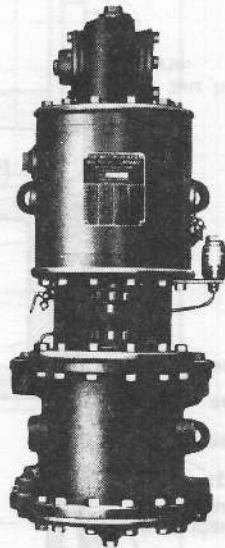


11 inch x 11 inch x 12 inch

# STEAM DRIVEN AIR COMPRESSOR



**Crown Metal Products  
Company**

Wyano, Pa., 15695 — U.S.A.

PHONE 872-8720 (AREA CODE 412)



# 11-INCH x 11-INCH x 12-INCH AIR COMPRESSOR

(For General Data, see Page 6)

This Compressor with 11-inch Steam Cylinder; 11-inch Air Cylinder and 12-inch stroke has a displacement of 66 cubic feet when operating at the normal speed of 100 single strokes per minute.

## Piece No. 537850 11" Air Compressor (Right and Left Hand) complete, with Filter and Type B-3 Automatic Oil Cup

Pc. No.	Ref. No.	No. per Pkg.	Description	Pc. No.	Ref. No.	No. per Pkg.	Description
3648	2		Top Head, complete (includes 14, 15, 16, 17, 18, 25, 26, 27, 28, 29 and 82, and ten of 48)	3661	45		$\frac{3}{4}$ "x2 $\frac{5}{8}$ " Short Tee Head Bolt and Hexagon Nut (15 Req'd)
3649	3		Steam Cylinder, complete (includes 57, 58, 59, Pcs. 8728 and 8726, two of 60 and four of 61)	3662	46		$\frac{3}{4}$ "x3 $\frac{1}{4}$ " Long Tee Head Bolt and Hexagon Nut
59828	4		Center Piece, complete (includes Pc. 1635 and two of 40, 41, 42, 57 and Pc. 3526)	1750	48		$\frac{5}{8}$ "x1 $\frac{1}{2}$ " Main Valve Head Cap Screw (10 Req'd)
78479	5		Air Cylinder, complete (includes two of 31, 32, 33 and four of 30)	1711	49		Upper Steam Cylinder Gasket
5170	6		Lower Head (includes 54)	1712	50		Lower Steam Cylinder Gasket
98198	7	1	Steam Piston and Rod (includes 10, 11, 79, 81; two of 9 and three of 12)	1713	51		Upper Air Cylinder Gasket
See Pages 4 and 5		8		1	1713	52	
1590	9	12-25	Steam Piston Ring (2 Req'd)	1919	54	6	Cylinder Head Plug
1688	10	25	Piston Rod Nut	17582	56		Piston Rod Swab
12065	11	3	Reversing Valve Plate	1887	57		Drain Cock
1709	12		Reversing Valve Plate Bolt (3 Req'd)	9584	58		Steam Cylinder Lagging, set
1706	13	5	Reversing Valve Rod	9582	59		Steam Cylinder Jacket
31404	14	10	Reversing Valve	9583	60		Steam Cylinder Jacket Band (2 Req'd)
1710	15	2	Reversing Valve Chamber Bush	68421	61		No. 20—18x $\frac{7}{16}$ " Jacket Band Screw (4 Req'd)
31402	16	1	Reversing Valve Chamber Cap	3661	66		$\frac{3}{4}$ "x2 $\frac{5}{8}$ " Tee Head Bolt and Nut (22 Req'd)
	17	1	Main Valve Bush	1589	79		Piston Rod Cotter
	18	1	Main Valve Pistons and Stem, complete (includes 19, 21, 23 and four of 24)	80	12-25		Air Piston Ring (see pages 4 and 5) (2 Req'd)
See Pages 4 and 5	19	1	Large Main Valve Piston (includes two of 20)	1591	81	25	Piston Rod Jam Nut
	20	50	Large Main Valve Piston Ring (2 Req'd)	31405	82	2	Reversing Valve Rod Bush
	21	2	Small Main Valve Piston (includes two of 22)	3269	91		$\frac{3}{4}$ "x2" Short Cap Screw (4 Req'd)
	22	50	Small Main Valve Piston Ring (2 Req'd)	3270	92		$\frac{3}{4}$ "x2 $\frac{5}{8}$ " Long Cap Screw (4 Req'd)
1696	23	6	Main Valve Stem	76225	99		Oil Cup Bracket
2052	24		Main Valve Stem Nut (4 Req'd)	71755	100		$\frac{1}{4}$ " Union Stud
1707	25	2	Main Slide Valve	76590			Oil Cup, complete with Bracket, Oil Tube and Union Connection (includes 99, 100, 105, 106, 107, 108 and two of 133 and 134)
1599	26	2	Right Main Valve Cylinder Head	89042	105		Type B-3 Automatic Air Cylinder Oil Cup, complete
5169	27	1	Left Main Valve Cylinder Head	76591	106		Oil Tube to Air Cylinder
1716	28		Right Main Valve Head Gasket	71756			$\frac{1}{4}$ " Union Stud, complete for $\frac{3}{8}$ " O.D. Copper Tube (includes 100, 107 and 108)
1715	29		Left Main Valve Head Gasket	71748	107		$\frac{1}{4}$ " Union Nut
29177	30	12-36	Air Valve (4 Req'd)	71727	108		$\frac{1}{4}$ " Union Thimble
8269	31	24	Air Valve Seat (2 Req'd)	25080	132		$\frac{3}{4}$ "x2 $\frac{7}{8}$ " Tee Hd. Bolt and Nut (2 Req'd)
505774	32	2	Air Valve Cap (2 Req'd)	17173	133		$\frac{3}{8}$ " Lock Washer (2 Req'd)
44445	33	6	Air Valve Cage (Steel) (2 Req'd)	24286	134		$\frac{3}{8}$ "x $\frac{7}{8}$ " Hex. Hd. Cap Screw (2 Req'd)
1702	40	1	Stuffing Box (2 Req'd)				
51343	41	6	Stuffing Box Nut (2 Req'd)	8728			$\frac{1}{4}$ " Pipe Plug
1703	42	1	Stuffing Box Gland (2 Req'd)	8726			2" Pipe Plug
4862	43		Piston Rod Packing (Vulcabeston) set (sufficient for 2 stuffing boxes)	1635			$\frac{1}{4}$ " Pipe Plug
				3526			$\frac{1}{8}$ " Pipe Plug (2 Req'd)

