\* Contact Grasso Service & Parts Dept.



**RC11-8**

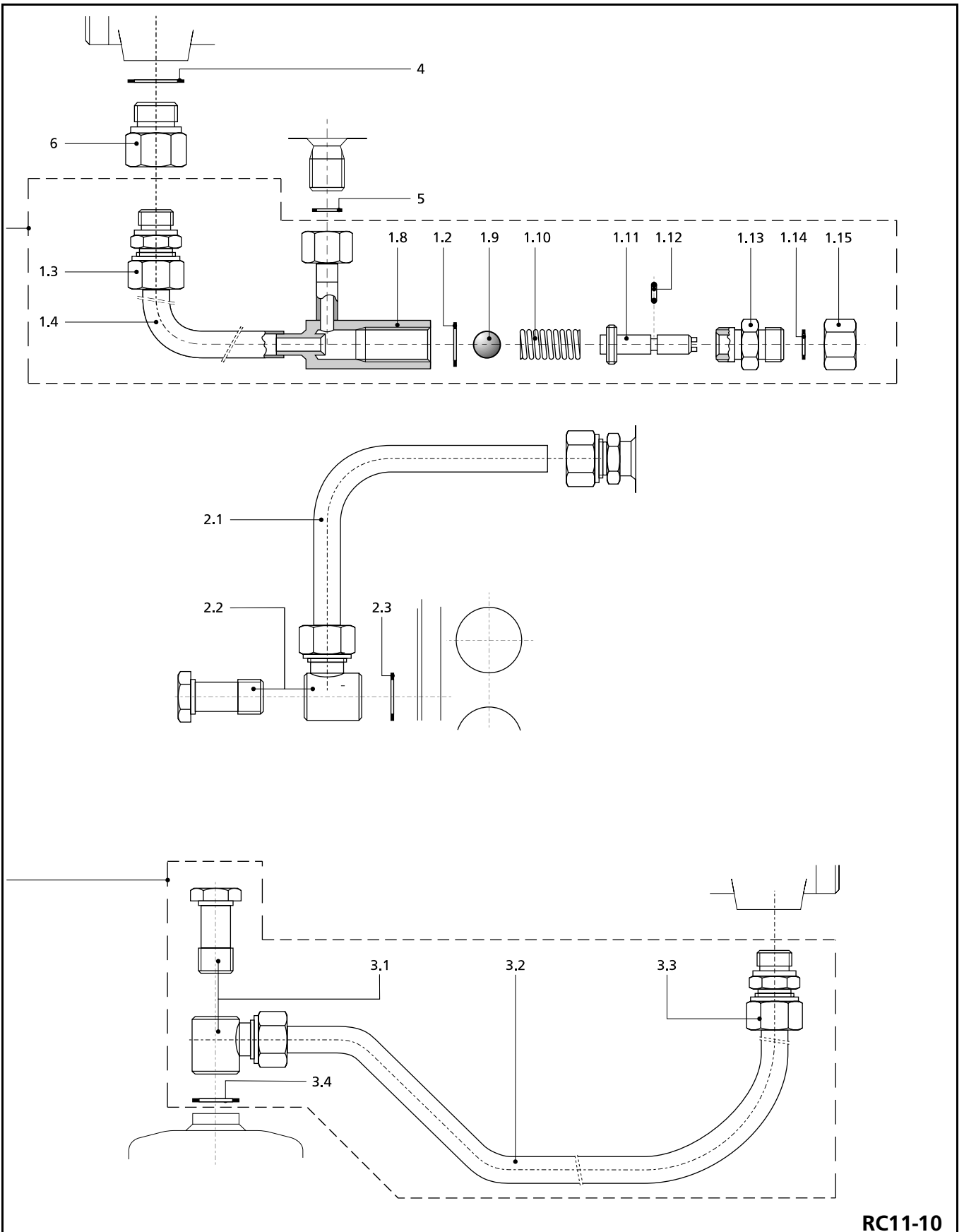




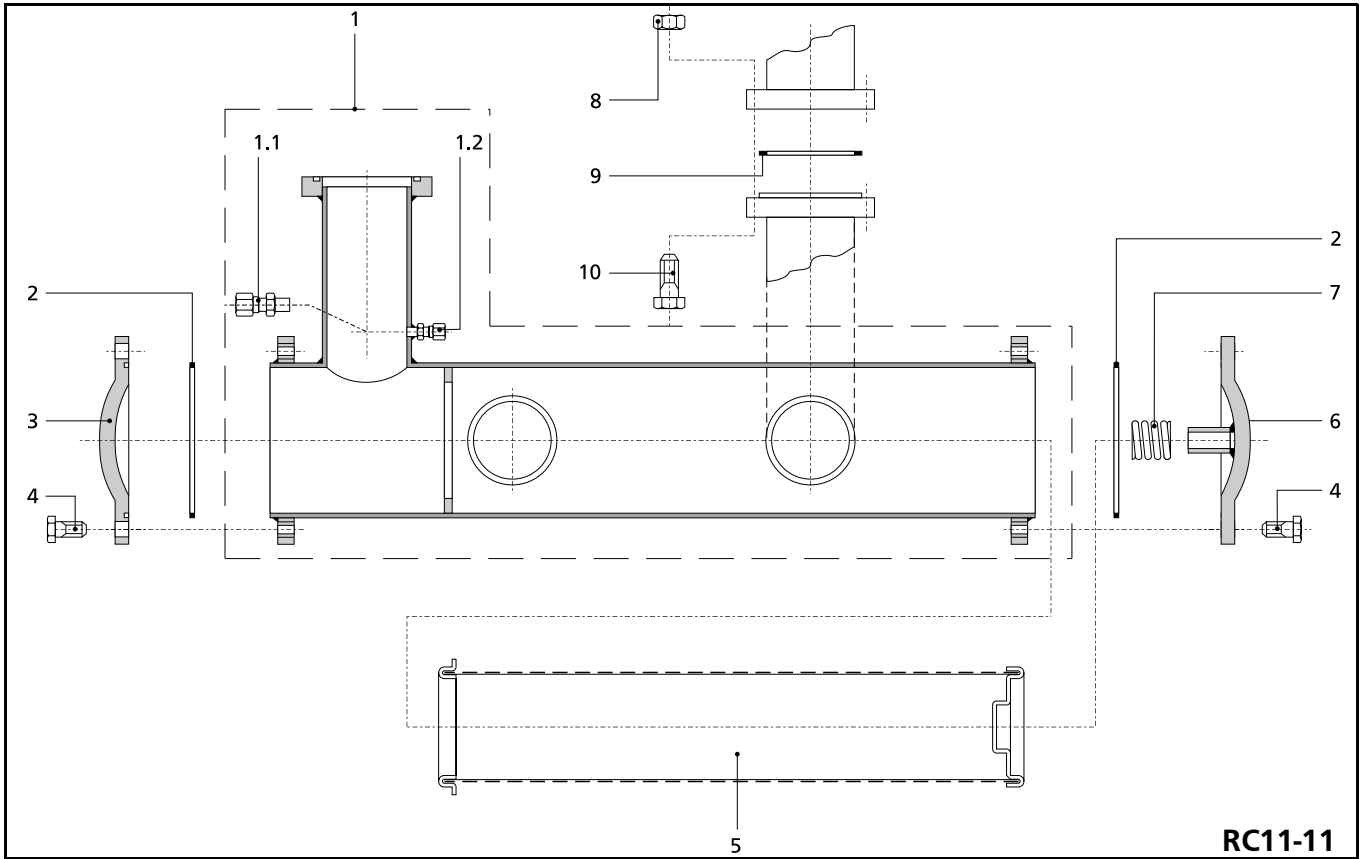
Item	Description	Ref. No.	Qty	Remarks
<b>OIL FILTERS</b>				<b>FIG. RC11-9</b>
1	Oil suction filter assy 290x250	44.05.621	1	
1.1	Filter upper housing assy 100x98	*	1	form one welded piece
1.2	Steel precision pipe 22x2.5	*	—	
1.3	Weldable nipple G21L	*	1	
1.4	Union nut G30R	*	2	
1.5	Pipe end G30	*	2	
1.6	Alu sealing ring 10x18x1	09.12.010	2	
1.7	Union socket G21RxG21L	03.29.921	1	
1.8	Stop valve TAH8	06.07.013	1	
1.9	Cap nut K21R	01.17.021	1	
1.10	Nipple coupling G27xG30	03.04.130	1	from compr. serial no. 82.10.6450 <sup>1)</sup> up to compr. serial no. 82.10.6449 <sup>1)</sup>
1.11	Plug G21	01.36.216	1	
1.12	Alu sealing ring 21.5x27x1	09.12.022	1	
1.13	Hex. head bolt M12x50	01.10.650	6	
1.14	O-ring 3.5x26	09.52.354	2	
1.15	Gauze filter element 1700x60	07.16.171	1	
1.16	Washer M24x38	11.13.738	1	
1.17	Spring 2x29x3x32	11.31.219	1	
1.18	Oilit sealing ring 117x127x1.5	09.03.118	1	
1.19	Lower housing half 26x56	*	1	
1.20	Hex. nut M12	01.15.610	6	
1.21	Alu sealing ring 1.5x27x1	09.14.023	1	
2	Oil discharge filter assy 22G27	07.11.023	1	
2.1	Nipple coupling G27xG30	03.04.130	1	
2.2	Steel precision pipe 22x2.5	*	1	form one welded piece
2.3	Filter upper housing assy	*	1	
2.4	Hex. head bolt M12x50	01.10.650	6	
2.5	Oilit sealing ring 117x127x1.5	09.03.118	1	
2.6	O-ring 3.5x26	09.52.354	2	
2.7	Set paper filter element 1700x15	07.11.920	1	
2.8	Washer M24x38	11.13.738	1	
2.9	Spring 2x29x3x32	11.31.219	1	from compr. serial no. 82.10.6450 <sup>1)</sup>
2.10	Snap ring 18	11.04.018	1	
2.11	Washer M8	11.13.401	1	
2.12	Spring 1.25x14x9x35.5	11.31.134	1	
2.13	Steel ball W14	11.19.009	1	
2.14	Lower housing half 26x44	*	1	
2.15	Hex. nut M12	01.15.610	6	
2.16	Union nut G30R	*	1	
2.17	Alu sealing ring 21.5x27x1	09.14.023	1	
2.18	Pipe end G30	*	1	
3	Alu sealing ring 21.5x27x1	09.14.023	1	
4	Alu sealing ring 27x34x1	09.12.027	2	

<sup>1)</sup> For compressors with a lower serial number, refer to the history parts list in this book.

