

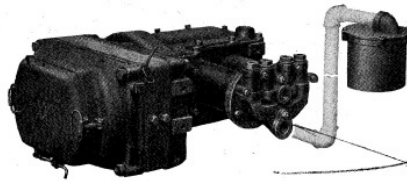
T 3504-1  
Sup. 8



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# Westinghouse Traction Brake Company

Pittsburgh, Pa., U. S. A.



## DH-16 and DH-16-A Motor Driven Air Compressors

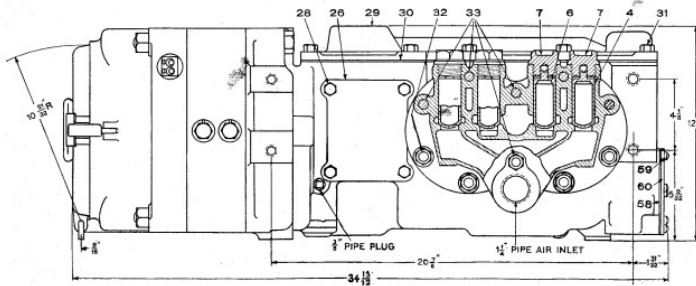
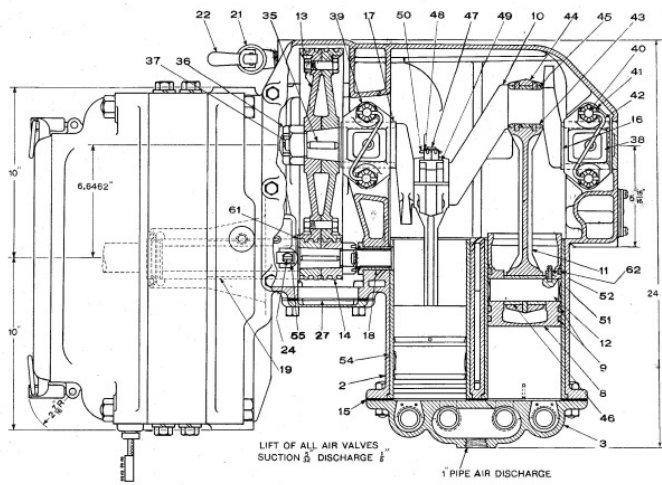
Part Catalog No. T 3504-1

Supplement No. 8

June, 1931

(SUPERSEDING ISSUE OF OCTOBER, 1925)

DH-16 AND DH-16-A MOTOR DRIVEN AIR COMPRESSOR  
(Compressor Portion only)



Net Weight, Complete with Motor (Standard) 640 lbs.  
Net Weight, Complete with Motor (Aluminum) 464 lbs.

**DH-16 AND DH-16-A MOTOR DRIVEN AIR COMPRESSOR**

Each of these Compressors has a displacement of 16 cubic feet when operating at the normal crankshaft speed of 217 revolutions per minute against 100 lbs. pressure, and each Compressor is equipped with Motor designed for Direct Current at 600 Volts. The DH-16-A Compressor differs from the DH-16 Compressor only in that certain of the parts are made of Aluminum.

Piece No. 73391. DH-16 Motor Driven Air Compressor with 600 Volt Motor and 8" Suction Strainer, complete (Compressor Portion only)

