

# York

Y Series Reciprocating Compressor

## Parts Manual

Compliments Of



CENTRAL ICE MACHINE COMPANY, INC.

**Refrigeration Supplies**

800-228-7213

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# CENTRAL ICE MACHINE COMPANY Refrigeration Supplies

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## WE CAN SUPPLY ALL YOUR REFRIGERATION NEEDS AND PARTS FOR USE IN THE FOLLOWING...

**COMPRESSORS:** York - Frick - Vilter - Fuller - Mycom - Sullair - FES - Howe - Crepaco - Grasso - Sabroe - Kobe - Dunham Bush - Stal - Howden

**CONTROL VALVES:** Refrigerating Specialties - Hansen - Phillips - Hubbell - Alco - Sporlan - Grasso - Danfoss

**HAND VALVES:** Refrigerating Specialties - Hansen - Herl - Frick - Henry - Shank - Grasso - Danvalve

**RELIEF VALVES:** Henry - Refrigerating Specialties - Hansen - Shank - Rego

**CONDENSERS AND EVAPORATORS:** Evapco - Frick - Imeco - Frigid Coil - Krack - Baltimore Air Coil - Vilter - Gebhardt - King

**GAUGES:** Marsh - Ashcroft - Danton - Duro - McDaniel - Wika

**REFRIGERATION CONTROLS:** Penn - Mercoid - Honeywell - Barber Coleman - Johnson Controls

**REFRIGERATION PUMPS:** Cornell - Viking - York IT - Blackmere - Hansen

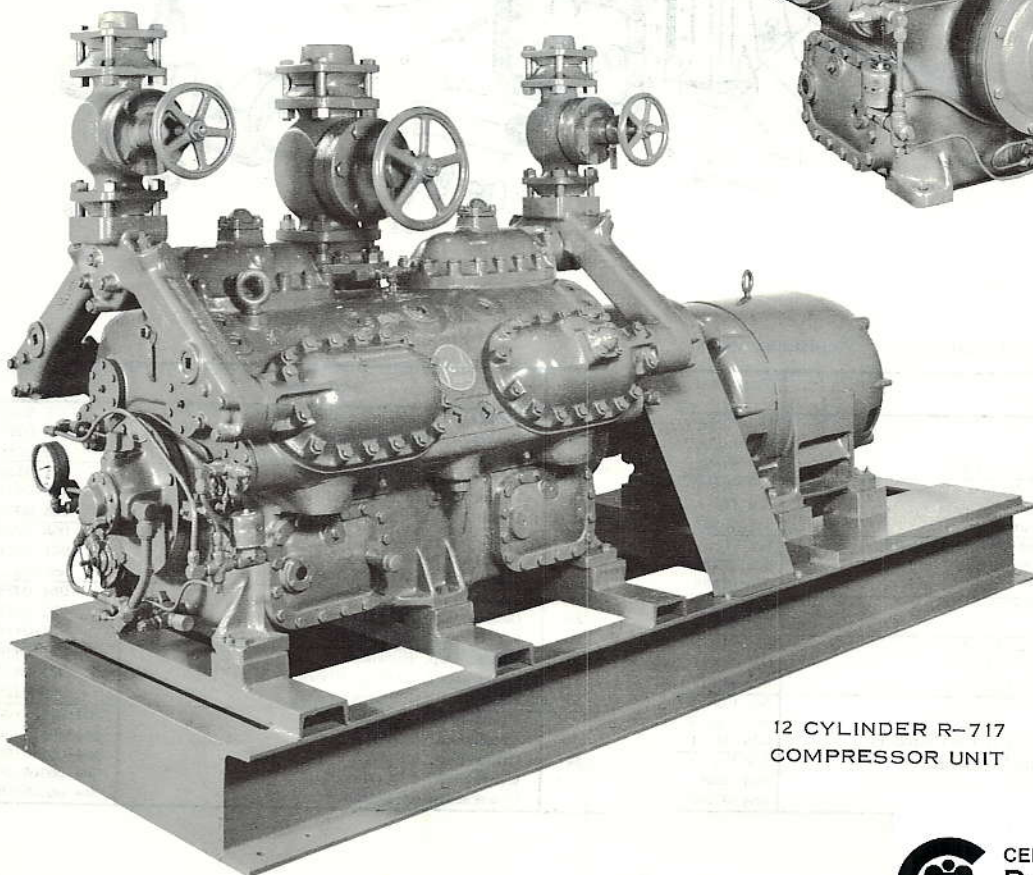
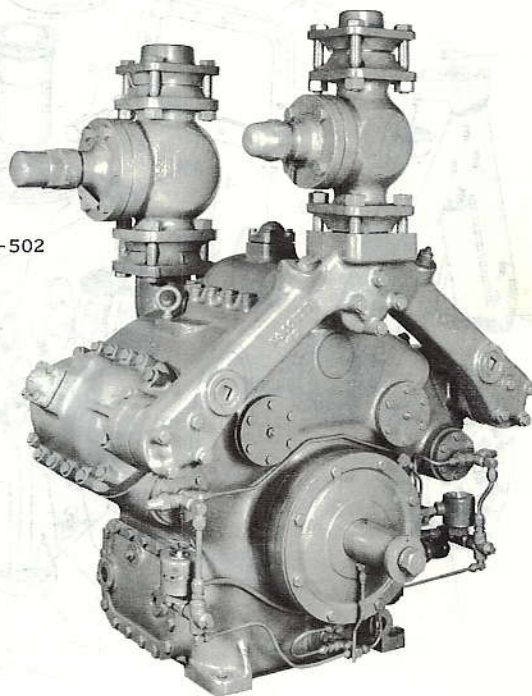
**PURGERS:** Hansen - Refrigerating Specialties - Armstrong

