

Unit Parts



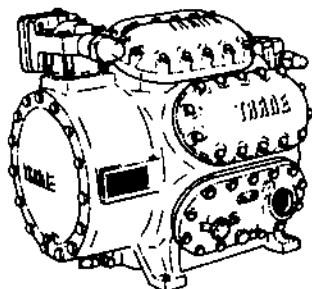
TRANE™

Library	Service Literature
Product Section	Refrigeration
Product	Compressor/Condensing Units
Model	Open E-F
Literature Type	Unit Parts
Sequence	3A
Date	June, 1984
File No.	SV-RF-COM-OCOM-UP-3A-684
Supersedes	OCOM-UP-3 10/79

Ordering No. **OCOM-UP-3A**

Since the Trane Company has a policy of continuous product improvement, it reserves the right to change specifications and design without notice. The installation and servicing of the equipment referred to in this booklet should be done by qualified, experienced technicians.

**LITERATURE CHANGE:
ADDED A NOTE TO SEL-32.
GENERAL UPDATE**



OPEN RECIPROCATING COMPRESSORS

MODEL F, 3 CYLINDER
DESIGN SEQUENCES A, B, C, D AND E

RECOMMENDED SPARE PARTS PER COMPRESSOR

REF. NO.	PART NAME AND DESCRIPTION	PART NO.	NO. REQ.
4	Pump End Bearing Head With Insert -----	BRG-47	1
7	Relief Valve "O" Ring -----	RNG-69	2
8	Oil Relief Valve -----	VAL-138	1
10	Bearing Insert -----	BRG-65	-
14	Thrust Bearing -----	BRG-62	2
16	Crankshaft and Magnetic Plugs -----	CSF-16	-
19	Piston Ring Kit -----	RNG-78	1 Set
21	Piston, Pin and Retaining Rings -----	PST-20	-
22	Connecting Rod -----	ROD-37	1 Set
25	Seal Assembly, Including Ref. No. 26 -----	SEL-32	1
27	Seal End Bearing Head With Insert (Standard Lift Valves) -----	BRG-63	1
27	Seal End Bearing Head With Insert (Low Lift Valves) -----	BRG-71	1
29	Relief Valve -----	VAL-193	1
39A	Retaining Rings -----	RNG-98	1 Set
39B	Valve Plate (Standard Lift Valves) -----	PLT-107	1
39B	Valve Plate (Low Lift Valves) -----	PLT-126	1
39C	Valve Springs -----	SPG-37	1 Set
39D	Suction Valve -----	VAL-194	1
39F	Cylinder Liner -----	LNR-20	1
45	Unloader Assembly -----	UNL-4	1
52C	Discharge Valve -----	VAL-195	1
52D	Discharge Valve Springs -----	SPG-4	1 Set
52G	Valve Cushion -----	CUS-10	1
69	Capacity Control Assembly -----	CNT-4	1
84	Sight Glass Kit (A Design Sequence) -----	KIT-12	1
85	Sight Glass, Fused (B Design Sequence) -----	GLS-30	1
87	Sight Glass, "O" Ring (B Design Sequence) -----	RNG-818	1
119	Oil Filter -----	FLR-6	1
123	Oil Pump -----	PMP-14	1
**	Cylinder "O" Ring Kit -----	KIT-40	1 Set
**	Compressor Gasket and "O" Ring Kit -----	KIT-46	1

FOR FURTHER INFORMATION ON THIS PRODUCT OR OTHER TRANE PRODUCTS, REFER TO THE "TRANE SERVICE LITERATURE CATALOG", ORDERING NUMBER IDX-IOM-1. THIS CATALOG CONTAINS LISTINGS AND PRICES FOR ALL SERVICE LITERATURE SOLD BY TRANE. THE CATALOG MAY BE ORDERED BY SENDING A \$15.00 CHECK TO: THE TRANE COMPANY, SERVICE LITERATURE SALES, 3600 PAMMEL CREEK ROAD, LA CROSSE, WI 54601.