Item	Description	Ref. No.	Qty	Remarks	
<b>LUBRICATING OIL LINES</b>				<b>FIG. RC11-10</b>	
1	Oil return line G21x1475	44.05.922	1	lubricating oil pressure regulator included	
1.1	(replaced by item 6)				
1.2	Alu sealing ring 21.5x27x1	09.14.023	1		
1.3	Nipple coupling 16G21	03.38.212	1		
1.4	Steel precision pipe K16x2	*	1	} form one welded piece	
1.5	Union nut G21	03.23.021	1		
1.6	Pipe end G21	03.24.021	1		
1.7	Steel pipe K13.5x2.35	*	1		
1.8	Valve housing H9K	48.03.010	1		
1.9	Ball W16	11.19.010	1		
1.10	Spring 1.25x14x9x35.5	11.31.134	1		
1.11	Thrust bolt G21x60S	01.35.218	1		
1.12	O-ring 1.78x8.73	09.52.184	1		
1.13	Nipple G21CxG21	03.04.921	1		
1.14	Alu sealing ring 10x18x1	09.12.010	1		
1.15	Cap nut GK21R	01.17.021	1		
2.1	Steel precision pipe K16x2	04.38.165	1		
2.2	Swivel coupling 16G21	03.39.216	1		
2.3	Alu sealing ring 23.5x30x1	09.12.024	1		
3	Oil discharge pressure line 16x573S	44.05.720	1	2-cylinder compressor	
	Oil discharge pressure line 16x573	44.05.730	1	3-cylinder compressor	
	Oil discharge pressure line 16x814	44.05.740	1	4-cylinder compressor	
	Oil discharge pressure line 16x963	44.05.760	1	6-cylinder compressor	
	Oil discharge pressure line 16x1354	44.05.790	1	9-cylinder compressor	
	Oil discharge pressure line 16x1744	44.05.700	1	12-cylinder compressor	
3.1	Swivel coupling 16G21	03.39.216	1		
3.2	Steel precision pipe K16x2	*	1		
3.3	Nipple coupling 16G21	03.38.212	1		
3.4	Alu sealing ring 23.5x30x1	09.12.024	1		
4	Alu sealing ring 27x34x1	09.12.027	1		
5	Alu sealing ring 10x18x1	09.12.010	1		
6	Socket nipple G21xG27	03.02.927	1		



**RC11-10**

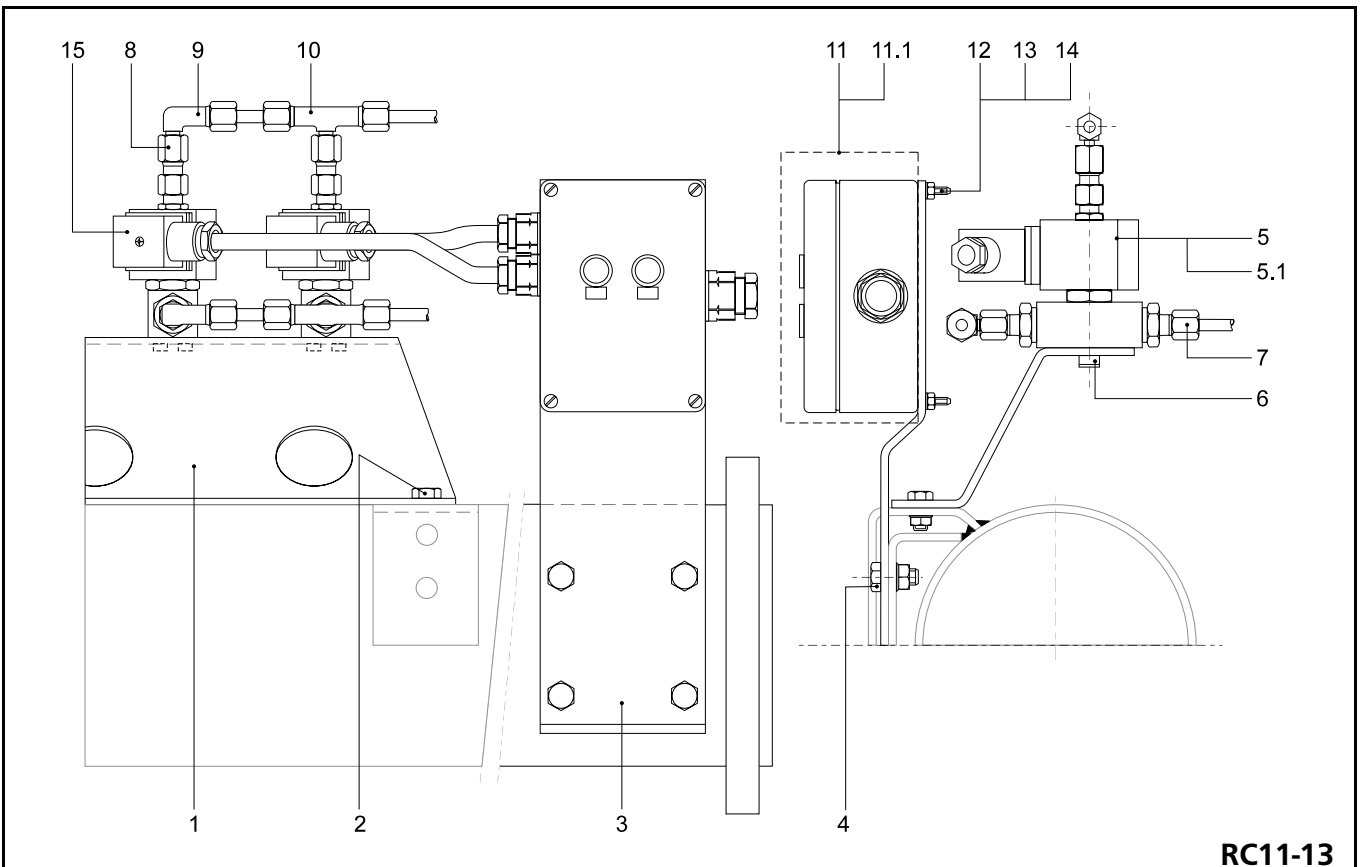
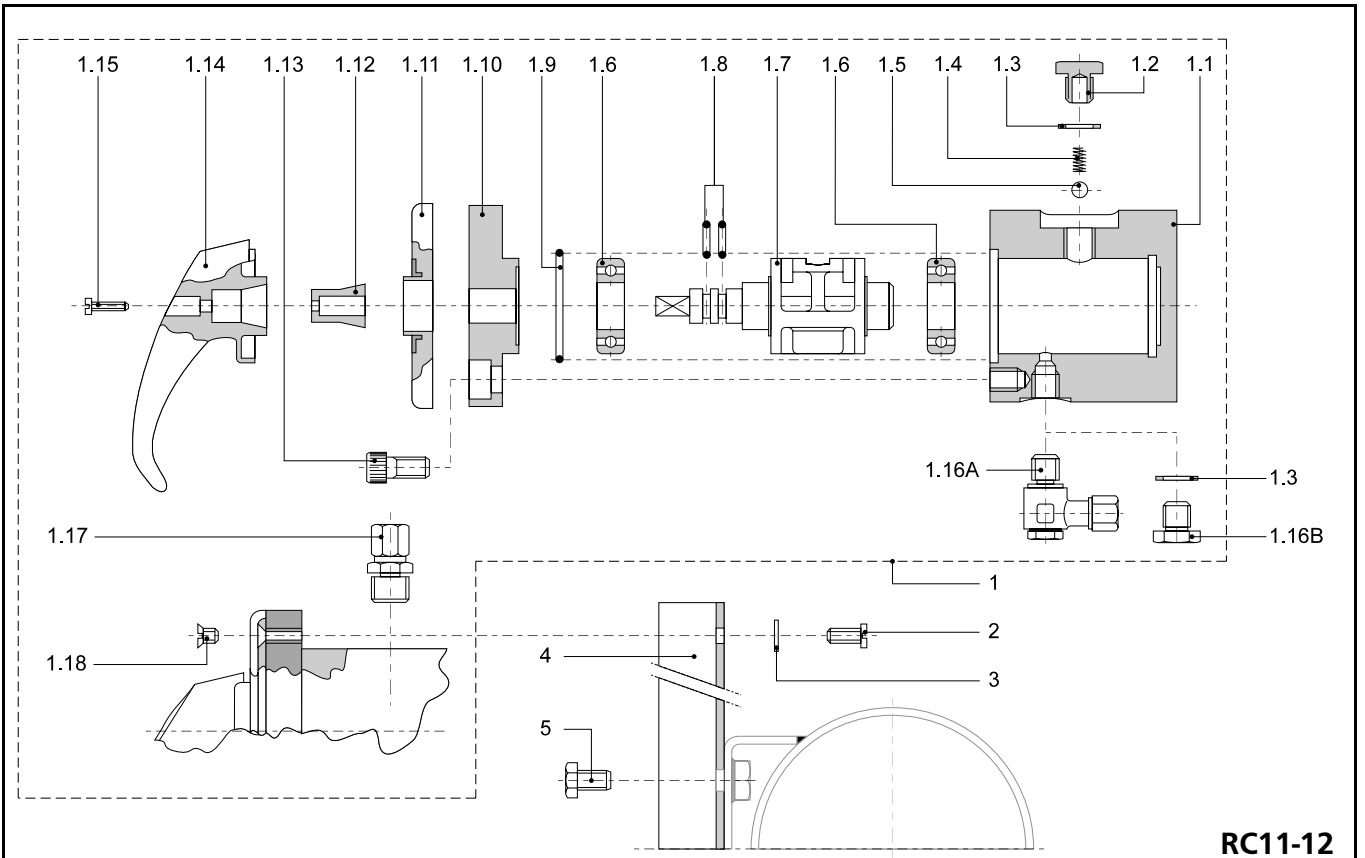


