



an EnPro Industries company

QRNG[®] Series Model 270NG

Parts Manual
Record of Change 104

This manual contains important safety information and should be made available to all personnel who operate and/or maintain this product. Carefully read this manual before attempting to operate or perform maintenance on this compressor.

Fill Out & Return Warranty Registration Card Located Inside

Manual No. 50156-104

February 1999 Edition

INTRODUCTION

This manual provides information for the QRNG Series, Model QRNG 270 natural gas compressor per Record of Changes 101, 102 & 103.

The Model QRNG 270 Natural Gas Compressor is an aircooled, single stage, two cylinder, pressure lubricated compressor, capable of handling inlet pressures of -7.5 P.S.I.G. (15 in. mercury) up to 50 P.S.I.G. Up to 100 P.S.I.G. of discharge pressure can be produced. It has a 4.5" bore x 4" stroke and can be run at 400-940 r.p.m.

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ORDERING REPLACEMENT PARTS

All replacement parts are to be ordered through an authorized Quincy Compressor Gas Application Distributor. **Insist on genuine Quincy parts only! Failure to do so may void warranty.**

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

- Item 1)** the model number, record of change number, & serial number.
- Item 2)** the exact part number needed. (Do not order by item numbers.)
- Item 3)** the exact quantity needed.
- Item 4)** the preferred type of transportation.

MODEL & SERIAL NUMBER IDENTIFICATION

Record of Change No.

MODEL		
SERIAL NO.		
Quincy Compressor Division		
110831		

Model & Serial Number Identification Tag

The serial number identification tag is located on the handhole plate side of the crankcase. *Fill in the numbers from compressor in the corresponding spaces provided here, and reference this page when ordering replacement parts.*

CHANGES

since previous printing dated March, 1998:

Record of Change 104 involved a redesigned discharge valve assembly (the discharge valve center post was removed and the valve assembly was redesigned to be a press-fit valve assembly).

CAUTION !

Follow all safety precautions outlined in the QRNG Series instruction manual.

WARNING !

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

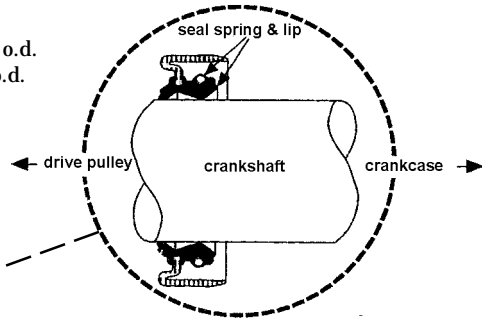
DANGER !

Air used for breathing or food processing must meet O.S.H.A. 1910.134 or F.D.A. 21 C.F.R. 178.3570 regulations. Failure to do so may cause severe injury or death.