Pc. No.	Ref. No.	Description	Pc. No.	Ref. No.	Description
73390	2	Cylinder and Crank Case, complete (includes 16, 17, 18, 19, 21, 22, 24, 26, 27, 38, 39, 55, 58, 60, 61; two of 42, 54; three of Pc. 33711; four of 28, 40, 41 and six of 59)	3134	31	Crank Case Top Cover Cap Screw (11 Req'd)
67647	3	Cylinder Cover, complete (includes two of 4, 6 and four of 7)	5198	32	1/2"x1 1/2" Cylinder Cover Bolt and Nut (4 Req'd)
50761	3	Cylinder Cover, Finished Casting only	15949	33	1/2"x3" Cylinder Cover Bolt and Nut (6 Req'd)
67607	4	Inlet Valve (2 Req'd)	55129	35	Crank Shaft Key
6823	6	Discharge Valve (2 Req'd)	44702	36	Crank Shaft Castle Nut
44682	7	Valve Chamber Cap (4 Req'd)	16594	37	Cotter
*66923	8	Piston, complete (includes 51, 52, 62 and two of 9) (2 Req'd)	66911	38	Bearing Cap (Rear End)
466925	9	Piston Pressure Ring (4 Req'd)	66912	39	Bearing Cap (Front End)
53105	10	Crank Shaft	66914	40	Bearing Cap Stud (4 Req'd)
55142	11	Connecting Rod, complete (includes 43, 44, 45, 46 and 47) (2 Req'd)	59314	41	Castle Nut (4 Req'd)
55089	12	Wrist Pin (2 Req'd)	65778	42	Wire Tie (2 Req'd)
73407	13	Gear	68619	43	Connecting Rod Bush (2 Req'd)
53178	14	Pinion	55133	44	Connecting Rod Cap (2 Req'd)
67878	15	Cylinder Cover Gasket	68619	45	Connecting Rod Cap Bush (2 Req'd)
55090	16	Rear Crank Shaft Bearing	55132	46	Wrist Pin Bush (2 Req'd)
55091	17	Front Crank Shaft Bearing	55139	47	Eye Bolt, complete (includes 48, 49 and 50) (2 Req'd)
67134	18	Small Motor Bearing	55138	48	Castle Nut (2 Req'd)
68381	19	Motor Bearing	55137	49	Alignment Washer (2 Req'd)
55704	21	Oil Filling Ell	2503	50	Cotter (2 Req'd)
55768	22	Oil Filling Plug, complete	55144	51	Wrist Pin Set Screw (2 Req'd)
66890	24	Bearing Set Screw	2958	52	Cotter (2 Req'd)
55197	26	Hand Hole Cover	**56197	54	Cylinder Bush (2 Req'd)
67877	27	Hand Hole Cover Gasket	66891	55	Lock Washer
5328	28	Hand Hole Cover Cap Screw (4 Req'd)	72685	58	Vent Cover Gasket
67881	29	Crank Case Top Cover	26375	59	Vent Cover Screw (6 Req'd)
67868	30	Crank Case Top Cover Gasket	72686	60	Vent Cover
			74985	61	Brass Washer
			79086	62	Piston Oil Ring (2 Req'd)
			*81737		8" Suction Strainer (See page 6)
			33711		3/8" Pipe Plug (3 Req'd)

**DH-16-A MOTOR DRIVEN AIR COMPRESSOR (ALUMINUM)**

Piece No. 86391. DH-16-A Motor Driven Air Compressor with 600 Volt Motor and 8" Suction Strainer, complete (Compressor Portion only)

The DH-16-A (Aluminum) Compressor Portion is the same as the DH-16 Compressor Portion except the following parts should be substituted for corresponding reference numbers.

Pc. No.	Ref. No.	Description	Pc. No.	Ref. No.	Description
84701	2	Cylinder and Crank Case, complete (includes 16, 17, 18, 19, 21, 22, 24, 26, 27, 38, 39, 55, 58, 60, 61; two of 42, 54; three of Pc. 33711; four of 28, 40, 41 and six of 59)	*84708	8	Piston, complete (includes 51, 52, 62, and two of 9) (2 Req'd)
86386	3	Cylinder Cover, complete (includes two of 4, 6 and four of 7)	84706	11	Connecting Rod, complete (includes 43, 44, 45, 46 and 47) (2 Req'd)
86380	3	Cylinder Cover, Finished Casting Only	85716	26	Hand Hole Cover
86385	7	Valve Chamber Cap (4 Req'd)	84703	29	Crank Case Top Cover
			84700	38	Bearing Cap (Rear End)
			84699	39	Bearing Cap (Front End)
			84705	44	Connecting Rod Cap (2 Req'd)