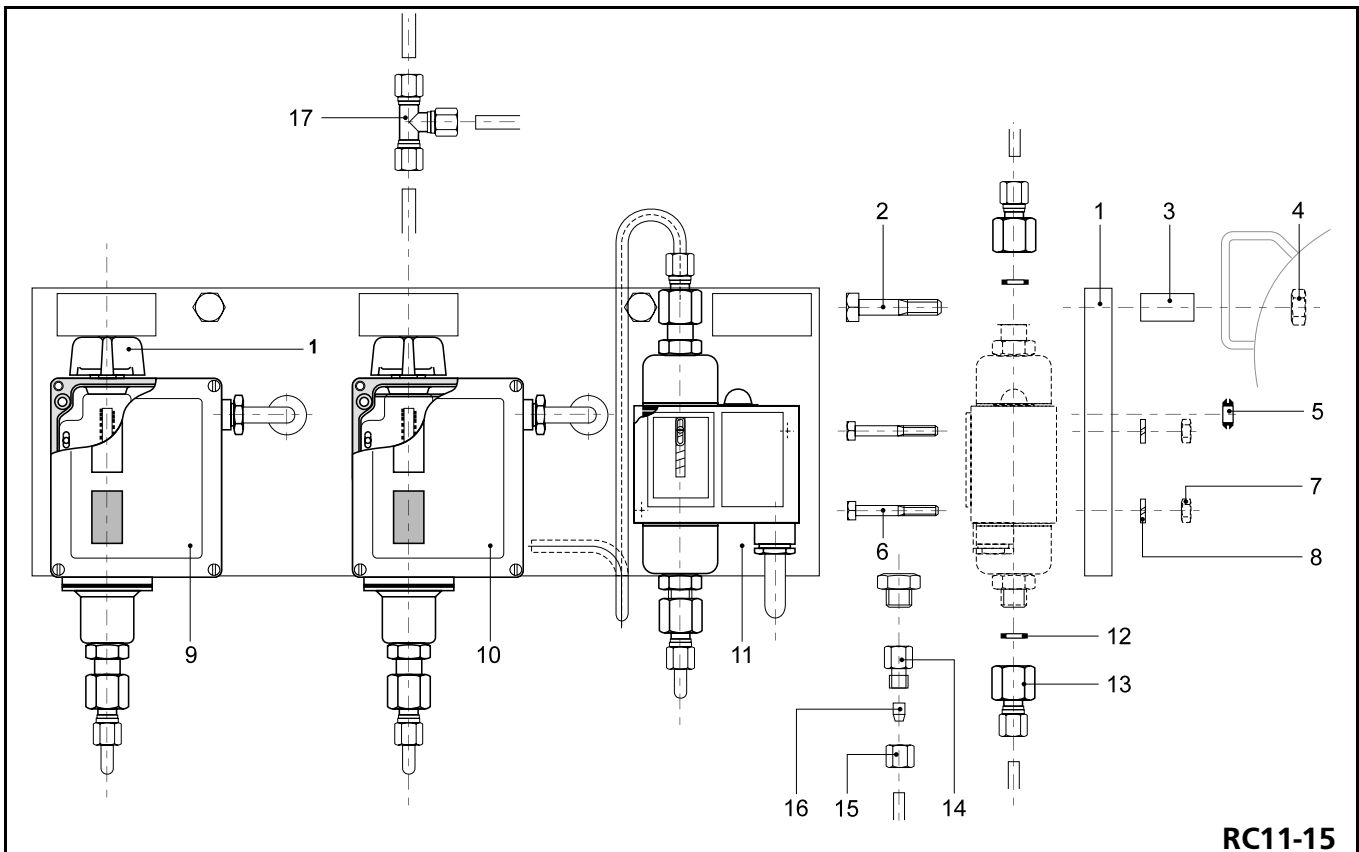
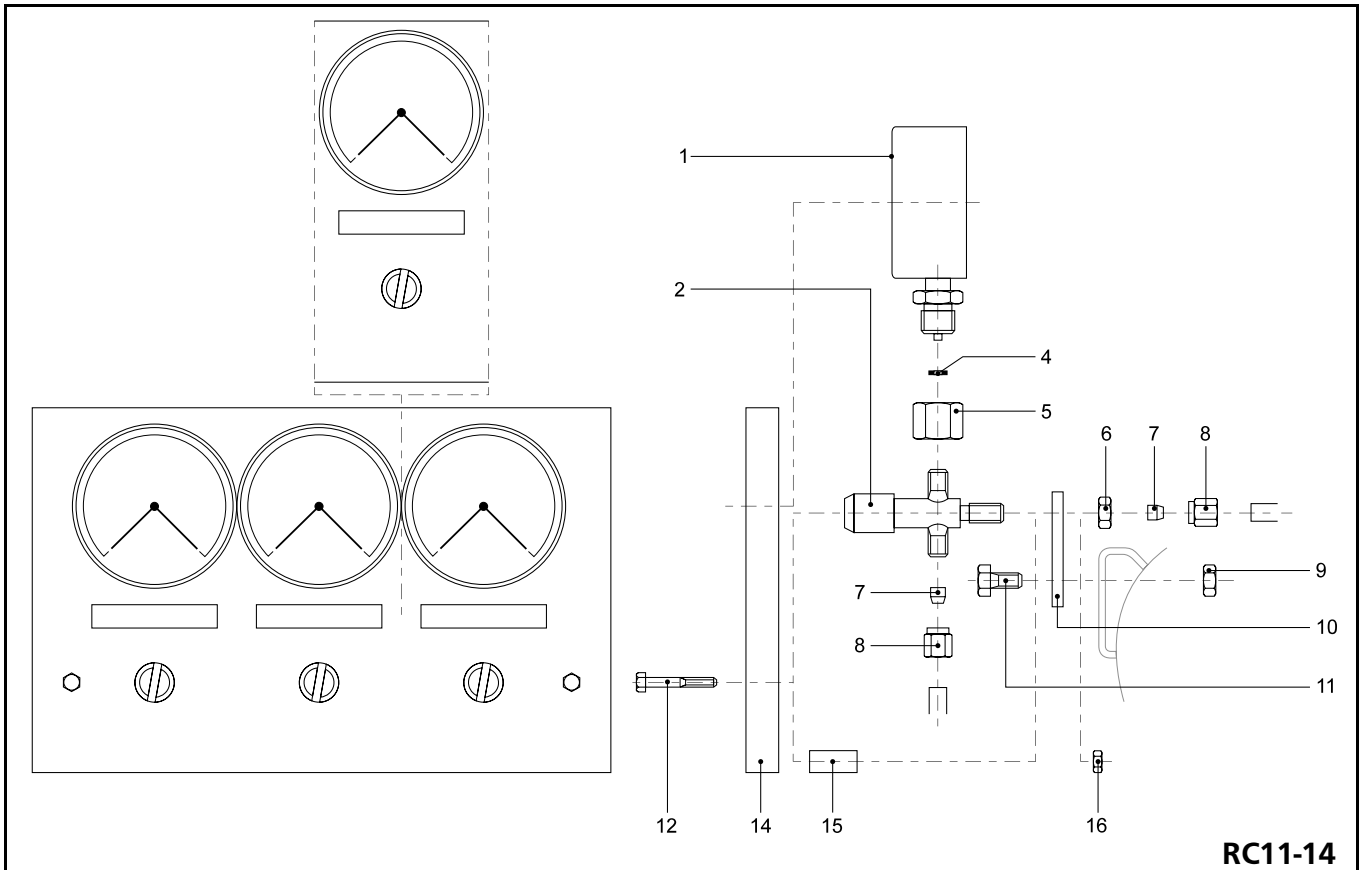
Item	Description	Ref. No.	Qty	Remarks
<b>SUCTION GAS STRAINER</b>				<b>FIG. RC11-11</b>
1	Strainer housing	*	1	
1.1	Weldable coupling 16x21	03.35.016	1	
1.2	Weldable coupling 6x11	03.35.006	1	
2A	Oilit sealing ring 124x136x1.5	09.03.124	2	             2-, 3- and 4-cyl. compressor
3A	Cover 185	05.30.185	1	
4A	Hex. head bolt M12x40	01.85.640	16	
5A	Strainer element 1700x110	07.16.170	1	
6A	Cover 185P	05.30.995	1	
7A	Spring 6x40x2.7x42	11.13.601	1	
2B	Oilit sealing ring 180x196x1.5	09.03.180	2	
3B	Cover 260	05.31.261	1	
4B	Hex. head bolt M16x40	01.10.840	16	
5B	Strainer element 3200x110	07.16.320	1	
6B	Cover 260P	05.31.961	1	
7B	Spring 6x40x2.7x42	11.31.601	1	
8A	Hex. nut M16	01.15.810	8	     RC211, 311, 411 and 2111
9A	Oilit sealing ring 84x98x1.5	09.03.084	2	
10A	Hex. head bolt M16x60	01.10.860	8	
8B	Hex. nut M20	01.15.110	8	     RC611, 4211 and 5111
9B	Oilit sealing ring 117x131x1.5	09.03.117	2	
10B	Hex. head bolt M20x70	01.10.170	8	
8C	Hex. nut M20	01.15.110	8	     RC911, 10211, 8411 and 9311
9C	Oilit sealing ring 143x161x1.5	09.03.143	2	
10C	Hex. head bolt M20x70	01.10.170	8	
8D	Hex. nut M20	01.15.110	8	     RC1211 only
9D	Oilit sealing ring 169x187x1.5	09.03.169	2	
10D	Hex. head bolt M20x70	01.10.170	8	

Item	Description	Ref. No.	Qty	Remarks
<b>MANUALLY OPERATED CAPACITY CONTROL</b>				<b>FIG. RC11-12</b>
1	Manually capacity control 6x6G13	12.73.212	1	
1.1	Oil distributor housing	*	1	
1.2	Plug G13	01.36.136	1	
1.3	Alu sealing ring 13.5x20x1	09.12.014	—	
1.4	Spring 0.75x5.2x7.5x18	11.31.083	1	
1.5	Steel ball W6	11.19.004	1	
1.6	Ball bearing 6004	*	2	
1.7	Distributor spindle 42x106	*	1	
1.8	O-ring 2.5x10	09.52.252	2	
1.9	O-ring 3.5x44	09.52.350	1	
1.10	Cover 90x15	*	1	
1.11	Indication plate 088	11.76.088	1	
1.12	Bush 8x8	48.46.108	1	
1.13	Socket head screw M10x20	01.04.520	3	
1.14	Hand grip 040	02.49.040	1	
1.15	Cylinder head screw M4x20	01.68.220	1	
1.16A	Swivel coupling 6G13	03.39.136	—	total quantity: 5
1.16B	Plug G13	01.36.136	—	
1.17	Nipple coupling 6G13	03,38,136	1	
1.18	Countersunk head screw M5x10	01.69.910	4	
2	Cylinder head screw M5x10	01.68.910	4	
3	Lock washer M5	11.13.003	4	
4	Support U100x300	02.43.130	1	
5	Hex. head bolt M8x16	01.10.416	4	

<b>ELECTRICALLY OPERATED CAPACITY CONTROL</b>				<b>FIG. RC11-13</b>
1	Solenoid valve panel 3x30	*	1	
2	Hex. head bolt M6x16	01.10.316	2	
3	Support Z18x80	02.40.610	1	
4	Hex. head bolt M8x16	01.10.416	4	
5	Three-way solenoid valve 220HB	06.80.410	—	Quantities per valve
5.1	Valve coil 110-120/50-60	13.16.311	—	
	Valve coil 220-240/50-60	13.16.322	—	
6	Socket head screw M5x8	01.04.208	2	
7	Nipple coupling 6G10	03.38.106	2	
or	Swivel coupling 6G10	03.39.106	2	
8	Socket coupling 6G10	03.37.106	1	
9	Angle coupling EV6x6	03.52.006	2	
10	Tee-coupling EV6x6x6	03.40.306	2	
11	Junction box	*	1	
11.1	Lamp, bajonet fixing:			
	24V	13.08.624	—	
	48V	13.08.648	—	
	110V	13.08.610	—	
	220V	13.08.620	—	
12	Cylinder head screw M4x16	01.68.216	2	
13	Washer M4	11.13.201	2	
14	Hex. nut M4	01.15.211	2	
15	Connector	13.16.610	—	Without LED
		13.16.611	—	With 220V-AC/DC LED
		13.16.615	—	With 48V-AC/DC LED

<sup>1)</sup> For compressors with a lower serial number, refer to the history parts list this book.