**MISCELLANEOUS:** X-Pando Pipe Joint Compound - MSA Gas Masks - Sulphur Sticks for Ammonia Leak Detection - Litmus Paper - Coalescer Filter Elements

**LOW PRICES – HUGE INVENTORY  
KNOWLEDGEABLE SALES PEOPLE**

## Y-53 SERIES COMPRESSOR UNITS SINGLE STAGE 3<sup>3</sup>/<sub>4</sub>" BORE V/W—OPEN TYPE REFRIGERANTS — 12, — 22, — 502 AND — 717

6 CYLINDER R-12, -22, -502  
COMPRESSOR



12 CYLINDER R-717  
COMPRESSOR UNIT



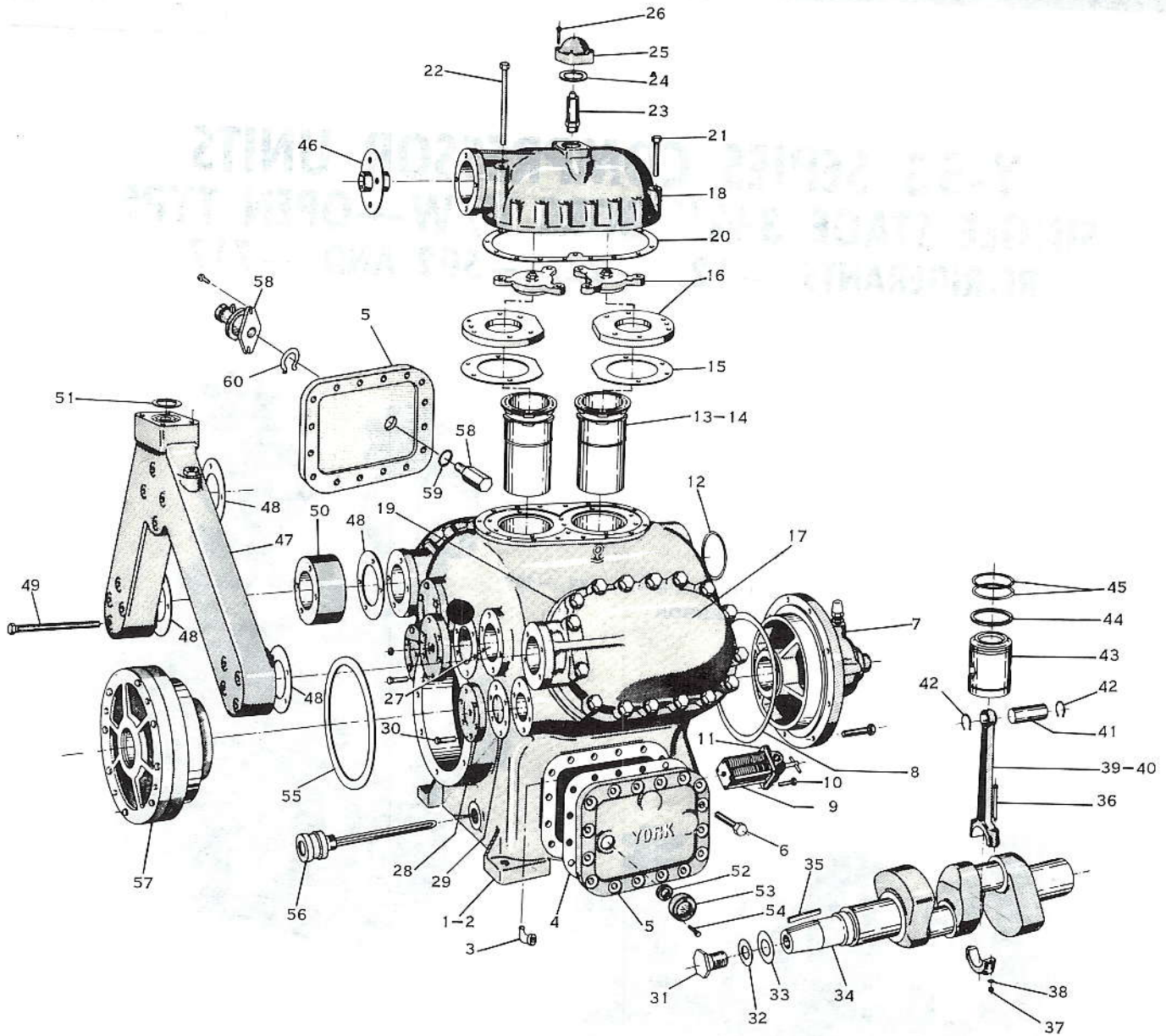


FIG. 1— Typical 3 3/4" x 3 Compressor-Exploded View

Item No.	Part Name	York Part No.
1	Compressor, Bare	See Table 1
2	Housing, Compressor, Bare	See Table 2
3	Elbow, 90° Street 3/8 NPT x 3/8 FPT.	023-01688
4	Gasket, Hand Hole Cover Plate	070-02497
5	Plate, Cover, Handhole	See Table 3
6	Screw, Cap, Handhole, Cover Plate	021-09592
7	Head, Bearing, Oil Pump and Regulating Valve	See Fig. 2
8	Gasket, Bearing Head, Oil Pump End	028-00824
9	Filter, Oil, Disc Type	026-01688
10	Screw, Cap, Oil Filter Cover	021-01538
11	Gasket, Oil Filter Cover	064-20129
12	Gasket, Suction Elbow - 4, 6, 8 Cyl.	028-00875
	Gasket, Suction Stop Valve - 12 Cyl.	028-00551
	Gasket, Suction Stop Valve - 16 Cyl.	028-00882
13	Cylinder Sleeve Assembly	See Fig. 3
14	Unloader Device	See Fig. 3
15	Gasket, Discharge Valve Plate (1 Per Cylinder)	070-03814
16	Valve Assembly, Suction and Discharge	See Fig. 4
17	Head, Compressor, Plain	064-00293
18	Head, Compressor, Relief Valve Type	064-00294

Item No.	Part Name	York Part No.
19	Gasket, Compressor Head, Plain	070-03813
20	Gasket, Compressor Head, Relief Valve Type	070-03812
21	Screw, Cap, Top Head - Short (14 Per Head)	021-01589
22	Screw, Cap, Top Head - Long	021-01600
23	Valve, Cartridge, Relief	468-09331
24	Gasket, Relief Valve Cover	028-00538
25	Cover, Relief Valve	068-02906
26	Screw, Cap, Relief Valve Cover	021-01495
27	Strainer Assembly, Suction	See Fig. 5
28	Cover, Unloader Piston	064-00358
29	Gasket, Unloader Piston Cover	070-03810
30	Screw, Cap, Unloader Piston Cover	021-01485
31	Screw, Cap, Flywheel	021-09500
32	Lockwasher, Spring, Flywheel Bolt	021-05276
33	Washer, Flat, Flywheel Bolt	364-03284
34	Crankshaft, 4 Cylinder	364-00312-001
	Crankshaft, 6 Cylinder	364-00311-001
	Crankshaft, 8 Cylinder	364-00310-001