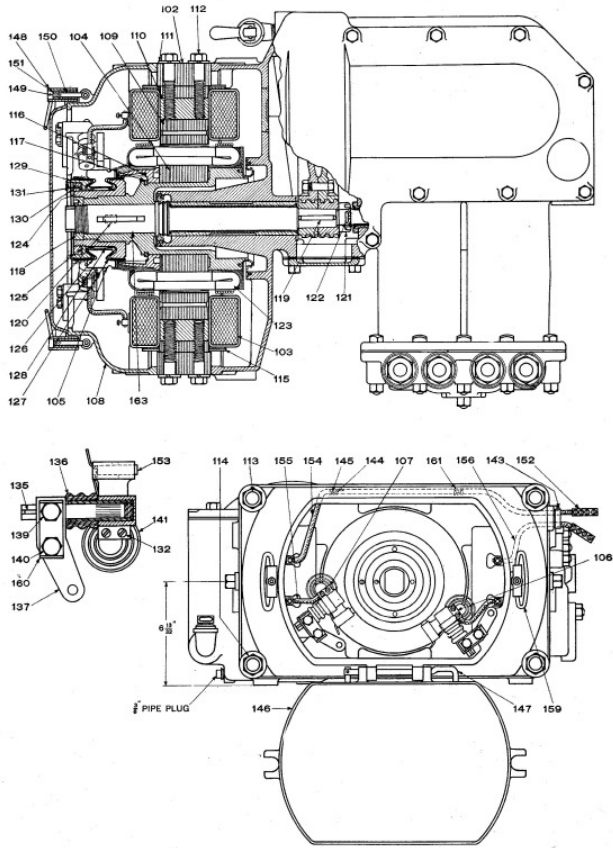
\*NOTE A—For different sizes of Pistons and Rings, see page 7.  
 \*\*NOTE B—See Repair Cylinder Bush on page 6.  
 †NOTE C—For details of 8" Suction Strainer, see page 6.  
 ‡NOTE D—If three segment type of Piston Ring is desired, see page 7.

Prices will be quoted upon application

Orders should give SERIAL NUMBER of Compressor as well as PIECE NUMBER and NAME of part wanted

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DH-16 AND DH-16-A MOTOR DRIVEN AIR COMPRESSOR  
(Motor Portion only)



DH-16 AND DH-16-A MOTOR DRIVEN AIR COMPRESSOR

(Motor Portion only)

Part No.	Ref. No.	Description	Part No.	Ref. No.	Description
55226	102	Field Yoke, complete (includes two of 109, 110; four of 111 and 112)	55194	126	Front V Ring
55181	103	Field Coil (2 Req'd)	55185	127	Rear V Ring
55230	104	Armature, complete (includes 105, 116, 117, 118, 119, 120, 121, 122, 163 and forty-five of 123)	55196	128	Insulating Sleeve
55241	105	Commutator, complete (includes 124, 125, 126, 127, 128, 129, 130, 131 and Pt. 55228)	55199	129	Taper Ring
68672	106	Right Carbon Holder, complete (includes 135, 136, 137, 139, 140, 141, 160 and two of 132)	55193	130	Commutator Nut
68673	107	Left Carbon Holder, complete (includes 135, 136, 137, 139, 140, 141, 160 and two of 132)	9204	131	Commutator Nut Set Screw
72492		Right Carbon Holder with Stud and Insulation	55228		Commutator Segments and Strips (Set)
72493		Left Carbon Holder with Stud and Insulation	14373	132	Lead Screw (4 Req'd)
55224	108	Front End Bell, complete (includes 143, 146, 147 and two of 144, 145, 148 and 161)	45759	135	Carbon Holder Stud Key (2 Req'd)
55112	109	Salient Pole (2 Req'd)	68310	136	Carbon Holder Stud Sleeve (2 Req'd)
55111	110	Salient Pole Nut (2 Req'd)	66935	137	Carbon Holder Clamp (2 Req'd)
15986	111	Lock Washer (4 Req'd)	66936	139	Set Screw for securing Stud to Carbon Holder Clamp (2 Req'd)
10608	112	Salient Pole Cap Screw (4 Req'd)	16239	140	Cap Screw for securing Carbon Holder Clamp (2 Req'd)
56019	113	Hexagon Head Bolt and Nut (2 Req'd)	72730	141	Carbon Holder Spring
56021	114	Stud and Nut (2 Req'd)	70836	143	Insulating Plug
55113	115	Field Coil Spring (2 Req'd)	5869	144	Cleat for Lead (2 Req'd)
55997	116	Front Coil Support	12648	145	Cleat Screw (2 Req'd)
56931	117	Ring for Front Coil Support	55085	146	Commutator Door
55190	118	Armature Shaft Nut	55653	147	Hinge Pin
55152	119	Key for Pinion	84713	148	Latch, complete (includes 149, 150, 151 and 159) (2 Req'd)
55098	120	Key for Commutator	66208	149	Latch Eye Bolt (2 Req'd)
55163	121	Castle Nut	84662	150	Latch Spring (2 Req'd)
17963	122	Cotter	55118	151	Latch Nut (2 Req'd)
55156	123	Armature Coil (45 Req'd)	8026	152	Connector for Lead (2 Req'd)
55191	124	Commutator Bushing	55161	153	Carbon (2 Req'd)
55975	125	Commutator Washer	56262	154	Field Coil Lead, 29" long
			66905	155	Lead from Coil to Carbon Holder (2 Req'd)
			56260	156	Field Coil Lead, 13" long
			66600	159	Latch Handle (2 Req'd)
			66887	160	Double Lock Washer (2 Req'd)
			7982	161	Lock Washer for Cleat Screw (2 Req'd)
			55150	163	Armature Shaft