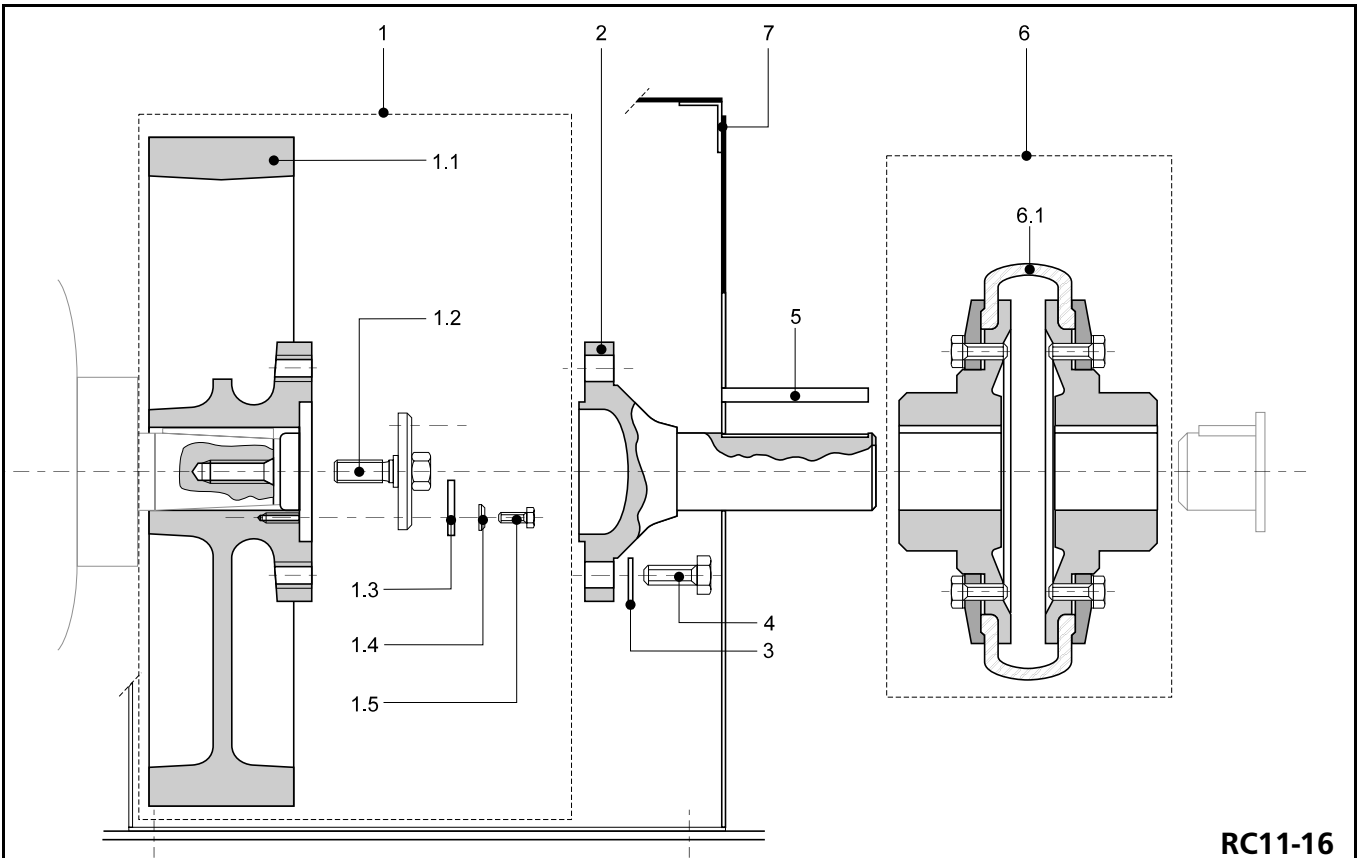


Item	Description	Ref. No.	Qty	Remarks	
<b>PRESSURE GAUGE PANEL</b>		<b>FIG. RC11-14</b>			
1	Pressure gauge Discharge pressure (all types, except booster)	NH3-P-100 R-P/100 R-P/100 R-P/100	12.10.113 12.12.113 12.12.114 12.12.115	1 1 1 1	NH3 R22 R134a R404A
	Suction pressure (all types) intermediate pressure (two-stage only) and discharge pressure (booster only)	NH3-Z-100 R-Z-100 R-Z-100 R-Z-100	12.10.114 12.12.116 12.12.117 12.12.118	1 2 1 2 2	single-stage NH3 two-stage and booster NH3 single-stage for R22 single-stage for R134a single-stage for R404A two-stage & booster for halocarbons and NH3
	Oil pressure	OIL 0-110	12.15.114	1	for NH3 and halocarbons
2	Stop valve TAH4C	06.07.007	1	quantities per gauge	
4	Alu sealing ring 6.5x11x1	09.12.007	1		
5	Union socket G21RxG21L	03.29.921	1		
6	Hex. nut MF12	01.47.605	1		
7	Clamping sleeve S6	03.34.106	2		
8	Union nut MF12x1.5	03.51.006	2		
9	Hex. nut M10	01.15.510	2		
10	Mounting strip	*	1		
11	Hex. head bolt M10x20	01.10.520	2		
12	Hex. head bolt M6x45	01.10.345	2		
14	Front panel	*	1		
15	Spacer sleeve 13.7x2.2x31	*	2		
16	Hex. nut M6	01.15.310	2		

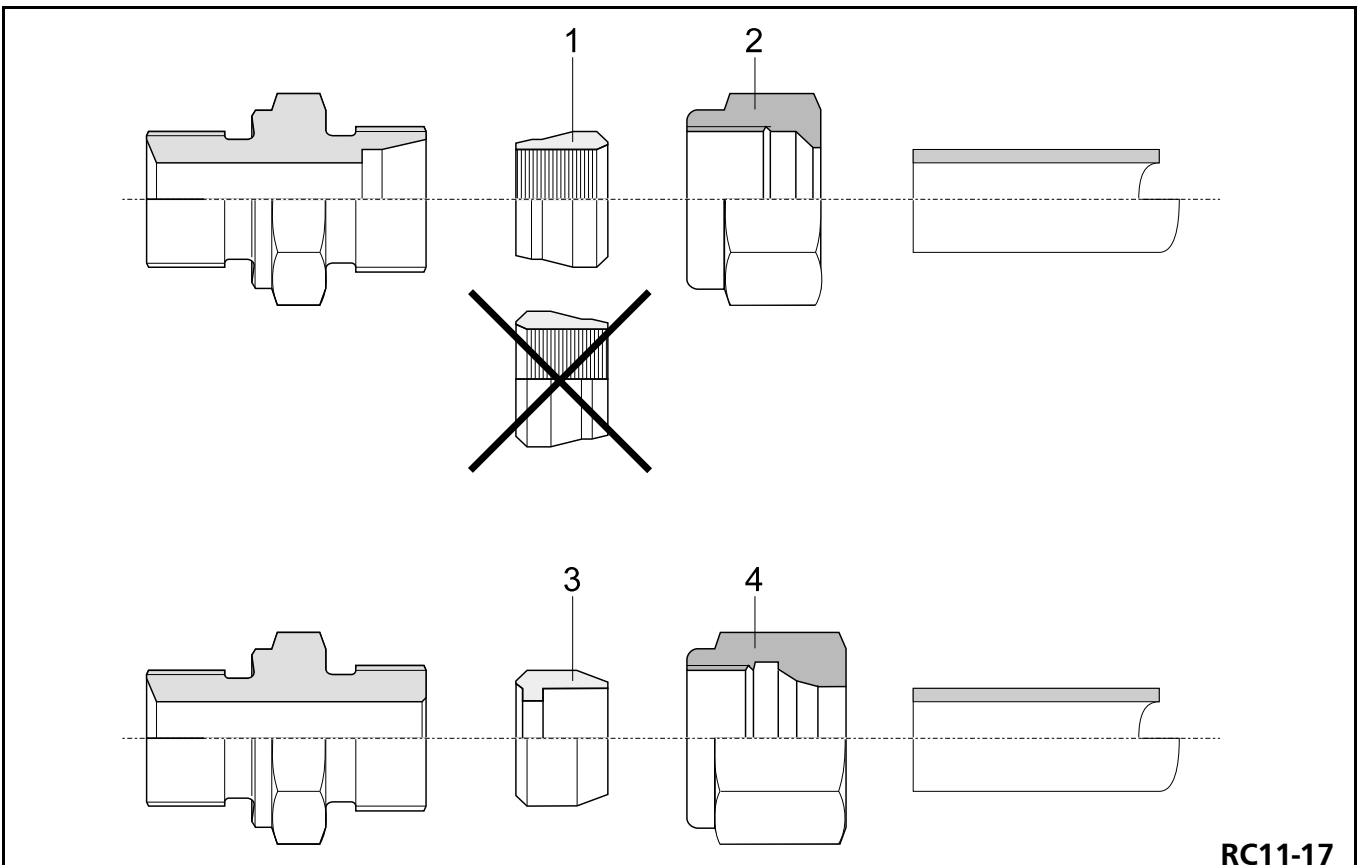
<b>STANDARD SAFETY SWITCH PANEL</b>		<b>FIG. RC11-15</b>		
1	Panel 5x100	*	1	
2	Hex. head bolt M10x50	01.10.550	2	
3	Spacer sleeve 17.1x2.3x34	*	2	
4	Hex. nut M10	01.15.510	2	
5	Grommet 2-13	09.24.213	2	
6	Cylinder head screw M4x50	01.68.250	6	
7	Hex. nut M4	01.15.211	6	
8	Lock washer M4	11.13.203	6	
9	Discharge pressure safety switch type RT5 (R12, R22, etc.)	12.61.151	1	
	type RT5A (NH3)	12.60.151	1	
10	Suction pressure safety switch type RT1 (R12, R22, etc.)	12.61.121	1	
	type RT1A (NH3)	12.60.121	1	
11	Oil pressure safety switch type MP55 (R12, R22, etc.)	12.61.232	1	
	type MP55A (NH3)	12.60.232	1	
	type RT260A (NH3, R12, R22, etc.)	12.60.240	1	
12	Alu sealing ring 8x14.5x1	09.12.008	4	for NH3
13	Socket coupling 6G17	03.37.176	4	
14	Socket coupling 6F6	03.37.906	4	for R12-, R22 compressors
15	Union nut	*	4	
16	Clamping sleeve S6	03.34.106	4	
17	Tee-coupling S6x6x6	03.40.006	1	

Item	Description	Ref. No.	Qty	Remarks
<b>DIRECT DRIVE</b>				<b>FIG. RC11-16</b>
1	Flywheel 0x772x166FPCS	19.13.714		
1.1	Flywheel 0x722x166FPC	*		
1.2	Hub locking disc M24x108	19.15.211		
1.3	Locking plate M24xM12	11.14.248		
1.4	Washer M12	11.13.601		
1.5	Hex. head bolt M12x35	01.10.635		
2	Flange shaft 84x322x230x150	19.63.087		
3	Locking plate M20	11.13.102		
4	Hex. head bolt M20x60	01.10.160		
5	Key 22x14x160	11.02.016		
6A	Coupling type 25-1 (machined)	*		
6.1A	Waved band 225X	19.18.938		
6B	Coupling type 26-1 (machined)	*		
6.1B	Waved band 426X	19.18.939		
6C	Coupling type 28-1 (machined)	*		
6.1C	Waved band 828X	19.18.955		
7A	Coupling guard 800x660x370	*		for coupling type 25-1 & 26-1
7B	Coupling guard 800x700x370	*		for coupling 28-1

