



***Parts Manual for
QR-25® Series Compressor***

Model 390

Record of Change 103

50219-103

October 2, 1989

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INTRODUCTION

This manual covers the following model 390, record of changes 102 & 103, versions:

390P (Control version P: plain head assembly & no controls)

390L (Control version L: head assy. with 2 unloader towers & a hydraulic unloader)

390S (Control version S: head assy. with 2 unloader towers & a pilot valve)

390LS (Control version LS: head assy. with 2 unloader towers, a hydraulic unloader, & a pilot valve with a check valve assembly)

390LVD (Control version LVD: head assy. with 2 unloader towers, a hydraulic unloader & a pilot valve with lockout & check valve assembly)

Variations within these models are:

Models *with or without spin-on oil filter

Models with optional hooded air filter

Models with optional hooded air filter/silencer

*standard

General Specifications:

Aircooled / Two Stage / Pressure Lubricated / Two Cylinder

7-1/2" low pressure bore x 4" high pressure bore x 4" stroke

400-900 R.P.M. / up to **250 P.S.I.

**Pressure capability with proper controls

Overall changes from previous record of change 101:

Record of change 102 involved the changing of piston rings in the piston group.

Record of change 103 involved the changing of control group components (pilot valves & check valve).

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SERIAL NUMBER IDENTIFICATION

The serial number identification tag is located on the handhole plate on the side of the crankcase.

MODEL		Record of Change No.
SERIAL NO.		
SIZE		
Colt Industries		
110831		
Quincy Compressor Division		

ORDERING REPLACEMENT PARTS

Prompt service can be rendered on repair parts orders if the following information is given:

1. The model number, record of change number, & serial number must be given when ordering replacement parts.
2. State the exact part number needed. Do not order by index numbers, as index numbers are repeated throughout this manual, and if used for ordering replacement parts, will necessitate time consuming correspondence.
3. State the exact quantity needed.
4. State the preferred type of transportation.

ALL REPLACEMENT PARTS ARE TO BE ORDERED THROUGH AN AUTHORIZED DISTRIBUTOR.
INSIST ON GENUINE QUINCY PARTS ONLY! FAILURE TO DO SO MAY VOID WARRANTY

CAUTION !

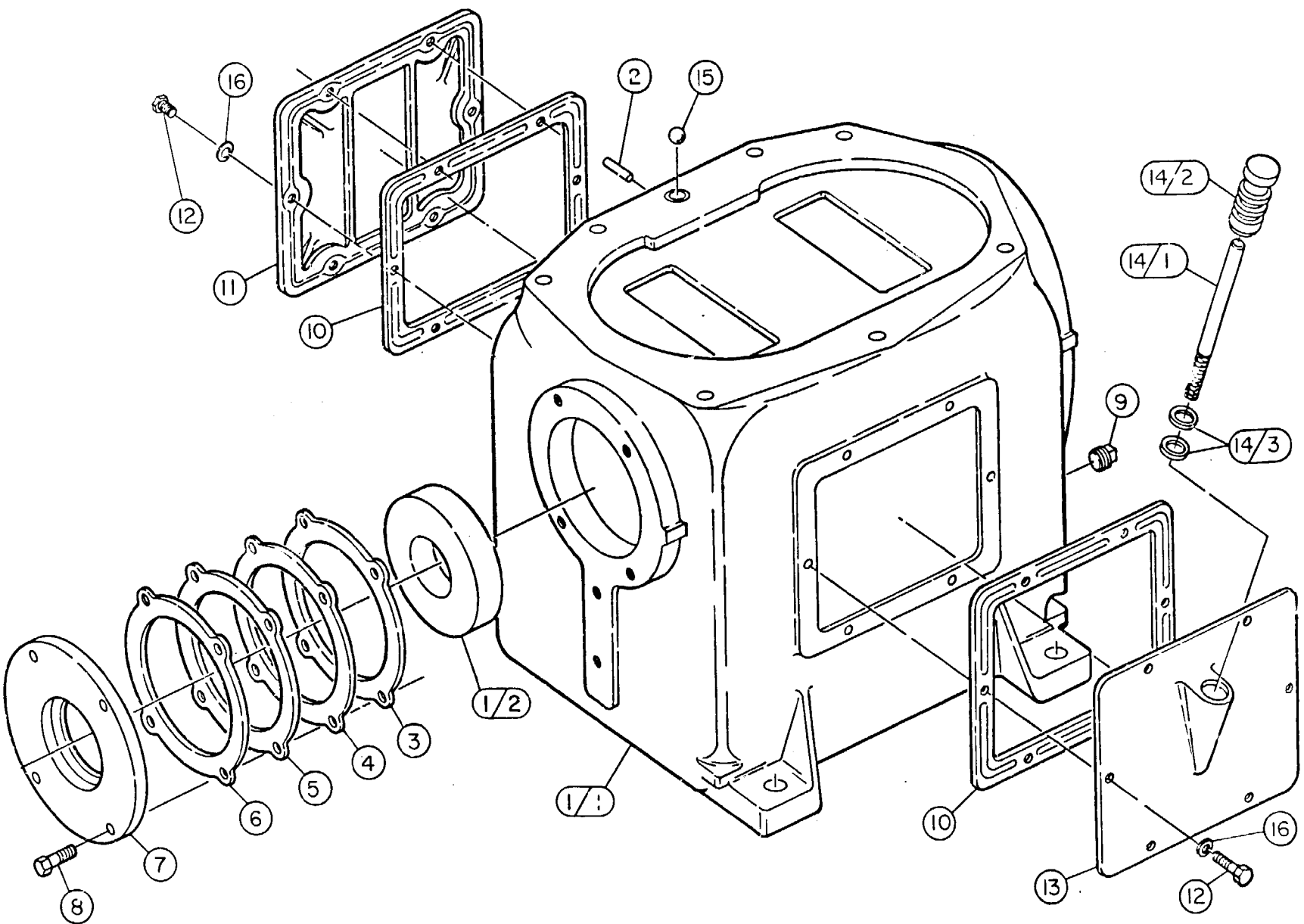
*Follow all safety precautions outlined
in the QR 25 instruction manual.*

WARNING !

*Do not operate this compressor without a totally enclosed
belt guard or any other required safety equipment.*



*Air from this compressor will cause severe injury or death if used for
breathing or food processing. Air for these processes must meet
OSHA 29 CFR 1910 or FDA 21 CFR 178.3570 regulations.*



CRANKCASE GROUP 110650

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	6946X	CRANKCASE ASSEMBLY
1/1	1	6946	CRANKCASE
1/2	1	4357	CUP-BEARING
2	1	5932	PIN-DRIVE
3	*	1498	SHIM-BEARING,.005
4	*	1498A	SHIM-BEARING,.007
5	*	1498B	SHIM-BEARING,.020
6	*	1498C	SHIM-BEARING,.002
7	1	6643	PLATE-ADJUSTMENT (.002/.0035 CRANKSHAFT END PLAY)
8	4	123478-N14	SCREW-HEX.,1/2-13 UNC X 1.25,GRADE 5 (@ 75FT.-LBS.)
9	1	2057	PLUG-PIPE,1/2 NPT
10	2	1315	GASKET-INSPECTION PLATE
11	1	1249	PLATE-INSPECTION
12	12	123478-K10	SCREW-HEX.,5/16-18 UNC X .75,GRADE 5 (@ 12FT.-LBS.)
13	1	6849	PLATE-INSPECTION
14	1	6726X001	OIL GAUGE ASSEMBLY
14/1	1	5488-001	ROD-OIL GAUGE (NOT SOLD SEPARATELY;ORDER 6726X001)
14/2	1	6726	KNOB-OIL GAUGE (NOT SOLD SEPARATELY;ORDER 6726X001)
14/3	2	123157-210	"O"RING-1/8 WIDE X 1.00 O.D.
15	1	5783	BALL-BREATHER
16	12	110428N031	FLATWASHER-5/16

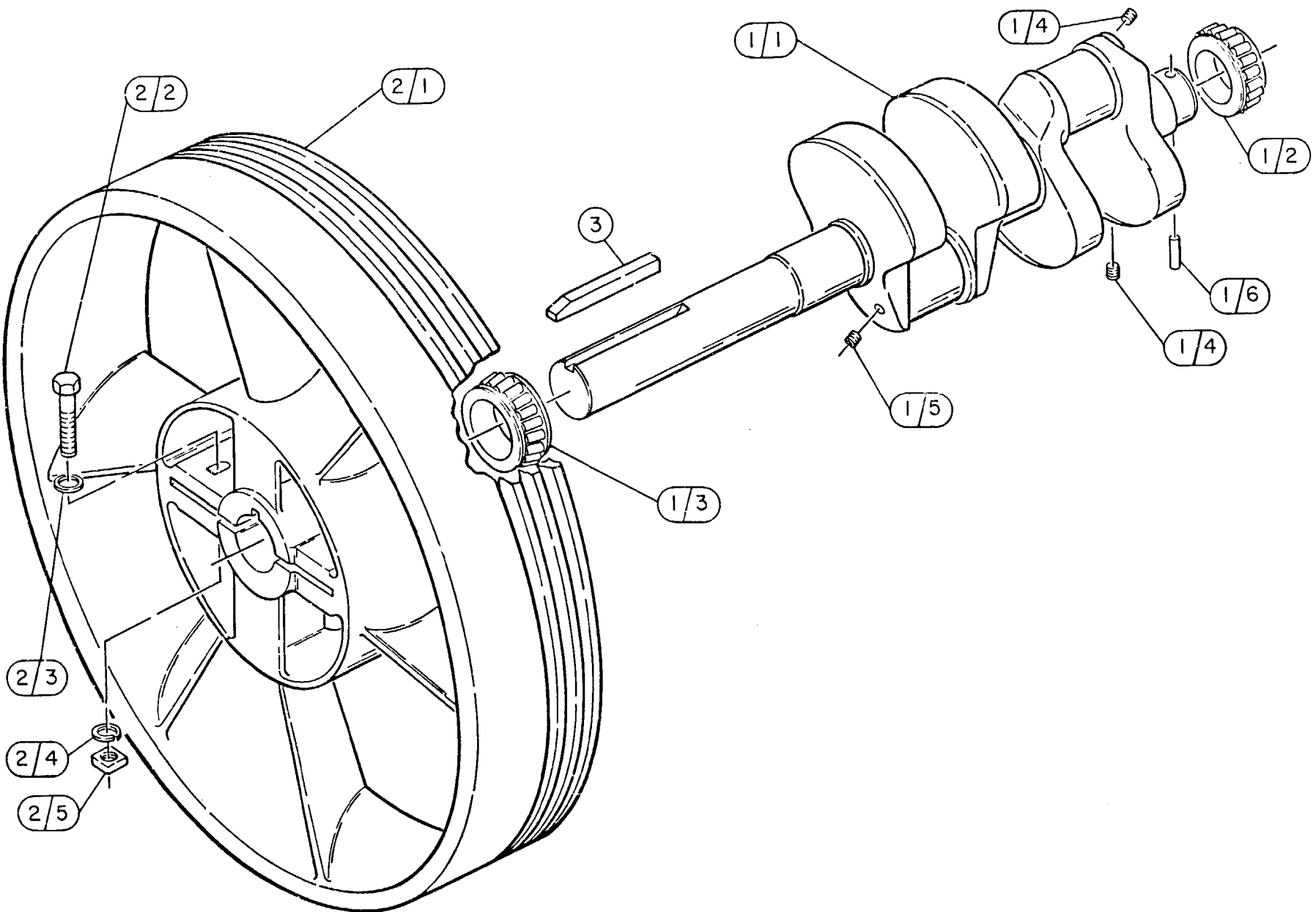
PARTS FOR SPECIAL APPLICATIONS

(For use with diester or phosphate ester synthetic lubricants)

14/3	2	22749-210	"O"RING-1/8 WIDE X 1.00 O.D.
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* Quantity as required

@ Indicates torque value in foot pounds (dry threads)



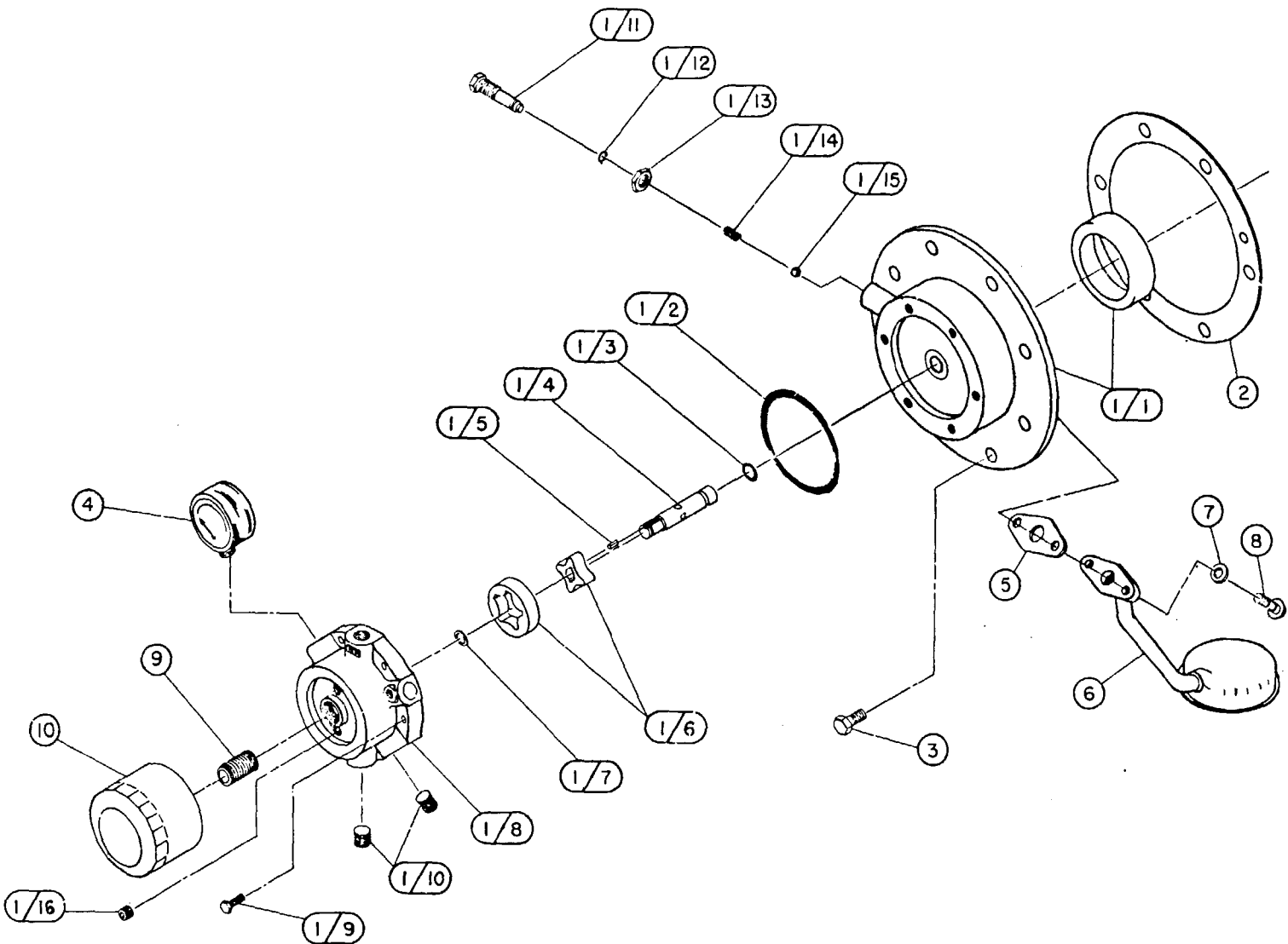
CRANKSHAFT GROUP 110651

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	110225-002	CRANKSHAFT ASSEMBLY
1/1	1	110224-002	CRANKSHAFT (NOT SOLD SEPARATELY;ORDER 110225-002)
1/2	1	3776	CONE-BEARING
1/3	1	6651	CONE-BEARING
1/4	2	2755S	PLUG-PIPE,1/8 NPT
1/5	1	110234	ORIFICE-PIPE PLUG,1/8 NPT
1/6	1	110705-F17	PIN-ROLL,3/16 X 1.38
2	1	110557X	SHEAVE ASSEMBLY
2/1	1	110557	SHEAVE-COMPRESSOR,23-1/2",3G,B SECT,CCW (NOT SOLD SEPA- RATELY;ORDER 110557X)
2/2	2	124571-Q21	SCREW-HEX.,5/8-18 UNF X 3.00,GRADE 5
2/3	2	110428W062	FLATWASHER-5/8
2/4	2	123115-10C	LOCKWASHER-5/8
2/5	2	1883	NUT-SQUARE,5/8-18 UNF
3	1	2851	KEY-PULLEY

@ Indicates torque value in foot pounds (dry threads)

For reversal of compressor rotation refer to QR-25 instruction manual.