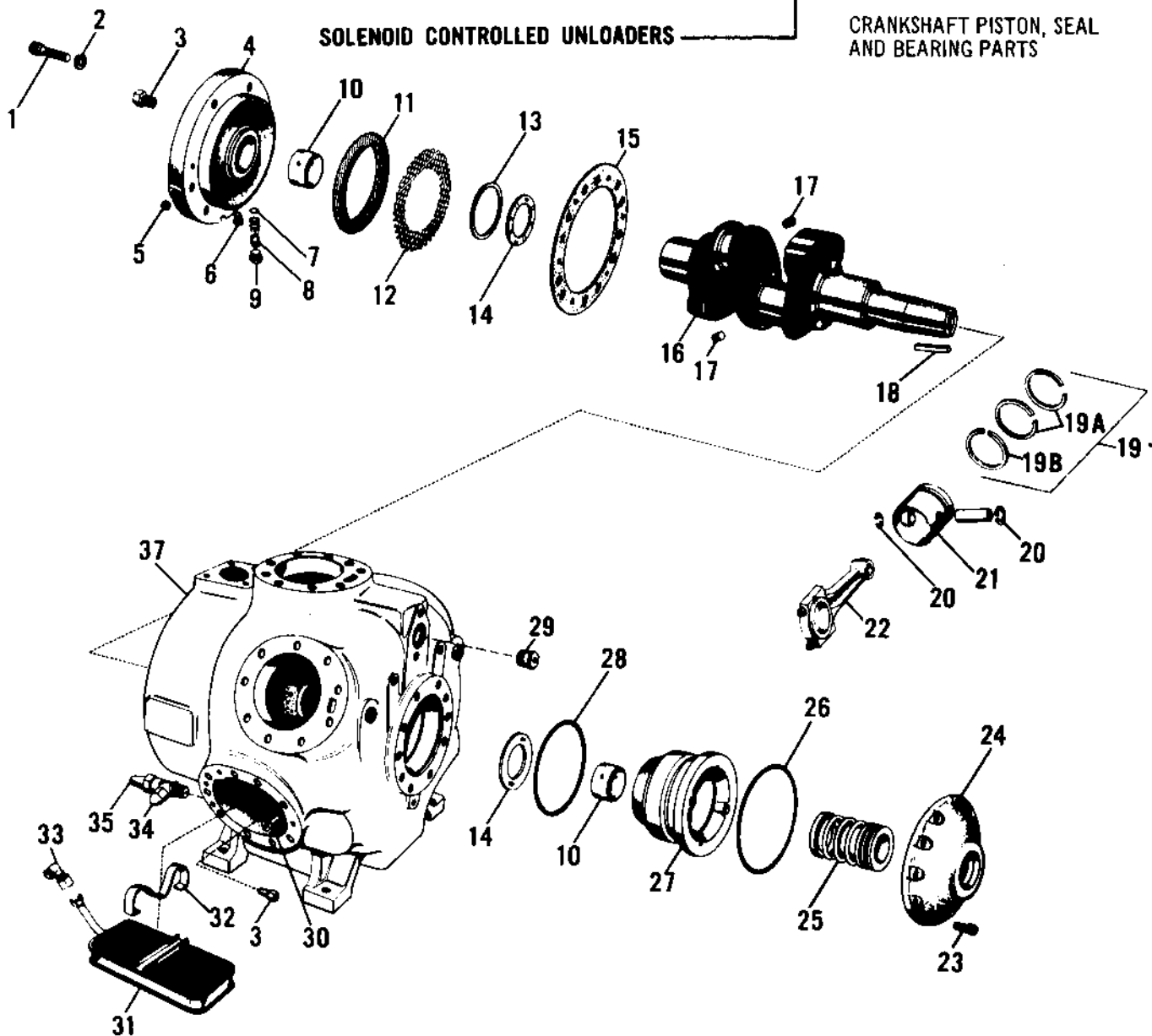
TO HELP ENSURE OPTIMUM PERFORMANCE, BE SURE TO SPECIFY QUALITY TRANE PARTS.

RELIEF VALVE SETTINGS (385 PSI) — 3F-5A30
 BORE (2-3/4") AND STROKE (2") —
 SPEED (1750 RPM) —
 DESIGN SEQUENCE —
 NUMBER CYLINDERS —
 OPEN TYPE COMPRESSOR —