	Crankshaft, 12 Cylinder	364-00309-001
	Crankshaft, 16 Cylinder	364-00308-001

Item No.	Part Name	York Part No.
35	Key, Crankshaft	064-00314
36	Bolt, Connecting Rod	064-00362
37	Nut, Connecting Rod Bolt	021-09932
38	Washer, Connecting Rod Bolt	064-00363
36,37,38	Kit, Connecting Rod Bolt - Set of 2-Bolt, Nut, Washer	364-05384
39	Connecting Rod Assembly Complete - Rod, Cap, Bolt, Nut, Washer - R-12, -22, -502	364-09881
40	Connecting Rod Assembly Complete - Rod, Cap, Bolt, Nut, Washer - R-717	364-10084
41	Piston Pin	029-01507
42	Spring, Locking, Piston Pin (2 Required)	029-00274
43	Piston, Bare	064-00360
44	Piston Ring, Ventilated, Oil	029-04452
45	Piston Ring, Compression (2 Required)	029-03669
41-45	Piston Assembly	364-00364
46	Muffler, Discharge	064-06119
47	Manifold, Discharge - 4 Cylinder - (1 Required)	364-20993
	Manifold, Discharge - 6 and 12 Cylinder (1 and 2 Required)	364-20992
	Manifold, Discharge - 8 and 16 Cylinder (1 and 2 Required)	364-20991
48	Gasket, Discharge Manifold to Compressor	070-09705
49	Screw, Cap, Discharge Manifold (6 and 12 Cylinder - 4 and 8 Required - 1/2" x 5 1/2")	021-08899

Item No.	Part Name	York Part No.
49	Screw, Cap, Discharge Manifold (6 and 12 Cylinder - 4 and 8 Required - 1/2" x 5")	021-08898
	Screw, Cap, Discharge Manifold, Short (4, 6, 8, 12, 16 Cylinder - 1/2" x 3 3/4")	021-12307
50	Fill Piece, Discharge Manifold (6 and 12 Cylinder)	064-00751
51	Gasket, Discharge Manifold to Valve (4, 6 and 12 Cylinder)	028-00867
	Gasket, Discharge Manifold to Valve (8 and 16 Cylinder)	028-00869
52	Gasket, O-Ring, Sight Glass	028-06791
53	Glass, Oil Sight, Type Sight Glass	026-10797
54	Screw, Cap, Oil Sight Glass	021-01372
55	Gasket, Bearing Head, Seal End	028-00824
56	Heater, Crankcase, 300 Watt, 120 Volt (Nema 1)	025-09422
	Heater, Crankcase, 300 Watt, 240 Volt (Nema 1)	025-09421
57	Shaft Seal Assembly	See Fig. 6
58	Valve, Control, Capacity	See Table 4
59	Gasket, O-Ring, Capacity Control Valve	028-04754
60	Ring, Retaining, Capacity Control Valve to Coverplate	029-08659
	Bearing Assembly, Center - 12 and 16 Cylinder Compressor Glass, Oil Sight, Bulb Type	See Fig. 7
	Crankcase Float Valve	See Fig. 8
	Packing Internal Oil Header	See Fig. 9
	Oil Strainer	See Fig. 10