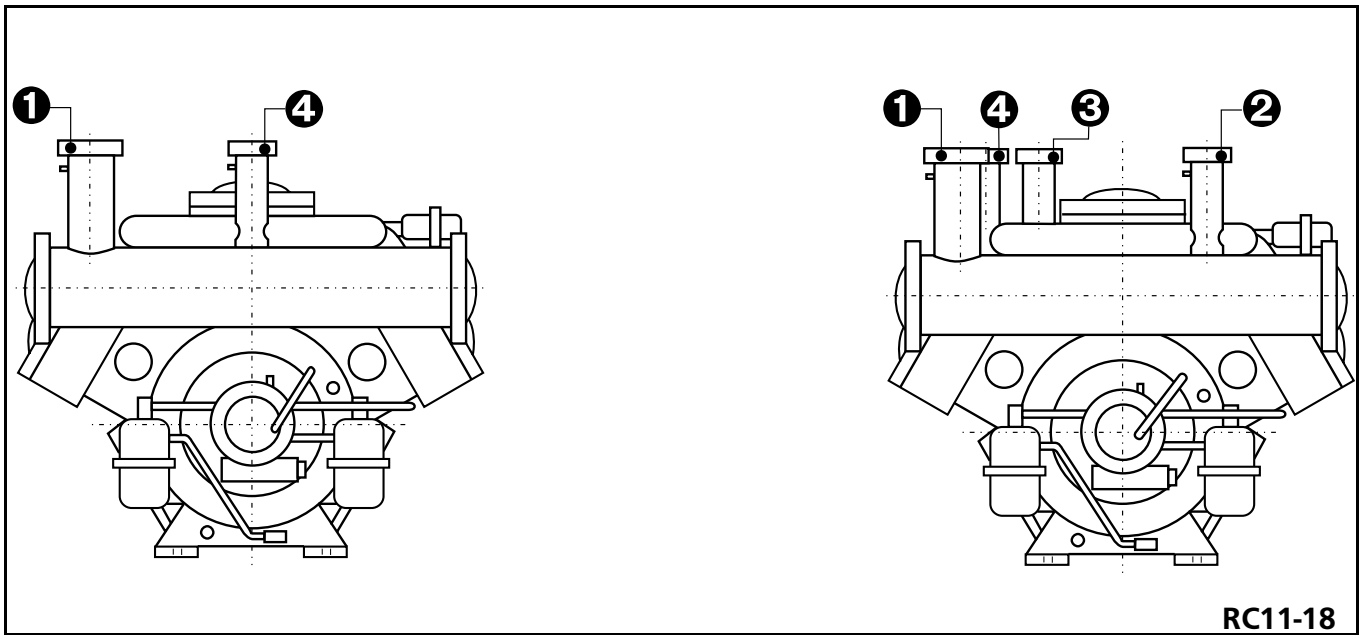
<b>PARTS FOR CLAMP COUPLINGS</b>				<b>FIG. RC11-17</b>
				to be used on clamp couplings with reference number:
1A	Clamping sleeve P6	03.34.506	-	03.36.006
2A	Union nut M12x1.5 (DIN 2353)	*	-	03.36.906
				03.37.106
				03.37.176
				03.38.131
				03.38.136
				03.39.136
				03.40.006
				03.40.306
	Union nut M14x1.5 (DIN 2353)	*	-	03.35.006
				03.37.216
1B	Clamping sleeve P16	03.34.516	-	03.35.016
2B	Union nut M24x1.5 (DIN 2353)	*	-	03.38.212
				03.39.216
1C	Clamping sleeve P22	03.34.522	-	
2C	Union nut M30x2 (DIN 2353)	*	-	03.38.272
3	Clamping sleeve S6	03.34.106	-	03.52.006
4	Union nut MF12x1.5 (special)	03.51.006	-	03.54.076



**RC11-16**



**RC11-17**



RC11-18

Item	Description	Ref. No.	Qty	Remarks
<b>STANDARD SETS OF PARTS, SEALS AND TOOLS</b>				<b>NO FIGURE</b>
1	Set of special tools	20.18.010	1	
2	Sets of spare parts (including gaskets and seals) Basic set	20.18.021	1	for all types except RC411 & RC3111
	Additional set (per 3 cylinders)	20.18.031	1	for 6-9-12 cyl. compressor for types RC411 & RC3111
	Additional set (per 4 cylinders)	20.18.041	1	
3	Set of gaskets and seals	09.90.012	1	for all types except RC411 & RC3111
	Additional set of gaskets and seals (per 3 cylinders)	09.90.013	1	for 6-9-12 cylinder compressors for types RC411 & RC3111
	Set of gaskets and seals	09.90.014	1	

**OILIT SEALING RINGS FOR SUCTION-, INTERMEDIATE AND DISCHARGE CONNECTIONS (FIG. RC11-18)**

COMPRESSOR		(LP) SUCTION		LP DISCHARGE		HP SUCTION		(HP) DISCHARGE	
FIG. RC11-18		FLANGE NO. 1		FLANGE NO. 2		FLANGE NO. 3		FLANGE NO. 4	
MODEL		SIZE	PART NO.	SIZE	PART NO.	SIZE	PART NO.	SIZE	PART NO.
RC211	SINGLE STAGE	84x98x1.5	09.03.084					67x81x1.5	09.03.067
RC311		98x112x1.5	09.03.098					67x81x1.5	09.03.067
RC411		98x112x1.5	09.03.098					98x112x1.5	09.03.098
RC611		117x131x1.5	09.03.117					98x112x1.5	09.03.098
RC911		143x161x1.5	09.03.143					117x131x1.5	09.03.117
RC1211		169x187x1.5	09.03.169					117x131x1.5	09.03.117
RC2111	TWO-STAGE	98x112x1.5	09.03.098	67x81x1.5	09.03.067	67x81x1.5	09.03.067	84x98x1.5	09.03.084
RC3111		98x112x1.5	09.03.098	98x112x1.5	09.03.098	67x81x1.5	09.03.067	84x98x1.5	09.03.084
RC4211		117x131x1.5	09.03.117	84x98x1.5	09.03.084	84x98x1.5	09.03.084	67x81x1.5	09.03.067
RC5111		117x131x1.5	09.03.117	98x112x1.5	09.03.098	84x98x1.5	09.03.084	84x98x1.5	09.03.084
RC6311		117x131x1.5	09.03.117	117x131x1.5	09.03.117	117x131x1.5	09.03.117	67x81x1.5	09.03.067
RC7211		143x161x1.5	09.03.143	117x131x1.5	09.03.117	117x131x1.5	09.03.117	67x81x1.5	09.03.067
RC8411		143x161x1.5	09.03.143	117x131x1.5	09.03.117	117x131x1.5	09.03.117	67x81x1.5	09.03.067
RC9311		143x161x1.5	09.03.143	117x131x1.5	09.03.117	117x131x1.5	09.03.117	67x81x1.5	09.03.067
RC10211		143x161x1.5	09.03.143	117x131x1.5	09.03.117	117x131x1.5	09.03.117	67x81x1.5	09.03.067



*The history parts list on the following pages may only be used when it is expressly referred to by the standard list also included in this booklet. The reference is given via a foot note.*

The fact is that this history parts list contains all those parts and (sub)assemblies that are no longer used in standard compressors as delivered by the works, but, be it sometimes for a limited period, are still available for subsequent delivery.

If such parts or (sub)assemblies are fully interchangeable with any corresponding new items introduced from a certain serial number, this is shown on the relevant page of this history parts list. It should be noted, however, that for compressors thus adapted in the field, the serial number no longer can be referred to in repeat orders for spare parts.

For the use of the history parts list with the corresponding illustrations and how to order parts, reference is made to page 1 of the standard parts list.