DH-16-A MOTOR DRIVEN AIR COMPRESSOR (ALUMINUM)

(Motor Portion only)

The DH-16-A (Aluminum) Motor Portion is the same as the DH-16 Motor Portion except the following parts should be substituted for corresponding reference numbers.

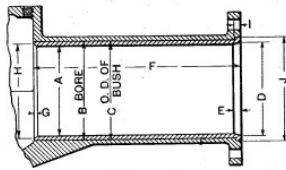
Part No.	Ref. No.	Description
84710	108	Front End Bell, complete (includes 143, 146, 147 and two of 144, 145, 148 and 161)
84712	146	Commutator Door

Prices will be quoted upon application

Orders should give SERIAL NUMBER of Compressor as well as PIECE NUMBER and NAME of part wanted

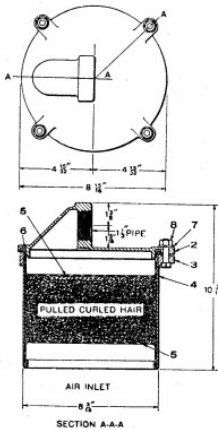
DH-16 AND DH-16-A MOTOR DRIVEN AIR COMPRESSOR

REPAIR CYLINDER BUSHES



- A—4 $\frac{1}{4}$ "
- B—4 $\frac{5}{8}$ "
- C—4.628"
- D—4 $\frac{9}{32}$ "
- E— $\frac{1}{2}$ "
- F—9 $\frac{1}{32}$ "
- I— $\frac{1}{4}$ "
- J—4 $\frac{7}{8}$ "

Cylinder Bush (Ref. No. 54) as included in piece list on page 3 can also be used with the old type DH-16 Compressor which did not have the cylinders bushed. The above cut will serve as a guide in boring cylinders to receive these bushes.



Net Weight 11 $\frac{1}{4}$  lbs.

8-INCH SUCTION STRAINER

Regularly supplied as standard with DH-16 Compressors.

Piece No. 81737. 8" Suction Strainer, complete

Pc. No.	Ref. No.	Description
67901	2	Cap
67902	3	Ring
67904	4	Shell
67905	5	Strainer Plate (2 Req'd)
67906	6	Gasket
17173	7	Lock Washer (4 Req'd)
24009	8	$\frac{3}{8}$ "x $\frac{3}{8}$ " Sq. Hd. Bolt with Hex. Nut (4 Req'd)
88790		Carton Pulled Curled Hair
3315		1 $\frac{1}{2}$ "x1 $\frac{1}{4}$ " Reducing Bush

Prices will be quoted upon application

Orders should give PIECE NUMBER and NAME of part wanted

DH-16 AND DH-16-A MOTOR DRIVEN AIR COMPRESSOR

AIR PISTONS AND RINGS FOR DH-16 COMPRESSOR

REF. No.	DESCRIPTION	PISTON DIAMETERS AND PC. NOS.			
		4 $\frac{1}{4}$ "	4 $\frac{5}{16}$ "	4 $\frac{3}{8}$ "	4 $\frac{7}{16}$ "
8	Piston (includes 51, 52, 62 and two of 9) (2 Req'd)	66923	68921	68895	68922
9	Piston Pressure Ring ( $\frac{3}{16}$ " thick) (4 Req'd)	66925	68911	68900	68912
62	Piston Oil Ring (2 Req'd)	79086	79087	79088	79089