TABLE 1— BARE COMPRESSORS - LESS MANIFOLDS, STOP VALVES AND BASE

Bore and Stroke	Number Cylinders	Part Number	Part Number
		R 12, -22, -502	R-717
3 3/4 X 3	4	464-11961	464-13362
3 3/4 X 3	6	464-11962	464-13363
3 3/4 X 3	8	464-11963	464-13364
3 3/4 X 3	12	464-11964	464-13365
3 3/4 X 3	16	464-11965	464-13366

TABLE 2— COMPRESSOR HOUSING, BARE

Size Compressor	Part Number	
	R-12, -22, -502	R-717
4 Cylinder	364-04123-001	364-04122-001
6 Cylinder	364-04117-001	364-04116-001
8 Cylinder	364-04121-001	364-04120-001
12 Cylinder	364-04115-001	364-04114-001
16 Cylinder	364-04119-001	364-04118-001

NOTE:  
 Replacement compressor housings with the bulb type oil sight glass are not available. When a replacement compressor housing is ordered, a cover plate with sight glass assembly, York Part No. 364-18963 must be ordered also.

TABLE 3— CRANKCASE COVER PLATES

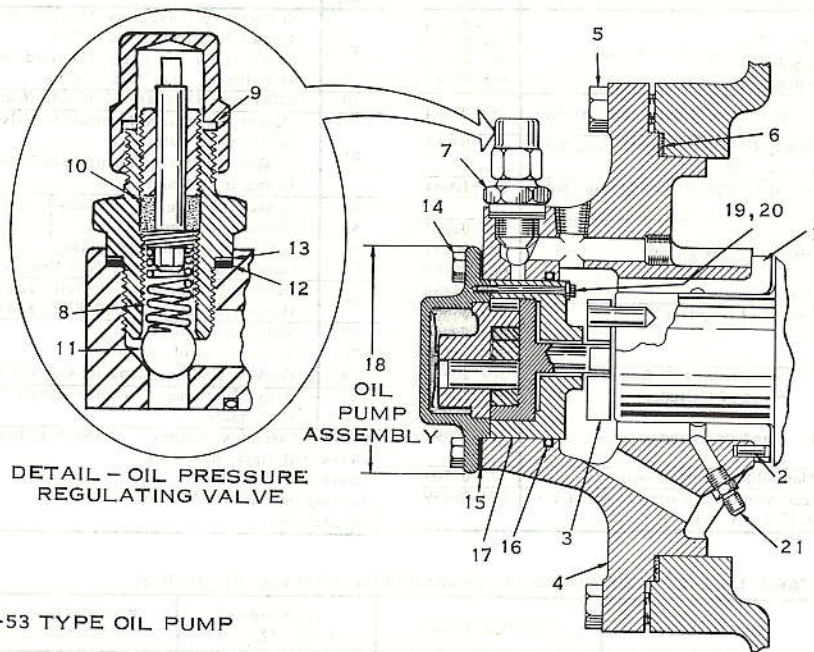
Part Name	York Part No.
Cover Plate Complete With Oil Sight Glass	364-18963
Cover Plate Complete With Capacity Control Valve, Suction Pressure Actuated	See Table 4 & 4(a)
Cover Plate Complete With Capacity Control Valve, Temperature Actuated	See Table 4 & 4(a)
Cover Plate for Float Valve	064-00296

TABLE 4— CAPACITY CONTROL VALVES (NEW STYLE - SINGLE PIECE - WITHOUT MANUAL FEATURE)

Item No.	Part Name	York Part No.
1	Valve, Capacity Control (Suction Pressure Actuated)	365-13975-C-001
2	Valve, Capacity Control (Temperature Actuated)	365-13975-C-003
3	Gasket, O-Ring Valve to Coverplate	028-04754
4	Gasket, O-Ring (Plunger)	028-05175
5	Ring, Retaining (Capacity Control Valve to Coverplate)	029-08659
6	Power Assembly, Suction Pressure Actuated	025-09980
7	Power Assembly, Temperature Actuated	025-09981
8	Screw for Item 6 (2 - Required)	021-01435
9	Screw for Item 7 (2 - Required)	021-01447
10	Washer, Flat for Item 8 and Item 9 (2 - Each Required)	064-06648
11	Capacity Control Complete with Cover plate with Sight Glass:	Type Power Assembly
		No. Cyl.    Suction Pressure Actuated    Temperature Actuated
		4            None                                    367-39035-D-004
		6            None                                    367-39035-D-004
		8            367-39035-D-002                    367-39035-D-004
		12           367-39035-D-001                    367-39035-D-003
		16           367-38892-D-001                    367-38892-D-002

TABLE 4 A — CAPACITY CONTROL VALVE (OLD STYLE - TWO PIECE - WITH MANUAL FEATURE)

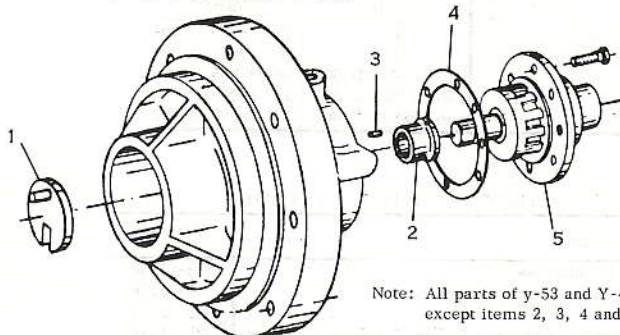
Item No.	Part Name	York Part No.
1	Valve, Capacity Control (2-Step - 4 & 6 Cylinder Compressors)	365-03256
	Valve, Capacity Control (6-Step - 8, 12 & 16 Cylinder Compressors)	365-03238
2	Gasket, Valve Body to Cover Plate	065-03233
3	Valve, Capacity Control Regulating (Power Assembly, Remote, - Suction Pressure Actuated)	025-11046