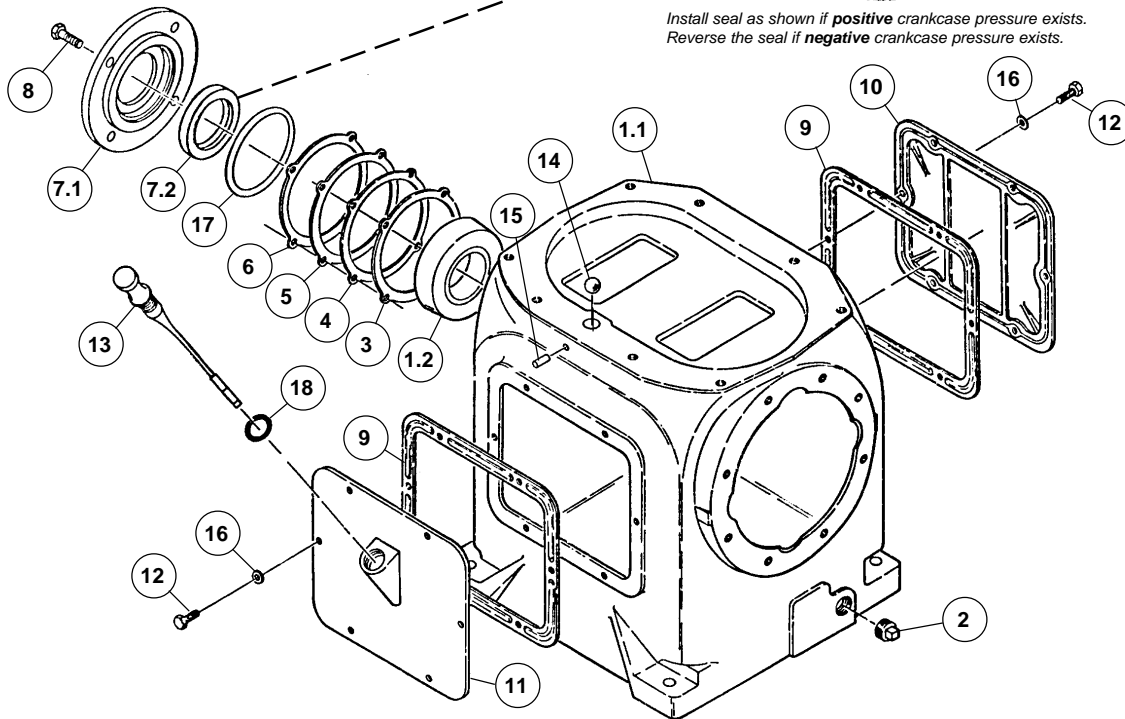
CRANKCASE GROUP 112047-001

Item Number	Qty.	Part Number	Description
1	1	6904X	crankcase assembly
1.1	1	6904	crankcase
1.2	1	3720	bearing cup
2	1	2057	pipe plug, 1/2 npt
3	*	1383	bearing shim adjustment, .005, steel
4	*	1383A	bearing shim adjustment, .007, steel
5	*	1383B	bearing shim adjustment, .020, steel
6	*	1383D	bearing shim adjustment, .002, steel
7	1	112066-001	bearing adjustment plate assembly
7.1	1	112066	adjustment plate
7.2	1	112048	oil seal
8	4	123478-L14	hex screw, 3/8-16 unc x 1.25, grade 5 (@30 ft.-lbs.)
9	2	1315-1	gasket, inspection plate
10	1	1249-1	inspection plate
11	1	6849-2	inspection plate (with oil filter)
12	12	123478-K12	hex screw, 5/16-18 unc x 1.00, grade 5 (@12 ft.-lbs.)
13	1	111876-2	oil gauge assembly
14	1	5783	breather ball
15	1	5932	drive pin
16	12	110428N031	flatwasher, 5/16
17	1	22749-042	"o" ring, 1/16 wide x 3.38 o.d.
18	1	112033-908	"o" ring, 3/32 wide x .82 o.d.

* Quantity as required
 @ Indicates torque value (dry threads).



Install seal as shown if **positive** crankcase pressure exists.
 Reverse the seal if **negative** crankcase pressure exists.