Prices will be quoted upon application

Orders should give PIECE NUMBER and NAME of part wanted

**11-INCH x 11-INCH x 12-INCH AIR COMPRESSOR****PISTONS AND RINGS FOR RE-BORED CYLINDERS**

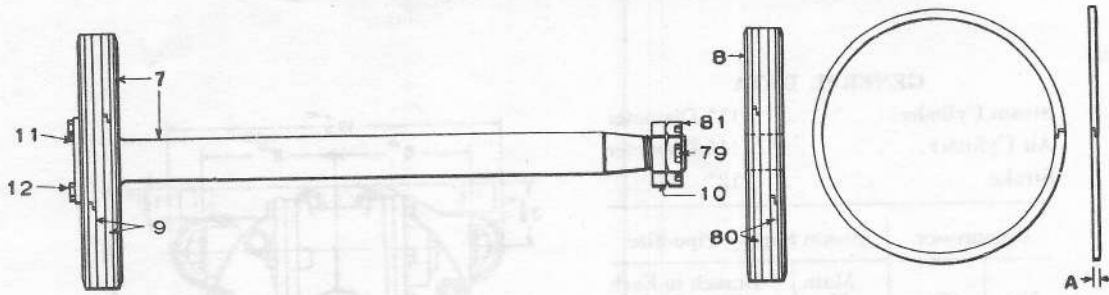
The most modern development in packing rings for steam driven air compressors is now available and involves an improved form of lap joint for the ring somewhat similar to the lap joint rings which have proven so successful in triple valves.