3F-5A30N

SOLENOID CONTROLLED UNLOADERS

CRANKSHAFT PISTON, SEAL
 AND BEARING PARTS



CRANKSHAFT, PISTON, SEAL AND BEARING PARTS

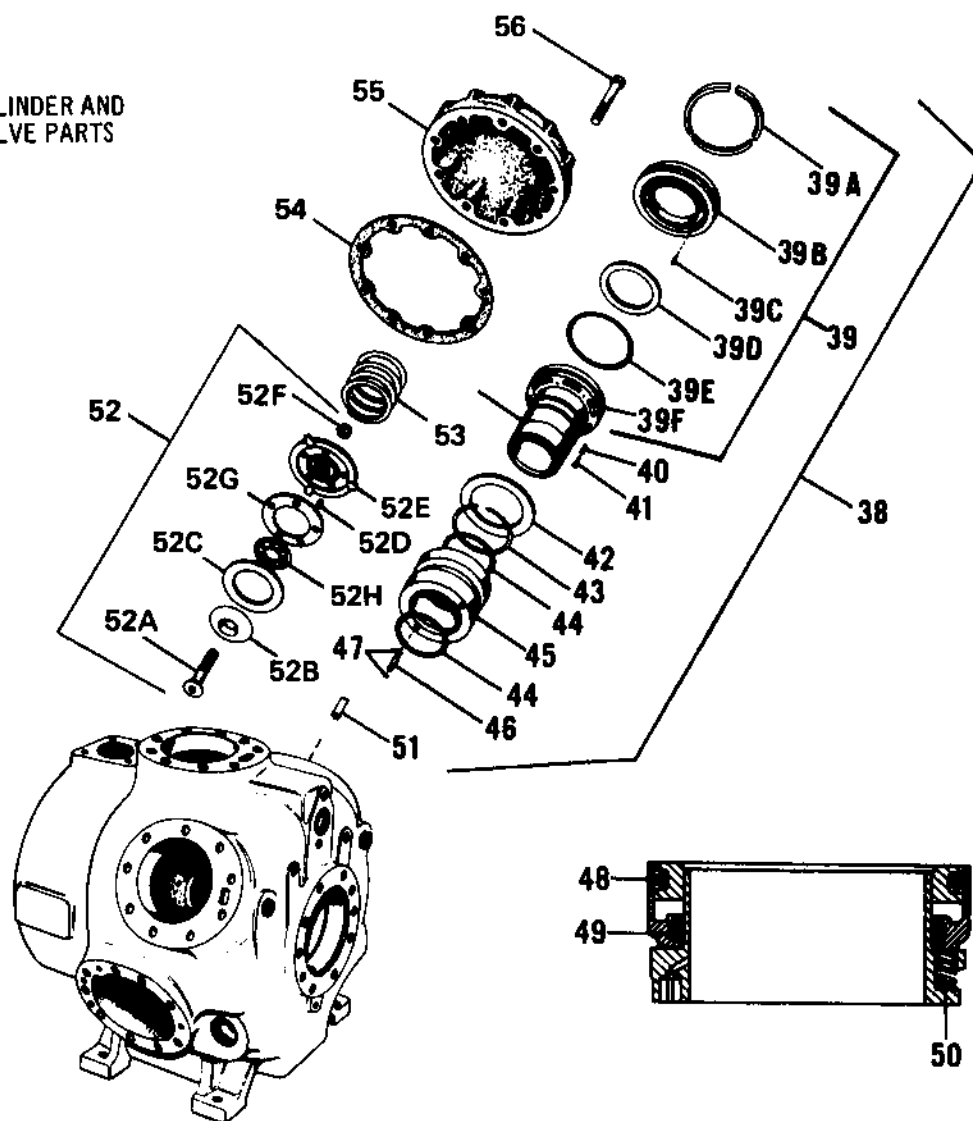
REF. NO.	PART NAME AND DESCRIPTION	PART NO.	NO. REQ.
1	Screw - Cap, 12 Pt. Hd., 3/8-24 x 1-1/2 -----	SCR-40	6
2	Lockwasher, 3/8 -----	WAS-13	6
3	Valve - Oil Check -----	VAL-60	4
4	Bearing Head Assembly, Pump End, Including 1 Ea. Ref. No. 10 --	BRG-47	1
5	Plug - Pipe, Soc. Hd., Magnetic, 1/4 N.P.T. -----	PLU-10	1
6	Plug - Pipe, Hex Hd., 1/4 N.P.T. -----	PLU-37	1
7	"O" Ring, Oil Relief Valve -----	RNG-69	1
8	Valve - Oil Relief -----	VAL-138	1
9	Plug - Oil Relief Valve, Hex Hd., Nylok, 11/16-16 -----	PLU-65	1
10	Bearing Insert -----	BRG-65	2
11	Breaker - Foam -----	BKR-6	1
12	Ring - End -----	RNG-94	1
13	Ring - Retaining -----	RNG-89	1
14	Bearing - Thrust -----	BRG-62	2
15	Shim - Bearing Head, .010" -----	SHM-23	*
15	Shim - Bearing Head, .015" -----	SHM-24	*
16	Crankshaft, Including Magnetic Plugs -----	CSF-16	1
17	Plug - Magnetic, 1/4 MPT -----	PLU-10	2
18	Key - Crankshaft -----	KEY-2	1
19	Piston Ring Kit -----	RNG-78	3
	Consisting of: 2 Ea. Ref. No. 19A, 1 Ea. Ref. No. 19B		
19A	Ring - Compression -----	RNG-95	6
19B	Ring - Oil -----	RNG-96	3
20	Ring - Retaining -----	RNG-97	6
21	Piston, Including Pin and Retaining Rings -----	PST-20	3
22	Rod - Connecting -----	ROD-37	3
23	Screw - Cap, Hex Hd., 7/16-14 x 1-1/2 -----	SCR-160	10
24	Cover - Seal -----	COV-147	1
25	Seal Assembly, Including Ref. No. 26 -----	SEL-32***	1
26	"O" Ring, Seal Cover to Housing -----	RNG-67	1
27	Bearing Head Assembly, Seal End, Including 1 Ea. Ref. No. 10 (Standard Lift Valves) -----	BRG-63	1
27	Bearing Head Assembly, Seal End, Including 1 Ea. Ref. No. 10 (Low Lift Valves) -----	BRG-71	1
28	"O" Ring, Bearing Head Assembly to Housing -----	RNG-65	1
29	Valve - Relief, 385 PSI -----	VAL-193	1
30	Valve - Oil Check -----	VAL-55	2
31	Strainer - Oil -----	SRN-11	1
32	Spring - Retaining -----	SPG-30	1
33	Adapter - Compression Elbow, 1/2 O.D. x 3/8 MPT -----	ADP-57	1
34	Valve - Angle, 3/8 -----	VAL-31	1
35	Nut - Seal, Angle Valve -----	NUT-16	1
37	Housing - Compressor -----	HUS-144**	1