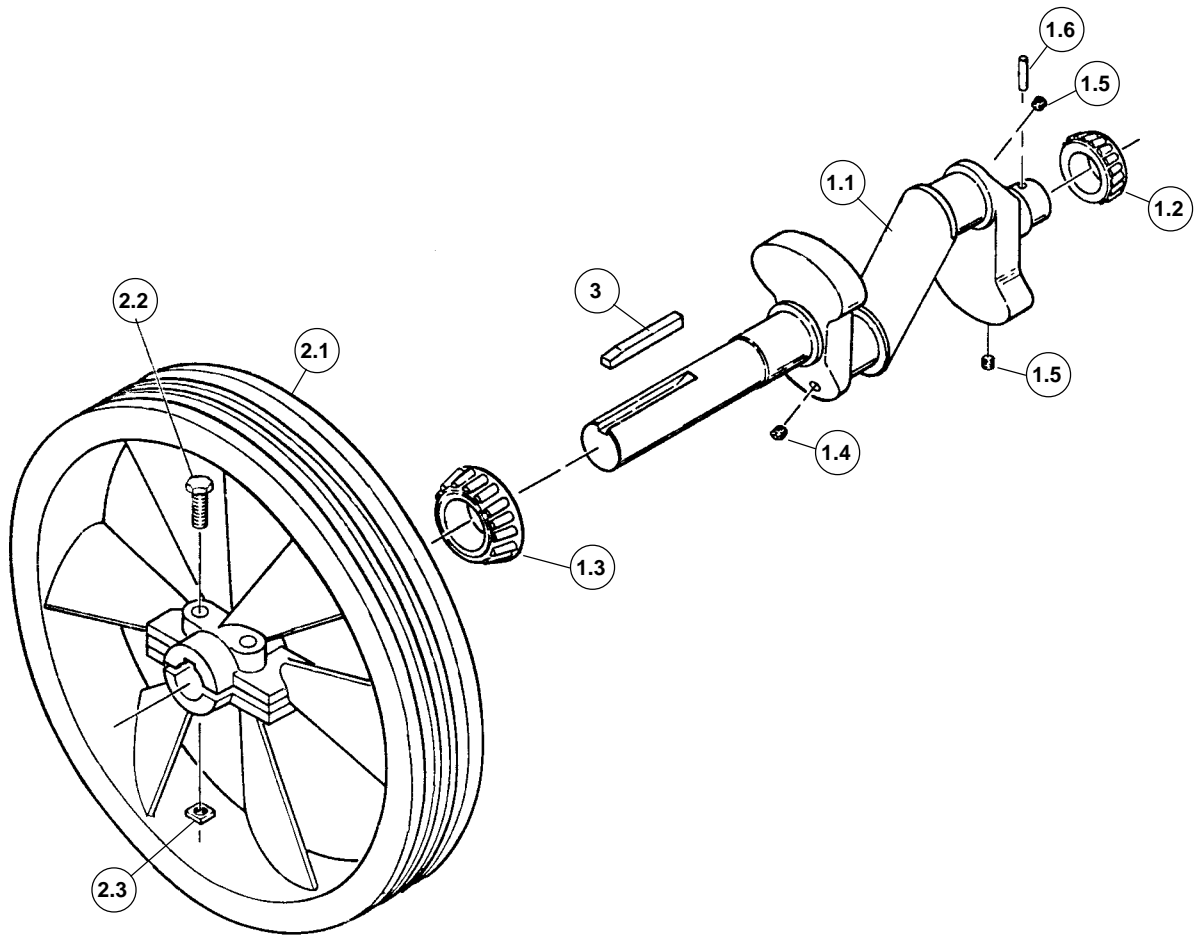
CRANKSHAFT GROUP 111435

Item Number	Qty.	Part Number	Description
1	1	111238X002	crankshaft assembly
1.1	1	111238-002	crankshaft (N.S.S.; order 111238X002)
1.2	1	2788	bearing cone
1.3	1	40775	bearing cone
1.4	1	110234	pipe plug orifice, 1/8 npt
1.5	2	2755S	pipe plug, 1/8 npt
1.6	1	110705-F17	roll pin, 3/16 x 1.38
2	1	110523X	sheave assembly
2.1	1	110523	sheave, 19.5", 3G, B sect., CCW (N.S.S.; order 110523X)
2.2	2	124571-N22	hex screw, 1/2-20 unf x 3.25, grade 5 (@ 90 ft.-lbs.)
2.3	2	124373-N02	square nut, 1/2-20 unf
3	1	1466	taper key