Y-53 TYPE OIL PUMP

Item No.	Part Name	York Part No.
1	Bearing, Main, Pump End	064-00331
2	Pin, Roll, Main Bearing	029-03989
3	Crank and Pin, Oil Pump	364-00325
4	Head, Bearing	364-05892
5	Screw, Cap, Bearing Head (8 Required)	021-02751
6	Gasket, Bearing Head	028-00824
7	Valve, Oil Regulating (Complete)	364-00329
8	Spring, Valve	029-00239
9	Gasket, Valve Cap	028-01256
10	Packing, Valve Stem	028-01060
11	Check, Ball	029-01853
12	Gasket, Valve Body (Fibre)	028-00852
13	Gasket, Valve Body (Copper)	070-02537
14	Screw, Cap, Pump Cover	021-01425
15	Gasket, Pump Cover	064-20109
16	Ring, "O"	028-05163
17	Insert	064-03900
18	Oil Pump Assembly (Rotor and Shaft, Idler Carrier and Pin, Idler and Bushing, Cover, Spring and Insert) Also included are "O" Ring (16), Gasket (15) and Cap Screws and Lockwashers (19) and (20)	364-05893
19	Screw, Cap, Socket Head (Insert)	021-09272
20	Lockwasher	021-05265
21	Connector, Straight, 1/4 SAE X 1/8 MPT	023-01304

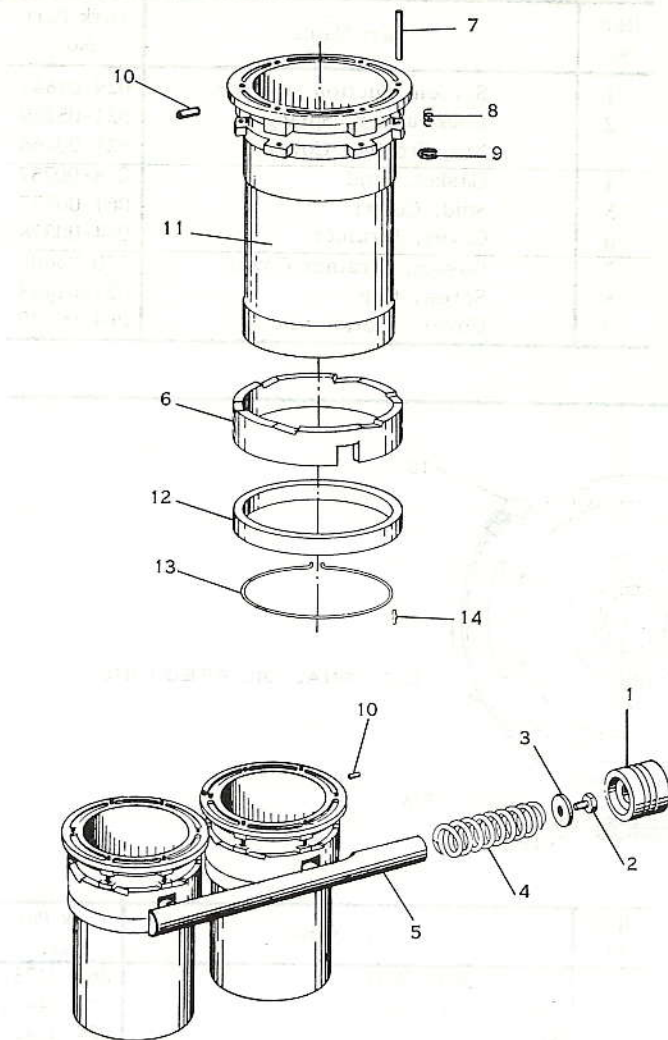
Y-49 TYPE OIL PUMP



Item No.	Part Name	York Part No.
1	Crank and Pin, Oil Pump	364-00325
2	Bearing, Oil Pump	064-00322
3	Bearing pin, Oil Pump	029-03991
4	Gasket, Oil Pump	064-20109
5	Oil Pump	026-03509
1, 2	Oil Pump, Kit	364-05056
4, 5		

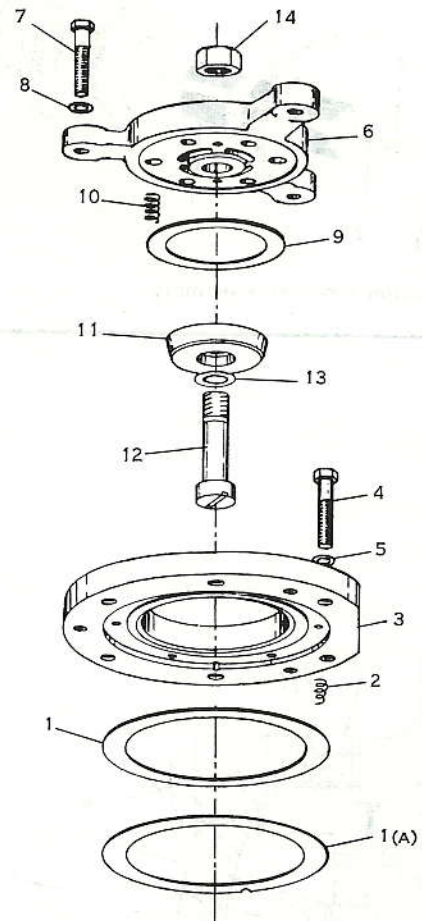
Note: All parts of y-53 and Y-49 Oil Pumps are interchangeable except items 2, 3, 4 and 5.