BEARING CARRIER GROUP 110818-001
(with oil filter)



BEARING CARRIER GROUP 110818-001

(with oil filter)

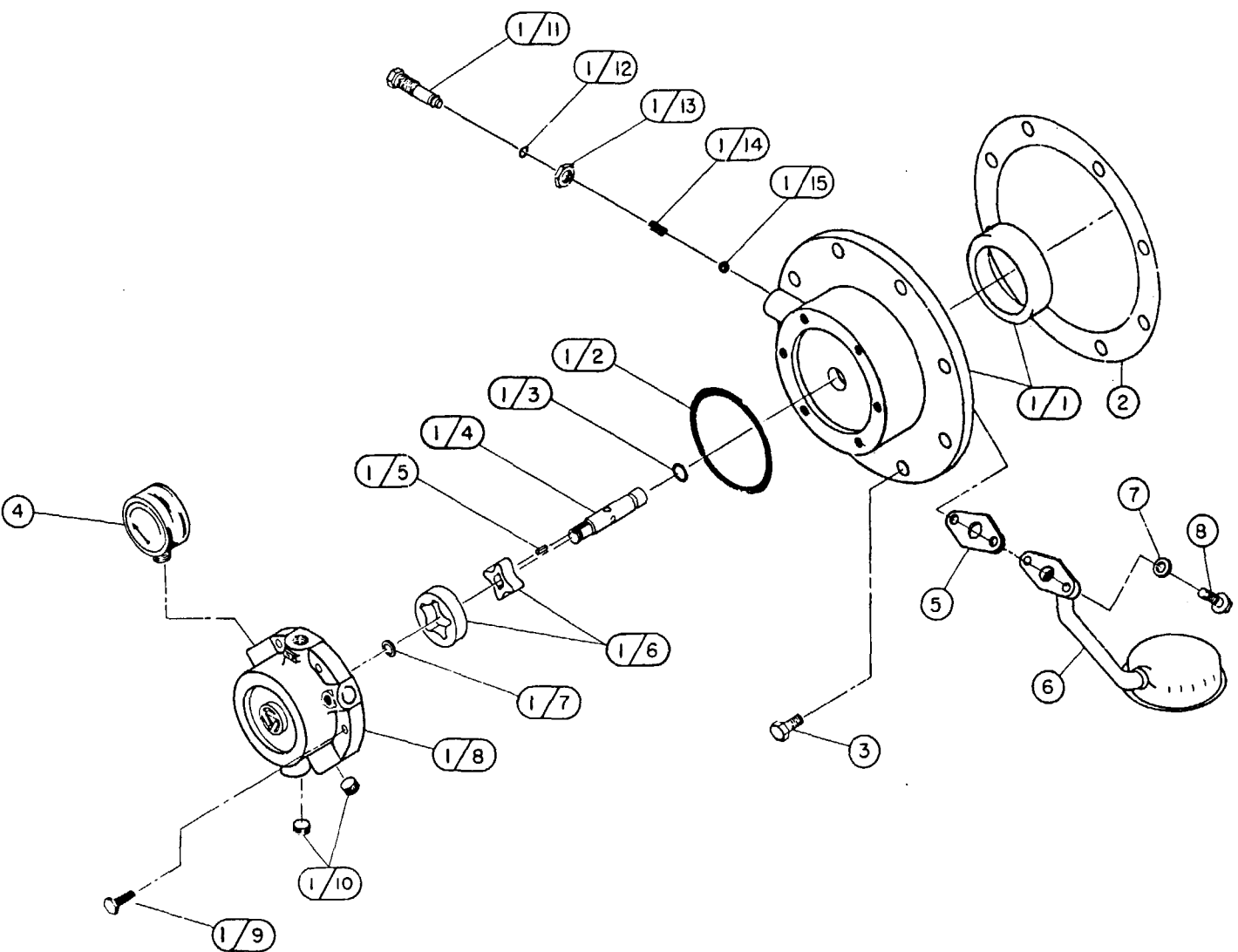
ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	110811-003	BEARING CARRIER ASSEMBLY
1/1	1	110811	BEARING CARRIER
			INCLUDES:
	1	3720	CUP-BEARING
	2	160005	BUSHING-BRONZE
1/2	1	123157-152	"O"RING-3/32 WIDE X 3.44 O.D. (OIL PUMP COVER PLATE)
1/3	1	123157-112	"O"RING-3/32 WIDE X .69 O.D. (BAYONET OIL GAUGE)
1/4	1	160002-001	DRIVESHAFT-BEARING CARRIER
1/5	1	160075-001	KEY-DRIVESHAFT
1/6	1	160003	GEROTOR-PUMP
1/7	1	6285	RING-RETAINING
1/8	1	110813-001	HOUSING-OIL PUMP
1/9	6	160077-J14	SCREW-HEX., 1/4-20 UNC X 1.25, W/TOOTH WASHER (@ 6 FT.-LBS.)
1/10	2	2719	PLUG-PIPE, 1/4 NPT
1/11	1	5489	SCREW-ADJUSTMENT
1/12	1	123157-011	"O"RING-1/16 WIDE X .44 O.D. (OIL PRESSURE ADJUSTMENT SCREW)
1/13	1	124369-P02	JAMNUT-9/16-18 UNF
1/14	1	1160	SPRING
1/15	1	1281	BALL
1/16	1	121160	PLUG-PIPE, 1/8 NPT
2	1	5494	GASKET-BEARING CARRIER
3	8	123478-N14	SCREW-HEX., 1/2-13 UNC X 1.25, GRADE 5 (@ 75 FT.-LBS)
4	1	110822	GAUGE-PRESSURE
5	1	6679	GASKET-OIL INLET BRACKET
6	1	110660	TUBE-OIL PICKUP
7	2	123115-06C	LOCKWASHER-3/8
8	2	123478-L11	SCREW-HEX., 3/8-16 UNC X .88, GRADE 5 (@ 45 FT.-LBS.)
9	1	110825	STUD-OIL FILTER
MAINTENANCE PARTS			
10	* 1	110814-001	6 PACK-OIL FILTER ELEMENTS
		160079	REPAIR KIT-OIL PUMP
			INCLUDES:
	1	123157-152	"O"RING-3/32 WIDE X 3.44 O.D. (OIL PUMP COVER PLATE)
	1	123157-112	"O"RING-3/32 WIDE X .69 O.D. (BAYONET OIL GAUGE)
	1	160002-001	DRIVESHAFT-BEARING CARRIER
	1	160075-001	KEY-DRIVESHAFT
	1	160003	GEROTOR-PUMP
	1	6285	RING-RETAINING
	1	123157-011	"O"RING-1/16 WIDE X .44 O.D. (OIL PRESSURE ADJUSTMENT SCREW)
		110811X003	REPLACEMENT BEARING CARRIER ASSEMBLY
			INCLUDES:
	1	110811-003	BEARING CARRIER ASSEMBLY
	1	110814	OIL-FILTER
	1	110825	STUD-OIL FILTER
	1	5494	GASKET-BEARING CARRIER
	1	6679	GASKET-OIL INLET BRACKET

@ Indicates torque value in foot pounds (dry threads)

* Can not be used with diester or phosphate ester synthetic lubricants.

Note: Tighten all bolts & capscrews in any bolt pattern evenly bringing each bolt to torque in even increments while moving about the bolt pattern. This is particularly true of connecting rod & head bolts.

BEARING CARRIER GROUP 110818
(less oil filter)



BEARING CARRIER GROUP 110818

(less oil filter)

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	110811-002	BEARING CARRIER ASSEMBLY
1/1	1	110811	BEARING CARRIER
			INCLUDES:
	1	3720	CUP-BEARING
	2	160005	BUSHING-BRONZE
1/2	1	123157-152	"O"RING-3/32 WIDE X 3.44 O.D. (OIL PUMP COVER PLATE)
1/3	1	123157-112	"O"RING-3/32 WIDE X .69 O.D. (BAYONET OIL GAUGE)
1/4	1	160002-001	DRIVESHAFT-BEARING CARRIER
1/5	1	160075-001	KEY-DRIVESHAFT
1/6	1	160003	GEROTOR-PUMP
1/7	1	6285	RING-RETAINING
1/8	1	110813	HOUSING-OIL PUMP
1/9	6	160077-J14	SCREW-HEX., 1/4-20 UNC X 1.25, W/TOOTH WASHER (6 FT.-LBS.)
1/10	2	2719	PLUG-PIPE, 1/4 NPT
1/11	1	5489	SCREW-ADJUSTMENT
1/12	1	123157-011	"O"RING-1/16 WIDE X .44 O.D. (OIL PRESSURE ADJUSTMENT SCREW)
1/13	1	124369-P02	JAMNUT-9/16-18 UNF
1/14	1	1160	SPRING
1/15	1	1281	BALL
2	1	5494	GASKET-BEARING CARRIER
3	8	123478-N14	SCREW-HEX., 1/2-13 UNC X 1.25, GRADE 5 (@ 75 FT.-LBS.)
4	1	110822	GAUGE-PRESSURE
5	1	6679	GASKET-OIL INLET BRACKET
6	1	110660	TUBE-OIL PICKUP
7	2	123115-06C	LOCKWASHER-3/8
8	2	123478-L11	SCREW-HEX., 3/8-16 UNC X .88, GRADE 5 (@ 45 FT.-LBS.)

MAINTENANCE PARTS

160079

REPAIR KIT-OIL PUMP

INCLUDES:

1	123157-152	"O"RING-3/32 WIDE X 3.44 O.D. (OIL PUMP COVER PLATE)
1	123157-112	"O"RING-3/32 WIDE X .69 O.D. (BAYONET OIL GAUGE)
1	160002-001	DRIVESHAFT-BEARING CARRIER
1	160075-001	KEY-DRIVESHAFT
1	160003	GEROTOR-PUMP
1	6285	RING-RETAINING
1	123157-011	"O"RING-1/16 WIDE X .44 O.D. (OIL PRESSURE ADJUSTMENT SCREW)
	110811X002	REPLACEMENT BEARING CARRIER ASSEMBLY
		INCLUDES:
1	110811-002	BEARING CARRIER ASSEMBLY
1	5494	GASKET-BEARING CARRIER
1	6679	GASKET-OIL INLET BRACKET

PARTS FOR SPECIAL APPLICATIONS

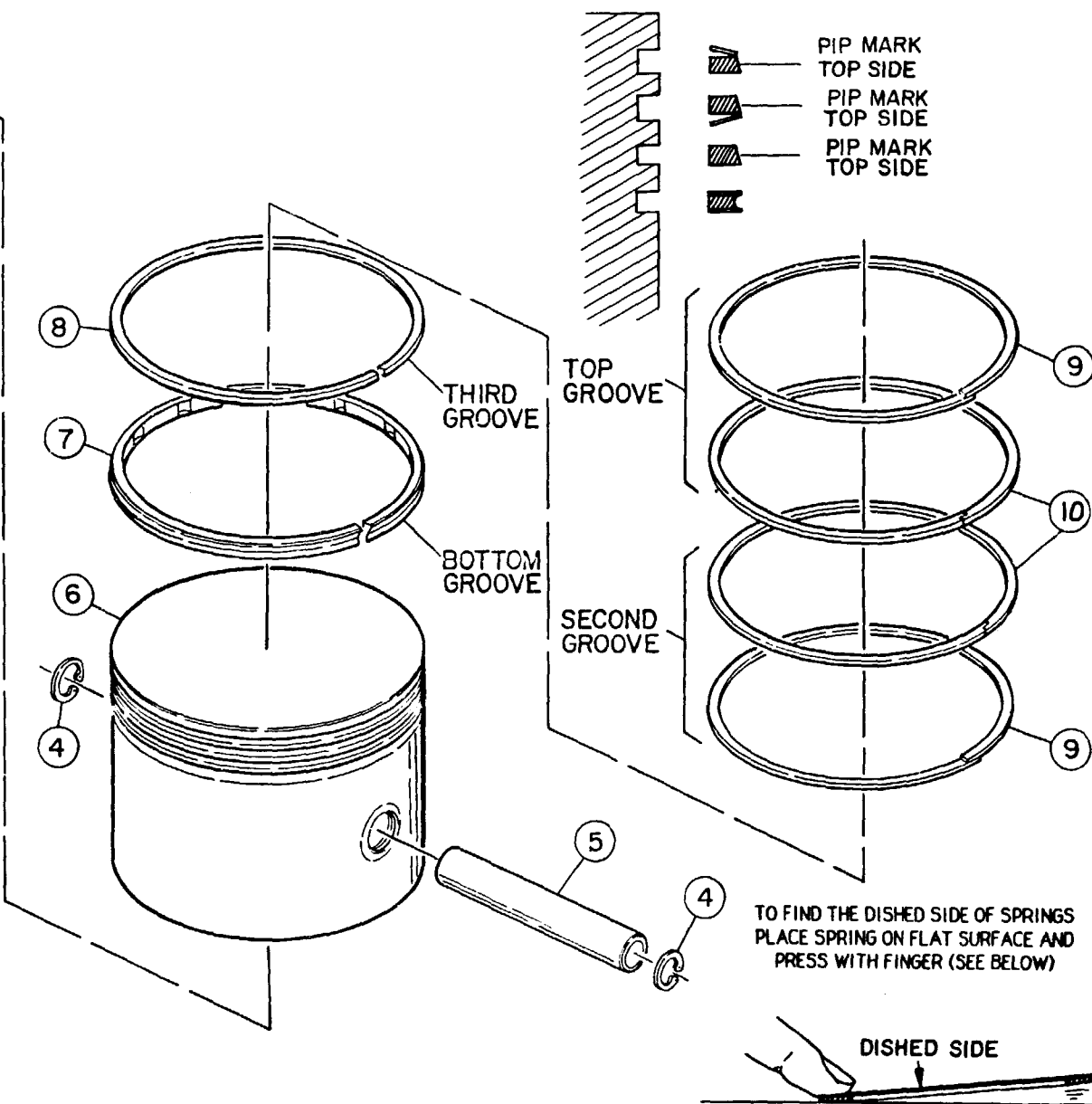
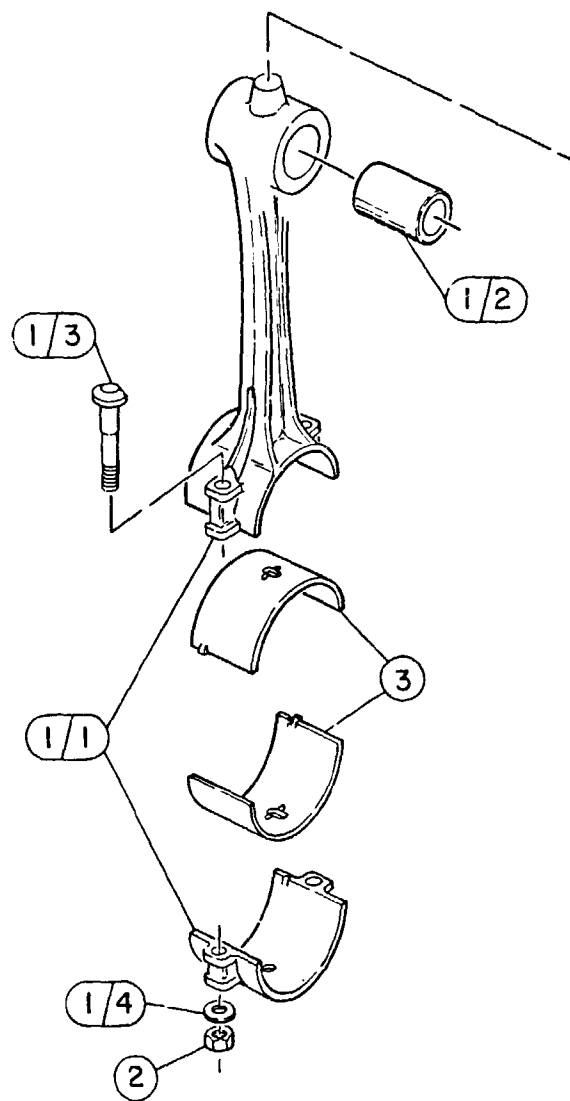
(For use with diester or phosphate ester synthetic lubricants)

1/2	1	22749-152	"O"RING-3/32 WIDE X 3.44 O.D. (OIL PUMP COVER PLATE)
1/3	1	22749-112	"O"RING-3/32 WIDE X .69 O.D. (BAYONET OIL GAUGE)
1/12	1	22749-011	"O"RING-1/16 WIDE X .44 O.D. (OIL PRESSURE ADJUSTMENT SCREW)
		160079-001	REPAIR KIT-OIL PUMP
			INCLUDES:
	1	22749-152	"O"RING-3/32 WIDE X 3.44 O.D. (OIL PUMP COVER PLATE)
	1	22749-112	"O"RING-3/32 WIDE X .69 O.D. (BAYONET OIL GAUGE)
	1	160002-001	DRIVESHAFT-BEARING CARRIER
	1	160075-001	KEY-DRIVESHAFT
	1	160003	GEROTOR-PUMP
	1	6285	RING-RETAINING
	1	22749-011	"O"RING-1/16 WIDE X .44 O.D. (OIL PRESSURE ADJUSTMENT SCREW)

@ Indicates torque value in foot pounds (dry threads)

Note: Tighten all bolts & capscrews in any bolt pattern evenly bringing each bolt to torque in even increments while moving about the bolt pattern. This is particularly true of connecting rod & head bolts.