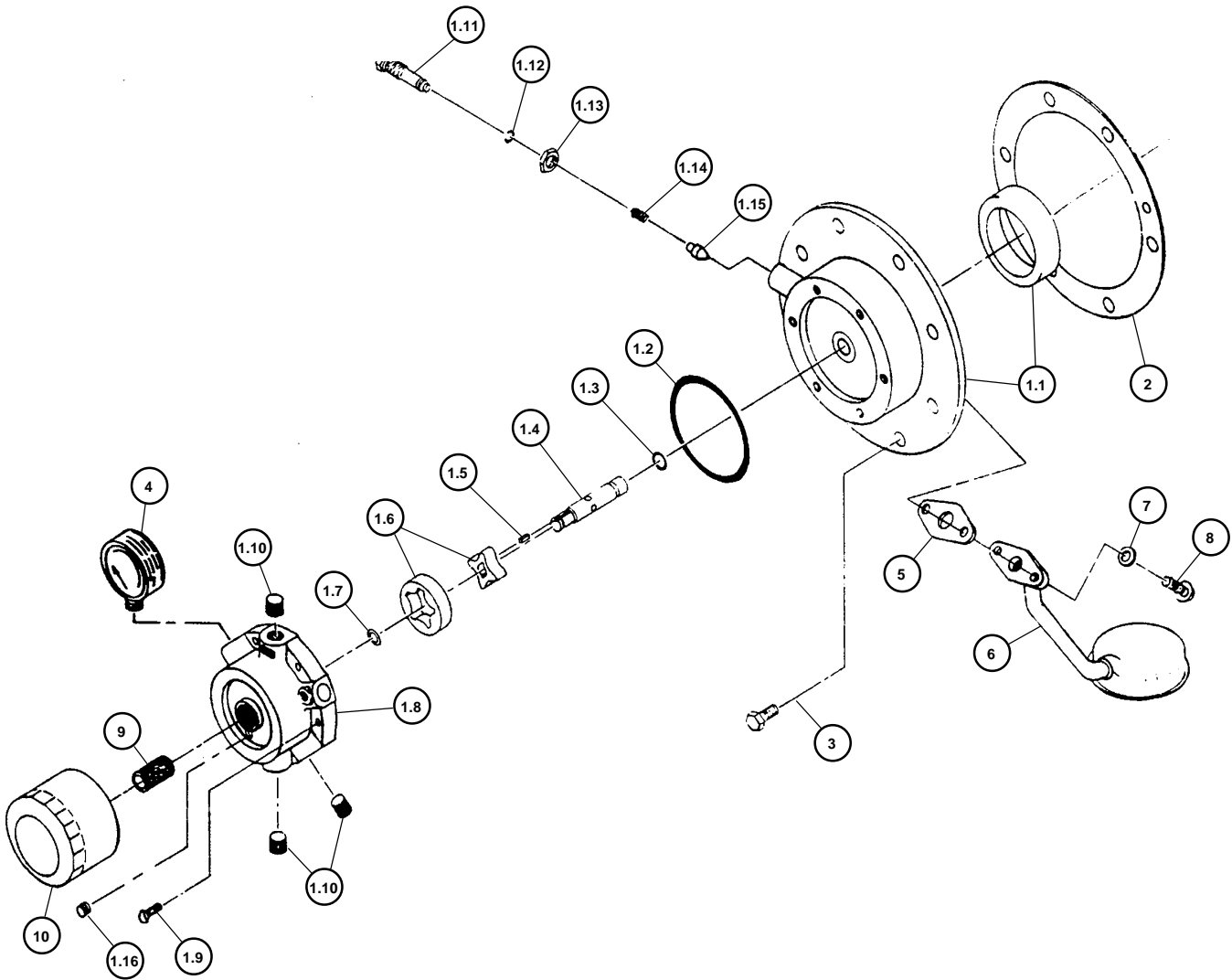
N.S.S. = Not Sold Separate

@ Indicates torque value in foot pounds (dry threads)

Note: For reversal of compressor rotation refer to QRNG instruction manual.



BEARING CARRIER GROUP 112042-001



BEARING CARRIER GROUP 112042-001

Item Number	Qty.	Part Number	Description
1	1	112043-002	bearing carrier assembly (N.S.S.; order 112043G002)
1.1	1	110812	bearing carrier
	1	2720	includes: bearing cup
	2	160005	bushing
1.2	1	22749-152	"o"ring, 3/32 wide x 3.44 o.d.
1.3	1	22749-112	"o"ring, 3/32 wide x .69 o.d.
1.4	1	160002-001	bearing carrier driveshaft
1.5	1	160075-001	driveshaft key
1.6	1	160003	pump gerotor
1.7	1	6285	retaining ring
1.8	1	110813-001	oil pump housing
1.9	6	123777-J12	hex screw, 1/4-20 unc x 1.00 (@ 6 ft-lbs.)
‡ 1.10	3	2719	pipe plug, 1/4 npt
1.11	1	5489	adjustment screw
1.12	1	22749-011	"o"ring, 1/16 wide x .44 o.d.
1.13	1	124369-P02	jamnut, 9/16-18 unf
1.14	1	1160	spring
1.15	1	112857	needle valve
‡ 1.16	1	121160	pipe plug, 1/8 npt
2	1	5502-1	gasket, bearing carrier
3	8	123478-L12	hex screw, 3/8-16 unc x 1.00 grade 5 (@ 30 ft-lbs.)
4	1	110822	* oil pressure gauge
5	1	6679-1	gasket, oil inlet bracket
6	1	110659	oil pickup tube
7	2	123115-06C	lockwasher, 3/8
8	2	123478-L11	hex screw, 3/8-16 unc x .88, grade 5 (@ 30 ft-lbs.)
9	1	110825	oil filter stud
			Maintenance Parts
10	1	110814-001	oil filter (6-pack)
	1	160079-001	Oil Pump Repair Kit
		112043G002	Replacement Bearing Carrier Assembly
			includes "o"rings, brg. carrier driveshaft, key, gerotor pump & retaining ring includes bearing carrier assembly & bearing carrier gasket