These Lap Joint rings are made from a special mixture of metal to give what long experience has indicated as the most desirable wearing and friction qualities in conjunction with the metal in the cylinder walls. Ring gap and its attendant leakage is eliminated through the medium of a special lap joint at the ring ends that closes the rings in a complete circle. With the ring closed in its groove this joint seals on both the cylinder wall and one wall of the ring groove, forming a double leakage barrier which prevents blow-by between cylinder wall and ring. The joint maintains the sealing function of the ring throughout its entire circumference and thereby effectively eliminates the ring gap as a chief source of blow-by losses. Very careful attention has been given in design and manufacture to provide uniform wall pressure of the proper amount, the inside diameter of the ring being left intact to preserve this characteristic pressure over a long period of service. The sides of the ring are accurately ground to the proper width, permitting a close fit in the ring groove. No filing or fitting is required.

In reconditioning air compressors, it is our recommended practice to rebore the steam and air cylinders in steps of  $\frac{1}{16}$ " and the main valve cylinders in steps of  $\frac{1}{32}$ "; the maximum rebored diameter not to exceed that specified in the accompanying tables. We have provided repair pistons in the above oversize and piston rings of our latest improved manufacture in corresponding oversize diameters. The indicated diameter of the rings in each case is exact (a few thousandths large to take care of normal variations in reboring) so that when the ring is installed in the cylinder it will remain a true circle, thus insuring an even bearing at all points on the circumference and a tight fit against leakage. In addition to the oversize in diameter, the steam and air piston rings can all be obtained in widths greater than standard for use in ring grooves that have become wider than standard through wear. They range in overwidths of .006", .012", .018", .025", .030" and .036"

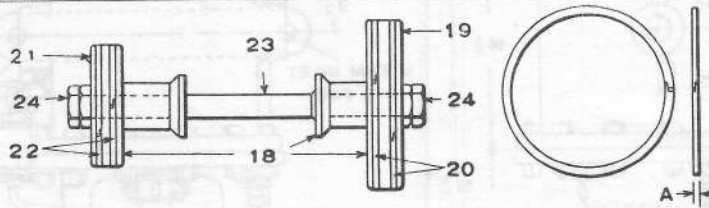
The wide variety of combinations in diameter and widths of rings should be sufficient to meet all normal repair requirements with the minimum of expense.

11-INCH x 11-INCH x 12-INCH AIR COMPRESSOR



STEAM AND AIR PISTONS

REF. No.	No. PER PKG.		CYLINDER DIAMETERS AND PIECE NUMBERS							
			11"	11 $\frac{1}{16}$ "	11 $\frac{1}{8}$ "	11 $\frac{1}{4}$ "	11 $\frac{3}{8}$ "	11 $\frac{1}{2}$ "	11 $\frac{5}{8}$ "	11 $\frac{3}{4}$ "
7	1	*†Steam Piston and Rod (includes 10, 11, 79, 81, two of 9 and three of 12)	98198	504838	98199	98200	98201	98202	98203	98204
8	1	*†Air Piston (includes two of 80)	98191	504839	98192	98193	98194	98195	98196	98197
9 or 80	12-25	*Piston Ring (standard width $\frac{1}{8}$ " Dimension "A" (4 Req'd)	97740	99001	97746	97752	97758	97764	97770	97776
9 or 80	12-25	*Piston Ring (.006" Wider than Standard) (4 Req'd)	97741	99002	97747	97753	97759	97765	97771	97777
9 or 80	12-25	*Piston Ring (.012" Wider than Standard) (4 Req'd)	97742	99003	97748	97754	97760	97766	97772	97778
9 or 80	12-25	*Piston Ring (.018" Wider than Standard) (4 Req'd)	97743	504180	97749	97755	97761	97767	97773	97779
9 or 80	12	*Piston Ring (.025" Wider than Standard) (4 Req'd)	97744	504181	97750	97756	97762	97768	97774	97780
9 or 80	12	*Piston Ring (.030" Wider than Standard) (4 Req'd)	504179	504182						
9 or 80	12	*Piston Ring (.036" Wider than Standard) (4 Req'd)	97745	504183	97751	97757	97763	97769	97775	97781



See table below showing by B and C the cylinder diameters for which pistons and rings are suitable.