TYPICAL SIDE SEALER TYPE
PISTON RING INSTALLATION



CONNECTING ROD & LOW PRESSURE PISTON GROUP 110652

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	40249	CONNECTING ROD ASSEMBLY (NOT SOLD SEPARATELY;ORDER 110589X)
1/1	1	110589	ROD-CONNECTING (NOT SOLD SEPARATELY;ORDER 110589X)
1/2	1	1345	BUSHING-CONNECTING ROD (CAN NOT BE PURCHASED;ORDER 1345SR)
1/3	2	1344	BOLT-CONNECTING ROD,7/16-20 UNC X 3.25
1/4	2	1319	WASHER-CONNECTING ROD
2	2	124471-M08	LOCKNUT-7/16-20 UNF (@ 40FT.-LBS.)
3	2	2819	INSERT-CONNECTING ROD BEARING (SOLD IN PAIRS ONLY;ORDER 2819PR)
4	2	8649	RING-RETAINING
5	1	8645	PIN-PISTON
6	1	8641	PISTON-COMPRESSOR,L.P.
7	1	2338	RING-PISTON
8	1	8057	RING-PISTON
9	2	8059	SPRING-PISTON
10	2	7969	RING-PISTON

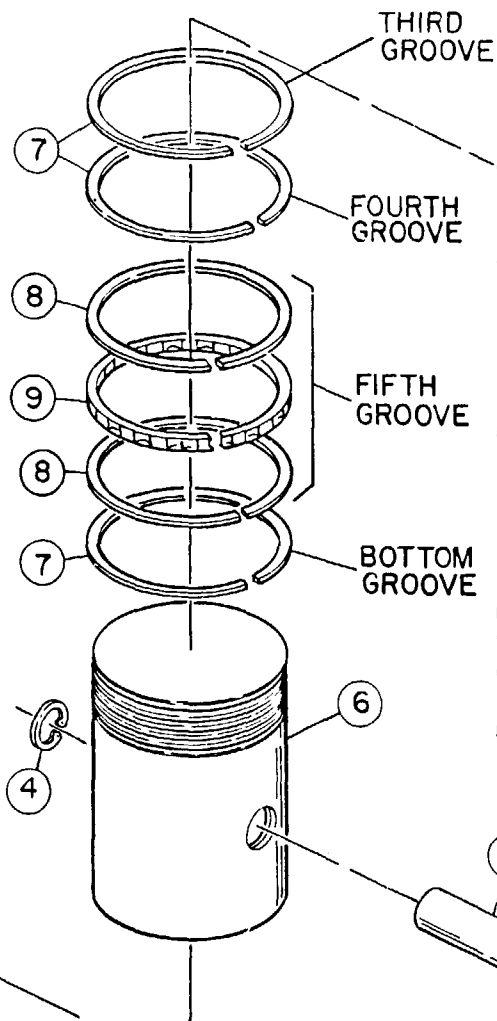
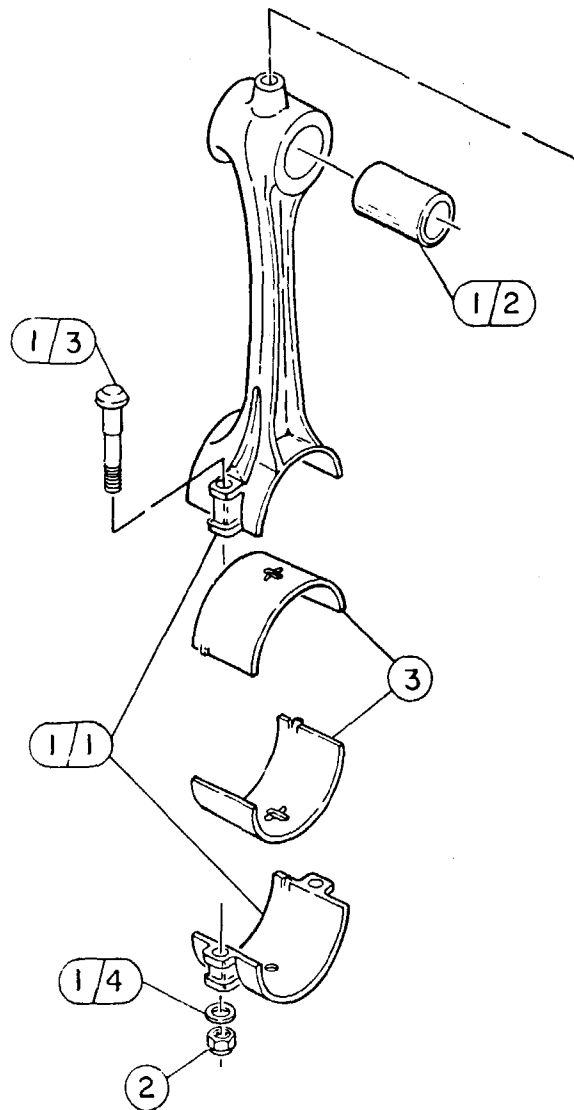
MAINTENANCE PARTS

3	* 1	2819PR	INSERTS(PAIR)-CON ROD BEARING (STANDARD)
3	* 1	2819-010PR	INSERTS(PAIR)-CON ROD BEARING (.010 UNDERSIZE)
1/2	1	1345SR	BUSHING-CONNECTING ROD
6	1	8641-010	PISTON-COMPRESSOR,L.P. (.010 OVERSIZE)
6	1	8641-020	PISTON-COMPRESSOR,L.P. (.020 OVERSIZE)
		8169	RING SET-SIDE SEALER,L.P. (STANDARD) NO COLOR CODE
			INCLUDES:
	2	8059	SPRING-PISTON
	1	2338	RING-PISTON
	2	7969	RING-PISTON
	1	8057	RING-PISTON
		2378-010	RING SET-PISTON,L.P. (.010 OVERSIZE) (L. BLUE)
			INCLUDES:
	3	2337-010	RING-PISTON
	1	2338-010	RING-PISTON
		2378-020	RING SET-PISTON,L.P. (.020 OVERSIZE) (YELLOW)
			INCLUDES:
	3	2337-020	RING-PISTON
	1	2338-020	RING-PISTON
	1	8641X	PISTON ASSEMBLY,L.P. (STANDARD)
			INCLUDES:
	1	8641	PISTON-COMPRESSOR,L.P.
	1	8645	PIN-PISTON
	2	8649	RING-RETAINING
	1	8169	RING SET-SIDE SEALER,L.P. (STANDARD) NO COLOR CODE
		8641X010	PISTON ASSEMBLY,L.P. (.010 OVERSIZE)
			INCLUDES:
	1	8641-010	PISTON-COMPRESSOR,L.P. (.010 OVERSIZE)
	1	8645	PIN-PISTON
	2	8649	RING-RETAINING
	1	2378-010	RING SET-PISTON,L.P. (.010 OVERSIZE) (L. BLUE)
		8641X020	PISTON ASSEMBLY,L.P. (.020 OVERSIZE)
			INCLUDES:
	1	8641-020	PISTON-COMPRESSOR,L.P. (.020 OVERSIZE)
	1	8645	PIN-PISTON
	2	8649	RING-RETAINING
	1	2378-020	RING SET-PISTON,L.P. (.020 OVERSIZE) (YELLOW)
		110589X	REPLACEMENT CONNECTING ROD ASSEMBLY (STANDARD)
			INCLUDES:
	1	40249	CONNECTING ROD ASSEMBLY (NOT SOLD SEPARATELY;ORDER 110589XUS)
	1	2819PR	INSERTS(PAIR)-CON ROD BEARING (STANDARD)
	2	124471-M08	LOCKNUT-7/16-20 UNF
		110589XUS	REPLACEMENT CONNECTING ROD ASSEMBLY (.010 UNDERSIZE)
			INCLUDES:
	1	40249	CONNECTING ROD ASSEMBLY (NOT SOLD SEPARATELY;ORDER 110589XUS)
	1	2819-010PR	INSERTS(PAIR)-CON ROD BEARING (.010 UNDERSIZE)
	2	124471-M08	LOCKNUT-7/16-20 UNF

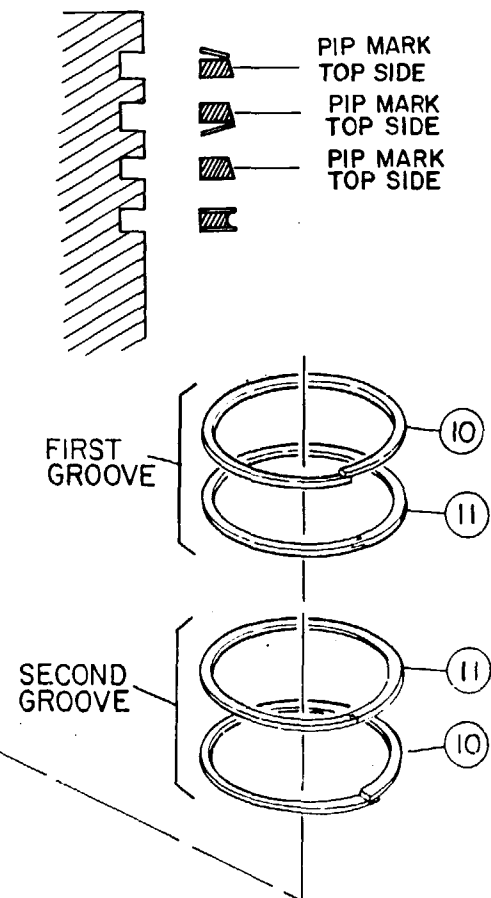
@ Indicates torque value in foot pounds (dry threads)

* 1 pair required for each connecting rod assembly.

Note: Tighten all bolts & capscrews in any bolt pattern evenly bringing each bolt to torque in even increments while moving about the bolt pattern. This is particularly true of connecting rod & head bolts.



TYPICAL SIDE SEALER TYPE PISTON RING INSTALLATION



TO FIND THE DISHED SIDE OF SPRINGS
PLACE SPRING ON FLAT SURFACE AND
PRESS WITH FINGER (SEE BELOW)



Be sure to Stagger Ring Gaps!

CONNECTING ROD & HIGH PRESSURE PISTON GROUP 110642

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	40249	CONNECTING ROD ASSEMBLY (NOT SOLD SEPARATELY;ORDER 110589X)
1/1	1	110589	ROD-CONNECTING (NOT SOLD SEPARATELY;ORDER 110589X)
1/2	1	1345	BUSHING-CONNECTING ROD (CAN NOT BE PURCHASED;ORDER 1345SR)
1/3	2	1344	BOLT-CONNECTING ROD,7/16-20 UNC X 3.25
1/4	2	1319	WASHER-CONNECTING ROD
2	2	124471-M08	LOCKNUT-7/16-20 UNF (@ 40FT.-LBS.)
3	2	2819	INSERT-CONNECTING ROD BEARING (SOLD IN PAIRS ONLY;ORDER 2819PR)
4	2	8649	RING-RETAINING
5	1	110190-009	PIN-PISTON
6	1	5645-001	PISTON-COMPRESSOR,H.P.
7	3	1464	RING-PISTON
8	2	6591	RAIL-PISTON
9	1	6590	EXPANDER-OIL RING
10	2	6589	SPRING-PISTON RING
11	2	6587	RING-PISTON

MAINTENANCE PARTS

3	* 1	2819PR	INSERTS(PAIR)-CON ROD BEARING (STANDARD)
3	* 1	2819-010PR	INSERTS(PAIR)-CON ROD BEARING (.010 UNDERSIZE)
1/2	1	1345SR	BUSHING-CONNECTING ROD
6	1	5645-011	PISTON-COMPRESSOR,H.P. (.010 OVERSIZE)
6	1	5645-021	PISTON-COMPRESSOR,H.P. (.020 OVERSIZE)
		8170	RING SET-SIDE SEALER,H.P. (STANDARD) NO COLOR CODE
			INCLUDES:
	3	1464	RING-PISTON
	2	6587	RING-PISTON
	2	6589	SPRING-PISTON RING
	1	6590	EXPANDER-OIL RING
	2	6591	RAIL-PISTON
		5627-010	RING SET-PISTON,H.P. (.010 OVERSIZE) (L. BLUE)
			INCLUDES:
	5	1464-010	RING-PISTON
	1	6590	EXPANDER-OIL RING
	2	6591-010	RAIL-PISTON
		5627-020	RING SET-PISTON,H.P. (.020 OVERSIZE) (YELLOW)
			INCLUDES:
	1	1288-020	RING-PISTON
	5	1464-020	RING-PISTON
		5645X001	PISTON ASSEMBLY,H.P. (STANDARD)
			INCLUDES:
	1	5645-001	PISTON-COMPRESSOR,H.P.
	1	110190-009	PIN-PISTON
	2	8649	RING-RETAINING
	1	8170	RING SET-SIDE SEALER,H.P. (STANDARD) NO COLOR CODE
		5645X011	PISTON ASSEMBLY,H.P. (.010 OVERSIZE)
			INCLUDES:
	1	5645-011	PISTON-COMPRESSOR,H.P. (.010 OVERSIZE)
	1	110190-009	PIN-PISTON
	2	8649	RING-RETAINING
	1	5627-010	RING SET-PISTON,H.P. (.010 OVERSIZE) (L. BLUE)
		5645X021	PISTON ASSEMBLY,H.P. (.020 OVERSIZE)
			INCLUDES:
	1	5645-021	PISTON-COMPRESSOR,H.P. (.020 OVERSIZE)
	1	110190-009	PIN-PISTON
	2	8649	RING-RETAINING
	1	5627-020	RING SET-PISTON,H.P. (.020 OVERSIZE) (YELLOW)
		110589X	REPLACEMENT CONNECTING ROD ASSEMBLY (STANDARD)
			INCLUDES:
	1	40249	CONNECTING ROD ASSEMBLY (NOT SOLD SEPARATELY;ORDER 110589XUS)
	1	2819PR	INSERTS(PAIR)-CON ROD BEARING (STANDARD)
	2	124471-M08	LOCKNUT-7/16-20 UNF
		110589XUS	REPLACEMENT CONNECTING ROD ASSEMBLY (.010 UNDERSIZE)
			INCLUDES:
	1	40249	CONNECTING ROD ASSEMBLY (NOT SOLD SEPARATELY;ORDER 110589XUS)
	1	2819-010PR	INSERTS(PAIR)-CON ROD BEARING (.010 UNDERSIZE)
	2	124471-M08	LOCKNUT-7/16-20 UNF

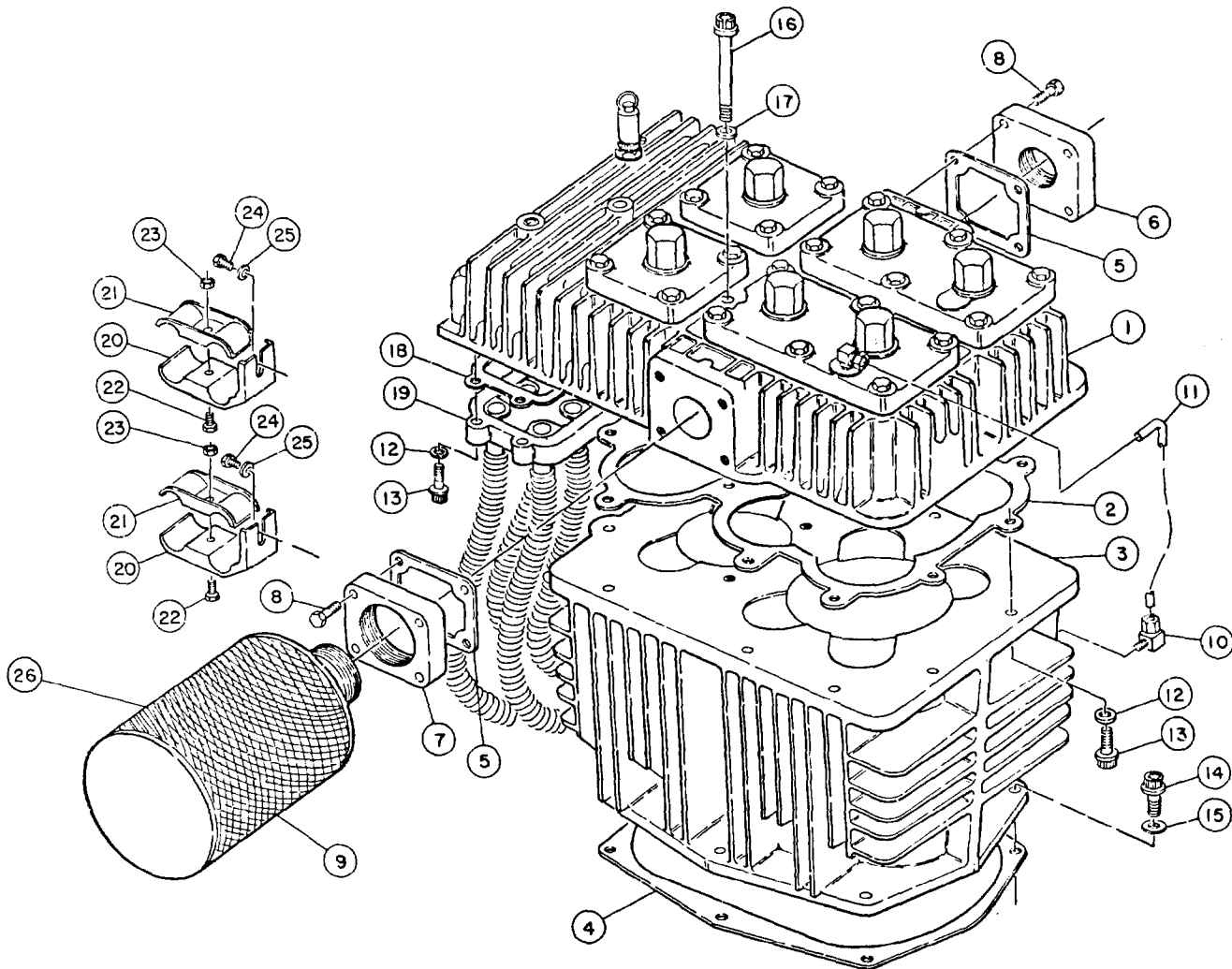
@ Indicates torque value in foot pounds (dry threads)

* 1 pair required for each connecting rod assembly.