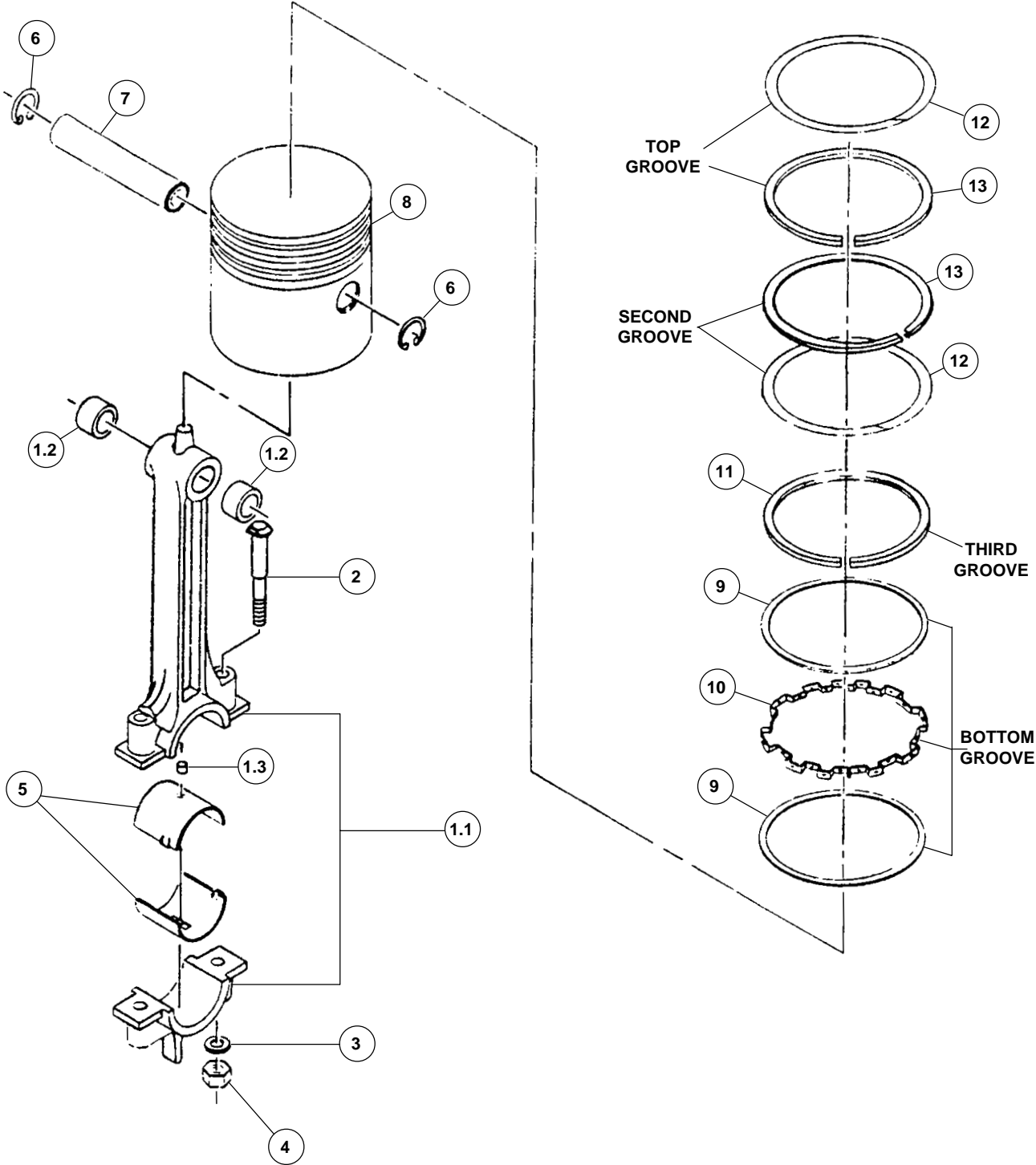
N.S.S. = Not Sold Separately

@ Indicates torque value (dry threads). Tighten multiple bolts, capscrews & hex nuts in a criss-cross or alternating pattern. Bring each fastener to the recommended torque specification in even increments.

‡ Install with Teflon® tape.

* Should indicate approximately 25 P.S.I.G. at operating temperature.

CONNECTING ROD & PISTON GROUP 112219-001



CONNECTING ROD & PISTON GROUP 112219-001

(2 of 112219-001 connecting rod & piston groups required per compressor)

Item Number	Qty.	Part Number	Description
1	1	112221-001	connecting rod assembly
1.1	1	112223X	connecting rod assembly (N.S.S.; see maintenance parts)
1.2	2	112224	needle bearing
1.3	1	110801-001	orifice
2	2	1344	rod bolt
3	2	1319	washer
4	2	124471-M08	lock nut, 7/16-20 unf (@ 40 ft.-lbs.)
5	2	6656	connecting rod insert (sold in pairs only, see maintenance parts)
6	2	128203-100	retaining ring
7	1	110190-018	piston pin
8	1	112222	compressor piston
9	2	112781	oil ring rail
10	1	112780	oil ring expander
11	1	7351	piston ring
12	2	7012	spring
13	2	7010	piston ring