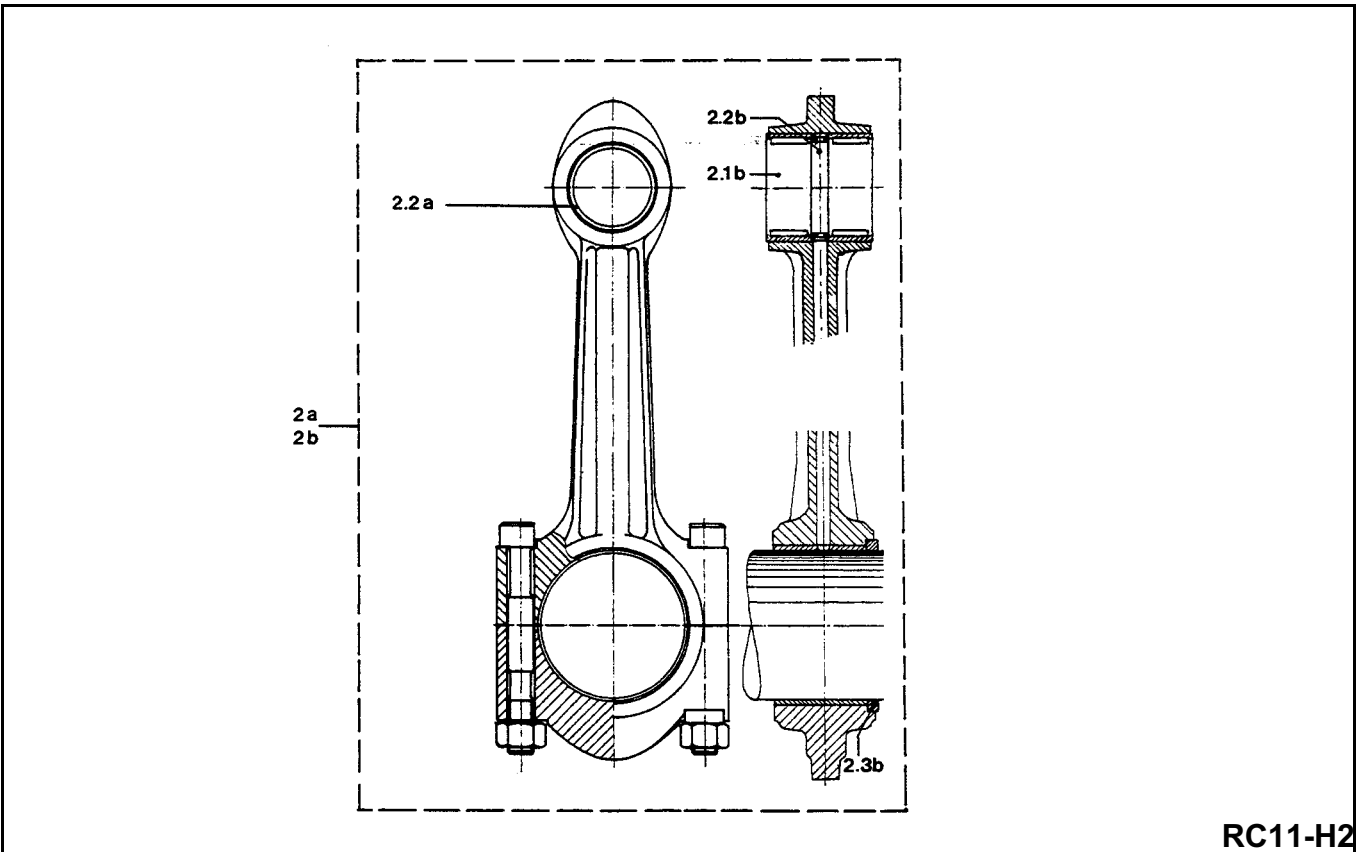
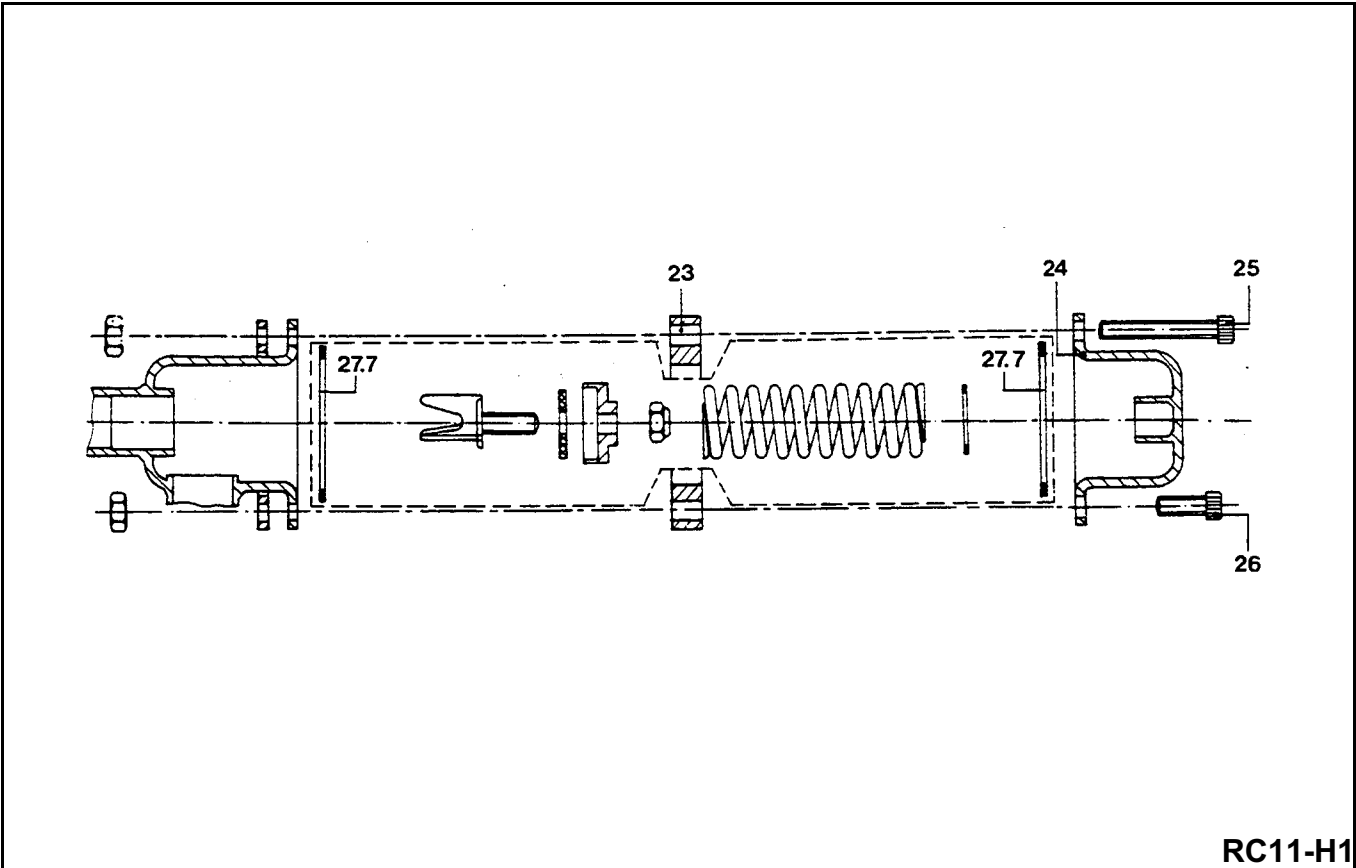
Mind that in the table below, which is meant to be used for quick retrieval of the required parts, the sequence of the group of parts and of the page and figure numbers may be different from those in the standard parts list.

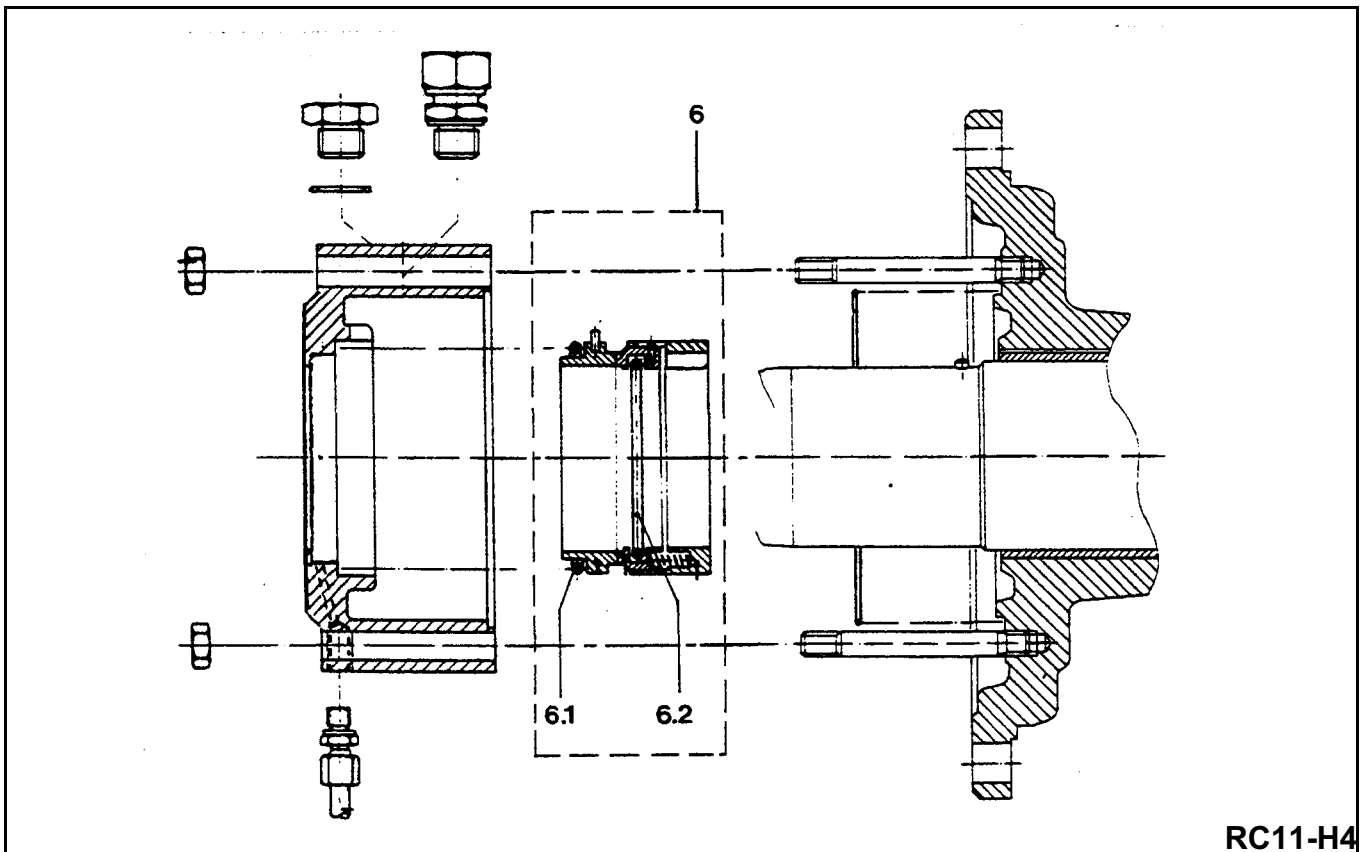
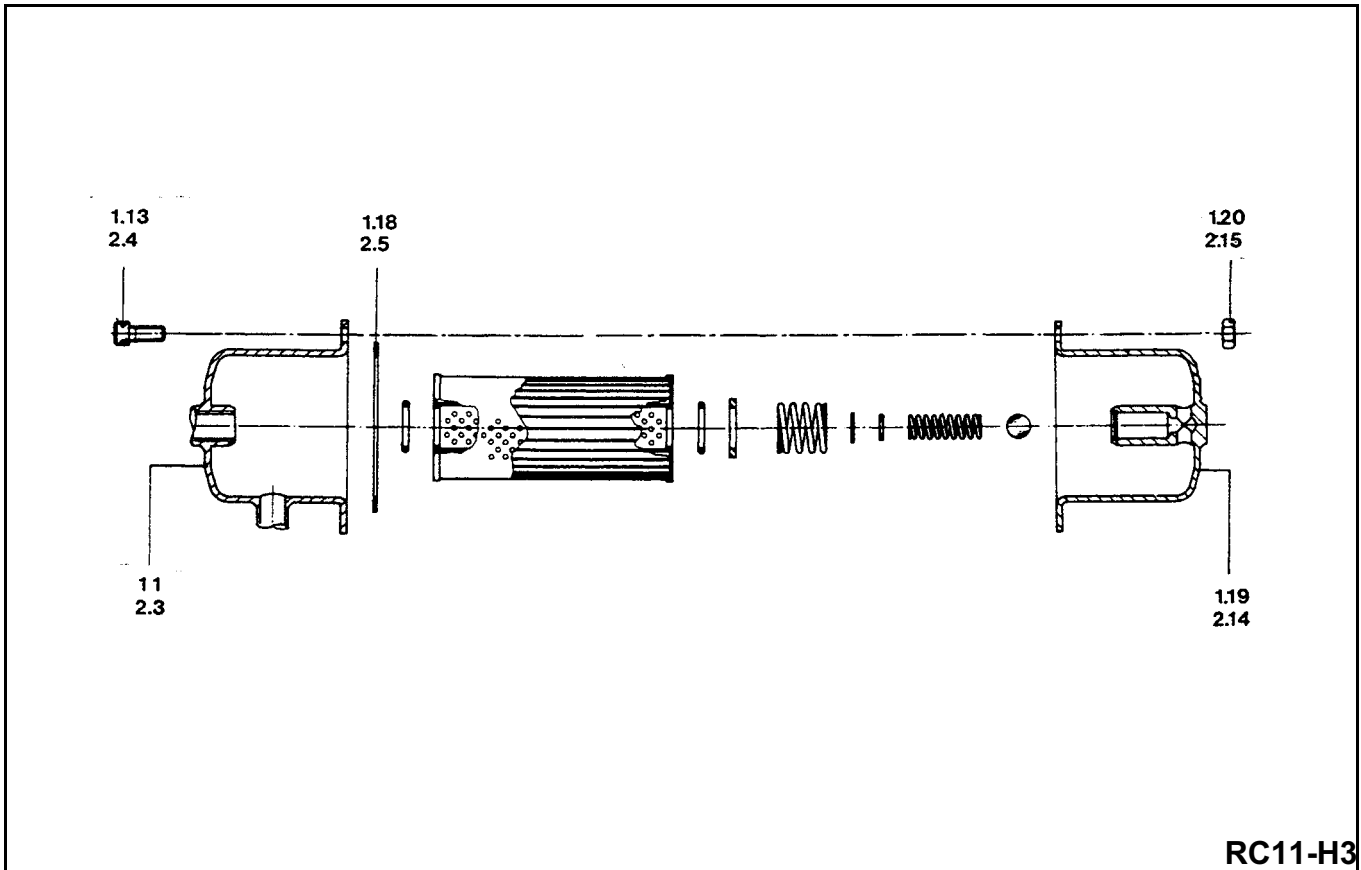
<b>GROUP OF PARTS</b>	<b>PARTS LIST Page No.:</b>	<b>CORRESPONDING FIGURE No.:</b>
o Overflow safety valve	2	RC11-H1
o Connecting rod	2	RC11-H2
o Oil filters	5	RC11-H3
o Rotary shaft seal	5	RC11-H4
o Suction and discharge valve	6	RC11-H5
o Electrically operated capacity control	6	RC11-H6
o Bearing covers	9	RC11-H7
o Crankshaft	9	RC11-H8