Note: Tighten all bolts & capscrews in any bolt pattern evenly bringing each bolt to torque in even increments while moving about the bolt pattern. This is particularly true of connecting rod & head bolts.

CYLINDER & HEAD GROUP 110653

(control version P)



CYLINDER & HEAD GROUP 110653

(control version P)

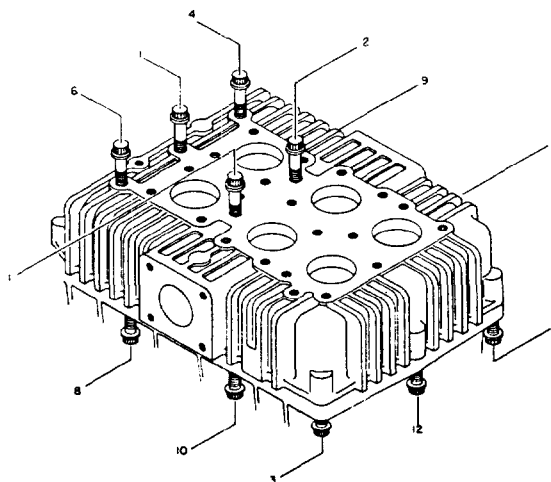
ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	2334P	HEAD ASSEMBLY (SEE PAGE 20 FOR PARTS BREAKDOWN)
2	1	5695	GASKET-CYLINDER TO HEAD
3	1	2333-1	CYLINDER-COMPRESSOR
4	1	2344	GASKET-CYLINDER TO CRANKCASE
5	2	2346	GASKET-FLANGE
6	1	2349	FLANGE-DISCHARGE
7	1	2350	FLANGE-INTAKE
8	8	123478-N16	SCREW-HEX., 1/2-13 UNC X 1.75, GRADE 5 (@ 75FT.-LBS.)
9	1	110377F250	FILTER-AIR
OR			
9	1	110377H250	FILTER-AIR, HOODED
OR			
9	1	110377S250	FILTER/SILENCER-AIR, HOODED
10	1	3145	FITTING-TUBE, 90 MALE ELBOW 1/2 TUBE X 3/8 NPT
11	3FT	110515-050	TUBE-COPPER, 1/2 O.D.
12	13	123115-08C	LOCKWASHER-1/2
13	13	90386-N16	SCREW-COUNTERBORE, 1/2-13 UNC X 1.75, GRADE 8 (cylinder to head: @ 80FT.-LBS.) (intercooler to head: @ 65FT.-LBS.)
14	7	90386-Q15	SCREW-COUNTERBORE, 5/8-11 UNC X 1.50, GRADE 8 (@ 110FT.-LBS.)
15	7	123115-10C	LOCKWASHER-5/8
16	5	90386-N27	SCREW-COUNTERBORE, 1/2-13 UNC X 5.00, GRADE 8 (@ 80FT.-LBS.)
17	5	1478-1	FLATWASHER
18	1	5694	GASKET-INTERCOOLER
19	1	2343	INTERCOOLER
20	2	2358	BRACKET-INTERCOOLER
21	2	2359	CLAMP-INTERCOOLER BRACKET
22	2	124571-K12	SCREW-HEX., 5/16-24 UNF X 1.00, GRADE 5 (@ 19FT.-LBS.)
23	2	124471-K08	LOCKNUT-5/16-24 UNF
24	2	90386-N12	SCREW-COUNTERBORE, 1/2-13 UNC X 1.00, GRADE 8
25	2	110428N050	FLATWASHER-1/2

MAINTENANCE PARTS

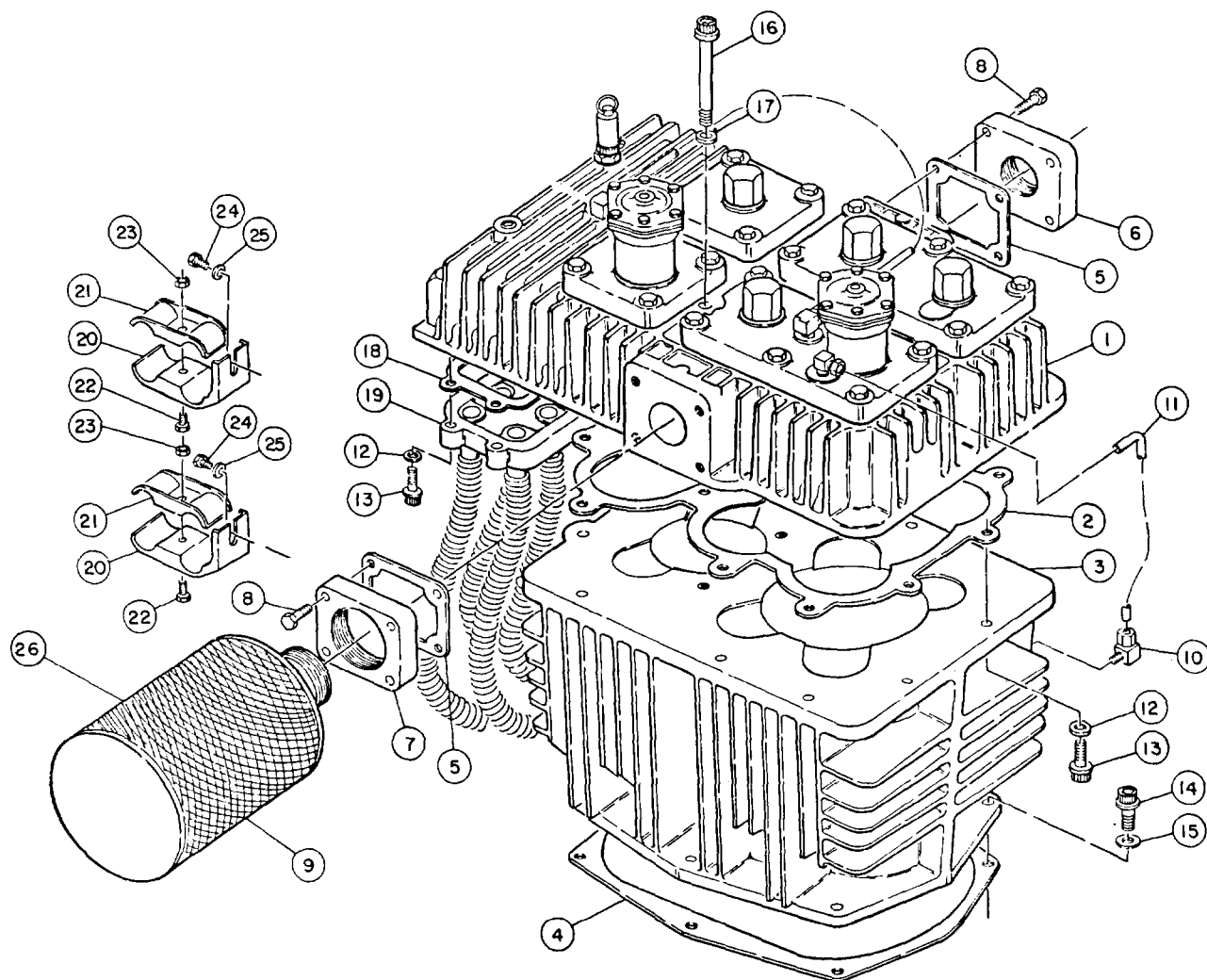
26	1	110377E200	ELEMENT-AIR FILTER
		2334X16P	REPLACEMENT HEAD ASSEMBLY
			INCLUDES:
	1	2334P	HEAD ASSEMBLY
	1	5695	GASKET-CYLINDER TO HEAD

@ Indicates torque value in foot pounds (dry threads)

Note: Tighten all bolts & capscrews in any bolt pattern evenly bringing each bolt to torque in even increments while moving about the bolt pattern. This is particularly true of connecting rod & head bolts.

**PROPER HEAD BOLT
TORQUE SEQUENCE**

CYLINDER & HEAD GROUP 110654
(control versions L, S, LS, & LVD)



CYLINDER & HEAD GROUP 110654

(control versions L, S, LS, & LVD)

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	2334UU	HEAD ASSEMBLY (SEE PAGE 22 FOR PARTS BREAKDOWN)
2	1	5695	GASKET-CYLINDER TO HEAD
3	1	2333-1	CYLINDER-COMPRESSOR
4	1	2344	GASKET-CYLINDER TO CRANKCASE
5	2	2346	GASKET-FLANGE
6	1	2349	FLANGE-DISCHARGE
7	1	2350	FLANGE-INTAKE
8	8	123478-N16	SCREW-HEX., 1/2-13 UNC X 1.75, GRADE 5 (@ 75FT.-LBS.)
9	1	110377F250	FILTER-AIR
OR			
9	1	110377H250	FILTER-AIR, HOODED
OR			
9	1	110377S250	FILTER/SILENCER-AIR, HOODED
10	1	3145	FITTING-TUBE, 90 MALE ELBOW 1/2 TUBE X 3/8 NPT
11	3FT	110515-050	TUBE-COPPER, 1/2 O.D.
12	13	123115-08C	LOCKWASHER-1/2
13	13	90386-N16	SCREW-COUNTERBORE, 1/2-13 UNC X 1.75, GRADE 8 (cylinder to head: @ 80FT.-LBS.) (intercooler to head: @ 65FT.-LBS.)
14	7	90386-Q15	SCREW-COUNTERBORE, 5/8-11 UNC X 1.50, GRADE 8 (@ 110FT.-LBS.)
15	7	123115-10C	LOCKWASHER-5/8
16	5	90386-N27	SCREW-COUNTERBORE, 1/2-13 UNC X 5.00, GRADE 8 (@ 80FT.-LBS.)
17	5	1478-1	FLATWASHER
18	1	5694	GASKET-INTERCOOLER
19	1	2343	INTERCOOLER
20	2	2358	BRACKET-INTERCOOLER
21	2	2359	CLAMP-INTERCOOLER BRACKET
22	2	124571-K12	SCREW-HEX., 5/16-24 UNF X 1.00, GRADE 5 (@ 19FT.-LBS.)
23	2	124471-K08	LOCKNUT-5/16-24 UNF
24	2	90386-N12	SCREW-COUNTERBORE, 1/2-13 UNC X 1.00, GRADE 8
25	2	110428N050	FLATWASHER-1/2

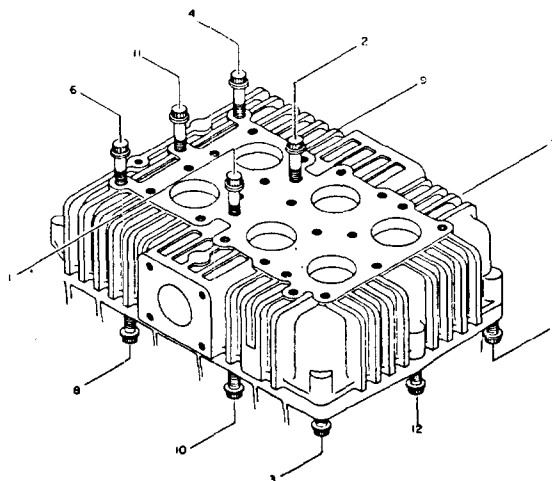
@ Indicates torque value in foot pounds (dry threads)

MAINTENANCE PARTS

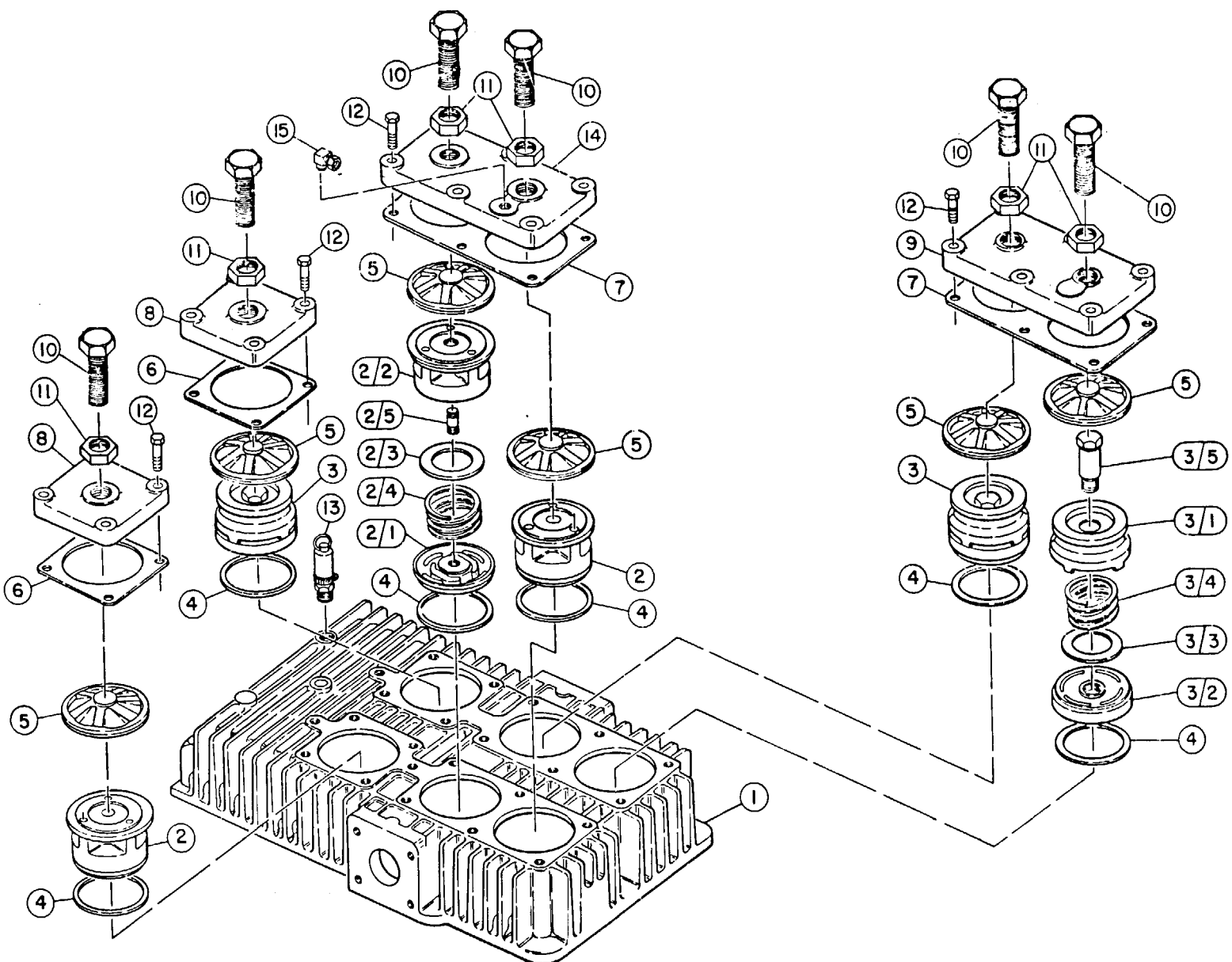
26	1	110377E200	ELEMENT-AIR FILTER
		2334X16L	REPLACEMENT HEAD ASSEMBLY
			INCLUDES:
	1	2334UU	HEAD ASSEMBLY
	1	5695	GASKET-CYLINDER TO HEAD
	1	5694	GASKET-INTERCOOLER

Note: Tighten all bolts & capscrews in any bolt pattern evenly bringing each bolt to torque in even increments while moving about the bolt pattern. This is particularly true of connecting rod & head bolts.