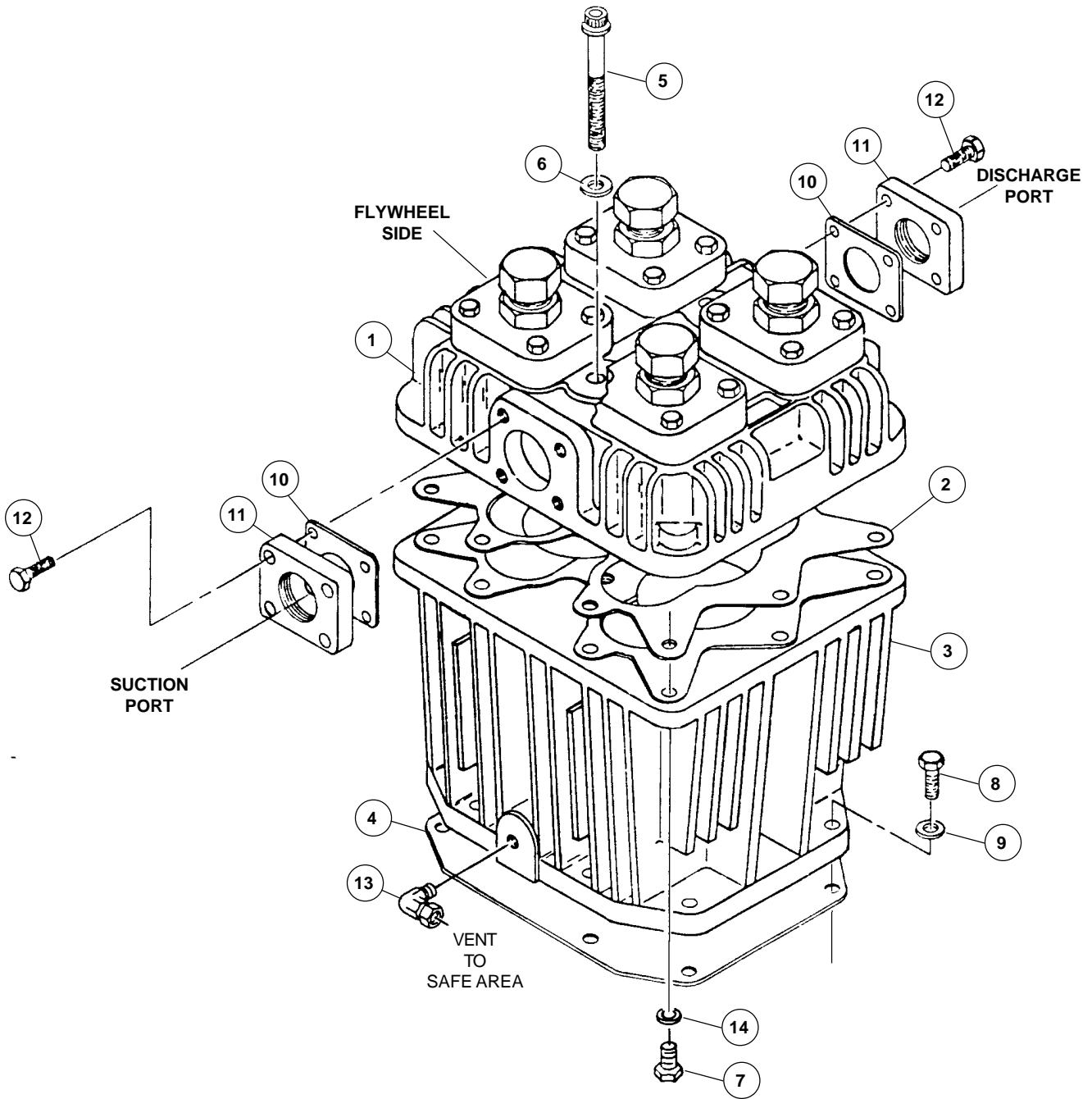
Maintenance Parts

112222-010	replacement piston (.010 oversize)
112222-020	replacement piston (.020 oversize)
8166	ring set (standard; no color code)
4434-010	ring set (.010 oversize; light blue)
4434-020	ring set (.020 oversize; yellow)
6656PR	connecting rod bearing inserts (1 pair; standard size)
6656-010PR	connecting rod inserts (1 pair; .010 undersize)
112222G	Replacement Piston Assembly (Standard) includes piston, piston pin, ring set & retaining rings
112222G010	Replacement Piston Assembly (.010 Oversize) includes piston, piston pin, ring set & retaining rings
112222G020	Replacement Piston Assembly (.020 Oversize) includes piston, piston pin, ring set & retaining rings
112221G	Replacement Connecting Rod Assembly (Standard Size) includes connecting rod assembly, connecting rod inserts & locknuts
112221G010	Replacement Connecting Rod Assembly (.010 Undersize) includes connecting rod assembly, connecting rod inserts & locknuts

N.S.S. = Not Sold Separate

@ Indicates torque value in foot pounds (dry threads). Tighten multiple bolts, capscrews & hex nuts in a criss-cross or alternating pattern. Bring each fastener to the recommended torque specification in even increments.