* As Required

** When Ordering New Housing For "A" Design Sequence Compressors
Also Order New "B" Design Sequence Sight Glass Parts - Ref.
No's. 85, 86 and 87.

*** On "A" Design Sequence units when replacing the Seal Assembly (SEL-32)
also replace the Seal Cover with a COV-147.

CYLINDER AND
VALVE PARTS

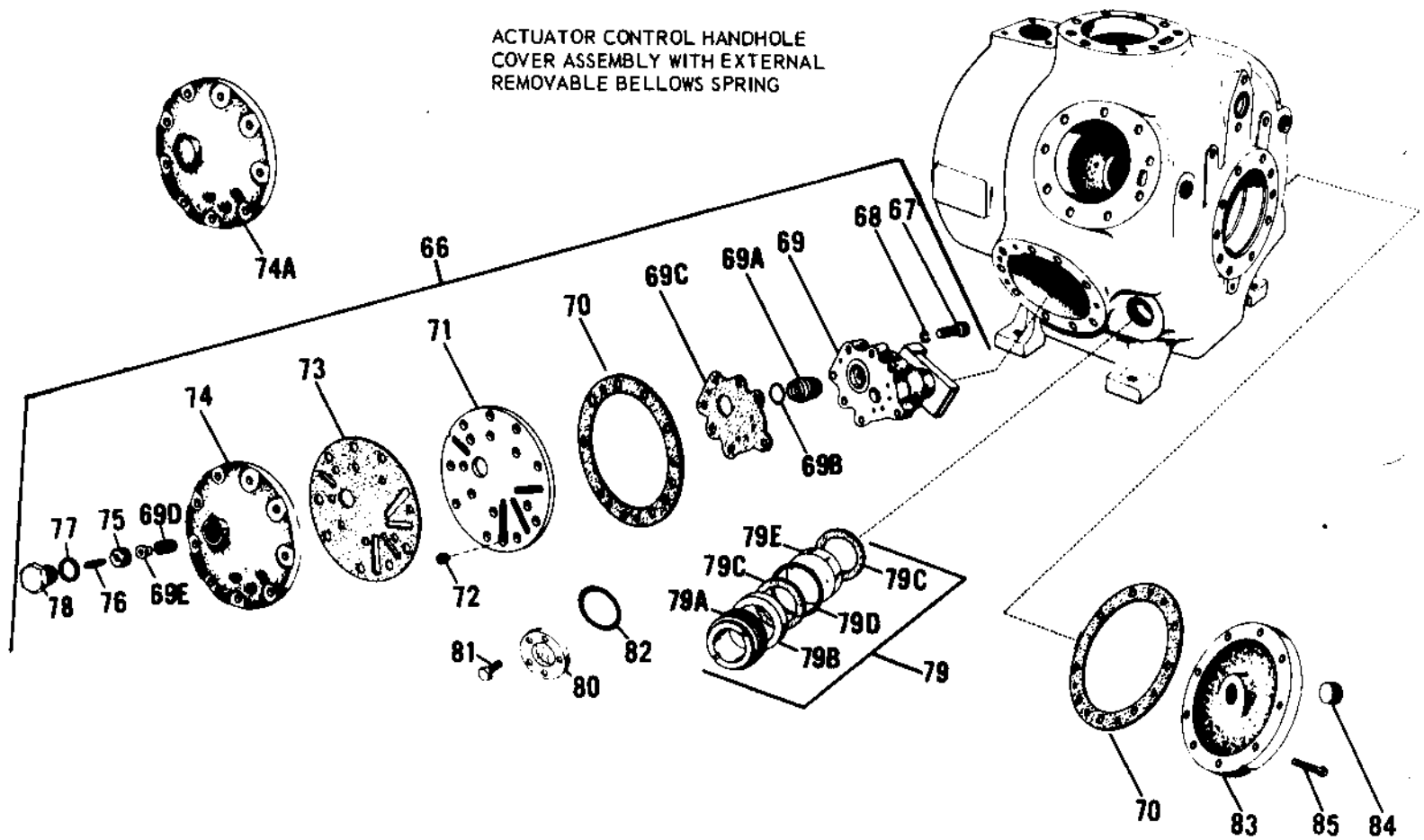


OPEN RECIPROCATING COMPRESSOR - MODEL F - 3 CYLINDER DESIGN SEQUENCE A, B, and D.