Item	Description	Ref. No.	Qty	Remarks
<b>OVERFLOW SAFETY VALVE</b>				<b>FIG. RC11-H1</b>
23	Distance ring 109x68x11	*	1	on 12 bar-type only <sup>1)</sup>  on 22.5 bar-type valve on 12 bar-type valve
24	Housing top half 28x21x8	*	1	
25	Socket head screw M10x60	01.04.560	2	
26	Socket head screw M10x25	01.04.525	6	
or 27.7	Socket head screw M10x40 Gasket 69x79x2	01.04.540 09.04.069	6 2	
<b>CONNECTING ROD</b>				<b>FIG. RC11-H2</b>
2a	Con rod assembly S90x275FA110	24.08.500	–	only in single stage compressors and in LP-cylinders of two-stage compressors
2.2a	Bearing bush 50/58	11.46.650	1	
2b	Con rod assembly 90x275RC11HD	24.19.550	–	only in HP-cylinders of two-stage compressors
2.1b	Needle bearing NK50/25	11.63.451	2	
2.2b	Distance ring 52x62x10	11.16.562	1	
2.3b	Alu ring 109x96	98.00.699	1	

<sup>1)</sup> This item (23) is of stock. This means that the valve bottom and top half (incl. fasteners and excl. the internal items) must be exchanged by the modified items as mentioned in the compressor spare parts list for compressors with serial numbers from 82.10.6450 and over.







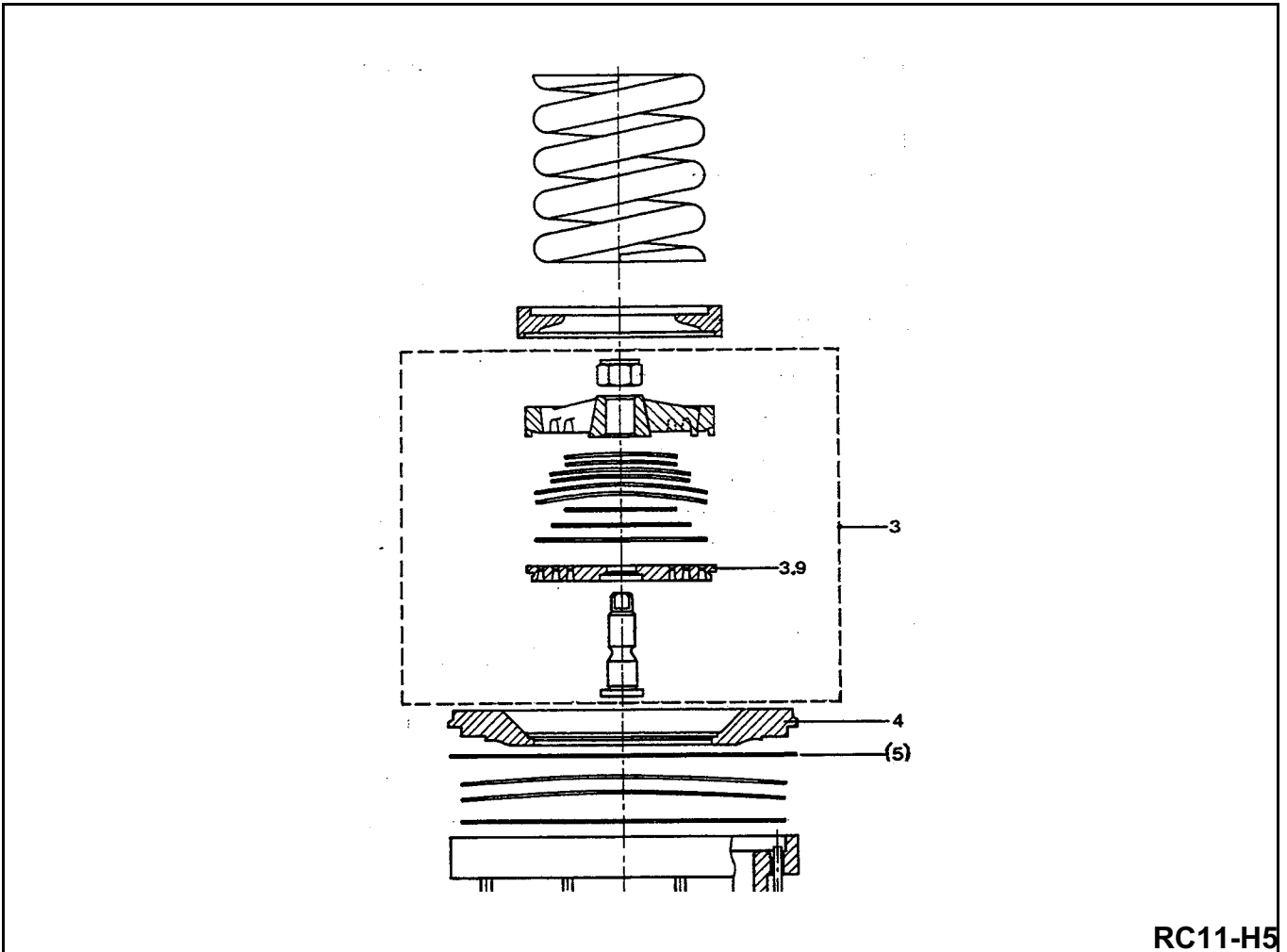
Item	Description	Ref. No.	Qty	Remarks
<b>OIL FILTERS</b>				<b>FIG. RC11-H3</b>
Oil suction filter:				
1.1	Filter top half	*	1	
1.13	Socket head screw M10x20	01.04.520	12	
1.18	Gasket 109x119x2	09.04.109	1	
1.19	Filter bottom half	*	1	
1.20	Hex. nut M10	01.15.510	12	
Oil discharge filter:				
2.3	Filter top half	*	1	
2.4	Socket head screw M10x20	01.04.520	12	
2.5	Gasket 109x119x2	09.04.109	1	
2.14	Filter bottom half	*	1	
2.15	Hex. nut M10	01.15.510	12	
<b>ROTARY SHAFT SEAL Ref. No.: 09.62.086</b>				<b>FIG. RC11-H4</b>
6	Shaft seal assembly 85MO	*	1	1)
6.1	O-ring 7.5x95	09.52.756	1	
6.2	O-ring 7x85	09.52.704	1	
<b>ROTARY SHAFT SEAL Ref. No.: 09.62.286</b>				<b>FIG. RC11-H5</b>
6	Shaft seal assembly CK85	*	1	1)
6.1	O-ring 7.5x95	09.52.756	1	
6.2	O-ring 7x85	09.52.704	1	

1) This subassembly (item 6) is replaced completely by the subassembly with Ref. No. 09.62.290 as mentioned in the compressor spare parts list for compressors serial numbers 90.11.1950 and over.

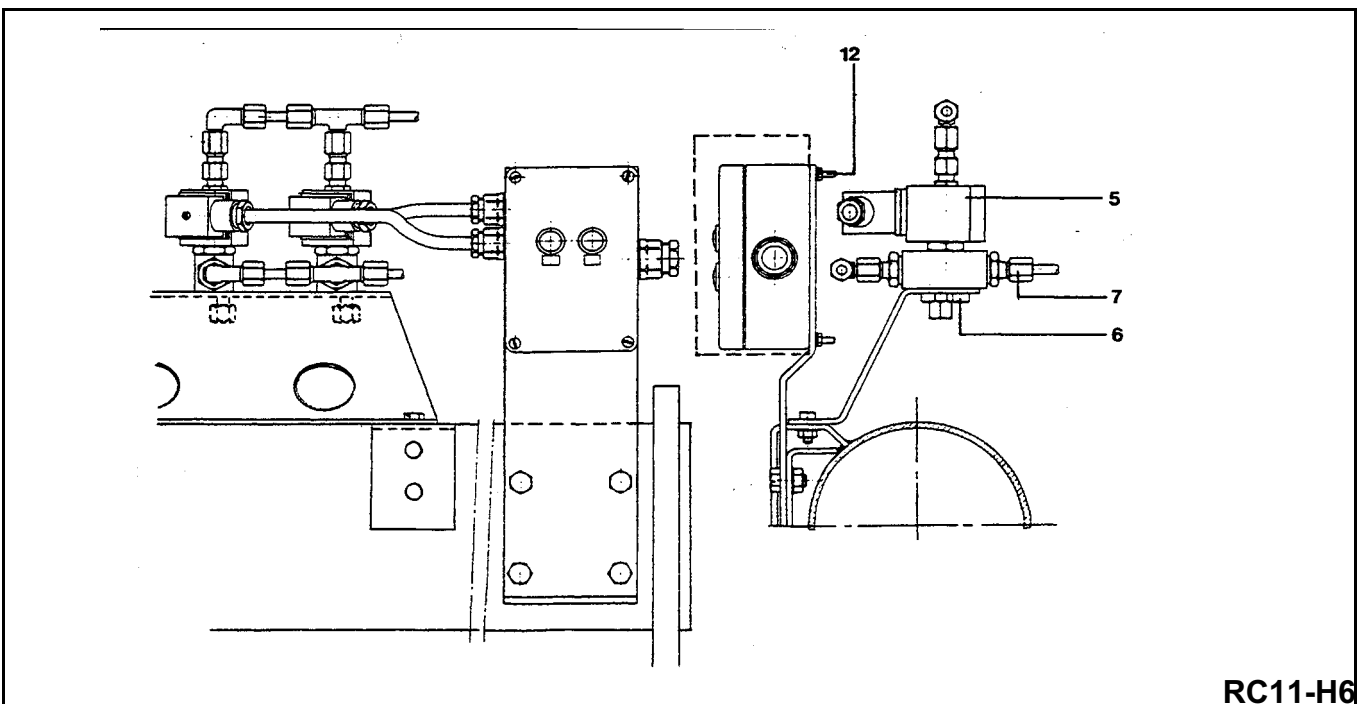
Item	Description	Ref. No.	Qty	Remarks
<b>SUCTION AND DISCHARGE VALVE</b>				<b>FIG. RC11-H5</b>
3	Discharge valve assembly 160RC11	27.19.110	1	1)
3.9	Discharge valve seat 160RC11A	27.18.261	1	
4 (5)	Stroke limiter, suction valve 160RC11A Alu sealing ring 201x214x1	27.18.311 09.12.201	1 (1)	
<b>ELECTRICALLY OPERATED CAPACITY CONTROL</b>				<b>FIG. RC11-H6</b>
5	Three-way solenoid valve 220HA	*	–	2)
6	Socket head screw M6x10	01.04.310	2	
7	Nipple coupling 6G13	03.38.136	2	
12	Cylinder head screw M4x20	01.68.220	2	

<sup>1)</sup> This subassembly (item 3) and items 4 and (5) can be replaced completely by the subassembly with Ref. No.: 27.19.111 as mentioned in the compressor spare parts list for compressors with serial numbers from 88.01.1500 and over.