PROPER HEAD BOLT TORQUE SEQUENCE



HEAD ASSEMBLY 2334P (control version P)



HEAD ASSEMBLY 2334P

(control version P)

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	2334	HEAD-COMPRESSOR
2	3	6949X1P	VALVE ASSEMBLY-SUCTION
2/1	1	6949	BUMPER-VALVE
2/2	1	2002P	SEAT-SUCTION
2/3	1	2087	DISC-VALVE
2/4	1	6909	SPRING-VALVE
2/5	1	1429	STUD-VALVE
3	3	6948X1	VALVE ASSEMBLY-DISCHARGE
3/1	1	6948	BUMPER-VALVE
3/2	1	1424A	SEAT-DISCHARGE
3/3	1	2087	DISC-VALVE
3/4	1	6909	SPRING-VALVE
3/5	1	3297	POST-VALVE
4	6	1356	GASKET-VALVE
5	6	6952	RETAINER-VALVE
6	2	2347	GASKET-VALVE PLATE
7	2	2348	GASKET-COVER PLATE
8	2	6941	PLATE-COVER
9	1	6955	PLATE-COVER
10	6	126490-R19	SCREW-HEX., 3/4-16 UNF X 2.50, GRADE 5 (@ 75FT.-LBS.)
11	6	124369-R02	JAMNUT-3/4-16 UNF (@ 100FT.-LBS.)
12	20	123478-N16	SCREW-HEX., 1/2-13 UNC X 1.75, GRADE 5 (@ 75FT.-LBS.)
13	1	3022-100	VALVE-SAFETY
14	1	110664	PLATE-COVER
15	1	3145	FITTING-TUBE, 90 MALE ELBOW 1/2 TUBE X 3/8 NPT

MAINTENANCE PARTS

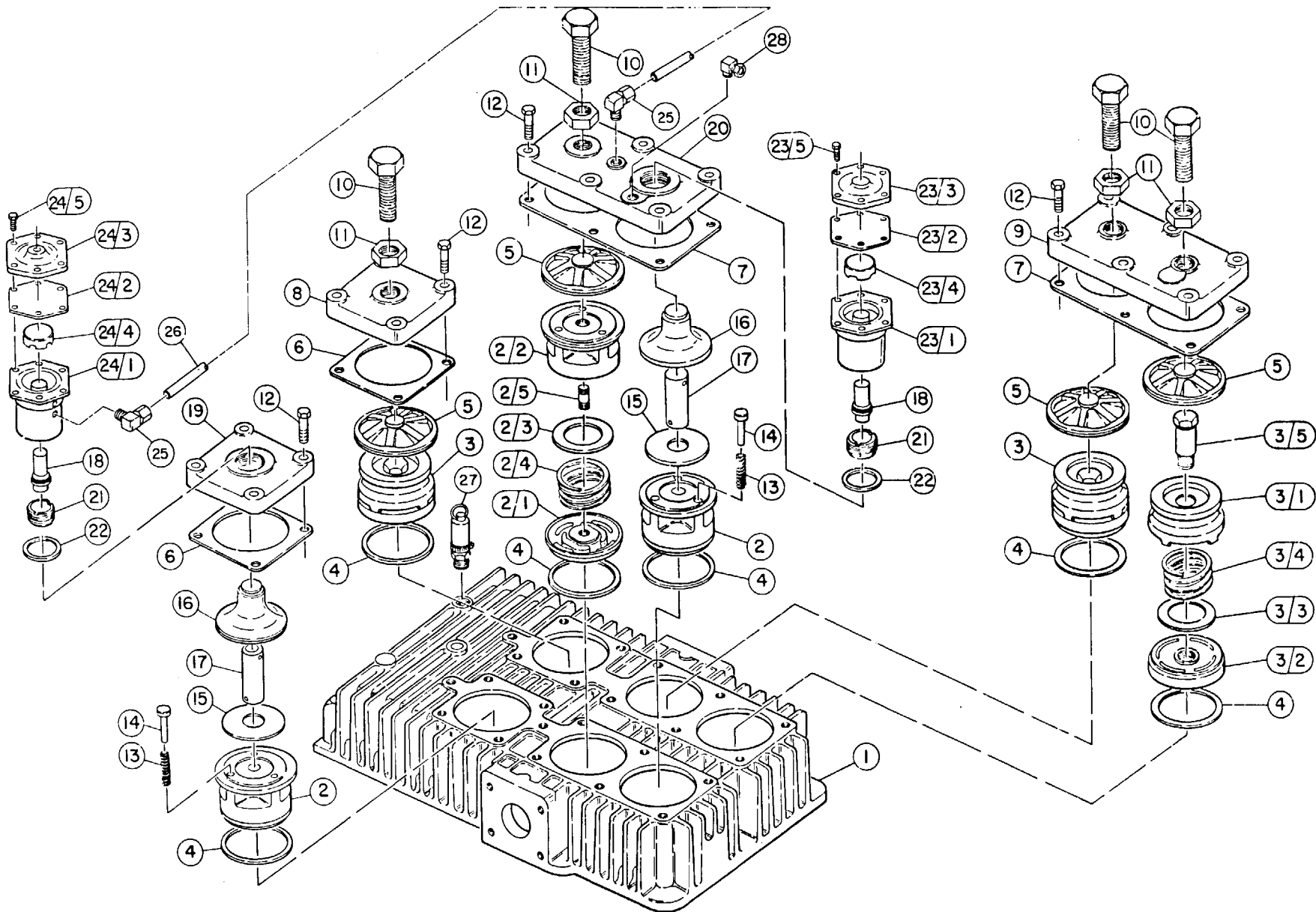
2	6949X	VALVE ASSEMBLY-SUCTION
		INCLUDES:
1	6949X1	VALVE ASSEMBLY-SUCTION
1	1356	GASKET-VALVE
2	6948X	VALVE ASSEMBLY-DISCHARGE
		INCLUDES:
1	6948X1	VALVE ASSEMBLY-DISCHARGE
1	1356	GASKET-VALVE

@ Indicates torque value in foot pounds (dry threads)

Note: Tighten all bolts & capscrews in any bolt pattern evenly bringing each bolt to torque in even increments while moving about the bolt pattern. This is particularly true of connecting rod & head bolts.

Tighten & torque valve cover plate screws (item 12) before tightening valve clamp screws (item 10).

(control versions L, S, LS, & LVD)



HEAD ASSEMBLY 2334UU

(control versions L, S, LS, & LVD)

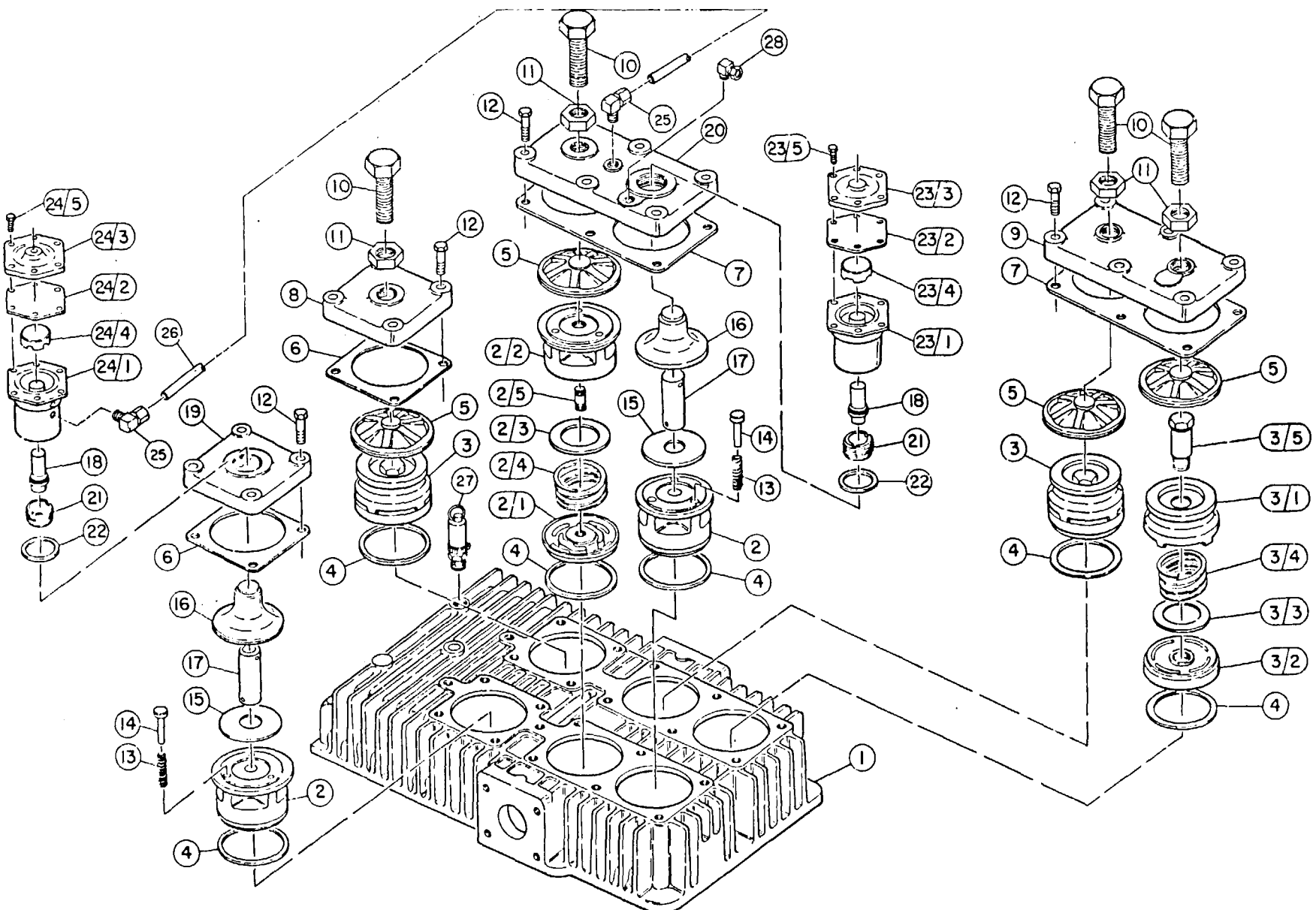
ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	2334	HEAD-COMPRESSOR
2	3	6949X1	VALVE ASSEMBLY-SUCTION
2/1	1	6949	BUMPER-VALVE
2/2	1	2002P	SEAT-VALVE
2/3	1	2087	DISC-VALVE
2/4	1	6909	SPRING-VALVE
2/5	1	1429	STUD-VALVE
3	3	6948X1	VALVE ASSEMBLY-DISCHARGE
3/1	1	6948	BUMPER-VALVE
3/2	1	1424A	SEAT-VALVE
3/3	1	2087	DISC-VALVE
3/4	1	6909	SPRING-VALVE
3/5	1	3297	POST-VALVE
4	6	1356	GASKET-VALVE
5	4	6952	RETAINER-VALVE
6	2	2347	GASKET-VALVE PLATE
7	2	2348	GASKET-COVER PLATE
8	1	6941	PLATE-COVER
9	1	6955	PLATE-COVER
10	4	126490-R19	SCREW-HEX., 3/4-16 UNF X 2.50, GRADE 5 (@ 75FT.-LBS.)
11	4	124369-R02	JAMNUT-3/4-16 UNF (@ 100FT.-LBS.)
12	20	123478-N16	SCREW-HEX., 1/2-13 UNC X 1.75, GRADE 5 (@ 75FT.-LBS.)
13	6	6910	SPRING-UNLOADER PIN
14	6	1857	PIN-VALVE
15	2	6938	PLATFORM-VALVE
16	2	6951	RETAINER-VALVE
17	2	6950-001	PIN-UNLOADER
18	2	7532X	PISTON ASSEMBLY-UNLOADER
19	1	6940	PLATE-COVER
20	1	6942	PLATE-COVER
21	2	3008	SCREW-HOLDDOWN (@ 75FT.-LBS.)
22	2	1556	GASKET-VALVE
23	1	40055	UNLOADER ASSEMBLY (@ 75FT.-LBS.) (NOT SOLD SEPARATELY; ORDER 7483X)
23/1	1	7483	BODY-UNLOADER
23/2	1	1855	DIAPHRAGM-UNLOADER
23/3	1	1818B	PLATE-DIAPHRAGM COVER
23/4	1	5910	DISC-DIAPHRAGM
23/5	6	7499	SCREW-HEX., 1/4-20 UNC X .75, GRADE 5 (@ 6FT.-LBS.)
24	1	40192	UNLOADER ASSEMBLY (@ 75FT.-LBS.) (NOT SOLD SEPARATELY; ORDER 8272X)
24/1	1	8272	BODY-UNLOADER
24/2	1	1855	DIAPHRAGM-UNLOADER
24/3	1	1818B	PLATE-DIAPHRAGM COVER
24/4	1	5910	DISC-DIAPHRAGM
24/5	6	7499	SCREW-HEX., 1/4-20 UNC X .75, GRADE 5 (@ 6FT.-LBS.)
25	2	1642	FITTING-TUBE, 90 MALE ELBOW 1/4 TUBE X 1/8 NPT
26	2FT	110515-025	TUBE-COPPER, 1/4 O.D.
27	1	3022-100	VALVE-SAFETY
28	1	3145	FITTING-TUBE, 90 MALE ELBOW 1/2 TUBE X 3/8 NPT

@ Indicates torque value in foot pounds (dry threads)

Note: Tighten all bolts & capscrews in any bolt pattern evenly bringing each bolt to torque in even increments while moving about the bolt pattern. This is particularly true of connecting rod & head bolts.

For maintenance parts & notes see page 24.