FIG. 2— Oil Pump, Bearing Head and Oil Pressure Regulating Valve



Item No.	Part Name	York Part No.
1	Piston, Unloader Device	064-00357
2	Screw, Cap Push Rod	021-10650
3	Washer, Push Rod	064-00356
4	Spring, Unloader Device	029-03993
5	Push Rod	364-00353
6	Cam Ring, Left Hand	064-00346
	Cam Ring, Right Hand	064-00347
7	Pin, Lift (Set of 6)	364-06010
8	Spring Lift Pin	029-04021
9	Ring, Retaining, For Lift Pin	029-09016
10	Pin, Locating	029-03991
11	Cylinder Sleeve, Plain	064-25141
12	Support, Cam Ring	064-00348
13	Ring, Retaining	029-11357
14	Pin Roll for Retaining Ring	029-03990
6-14	Cylinder Sleeve Assembly, Left Hand	364-00344
6-14	Cylinder Sleeve Assembly, Right Hand	364-00345

FIG. 3— Cylinder Sleeve Assemblies



Item No.	Part Name	York Part No.
1	Valve Suction	064-12165
1(a)	Valve, Suction, Pin Type (Superseded)	064-02673
2	Spring, Suction Valve	029-10757
3	Valve Plate (R-12, -22, -502)	064-12179
	Valve Plate (R-717)	064-12178
4	Screw, Cap	021-12445
5	Lockwasher	021-05269
6, 9-14	Valve Assembly, Discharge (R-717)	364-00369
6, 9-14	Valve Assembly, Discharge (R-12, -22, -502)	364-00370
	Valve Cage, Discharge (R 717)	064-00371
6	Valve Cage, Discharge (R-12, -22, -502)	064-00372
7	Screw, Cap	021-12428
8	Lockwasher	021-05268
9	Valve Discharge	064-12164
10	Spring, Discharge Valve	029-04010
11	Valve Seat, Discharge	064-00374
12-14	Bolt Assembly, Valve Seat	364-02674
13	Gasket, Discharge Valve Seat	070-05819
14	Nut, Discharge Valve Bolt	021-09731

FIG. 4— Suction and Discharge Valve Assemblies

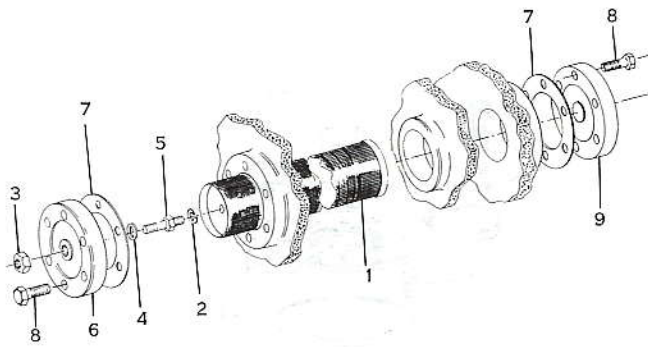
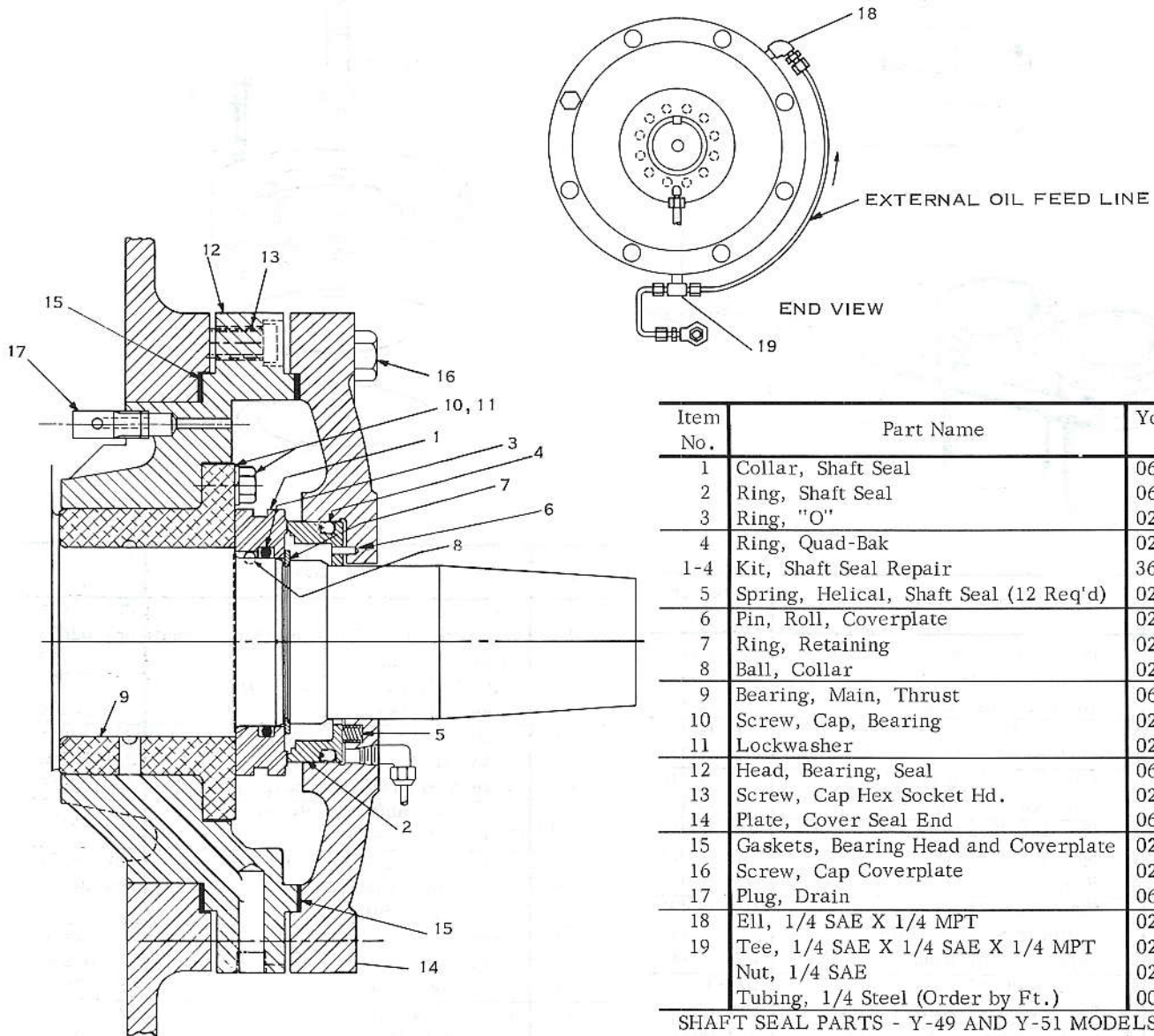