CYLINDER & HEAD GROUP 112218-001

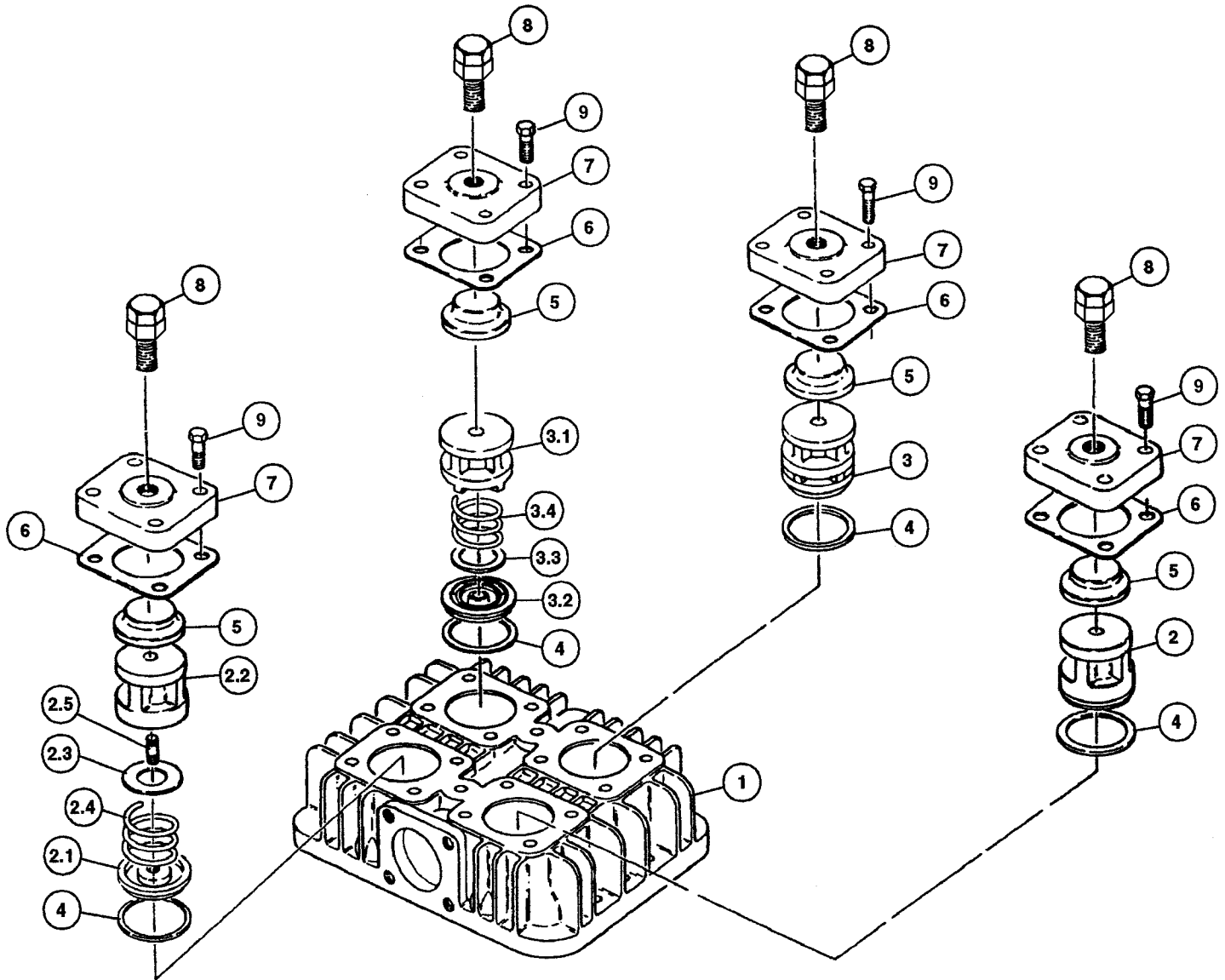


CYLINDER & HEAD GROUP 112218-001

Item Number	Qty.	Part Number	Description
1	1	112220-001	head assembly (see page 11 for parts breakdown)
2	1	5826-1	gasket, cylinder to head
3	1	7281-2	compressor cylinder
4	1	5827-1	gasket, cylinder to crankcase
5	2	5863	counterbore screw, 1/2-13 unc x 4.25, grade 8 (@ 50 ft.-lbs.)
6	2	1478-1	flatwasher
7	10	123478-M14	hex screw, 7/16-14 unc x 1.25, grade 5 (@ 50 ft.-lbs.)
8	8	123478-N15	hex screw, 1/2-13 unc x 1.50, grade 5 (@ 75 ft.-lbs.)
9	8	123115-08C	lockwasher, 1/2
10	2	5828-1	gasket, flange
11	2	5858	intake flange
12	8	123478-M15	hex screw, 7/16-14 unc x 1.50, grade 5 (@ 50 ft. - lbs)
13	2	110419-010	tube fitting, 90° male elbow 3/8 tube x 3/8 npt
14	8	123115-07C	lockwasher, 7/16
			Maintenance Parts
	1	112220G001	Replacement Head Assembly includes gasket & head assembly

@ Indicates torque value (dry threads). Tighten multiple bolts, capscrews & hex nuts in a criss-cross or alternating pattern. Bring each fastener to the recommended torque specification in even increments.