AIR PISTONS AND RINGS FOR DH-16-A (ALUMINUM) COMPRESSOR

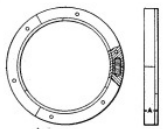
REF. No.	DESCRIPTION	PISTON DIAMETERS AND PC. NOS.			
		4 $\frac{1}{4}$ "	4 $\frac{5}{16}$ "	4 $\frac{3}{8}$ "	4 $\frac{7}{16}$ "
8	Piston (includes 51, 52, 62 and two of 9) (2 Req'd)	84708			
9	Piston Pressure Ring ( $\frac{3}{16}$ " thick) (4 Req'd)	66925	68911	68900	68912
62	Piston Oil Ring (2 Req'd)	79086	79087	79088	79089

Cylinder Bushings should not be re-bored larger than 4 $\frac{7}{16}$ ".

Pistons and Rings are designated by the diameter of the cylinder for which they are suitable, proper allowance for clearance and fitting being provided.

Above sizes of Pistons and Rings, and no other sizes, are made and carried in stock. Should orders be received for other sizes, we will substitute nearest standard size unless specific instructions are received to the contrary.

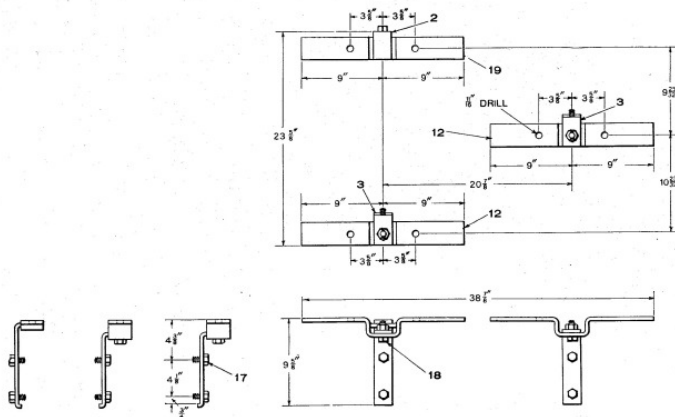
FORMER STANDARD THREE SEGMENT TYPE PISTON RINGS  
FOR DH-16 COMPRESSOR

	DESCRIPTION	PISTON DIAMETERS AND PC. NOS.			
		4 $\frac{1}{4}$ "	4 $\frac{5}{16}$ "	4 $\frac{3}{8}$ "	4 $\frac{7}{16}$ "
	Piston Ring (standard thickness, $\frac{1}{16}$ " Dimension "A")	36441	49780	49786	49792
	Piston Ring (.006" thicker than standard)	49776	49782	49788	49794
	Piston Ring (.012" thicker than standard)	49778	49784	49790	49796

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

DH-16 AND DH-16-A MOTOR DRIVEN AIR COMPRESSOR

SUSPENSIONS



(Standard) Net Weight 23 3/4 lbs.  
(Aluminum) Net Weight 12 lbs.

The Three Point Suspension (standard) is regularly supplied at the additional price involved unless otherwise specified. The Three Point Suspension (Aluminum) is furnished at the additional price involved only when specified.

Piece No. 55231. Three Point Suspension, complete (Standard)

Piece No. 56194. Three Point Suspension, complete, less Brackets (Standard)

Pc. No.	Ref. No.	Description	Pc. No.	Ref. No.	Description
55242	2	Hanger (Left Front)	29154	17	5/8"x1 1/8" Cap Screw (6 Req'd)
55243	3	Hanger (Rear and Right Front) (2 Req'd)	28978	18	Hexagon Bolt with Nut and Cotter (2 Req'd)
55245	12	Bracket (Rear and Right Front) (2 Req'd)	55244	19	Bracket (Left Front)

Piece No. 85378. Three Point Suspension, complete (Aluminum)

Pc. No.	Ref. No.	Description	Pc. No.	Ref. No.	Description
85379	2	Hanger (Left Front)	29154	17	5/8"x1 1/8" Cap Screw (6 Req'd)
85380	3	Hanger (Rear and Right Front) (2 Req'd)	28978	18	Hexagon Bolt with Nut and Cotter (2 Req'd)
85382	12	Bracket (Rear and Right Front) (2 Req'd)	85381	19	Bracket (Left Front)

WRENCH

A double end wrench, one end suitable for the crank shaft castle nut and the other end suitable for the valve chamber caps, will be supplied when ordered at the additional price involved. Specify—Double End Wrench, Piece No. 67305.

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