FIG. 5— Suction Strainer Assembly

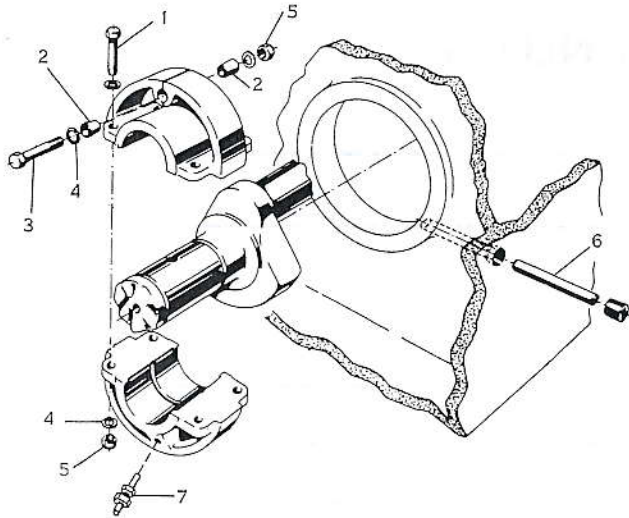
Item No.	Part Name	York Part No.
1	Screen, Suction Strainer	029-03847
2	Lockwasher, Spring	021-05269
3	Nut, Strainer Cover	021-00466
4	Gasket, Stud	028-00757
5	Stud, Collar	064-00377
6	Cover, Strainer	064-00378
7	Gasket, Strainer Cover	070-03808
8	Screw, Cap	021-01483
9	Cover, Suction End	064-00379



Item No.	Part Name	York Part No.
1	Collar, Shaft Seal	064-04739
2	Ring, Shaft Seal	064-24443
3	Ring, "O"	028-07420
4	Ring, Quad-Bak	028-07898
1-4	Kit, Shaft Seal Repair	364-06577
5	Spring, Helical, Shaft Seal (12 Req'd)	029-04010
6	Pin, Roll, Coverplate	029-04290
7	Ring, Retaining	029-09214
8	Ball, Collar	029-01845
9	Bearing, Main, Thrust	064-00324
10	Screw, Cap, Bearing	021-01483
11	Lockwasher	021-05247
12	Head, Bearing, Seal	064-00292
13	Screw, Cap Hex Socket Hd.	021-02590
14	Plate, Cover Seal End	064-04722
15	Gaskets, Bearing Head and Coverplate	028-00824
16	Screw, Cap Coverplate	021-09204
17	Plug, Drain	064-24444
18	El1, 1/4 SAE X 1/4 MPT	023-04729
19	Tee, 1/4 SAE X 1/4 SAE X 1/4 MPT	023-04100
	Nut, 1/4 SAE	021-05675
	Tubing, 1/4 Steel (Order by Ft.)	003-00235
SHAFT SEAL PARTS - Y-49 AND Y-51 MODELS		
	Kit, Shaft Seal Conversion (Contains Material to Convert Y-49 or Y-51 Type Seal Assembly to Y-53 Type)	364-05434
	Nut, Seal Collar Locking (2 Required)	064-00313