HEAD ASSEMBLY 2334UU *(control versions L, S, LS, & LVD)*



HEAD ASSEMBLY 2334UU
(control versions L, S, LS, & LVD)
(continued from page 22)

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
MAINTENANCE PARTS			
1		6949X	VALVE ASSEMBLY-SUCTION
			INCLUDES:
1		6949X1	VALVE ASSEMBLY-SUCTION
1		1356	GASKET-VALVE
2		6949XU	VALVE ASSEMBLY-SUCTION
			INCLUDES:
1		6949X1	VALVE ASSEMBLY-SUCTION
3		6910	SPRING-UNLOADER PIN
3		1857	PIN-VALVE
1		1356	GASKET-VALVE
3		6948X	VALVE ASSEMBLY-DISCHARGE
			INCLUDES:
1		6948X1	VALVE ASSEMBLY-DISCHARGE
1		1356	GASKET-VALVE
1		7483X	REPLACEMENT UNLOADER ASSEMBLY
			INCLUDES:
1		121160	PLUG-PIPE, 1/8 NPT
1		40055	UNLOADER ASSEMBLY (@ 75FT.-LBS.) (NOT SOLD SEPARATE; ORDER 7483X)
1		1556	GASKET-VALVE
1		7532X	PISTON ASSEMBLY-UNLOADER
1		8272X	REPLACEMENT UNLOADER ASSEMBLY
			INCLUDES:
1		7532X	PISTON ASSEMBLY-UNLOADER
1		1556	GASKET-VALVE
1		40192	UNLOADER ASSEMBLY (@ 75FT.-LBS.) (NOT SOLD SEPARATE; ORDER 8272X)

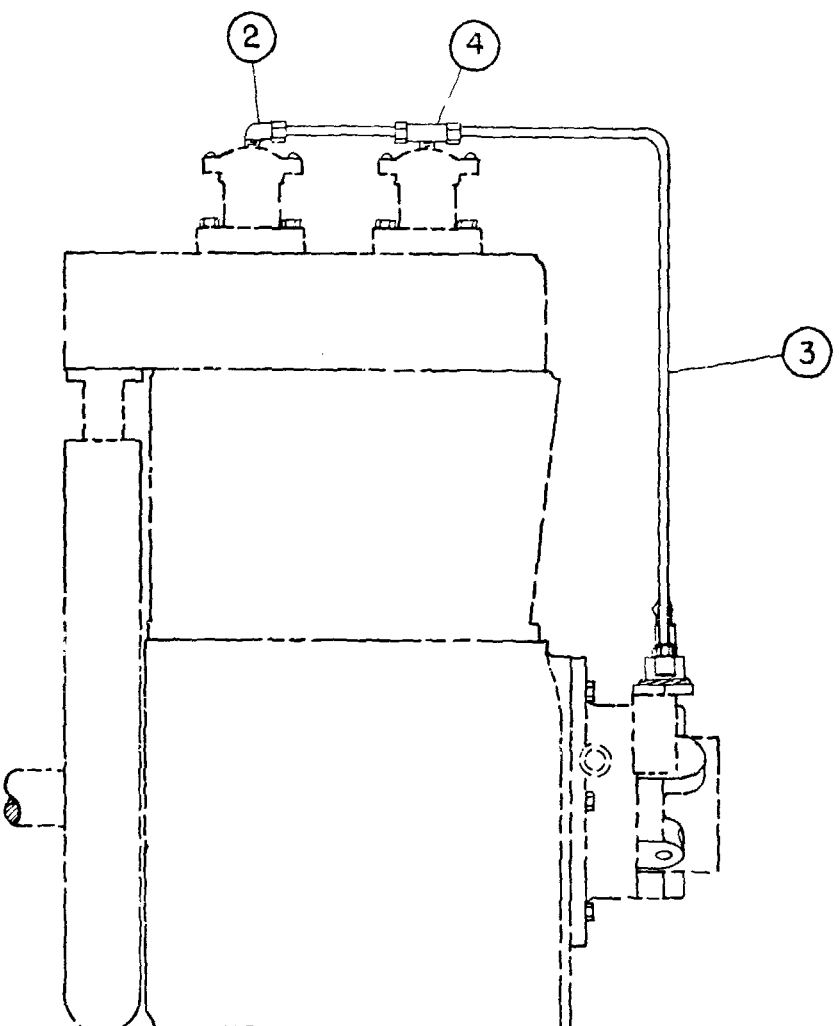
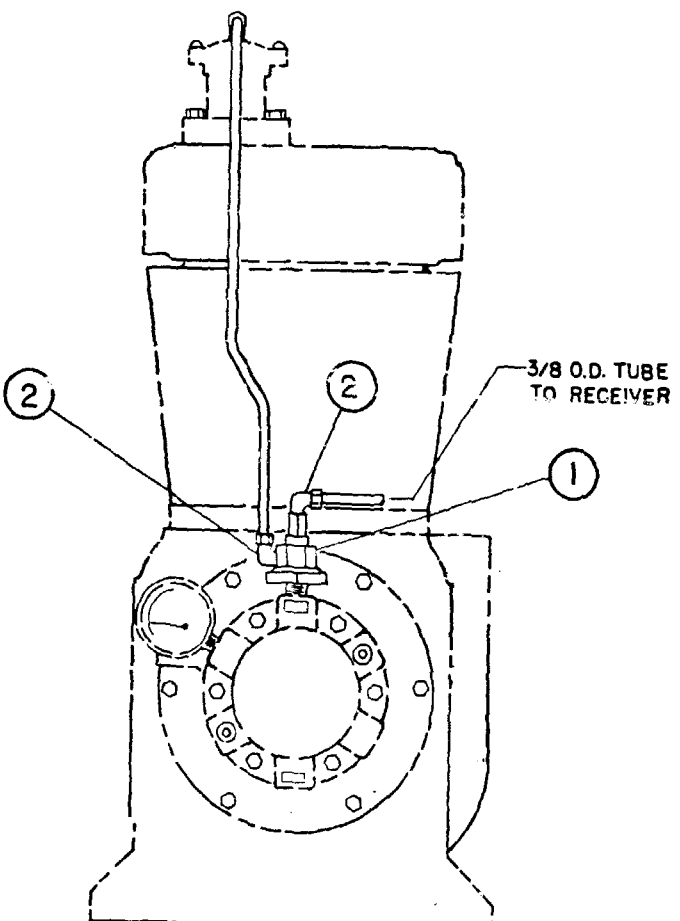
PARTS FOR SPECIAL APPLICATIONS			
(For use with diester or phosphate ester synthetic lubricants)			
23/2	1	1855S	DIAPHRAGM-UNLOADER
24/2	1	1855S	DIAPHRAGM-UNLOADER

@ Indicates torque value in foot pounds (dry threads)

Note: Tighten all bolts & capscrews in any bolt pattern evenly bringing each bolt to torque in even increments while moving about the bolt pattern. This is particularly true of connecting rod & head bolts.

Tighten & torque valve cover plate screws (item 12) before tightening valve clamp screws (item 10).

CONTROL GROUPS 110860 & 110860-001
(control version L)



CONTROL GROUP 110860

(control version L)
(for standard pressure rated compressors)

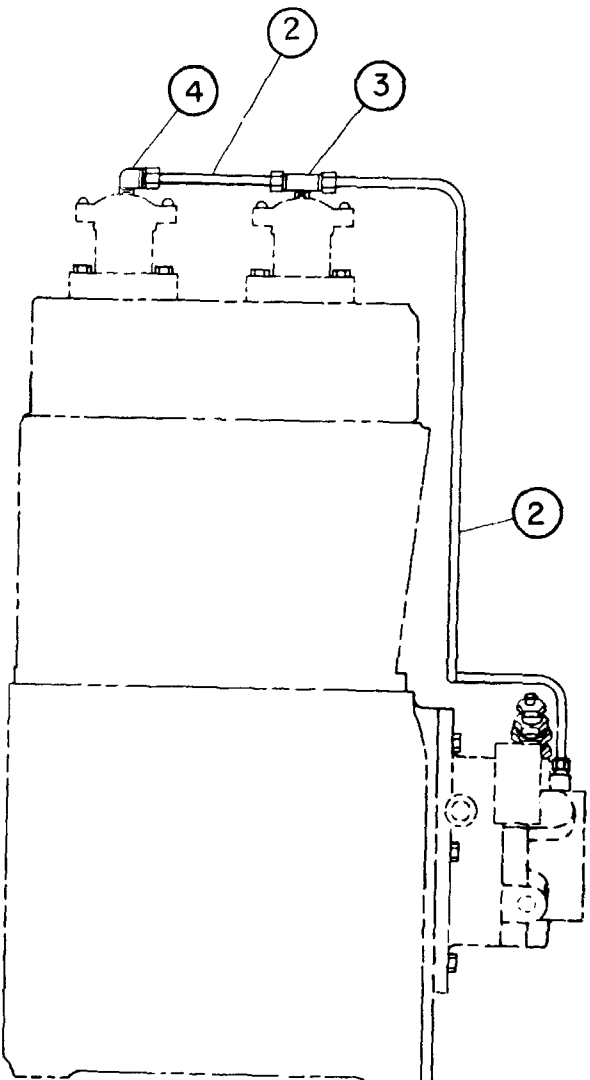
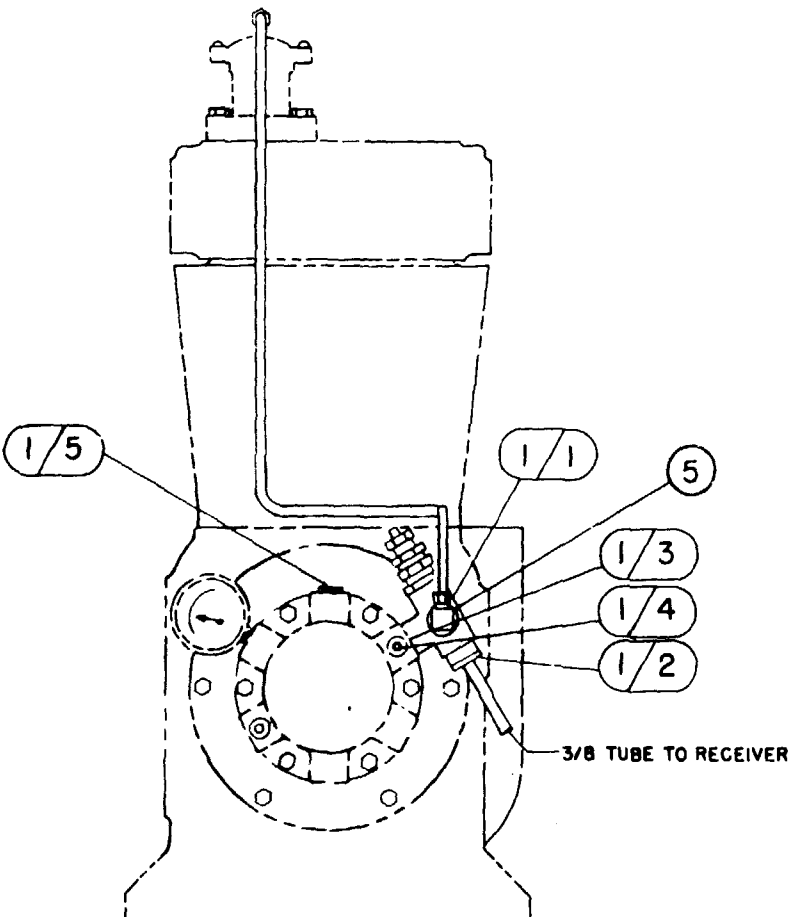
ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	110827-001	HYDRAULIC UNLOADER ASSEMBLY
2	3	1642	FITTING-TUBE,90 MALE ELBOW 1/4 TUBE X 1/8 NPT
3	4FT	110515-025	TUBE-COPPER,1/4 O.D.
4	1	1665	FITTING-TEE,1/4 TUBE X 1/4 TUBE X 1/8 NPT

CONTROL GROUP 110860-001

(control version L)
(for high pressure rated compressors)

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	110827-002	HYDRAULIC UNLOADER ASSEMBLY
2	3	1642	FITTING-TUBE,90 MALE ELBOW 1/4 TUBE X 1/8 NPT
3	4FT	110515-025	TUBE-COPPER,1/4 O.D.
4	1	1665	FITTING-TEE,1/4 TUBE X 1/4 TUBE X 1/8 NPT

CONTROL GROUPS 110857 & 110857-001
(control version S)



CONTROL GROUP 110857

(control version S)
(for standard pressure rated compressors)

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	110844	PILOT VALVE ASSEMBLY
* 1/1	1	110832-140	PILOT VALVE
1/2	1	2616	FITTING-STRAIGHT, 3/8 TUBE X 1/4 NPT
1/3	1	6317	STUD-MOUNTING
1/4	1	160047-J05	SCREW-SET, 1/4-28 UNF X .38, GRADE 5
1/5	1	2719	PLUG-PIPE, 1/4 NPT
2	4FT	110515-025	TUBE-COPPER, 1/4 O.D.
3	1	1665	FITTING-TEE, 1/4 TUBE X 1/4 TUBE X 1/8 NPT
4	1	1642	FITTING-TUBE, 90 MALE ELBOW 1/4 TUBE X 1/8 NPT
5	1	2708	FITTING-TUBE, 90 MALE ELBOW 1/4 TUBE X 1/4 NPT

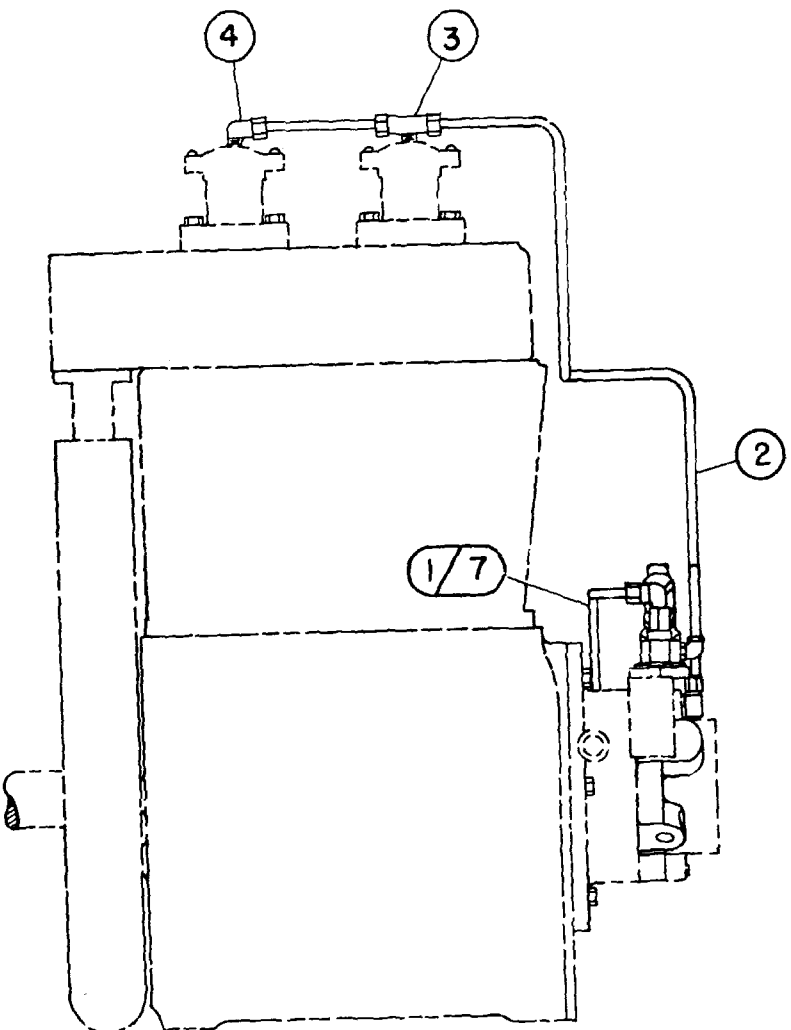
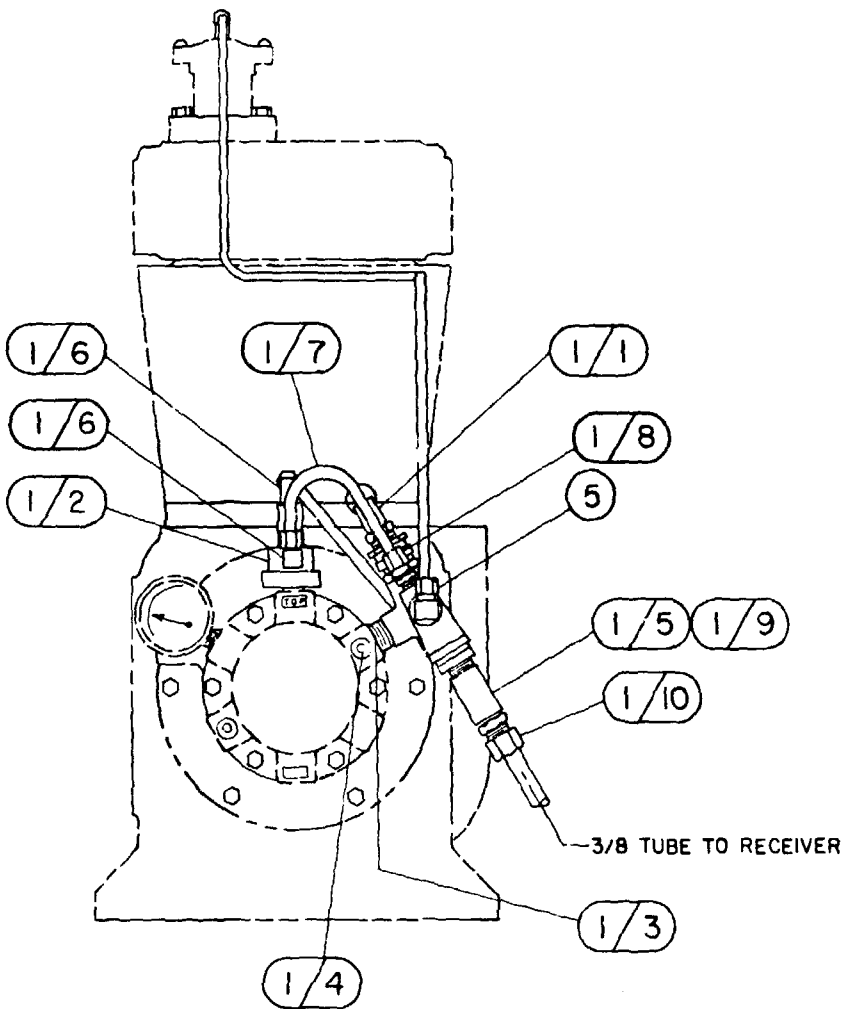
CONTROL GROUP 110857-001

(control version S)
(for high pressure rated compressors)

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	110844-001	PILOT VALVE ASSEMBLY
* 1/1	1	110832-999	PILOT VALVE
1/2	1	2616	FITTING-STRAIGHT, 3/8 TUBE X 1/4 NPT
1/3	1	6317	STUD-MOUNTING
1/4	1	160047-J05	SCREW-SET, 1/4-28 UNF X .38, GRADE 5
1/5	1	2719	PLUG-PIPE, 1/4 NPT
2	4FT	110515-025	TUBE-COPPER, 1/4 O.D.
3	1	1665	FITTING-TEE, 1/4 TUBE X 1/4 TUBE X 1/8 NPT
4	1	1642	FITTING-TUBE, 90 MALE ELBOW 1/4 TUBE X 1/8 NPT
5	1	2708	FITTING-TUBE, 90 MALE ELBOW 1/4 TUBE X 1/4 NPT

* See pages 33 & 34 for optional pilot valves that must be used with respective pressure ranges.