\*MAIN VALVE PISTONS

REF. No.	No. PER PKG.		CYLINDER DIAMETERS AND PIECE NUMBERS				
			B—2 $\frac{11}{16}$ " C—3 $\frac{11}{16}$ "	B—2 $\frac{13}{16}$ " C—3 $\frac{13}{16}$ "	B—2 $\frac{3}{4}$ " C—3 $\frac{3}{4}$ "	B—2 $\frac{7}{8}$ " C—3 $\frac{7}{8}$ "	B—2 $\frac{15}{16}$ " C—3 $\frac{15}{16}$ "
18	1	Main Valve Piston, complete (includes 19, 21 and 23, and four of 24)	504647	504648	504649	504650	504651
19	1	Large Main Valve Piston (includes two of 20)	504642	504643	504644	504645	504646
20	50	Large Main Valve Piston Ring (standard width, Dimension "A," .136") (2 Req'd)	502576	502577	502578	502579	502580
20	50	Large Main Valve Piston Ring (.006" wider than standard) (2 Req'd)	502581	502582	502583	502584	502585
20	50	Large Main Valve Piston Ring (.012" wider than standard) (2 Req'd)	502586	502587	502588	502589	502590
21	2	Small Main Valve Piston (includes two of 22)	504637	504638	504639	504640	504641
22	50	Small Main Valve Piston Ring (standard width, Dimension "A," .136") (2 Req'd)	502542	502543	502544	502545	502546
22	50	Small Main Valve Piston Ring (.006" wider than standard) (2 Req'd)	502547	502548	502549	502550	502551
22	50	Small Main Valve Piston Ring (.012" wider than standard) (2 Req'd)	502552	502553	502554	502555	502556

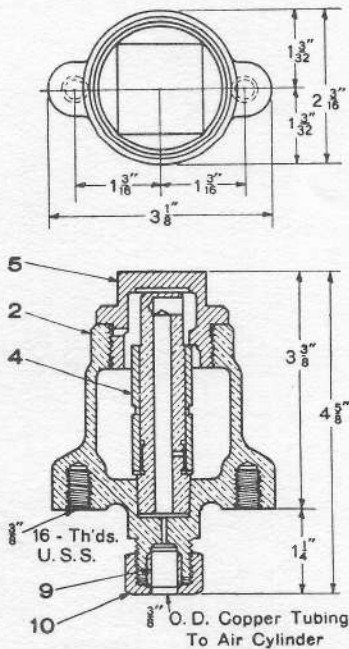
\*NOTE A—Pistons and rings are designated by the diameter of the cylinder for which they are suitable.  
 NOTE B—Above sizes of pistons and rings are carried in stock. Should orders be received for other sizes, we will substitute nearest standard size, unless specific instructions are received to the contrary.  
 †NOTE C—These items include present standard piston rod having taper fit, without shoulder on the air piston end; also air pistons suitable for these rods. If air piston is desired for rod having former standard straight fit with shoulder, the order should so specify.  
 NOTE D—If maximum repair size Steam Piston and Rod or Air Piston (less Rings and having ring grooves cut to standard caliper) suitable for turning to bore of cylinder, is desired, specify:  
 Pc. No. 69206 11 $\frac{3}{8}$ " Steam Piston and Rod  
 Pc. No. 69209 11 $\frac{3}{8}$ " Air Piston.

Prices will be quoted upon application  
 Orders should give PIECE NUMBER and NAME of part wanted



## 11-INCH x 11-INCH x 12-INCH AIR COMPRESSOR

## TYPE "B-3" OIL CUP



Net Weight, 2 1/2 lbs.

Piece No. 89042. Type "B-3" Automatic Air Cylinder Oil Cup, complete less Brackets and Oil Tubes

Pc. No.	Ref. No.	Description
89043	2	Body with Valve Bushing
70883	4	Sleeve
88418	5	Cap Nut
79927	203	Union Nut
81214	204	Thimble for 3/8" O. D. Copper Tubing

## 11 INCH x 11 INCH x 12 INCH WRENCHES

Pc. No.	Description
2481	for 3/4" Cap Screws and 3/4 T-Head Bolts
2482	Packing and Cap Nut Wrench
2483	Air Valve Cage Wrench
2485	Air Valve Seat Wrench
1938	5/8" Cap Screws