FIG. 6— Shaft Seal and Bearing Head -Y-53 Type

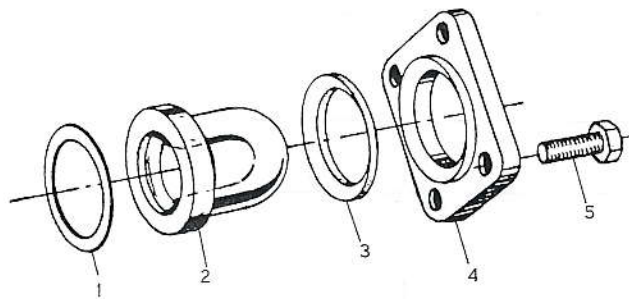




Item No.	Part Name	York Part No.
1	Bolt, Bearing (4 Required)	064-00321
2	Bushing, Taper (2 Required)	064-00320
3	Screw, Cap, Bearing Locking	021-01598
4	Washer (10 Required)	021-05155
5	Nut, Self Locking (5 Required)	021-13257
1-5	Bearing Assembly, Main Center (12 and 16 Cylinders)	364-00317
6	Pin, Dowel, Center Bearing	064-00322
7	Union, 1/4 SAE X 1/8 MPT	023-01304

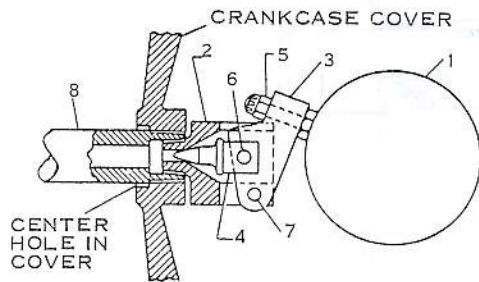
Note: Torque for bearing bolts (Item 1) - 60 Ft. Lbs.  
 Torque for bearing locking screw (Item 3) - 20 Ft. Lbs.

FIG. 7— Center Main Bearing - 12 and 16 Cylinder Compressors



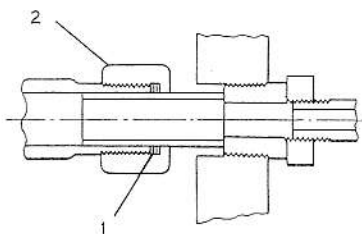
Item No.	Part Name	York Part No.
1	Gasket, Sight Glass	028-00778
2	Sight Glass	026-03992
3	Packing, Sight Glass	028-01519
4	Packing Grand, Sight Glass	064-00302
5	Cap Screw	021-01477

FIG. 8— Oil Sight Glass - Bulb Type



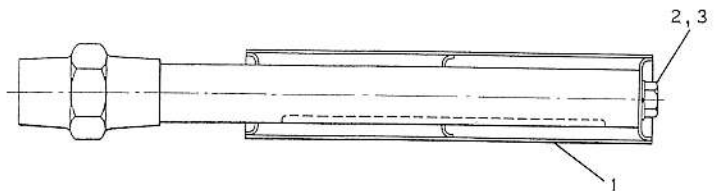
Item No.	Part Name	York Part No.
1	Float Ball	022-00530
2	Valve Body	068-04541
3	Lever	068-04542
4	Valve	068-04545
5	Nut, Self-Locking	021-09610
6	Pin, Valve	068-01549
7	Pin, Lever	068-04544
8	Pipe Nipple, Special	068-04546
1-8	Float Valve Assembly	468-04540

FIG. 9— Crankcase Float Valve



Item No.	Part Name	York Part No.
1	Packing, Oil Header (3 Req'd)	065-00656
2	Nut, Packing, Oil Header	064-00397

FIG. 10— Packing - Internal Oil Header



Item No.	Part Name	York Part No.
1	Strainer, Oil	029-05340
2	Screw, Cap, Oil Strainer	021-01361
3	Lockwasher	021-05289

FIG. 11— Oil Strainer

# MISCELLANEOUS

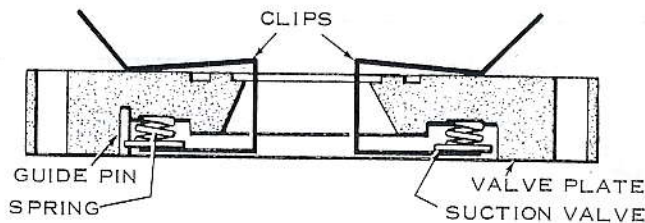
## COMPRESSOR GASKETS, COMPLETE SET

Size Compressor	York Part No.
4 Cylinder	364-06361
6 Cylinder	364-06362
8 Cylinder	364-06363
12 Cylinder	364-06364
16 Cylinder	364-06365

Part Name	York Part No.
Valve, 3-Way, for Unloader Cover	022-01278
Gauge, Compressor Oil Pressure	026-12667
Valve, Solenoid, Unloader - 115V	025-09704
Valve, Solenoid, Unloader - 208/230V	025-09705

## SPECIAL TOOLS

Part Name	York Part No.
Spanner Wrench - Shaft Seal Nut - Y-49 and 53	
Type Shaft Seals	041-04136
Socket Wrench, Relief Valve	068-02913
Funnel Ring - for Compression of Piston Rings When Installing Piston	064-00240



Part Name	York Part No.
Retaining Clip, Suction Valve	064-03447

FIG. 12— Suction Valve Retaining Clip

Subject to Change Without Notice

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PPC 1M 171 .20

Form 180.20-RP

Code: S(EFG) - R - Int.

Supersedes: Form 180.20-RP Coded 460

(3W-F-RP)



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