CONTROL GROUPS 110858 & 110858-001
(control version LS)



CONTROL GROUP 110858

(control version LS)
(for standard pressure rated compressors)

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	110845	PILOT VALVE ASSEMBLY
* 1/1	1	111422-140	PILOT VALVE
1/2	1	110827-001	HYDRAULIC UNLOADER ASSEMBLY
1/3	1	6317	STUD-MOUNTING
1/4	1	160047-J05	SCREW-SET, 1/4-28 UNF X .38, GRADE 5
1/5	1	7361	TEE-PIPE, 1/4 NPT X 1/4 NPT X 1/4 NPT, BRASS
1/6	2	1642	FITTING-TUBE, 90 MALE ELBOW 1/4 TUBE X 1/8 NPT
1/7	1FT	110515-025	TUBE-COPPER, 1/4 O.D.
1/8	1	1643	FITTING-STRAIGHT, 1/4 TUBE X 1/8 NPT
1/9	1	2708	FITTING-TUBE, 90 MALE ELBOW 1/4 TUBE X 1/4 NPT
1/10	1	2616	FITTING-STRAIGHT, 3/8 TUBE X 1/4 NPT
2	4FT	110515-025	TUBE-COPPER, 1/4 O.D.
3	1	1665	FITTING-TEE, 1/4 TUBE X 1/4 TUBE X 1/8 NPT
4	1	1642	FITTING-TUBE, 90 MALE ELBOW 1/4 TUBE X 1/8 NPT
5	1	2708	FITTING-TUBE, 90 MALE ELBOW 1/4 TUBE X 1/4 NPT

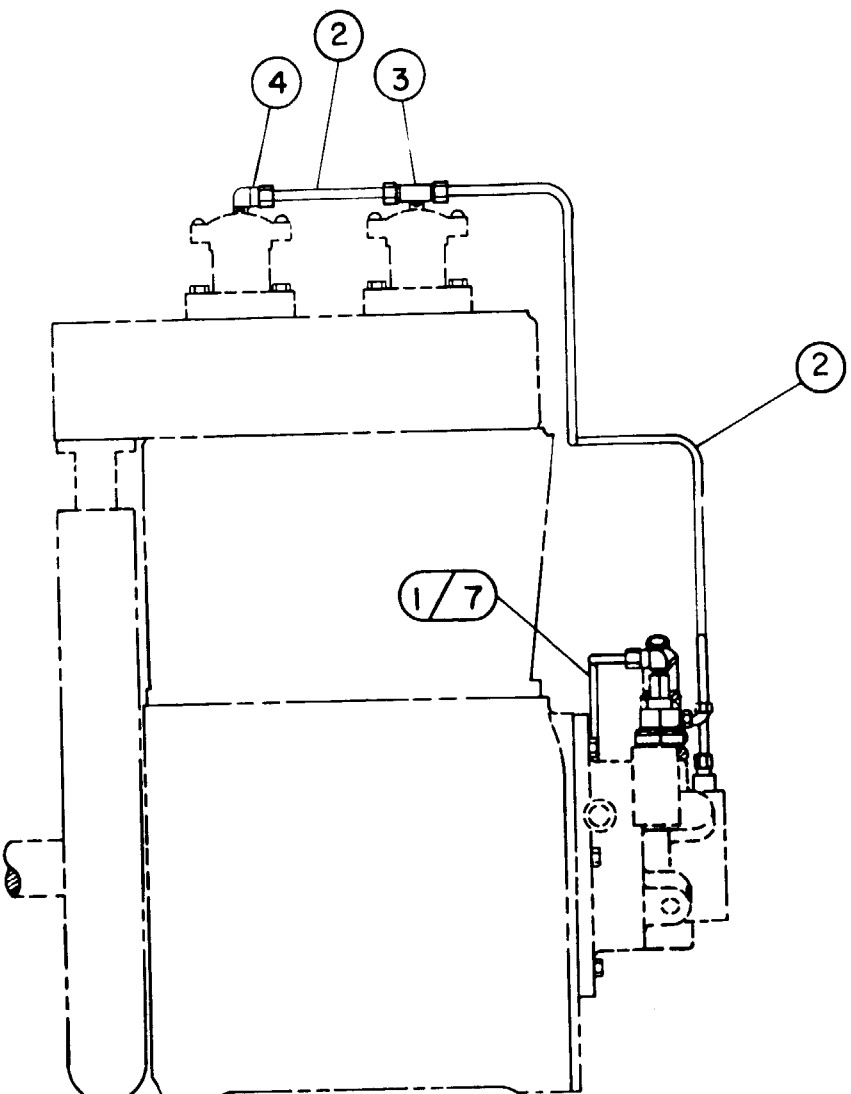
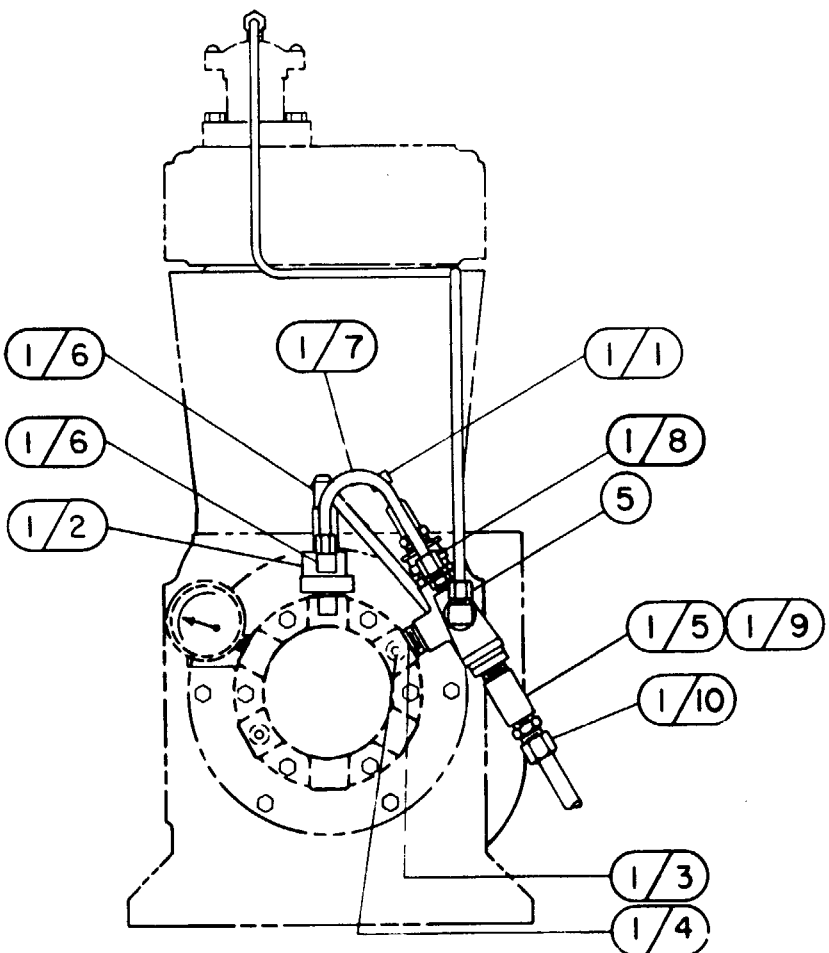
CONTROL GROUP 110858-001

(control version LS)
(for high pressure rated compressors)

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	110845-001	PILOT VALVE ASSEMBLY
* 1/1	1	111422-999	PILOT VALVE
1/2	1	110827-002	HYDRAULIC UNLOADER ASSEMBLY
1/3	1	6317	STUD-MOUNTING
1/4	1	160047-J05	SCREW-SET, 1/4-28 UNF X .38, GRADE 5
1/5	1	7361	TEE-PIPE, 1/4 NPT X 1/4 NPT X 1/4 NPT, BRASS
1/6	2	1642	FITTING-TUBE, 90 MALE ELBOW 1/4 TUBE X 1/8 NPT
1/7	1FT	110515-025	TUBE-COPPER, 1/4 O.D.
1/8	1	1643	FITTING-STRAIGHT, 1/4 TUBE X 1/8 NPT
1/9	1	2708	FITTING-TUBE, 90 MALE ELBOW 1/4 TUBE X 1/4 NPT
1/10	1	2616	FITTING-STRAIGHT, 3/8 TUBE X 1/4 NPT
2	4FT	110515-025	TUBE-COPPER, 1/4 O.D.
3	1	1665	FITTING-TEE, 1/4 TUBE X 1/4 TUBE X 1/8 NPT
4	1	1642	FITTING-TUBE, 90 MALE ELBOW 1/4 TUBE X 1/8 NPT
5	1	2708	FITTING-TUBE, 90 MALE ELBOW 1/4 TUBE X 1/4 NPT

* See pages 33 & 34 for optional pilot valves that must be used with respective pressure ranges.

CONTROL GROUPS 110859 & 110859-001
(control version LVD)



CONTROL GROUP 110859

(control version LVD)
(for standard pressure rated compressors)

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	110846	PILOT VALVE ASSEMBLY
* 1/1	1	111423-140	PILOT VALVE
1/2	1	110827-001	HYDRAULIC UNLOADER ASSEMBLY
1/3	1	6317	STUD-MOUNTING
1/4	1	160047-J05	SCREW-SET,1/4-28 UNF X .38,GRADE 5
1/5	1	7361	TEE-PIPE,1/4 NPT X 1/4 NPT X 1/4 NPT,BRASS
1/6	2	1642	FITTING-TUBE,90 MALE ELBOW 1/4 TUBE X 1/8 NPT
1/7	1FT	110515-025	TUBE-COPPER,1/4 O.D.
1/8	1	1643	FITTING-STRAIGHT,1/4 TUBE X 1/8 NPT
1/9	1	2708	FITTING-TUBE,90 MALE ELBOW 1/4 TUBE X 1/4 NPT
1/10	1	2616	FITTING-STRAIGHT,3/8 TUBE X 1/4 NPT
2	4FT	110515-025	TUBE-COPPER,1/4 O.D.
3	1	1665	FITTING-TEE,1/4 TUBE X 1/4 TUBE X 1/8 NPT
4	1	1642	FITTING-TUBE,90 MALE ELBOW 1/4 TUBE X 1/8 NPT
5	1	2708	FITTING-TUBE,90 MALE ELBOW 1/4 TUBE X 1/4 NPT

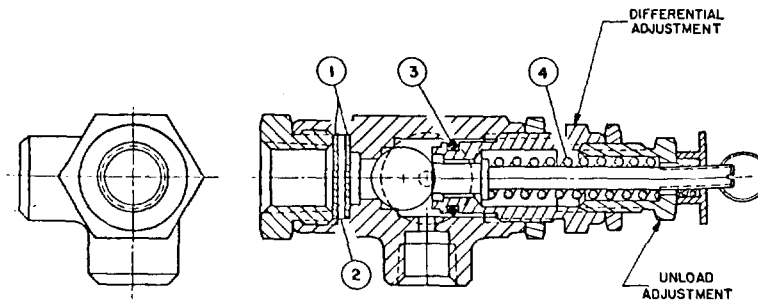
CONTROL GROUP 110859-001

(control version LVD)
(for high pressure rated compressors)

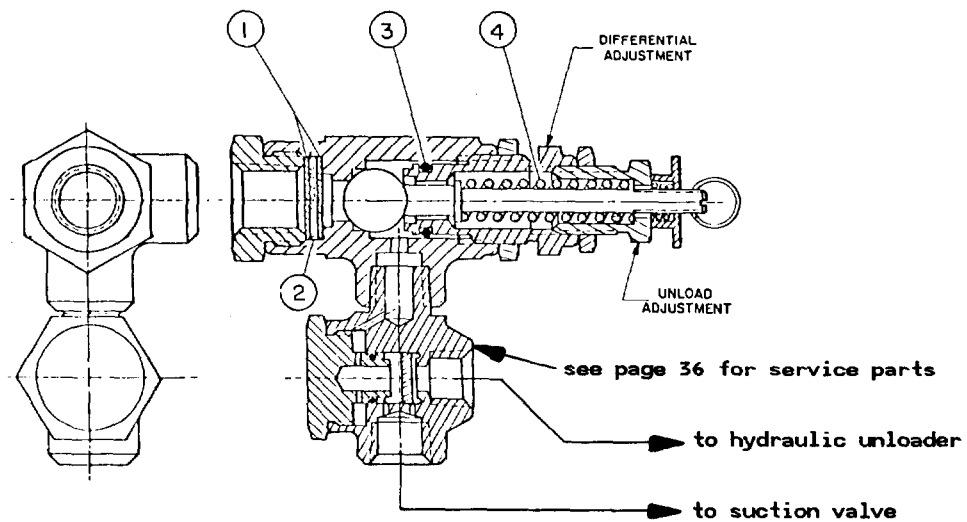
ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
1	1	110846-001	PILOT VALVE ASSEMBLY
* 1/1	1	111423-999	PILOT VALVE
1/2	1	110827-002	HYDRAULIC UNLOADER ASSEMBLY
1/3	1	6317	STUD-MOUNTING
1/4	1	160047-J05	SCREW-SET,1/4-28 UNF X .38,GRADE 5
1/5	1	7361	TEE-PIPE,1/4 NPT X 1/4 NPT X 1/4 NPT,BRASS
1/6	2	1642	FITTING-TUBE,90 MALE ELBOW 1/4 TUBE X 1/8 NPT
1/7	1FT	110515-025	TUBE-COPPER,1/4 O.D.
1/8	1	1643	FITTING-STRAIGHT,1/4 TUBE X 1/8 NPT
1/9	1	2708	FITTING-TUBE,90 MALE ELBOW 1/4 TUBE X 1/4 NPT
1/10	1	2616	FITTING-STRAIGHT,3/8 TUBE X 1/4 NPT
2	4FT	110515-025	TUBE-COPPER,1/4 O.D.
3	1	1665	FITTING-TEE,1/4 TUBE X 1/4 TUBE X 1/8 NPT
4	1	1642	FITTING-TUBE,90 MALE ELBOW 1/4 TUBE X 1/8 NPT
5	1	2708	FITTING-TUBE,90 MALE ELBOW 1/4 TUBE X 1/4 NPT

* See pages 33 & 34 for optional pilot valves that must be used with respective pressure ranges.

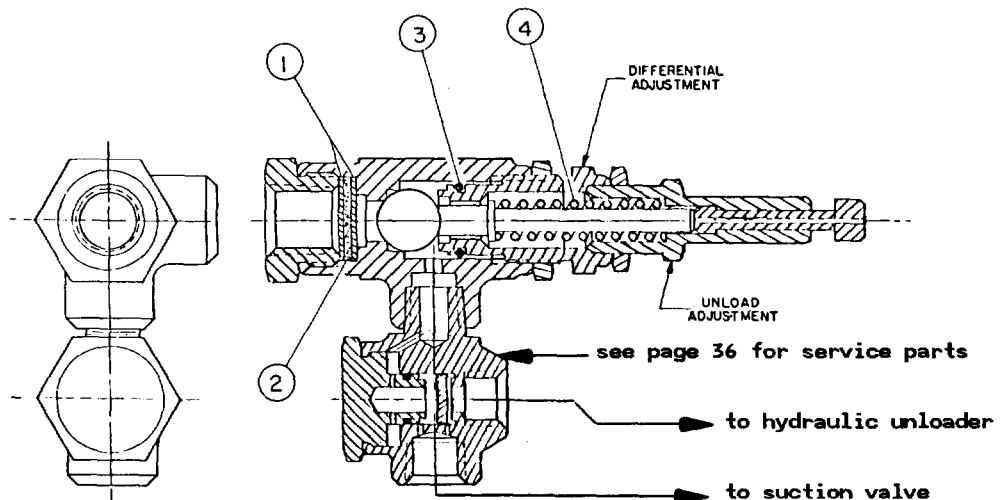
PILOT VALVES



*for compressors equipped with control version "S"
part number 110832-****



*for compressors equipped with control version "LS"
part number 111422-****



*for compressors equipped with control version "LVD"
part number 111423-****

PILOT VALVES

*** (DASH NO.)

PRESSURE SETTING

-997	** 30 TO 70 P.S.I. adjustable unload pressure
-998	** 71 TO 150 P.S.I. adjustable unload pressure
-999	** 151 TO 250 P.S.I. adjustable unload pressure

** customer to set - see differential setting chart below
 Factory preset pilot valves are available upon request.

DIFFERENTIAL SETTING CHART

SPRING NO.	UNLOAD P.S.I.	MINIMUM DIFFERENTIAL P.S.I.	MAXIMUM DIFFERENTIAL P.S.I.
110832-052	30	2	4
"	40	5	8
"	50	5	8
"	60	5	8
"	70	5	10
110832-053	80	5	10
"	90	5	12
"	100	5	13
"	110	5	15
"	120	5	15
"	130	5	18
"	140	5	18
"	150	5	20
110832-054	160	5	15
"	170	5	20
"	175	5	23
"	200	5	25
"	250	10	30

Factory preset pilot valves are available upon request.