REF. NO.	PART NAME AND DESCRIPTION	PART NO.	NO. REQ.
38	Cylinder Assembly With Unloaders (Standard Lift Valve) -----	LNR-25	2
38	Cylinder Assembly With Unloaders (Low Lift Valve) ----- Consisting of Items 39 thru 50:	LNR-31	2
39	Cylinder Assembly Without Unloaders (Standard Lift Valve -----	LNR-26	1
39	Cylinder Assembly Without Unloaders (Low Lift Valve) ----- Consisting of Items 39A thru 39F:	LNR-32	1
39A	Ring - Retaining -----	RNG-98	3
39B	Plate - Valve (Standard Lift Valve)-----	PLT-107	1
39B	Plate - Valve (Low Lift Valve)-----	PLT-126	1
39C	Spring - Valve (Standard Lift Valve)-----	SPG-37	6
39C	Spring - Valve (Low Lift Valve)-----	SPG-37	3
39D	Valve - Suction -----	VAL-194	1
39E	"O" Ring - Valve Plate -----	RNG-98	1
39F	Liner - Cylinder -----	LNR-20	1
40	Spring - Lift Pin -----	SPG-38	1
41	Pin Lift -----	PIN-24	1
42	Ring - Take Up -----	RNG-100	1
43	Ring - Retaining -----	RNG-101	1
44	"O" Ring - Cylinder Liner To Unloader -----	RNG-102	2
45	Unloader Assy. -----	UNL-4	1
46	Connector - Oil -----	CON-1	6
47	"O" Ring - Oil Connector -----	RNG-10	2
48	"O" Ring-Unloader Seal Ring -----	RNG-103	1
49	"O" Ring-Unloader Piston -----	RNG-53	1
50	Spring-Unloader Piston -----	SPG-23	14
51	Pin-Roll, 3/16" x 1" -----	PIN-4	1
52	Discharge Valve Assembly ----- Consisting Of:	VAL-1610	3
52A	Bolt - Valve Cage -----	BLT-64	3
52B	Seat - Discharge Valve -----	SET-7	3
52C	Valve - Discharge -----	VAL-195	3
52D	Spring - Discharge Valve -----	SPG-4	18
52E	Cage - Valve -----	CAG-34	3
52F	Lock Nut - Valve Cage Bolt -----	NUT-72	3
*52G	Cushion - Valve -----	CUS-10	3
*52H	Retainer - Cushion -----	RTR-9	3
53	Spring - Cylinder -----	SPG-39	3
54	Gasket - Cylinder Head -----	GKT-248	3
55	Head - Cylinder -----	HD-18	3
56	Screw - Cap, Hex Hd., 7/16-14 x 2-1/2 -----	SCR-44	27

* RTR-9 and CUS-10 will continue to be available for the previous design discharge valve assembly (VAL-666) on an as needed basis.

ACTUATOR CONTROL HANDHOLE
COVER ASSEMBLY WITH EXTERNAL
REMOVABLE BELLOWS SPRING



REF. NO.	PART NAME AND DESCRIPTION	PART NO.	NO. REQ.
**	Kit - Cylinder "O" Ring ----- Consisting of: "O" Ring - Suction Valve Plate (1 Ea. Ref. No. 39E) ----- "O" Ring - Unloader Seal Ring (1 Ea. Ref. No. 48) ----- "O" Ring - Unloader Piston (1 Ea. Ref. No. 49) ----- "O" Ring - Cylinder Liner (2 Ea. Ref. No. 44) ----- "O" Ring - Oil Connector (2 Ea. Ref. No. 47) -----	KIT-40 RNG-99 RNG-103 RNG-53 RNG-102 RNG-10	3
**	Kit - Compressor Gasket and "O" Ring -----	KIT-46	1++