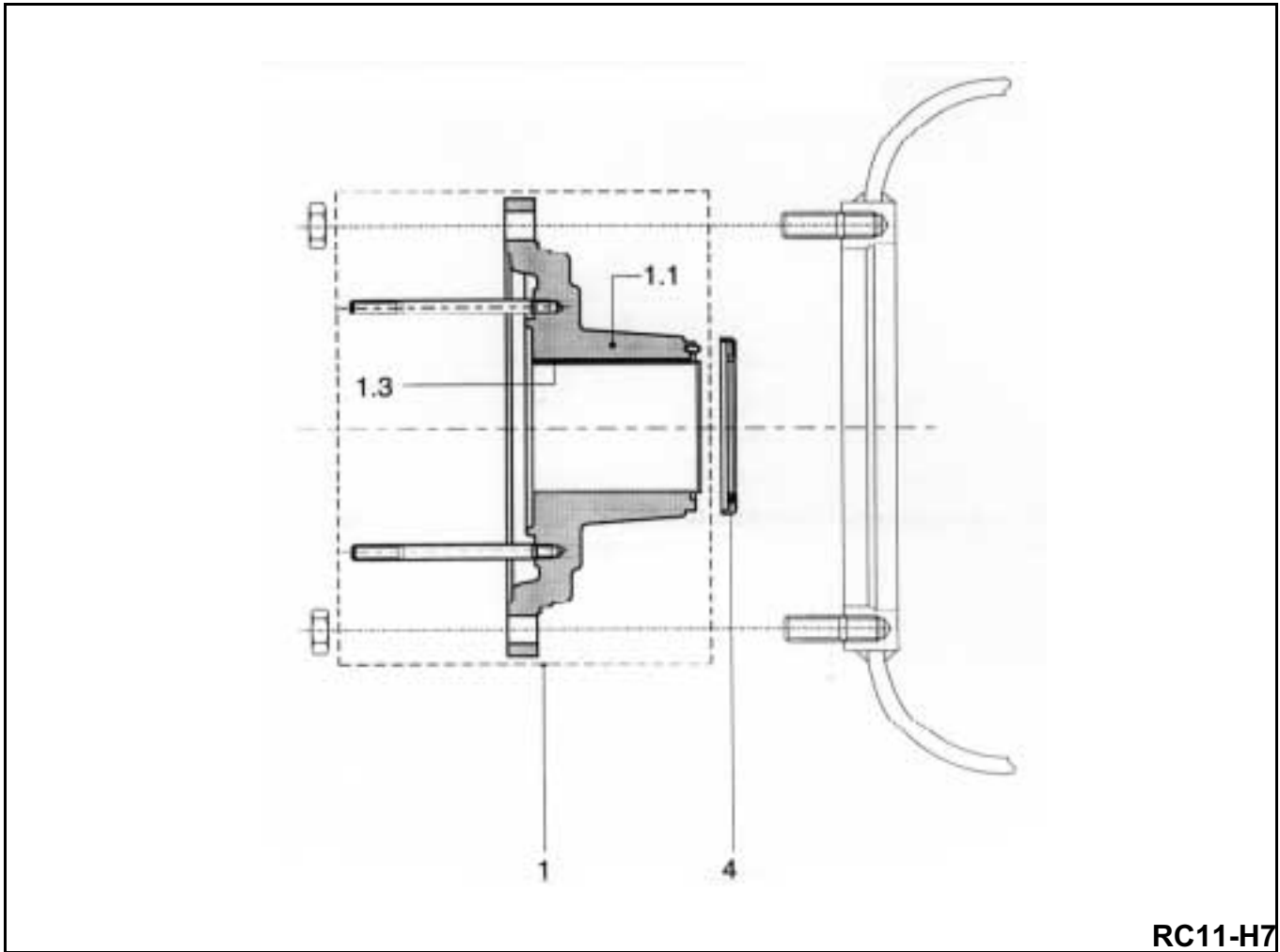
<sup>2)</sup> This valve (item 5) is replaced by the valve with Ref. No.: 06.80.410 as mentioned in the compressor spare parts list for compressors with serial numbers from 90.11.2030 and over.



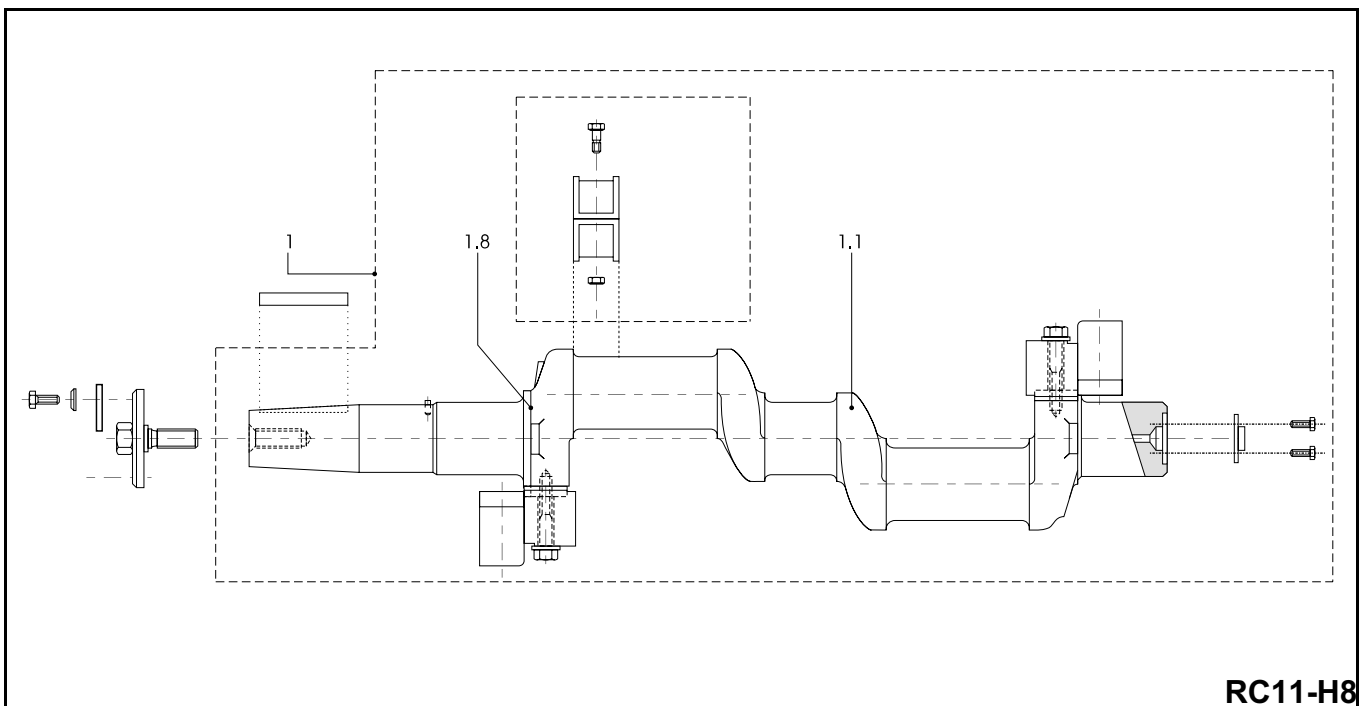
**RC11-H5**



**RC11-H6**



**RC11-H7**



**RC11-H8**

Item	Description	Ref. No.	Qty	Remarks
<b>BEARING COVER</b>				<b>FIG. RC11-H7</b>
1	Bearing cover assembly RC11SA	*	1	Drive side  1)
1.1	Bearing cover RC11A	*	1	
1.3	Bearing bush 90x96x105	11.46.290	1	
4	Bronze thrust ring 96x125x9	11.68.969	1	
<b>CRANKSHAFT</b>				<b>FIG. RC11-H8</b>
1A	Crankshaft E-RC211S	*	1	2)
	ditto K-RC211S (with approval)	*	1	
1B	Crankshaft E-RC311S	*	1	
	ditto K-RC311S (with approval)	*	1	
1C	Crankshaft E-RC411S	*	1	
	ditto K-RC411S (with approval)	*	1	
1D	Crankshaft E-RC611S	*	1	
	ditto K-RC611S (with approval)	*	1	
1E	Crankshaft E-RC911S	*	1	
	ditto K-RC911S (with approval)	*	1	
1F	Crankshaft E-RC1211S	*	1	
	ditto K-RC1211S (with approval)	*	1	
1.8	Steel thrust ring 100x120x8S	*	1	3)

<sup>1)</sup> This subassembly (item 1.1 + 1.3) together with item 4 can be replaced by the modified items as mentioned in the compressor spare parts list for compressors with serial numbers from 93.10.2000 and over.

<sup>2)</sup> These crankshats in combination with item 1.8 can not be used in compressors with a modified thrust bearing construction as mentioned in the compressor spare parts list for compressors with serial numbers from 93.10.2000 and over.

<sup>3)</sup> Contact Grasso Service & Parts dept.









Please contact your office:



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Grasso Products B.V.

P.O. Box 343 • 5201 AH 's-Hertogenbosch • The Netherlands  
Phone: +31 (0)73 - 6203 911 • Fax: +31 (0)73 - 6231 286 • E-Mail: products@grasso.nl

Grasso GmbH  
Refrigeration Technology

Holzhauser Straße - 165 • 13509 Berlin • Germany  
Phone: +49 (0)30 - 43 592 6 • Fax: +49 (0)30 - 43 592 777