HEAD ASSEMBLY 112220-001



HEAD ASSEMBLY 112220-001

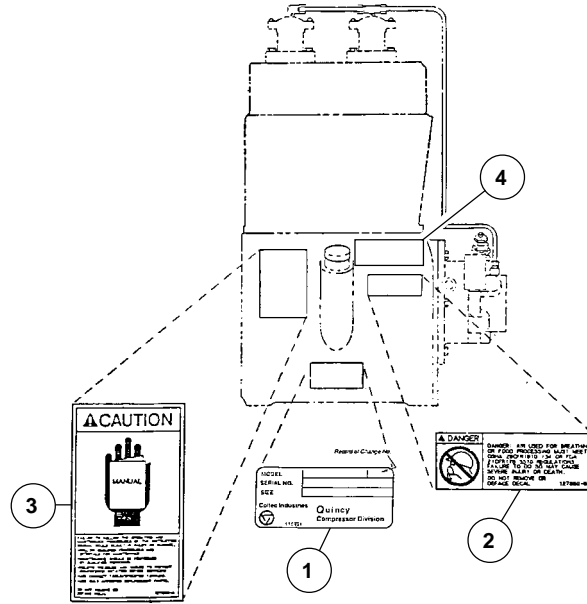
Item Number	Qty.	Part Number	Description
1	1	5824	compressor head
2	2	6671X1P	suction valve assembly
2.1	1	6671	valve bumper
2.2	1	2015P	suction valve seat
2.3	1	2036	valve disc
2.4	1	6909	valve spring
2.5	1	1849	valve stud
3	2	6670X001	discharge valve assembly
3.1	1	6670-001	valve bumper
3.2	1	5812-001	valve seat
3.3	1	2036	valve disc
3.4	1	6909	valve spring
4	4	2024-001	valve gasket
5	4	6668-1R	valve retainer
6	4	2025-1	valve cover gasket
7	4	6666	cover plate
* 8	4	124571-R15	hex screw, 3/4-16 unc x 1.50, grade 5 (@ 60 ft.-lbs.)
9	4	124369-R02	jamnut, 3/4-16 unc (@ 50 ft.-lbs.)
* 10	16	123478-M15	hex screw, 7/16-14 unc x 1.50, grade 5 (@ 50 ft.-lbs.)
			Maintenance Parts
	1	6671G	Replacement Suction Valve Assembly includes suction valve assembly & valve gasket
	1	6670G	Replacement Discharge Valve Assembly includes discharge valve assembly & valve gasket

@ Indicates torque value (dry threads). Tighten multiple bolts, capscrews & hex nuts in a criss-cross or alternating pattern. Bring each fastener to the recommended torque specification in even increments.

*Tighten & torque valve cover plate hex screws (item 10) prior to tightening valve clamp hex screws (item 8).

Gasket Set 7087G

Item #	Qty.	Part Number	Description
3		1315-1	gasket, inspection plate
3		1383	bearing adj. shim, .005 steel
5		1383A	bearing adj. shim, .007 steel
3		1383B	bearing adj. shim, .020 steel
2		1383D	bearing adj. shim, .002 steel
4		2024-001	gasket, valve
4		2025-1	gasket, bearing cover
1		5502-1	gasket, bearing carrier
1		5826-1	gasket, cylinder to head
1		5827-1	gasket, cylinder to crankcase
1		5828-1	gasket, flange
6		6679-1	gasket, oil inlet bracket



CRANKCASE LUBRICANT CAPACITY

Model	Less Filter	With Filter
QRNG 270	4 ³ / ₄ Qts. (4.49 lit.)	Add 10 oz. (.3 lit.)

Decals

Item #	Qty.	Part Number	Description
1	1	110831	serial number & nameplate
2	1	127889-A	decal, CAUTION!, MANUAL
3	1	127889-B	decal, DANGER!, "Air from this..."
4	1	113387	decal, CAUTION!, "Do not remove dipstick..."

QUIN-CIP[®] OIL

Refer to the chart below to order QUIN-CIP compressor oil from your local Authorized Quincy Compressor Distributor.

Package	Part No.	Description
Barrel	112541D032	55 gal., SAE 10W
Pail	112541P032	5 gal., SAE 10W
Gallon	112541G032	1 gal., SAE 10W
Gallon Case	112541X032	(4)-1 gal., SAE 10W
Quart	112541Q032	1 qt., SAE 10W
Quart Case	112541C032	(12)-1 qt., SAE 10W
Barrel	112542D068	55 gal., SAE 20
Pail	112542P068	5 gal., SAE 20
Gallon	112542G068	1 gal., SAE 20
Gallon Case	112542X068	(4)-1 gal., SAE 20
Quart	112542Q068	1 qt., SAE 20
Quart Case	112542C068	(12)-1 qt., SAE 20
Barrel	112543D100	55 gal., SAE 30
Pail	112543P100	5 gal., SAE 30
Gallon	112543G100	1 gal., SAE 30
Gallon Case	112543X100	(4)-1 gal., SAE 30
Quart	112543Q100	1 qt., SAE 30
Quart Case	112543C100	(12)-1 qt., SAE 30

"O" Ring Kit 110291G

Item #	Qty.	Part Number	Description
	1	22749-011	"o" ring, 1/16 wide x .44 o.d. (oil pres. adj. scrw.)
	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)
	1	112033-908	"o" ring, 3/32 wide x .82 o.d.
	1	22749-042	"o" ring, 1/16 wide x 3.38 o.d. (bearing carrier)
	1	112048	oil seal

Recommended Spare Parts

Item #	Qty.	Part Number	Description
	2	6671G	replacement suction valve assy.
	2	6670G	replacement discharge valve assy.
	1	6656PR	inserts (pr.), con rod bearing, (std.)
	1	110822	pressure gauge
	1	160079-001	oil pump repair kit
	1	7087G	gasket set



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