** Not Illustrated.

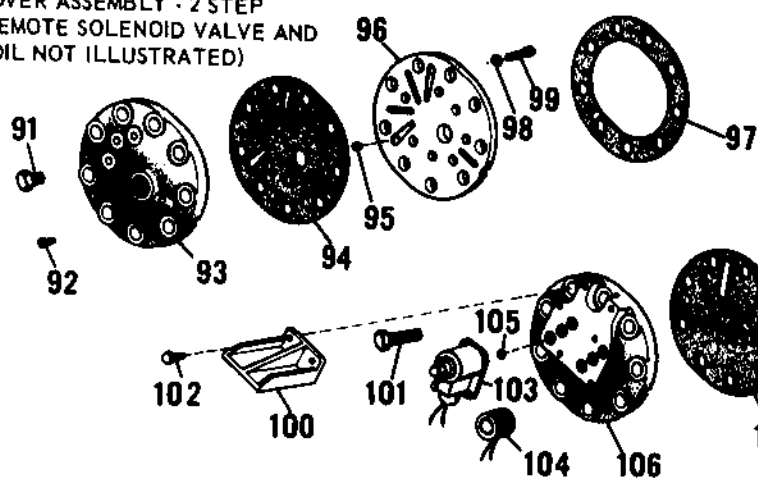
++ Consists of 1 Ea. RNG-69, RNG-67, RNG-65, GKT-30, GKT-251, GKT-14, GKT-12, RNG-61, GKT-24, GKT-250, GKT-29, RNG-58, RNG-818, GKT-280; 2 Ea. GKT-249, GKT-51; 3 Ea. SHM-23, SHM-24, GKT-248; 6 Ea. RNG-38. One KIT-46 & Three KIT-40 Required For Complete Compressor Overhaul.

ACTUATOR CONTROL HANDHOLE COVER ASSEMBLY- EXTERNAL REMOVABLE BELLOWS SPRING

REF. NO.	PART NAME AND DESCRIPTION	PART NO.	NO. REQ.
66	Cover - Suction Handhole, Assembly----- Consisting of:	COV-558	1
67	Screw - Cap, 12 Pt. Hd., 3/8-24 x 1-3/4-----	SCR-46	7
68	Lockwasher, 3/8 -----	WAS-17	7
69	Capacity Control Assembly, Complete, Includes Ref. No's, 69A,B,C,D,E-----	CNT-4	1
69A	Bellows Assembly, Includes Bellows Stop Sleeve-----	BEL-2	1
69B	"O" Ring - Capacity Control -----	RNG-61	1
69C	Gasket-Capacity Control -----	GKT-24	1
69D	Spring - Bellows, Green (For R-22 Units)-----	SPG-42	1
69D	Spring - Bellows, Black (For R-12 Units)-----	SPG-43	1
69E	Seat - Spring-----	SET-9	1
70	Gasket - Handhole Cover -----	GKT-249	2
71	Plate - Distributor -----	PLT-108	1
72	Screen - Strainer-----	SRN-12	1
73	Gasket - Distributor -----	GKT-250	1
74	Cover - Control Handhole-----	COV-178	1
74A	Cover - Control Handhole-----	See Note 1	1
75	Screw (See Note 2)-----	SCR-210	1
76	Screw - Bellows Adjusting-----	SCR-47	1
77	Gasket - Bellows Adjusting Screw -----	GKT-29	1
78	Plug - Bellows Adjusting Screw -----	PLU-13	1
79	Kit - Sight Glass Assembly, Complete (A Design Sequence Units) Consisting of:		
79A	Nut-----	NUT-62	1
79B	Bushing-----	BUS-28	1
79C	Gasket-----	GKT-51	2
79D	"O" Ring-----	RNG-58	1
79E	Sight Glass -----	GLS-4	1
80	Glass-Sight, Fused (B & D Design Sequence Units)-----	GLS-30	1
81	Screw - Cap, Hex Hd., 1/4-20 x 5/8 (B & D Design Sequence Units)	SCR-38	3
82	"O" Ring - Sight Glass (B & D Design Sequence Units)-----	RNG-818	1
83	Cover - Handhole-----	COV-149	1
84	Plug - Pipe, CTSK, 3/4-14 NPT-----	PLU-28	1
85	Screw - Hex Hd. Cap, 7/16-14 x 1-3/4 -----	SCR-67	18

NOTE 1: The cover for units with internal removable bellows spring is obsolete. For replacement, order Reference Numbers 69B, 69C, 70, 73, 74A, 75 and 77.

CAPACITY CONTROL HANDHOLE
COVER ASSEMBLY - 2 STEP
(REMOTE SOLENOID VALVE AND
COIL NOT ILLUSTRATED)