WARNING: Not all pilots are for use with all compressor systems. Make sure that the pilot you order is set within the safe operating limits of your compressor. Failure to heed this warning could result in an explosion.

PILOT REPAIR KIT 110832-051

ITEM NO.	QTY	DESCRIPTION
1	2	screen
2	1	filter
3	1	"o"ring
* 4	1	pilot replacement spring (see below)

*ITEM NO. 4 PILOT REPLACEMENT SPRINGS

SPRING NO.	UNLOAD P.S.I. RANGE	COLOR CODE
110832-052	30-70	red
110832-053	71-150	yellow
110832-054	151-250	green

SUCTION VALVE UNLOADER ASSEMBLIES

description

The QUINCY suction valve unloader assembly consists of unloading arrangements on the suction valves, having a plunger to contact the suction valve disc and an unloader pilot valve (part no.s 110832-***, 111422-***, & 111423-***) to automatically regulate the passing of receiver pressure to the unloading arrangement.

application

Suction valve unloader assemblies are recommended for use on Quincy compressors where the compressor is to run continuously and a constant pressure is to be maintained. The purpose is to automatically unseat the suction valve of the compressor when the air supply is greater than the demand.

operation

Unloading occurs when receiver pressure is sufficient to overcome pilot valve spring pressure. The check ball is then unseated allowing receiver pressure to pass to the unloading arrangements. The compressor will run unloaded until the receiver pressure drops to a predetermined level. At this time the action of the ball is reversed, shutting off receiver pressure to the unloader arrangement and venting the unloader to atmosphere. This allows the compressor to load. The drive, either electric motor or gasoline engine, runs continuously and must be started and stopped manually.

Pilot valve 111423, for dual control models, has a shut-off feature built in. The knurled knob at the top of the pilot valve is turned clockwise all the way to lock out the pilot valve. A pressure switch is required to stop the motor. CAUTION! Do not use this pilot valve without a pressure switch! If the pilot is locked out without another device to control the compressor, pressure could rise to an unsafe level causing an explosion. With the knob turned counterclockwise all the way, the pilot functions as indicated above.

installation

The unloader pilot valve is to be connected to the air receiver using a minimum of 3/8" O.D. copper tube. Compressors without suction valve unloader assembly, in field service, can be converted to constant speed by installing suction valve unloaders and an unloader pilot valve.

service

The unloader ball is the only vital moving part in the QUINCY ball type unloader pilot valve and should run for a long period without servicing, provided the inlet filter is kept clean and the pilot valve is clean inside.

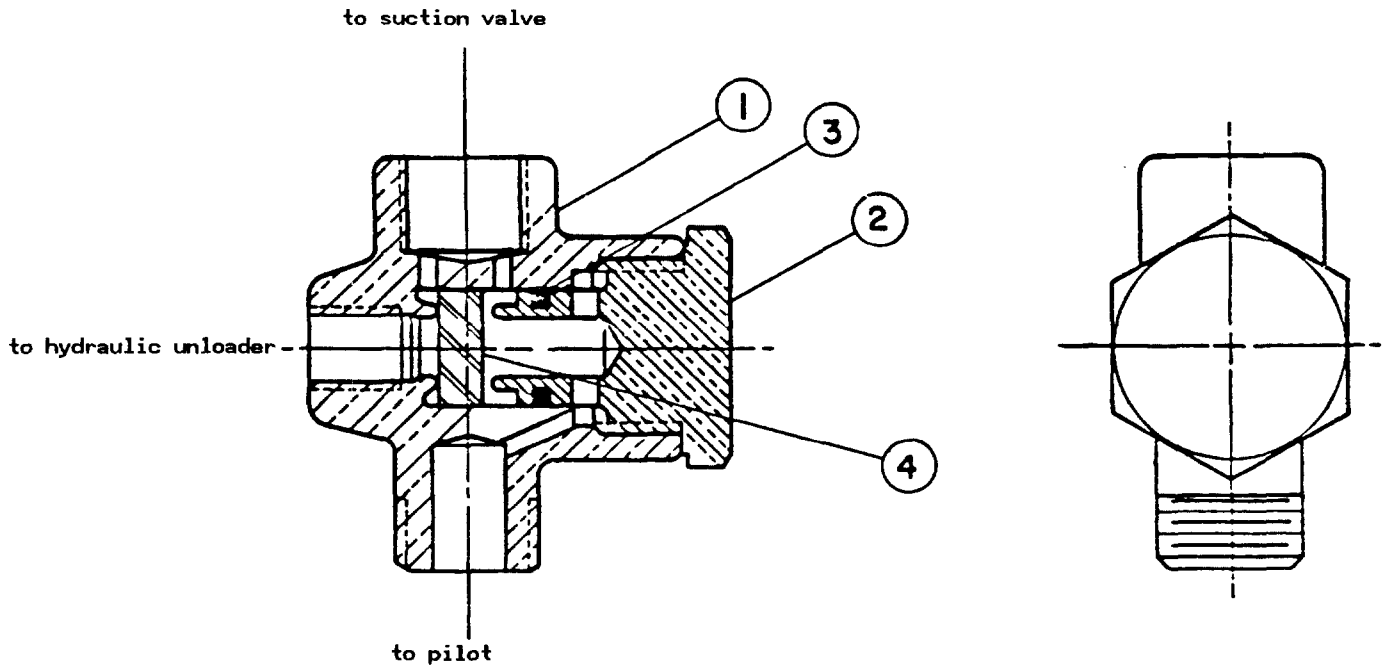
The unloading pressure is adjustable and is regulated by the screw (see cross sectional illustrations of pilot valves) marked "unload adj." (turn clockwise to increase and counterclockwise to decrease). WARNING! Do not set the pilot valve higher than the safe operating limits of your system. Failure to heed this warning could result in an explosion!

The differential (difference between unloading and loading pressure) is set by turning an adjusting screw marked "differential adj." (see cross sectional illustration of pilot valve). Increase by turning clockwise, decrease by turning counterclockwise. Tighten locknuts after adjustment.

CHECK VALVE ASSEMBLIES

(part of 111422-*** & 111423-*** pilot valve assemblies)

(see page 33)



ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
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MAINTENANCE PARTS for 6194X CHECK VALVE ASSEMBLY

1	1	6194	BODY-CHECK VALVE (NOT AVAILABLE; ORDER 6194X)
2	1	6195	SEAT-CHECK VALVE
3	1	123157-012	"O"RING-1/16 WIDE X .50 O.D.
4	1	6196	DISC-CHECK VALVE

MAINTENANCE PARTS for 6194X1 CHECK VALVE ASSEMBLY (For use with diester or phosphate ester synthetic lubricants)

1	1	6194	BODY-CHECK VALVE (NOT AVAILABLE; ORDER 6194X)
2	1	6195	SEAT-CHECK VALVE
3	1	22749-012	"O"RING-1/16 WIDE X .50 O.D.
4	1	6196-001	DISC-CHECK VALVE

GASKET SET & "O"RING KITS

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
		7079	GASKET SET-COMPLETE OVERHAUL
2		1315	GASKET-INSPECTION PLATE
6		1356	GASKET-VALVE
3		1498	SHIM-BEARING, .005
3		1498A	SHIM-BEARING, .007
1		1498B	SHIM-BEARING, .020
2		1498C	SHIM-BEARING, .002
2		1556	GASKET-VALVE
1		2344	GASKET-CYLINDER TO CRANKCASE
2		2346	GASKET-FLANGE
2		2347	GASKET-VALVE PLATE
2		2348	GASKET-COVER PLATE
1		5494	GASKET-BEARING CARRIER
1		5694	GASKET-INTERCOOLER
1		5695	GASKET-CYLINDER TO HEAD
1		6679	GASKET-OIL INLET BRACKET

PETROLEUM BASE LUBRICANT

		110774	"O"RING KIT-COMPLETE COMPRESSOR OVERHAUL
1		123157-011	"O"RING-1/16 WIDE X .44 O.D. (OIL PRESSURE ADJUSTMENT SCREW)
1		123157-112	"O"RING-3/32 WIDE X .69 O.D. (BAYONET OIL GAUGE)
1		123157-152	"O"RING-3/32 WIDE X 3.44 O.D. (OIL PUMP COVER PLATE)
2		123157-210	"O"RING-1/8 WIDE X 1.00 O.D.
2		1855	DIAPHRAGM-UNLOADER
1		6196	DISC-CHECK VALVE
2		6286	"QUAD"RING-1/8 WIDE X 1.50 O.D.
1		7958	"V"RING-HYDRAULIC UNLOADER

DIESTER BASE SYNTHETIC LUBRICANT

		110291	"O"RING KIT-COMPLETE COMPRESSOR OVERHAUL
2		1855	DIAPHRAGM-UNLOADER
1		22749-011	"O"RING-1/16 WIDE X .44 O.D. (OIL PRESSURE ADJUSTMENT SCREW)
1		22749-112	"O"RING-3/32 WIDE X .69 O.D. (BAYONET OIL GAUGE)
1		22749-152	"O"RING-3/32 WIDE X 3.44 O.D. (OIL PUMP COVER PLATE)
2		22749-210	"O"RING-1/8 WIDE X 1.00 O.D.
1		6196-001	DISC-CHECK VALVE
2		6286-001	"QUAD"RING-1/8 WIDE X 1.50 O.D.
1		7958-001	"V"RING-HYDRAULIC UNLOADER

PHOSPHATE ESTER BASE SYNTHETIC LUBRICANT

		110296	"O"RING KIT-COMPLETE COMPRESSOR OVERHAUL
2		1855S	DIAPHRAGM-UNLOADER
1		22749-011	"O"RING-1/16 WIDE X .44 O.D. (OIL PRESSURE ADJUSTMENT SCREW)
1		22749-112	"O"RING-3/32 WIDE X .69 O.D. (BAYONET OIL GAUGE)
1		22749-152	"O"RING-3/32 WIDE X 3.44 O.D. (OIL PUMP COVER PLATE)
2		22749-210	"O"RING-1/8 WIDE X 1.00 O.D.
1		6196-001	DISC-CHECK VALVE
2		6286-001	"QUAD"RING-1/8 WIDE X 1.50 O.D.
1		7958-001	"V"RING-HYDRAULIC UNLOADER

V.I.P. KIT & RECOMMENDED SPARE PARTS

ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
		110516-390	V.I.P. KIT
1		110162	GAUGE-OIL PRESSURE
2		1855	DIAPHRAGM-UNLOADER
6		1857	PIN-VALVE
6		2087	DISC-VALVE
2		6283	FILTER-HYDRAULIC UNLOADER
6		6909	SPRING-VALVE
6		6910	SPRING-UNLOADER PIN
1		7079	GASKET SET-COMPLETE OVERHAUL

V.I.P. Kit may be substituted in lieu of some recommended spare parts.

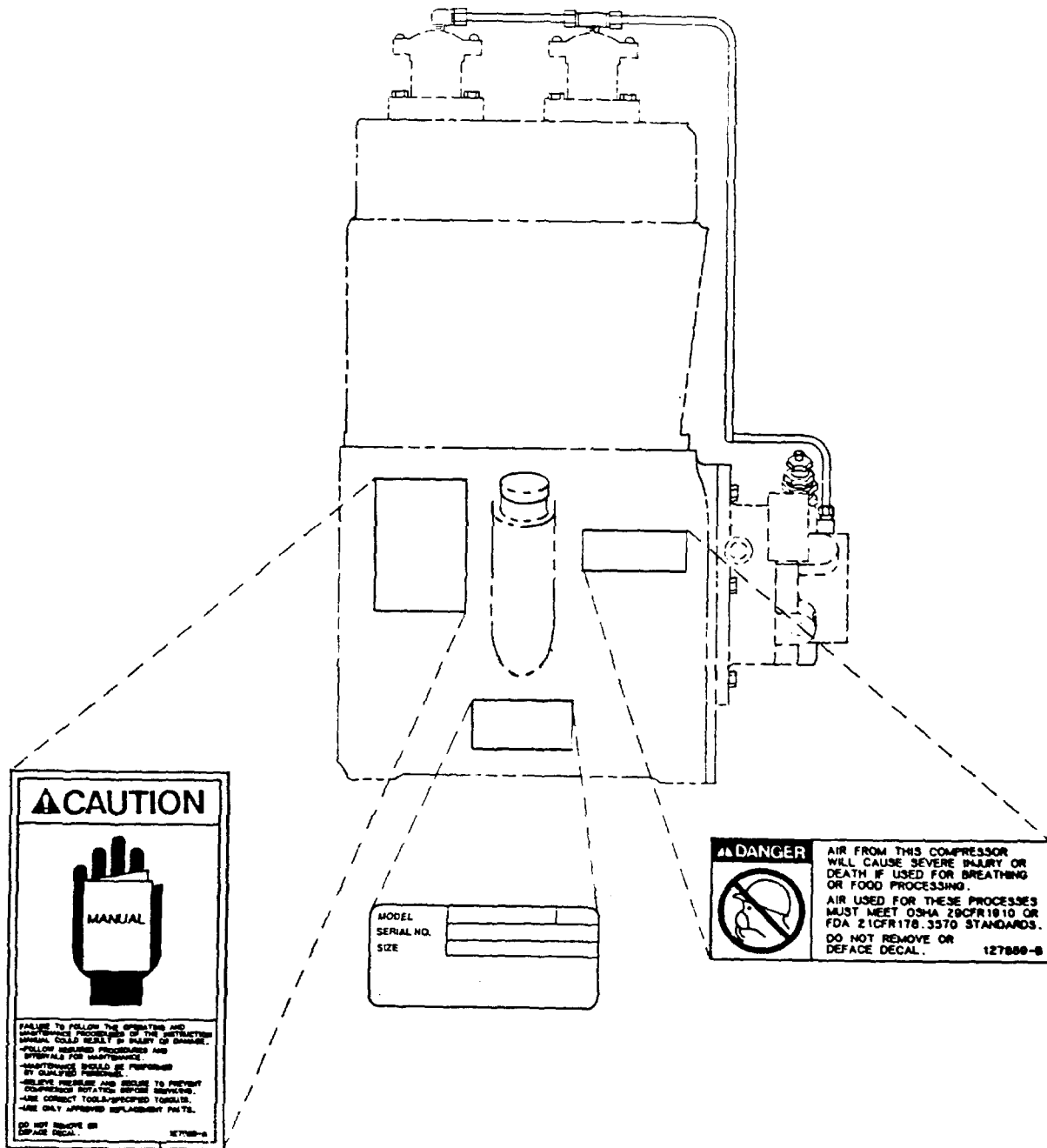
RECOMMENDED SPARE PARTS

	2	1855	DIAPHRAGM-UNLOADER
	OR		
*	2	1855S	DIAPHRAGM-UNLOADER
	3	6949X	VALVE ASSEMBLY-SUCTION
	3	6948X	VALVE ASSEMBLY-DISCHARGE
	2	2819PR	INSERTS(PAIR)-CON ROD BEARING (STANDARD)
	1	110822	GAUGE-PRESSURE
	1	160079	REPAIR KIT-OIL PUMP
	OR		
**	1	160079-001	REPAIR KIT-OIL PUMP
	1	110827-050	REPAIR KIT-HYDRAULIC UNLOADER ASSEMBLY
	OR		
**	1	110827-051	REPAIR KIT-HYDRAULIC UNLOADER ASSEMBLY
	1	110832-051	PILOT REPAIR KIT
	1	7079	GASKET SET-COMPLETE OVERHAUL
	1	110377E200	ELEMENT-AIR FILTER

* For phosphate ester synthetic lubricated models

** For synthetic lubricated models

DECALS



ITEM NUMBER	Q T Y	PART NUMBER	DESCRIPTION
	1	110831	MODEL,SERIAL NUMBER & SIZE PLATE
	1	127889-A	CAUTION/MANUAL/FAILURE TO FOLLOW....
	1	127889-B	DANGER/AIR FROM THIS COMPRESSOR....

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