CAPACITY CONTROL HANDHOLE
COVER ASSEMBLY - 3 STEP

CAPACITY CONTROL HANDHOLE COVER ASSEMBLY - 2 STEP

REF. NO.	PART NAME AND DESCRIPTION	PART NO.	NO. REQ.
91	Plug - Pipe, Hex Hd., 1/8 NPT -----	PLU-20	3
92	Screw - Hex Hd. Cap, 7/16-14 x 1-3/4 -----	SCR-67	9
93	Cover - Control Handhole -----	COV-682	1
94	Gasket - Distributor -----	GKT-250	1
95	Screen - Strainer -----	SRN-12	1
96	Plate - Distributor -----	PLT-110	1
97	Gasket - Handhole Cover -----	GKT-249	1
98	Lockwasher, 3/8 -----	WAS-17	7
99	Screw - Cap, 12 Pt. Hd., 3/8-24 x 1 -----	SCR-168	7
	Valve-Remote, Solenoid, 3-Way, ASCO No. CX-8320A15T, 110-220/50-60 (Including Mounting Bracket) -----	VAL-545	1
*	Coil-Remote Solenoid Valve, 110-120/50-60 ASCO No. 96-619-1D (Use With ASCO Valve No. CX-8320A15T) -----	COL-1232	1
*	Coil-Remote Solenoid Valve, 115/60, ASCO No. 27-462-1D (Use With ASCO Valve No. TX8314A32) -----	COL-79	1
	Valve-Remote Solenoid, 3-Way, ASCO No. CX-8320A15T, 220-240/50-60 (Including Mounting Bracket) -----	VAL-543	1
*	Coil-Remote Solenoid Valve, 220-240/50-60 ASCO No. 96-619-2D (Use With ASCO Valve No. CX-8320A15T) -----	COL-1233	1
*	Coil-Remote Solenoid Valve, 230/60 ASCO No. 27-462-2 (Use With ASCO Valve No. TX8314A32) -----	C-38	1
	* The ASCO Number and Voltage From Valve On Unit Must Be Known To Order Correct Replacement Coil. They Are Not Interchange- able.		

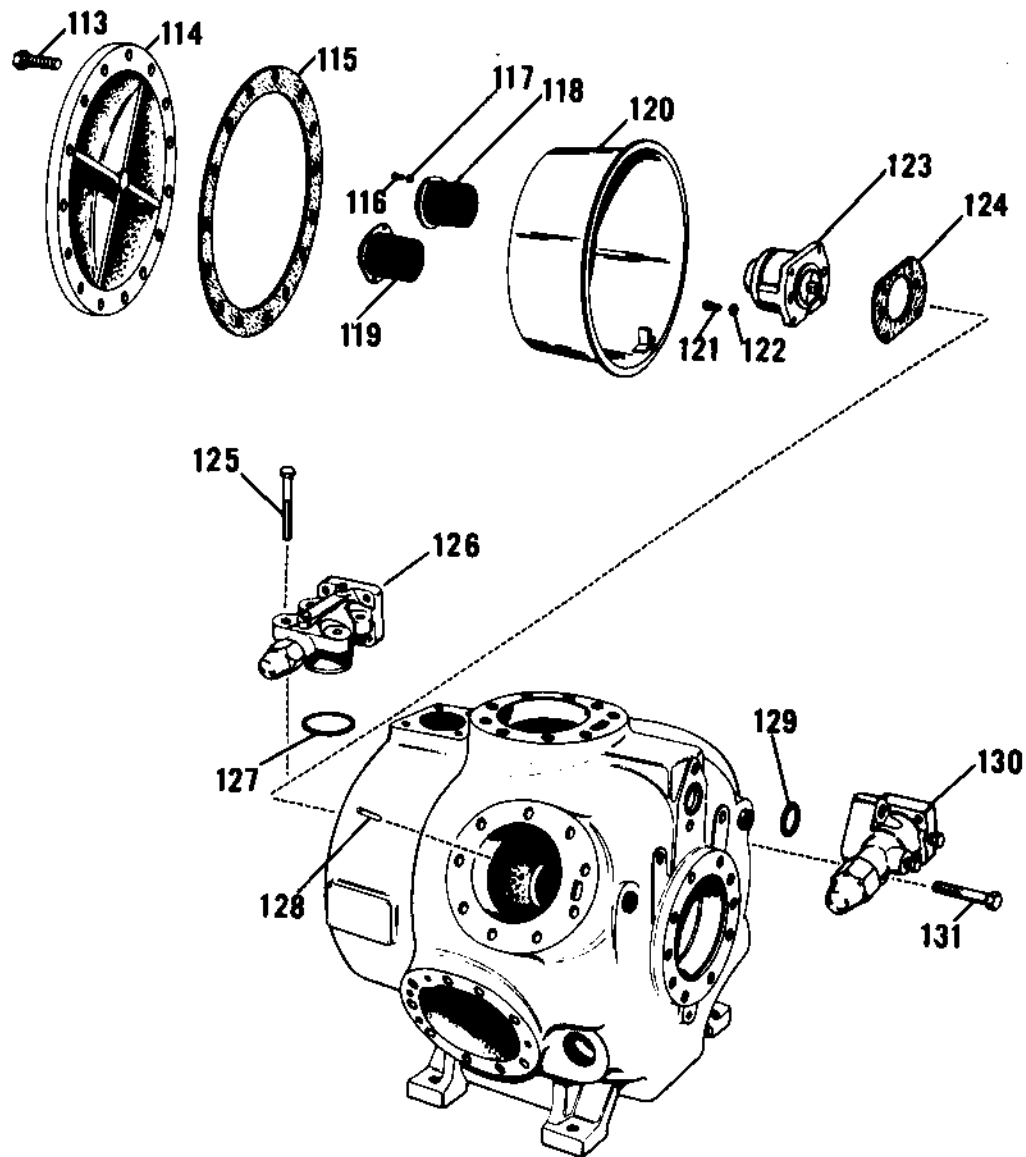
CAPACITY CONTROL HANDHOLE COVER ASSEMBLY - 3 STEP

100	Guard Plate -----	GRD-38	1
101	Screw - Cap, Hex Hd., 7/16-14 x 1-3/4 -----	SCR-67	9
102	Screw - Cap, Hex Hd., 5/16-18 x 7/8 -----	SCR-31	2
103	Valve - Solenoid, 3-Way, 230 Volt, 50-60 Cycle, Asco No. CLBX8351B14 -----	VAL-669	2
103	Valve - Solenoid, 3-Way, 115 Volt, 50-60 Cycle, Asco No. CLBX8351B14 -----	VAL-670	2
104	Coil - Solenoid Valve, Asco No. 64-982-5, 230 Volt, 50-60 Cycle (Use With Asco Valve No. 831551, 230 Volt) -----	COL-65**	2
104	Coil-Solenoid Valve, Asco No. 64-982-4, 115 Volt, 50-60 Cycle, (Use With ASCO Valve No. 831551, 115 Volt)-----	COL-72**	2
104	Coil - Solenoid Valve, Asco No. 99-216-2D, 230 Volt, 50-60 Cycle (Use With Asco Valve No. CLBX8351B14, 230 Volt)--	COL-825**	2
104	Coil - Solenoid Valve, Asco No. 99-216-1D, 115 Volt, 50-60 Cycle (Use With Asco Valve No. CLBX8351B14, 115 Volt)--	COL-824**	2
104	Coil-Solenoid, Product Engineer for use on VAL-669, 230 volt, 50/60 cycle-----	COL-2544	3
104	Coil-Solenoid, Product Engineer for use on VAL-670, 115 volt, 50/60 cycle-----	COL-2545	3
105	"O" Ring - Solenoid Valve Mounting -----	RNG-38	6
106	Cover - Control Handhole -----	COV-696	1
107	Gasket - Distributor -----	GKT-280	1
108	Screen - Strainer -----	SRN-12	1
109	Plate - Distributor -----	PLT-127	1
110	Lockwasher, 3/8 -----	WAS-17	2
111	Screw - Cap, 12 Pt. Hd., 3/8-24 x 1-3/4 -----	SCR-46	2
112	Gasket - Handhole Cover -----	GKT-249	1

* Parts Not Illustrated.

NOTE 2 - For Units With External Removable Bellows Spring.

** The Asco Number and Voltage From Valve On Compressor Must Be Known To Order Correct Replacement Coil. They Are Not Interchangeable.



OIL PUMP AND SERVICE VALVE ASSEMBLY PARTS

REF. NO.	PART NAME AND DESCRIPTION	PART NO.	NO. REQ.
113	Screw - Cap, Hex Hd., 1/2-13 x 1-1/2 -----	SCR-2	15
114	Cover - Suction -----	COV-6	1
115	Gasket - Suction Cover -----	GKT-30	1
116	Screw - Round Hd., No. 10-32 x 3/8 -----	SCR-64	10
117	Lockwasher - Steel, No. 10 -----	WAS-18	10
118	Screen - Suction Strainer -----	SRN-3	2
119	Filter - Oil -----	FLR-6	1
120	Pan - Suction Strainer -----	PAN-3	1
121	Screw - Cap, 12 Pt. Hd., 5/16-24 x 3/4 -----	SCR-167	4
122	Lockwasher, 5/16 -----	WAS-14	4
123	Pump - Oil -----	PMP-14	1
124	Gasket - Oil Pump -----	GKT-251	1
125	Screw - Hex Hd., 1/2-13 x 3-1/4 -----	SCR-13	4
126	Valve - Suction Service, 1-5/8 O.D.S. -----	VAL-8+	1
127	Gasket - Suction Service Valve -----	GKT-14	1
128	Pin - Roll, 3/16 x 1 -----	PIN-4	2
129	Gasket - Discharge Service Valve -----	GKT-12	1
130	Valve - Discharge Service, 1-1/8 O.D.S. -----	VAL-59+	1
131	Screw - Cap, Hex Hd., 1/2-13 x 2 -----	SCR-11	2

+ Only Valve Assemblies Are Available From Trane.
 Component Parts Must Be Obtained From Local
 Distributors.