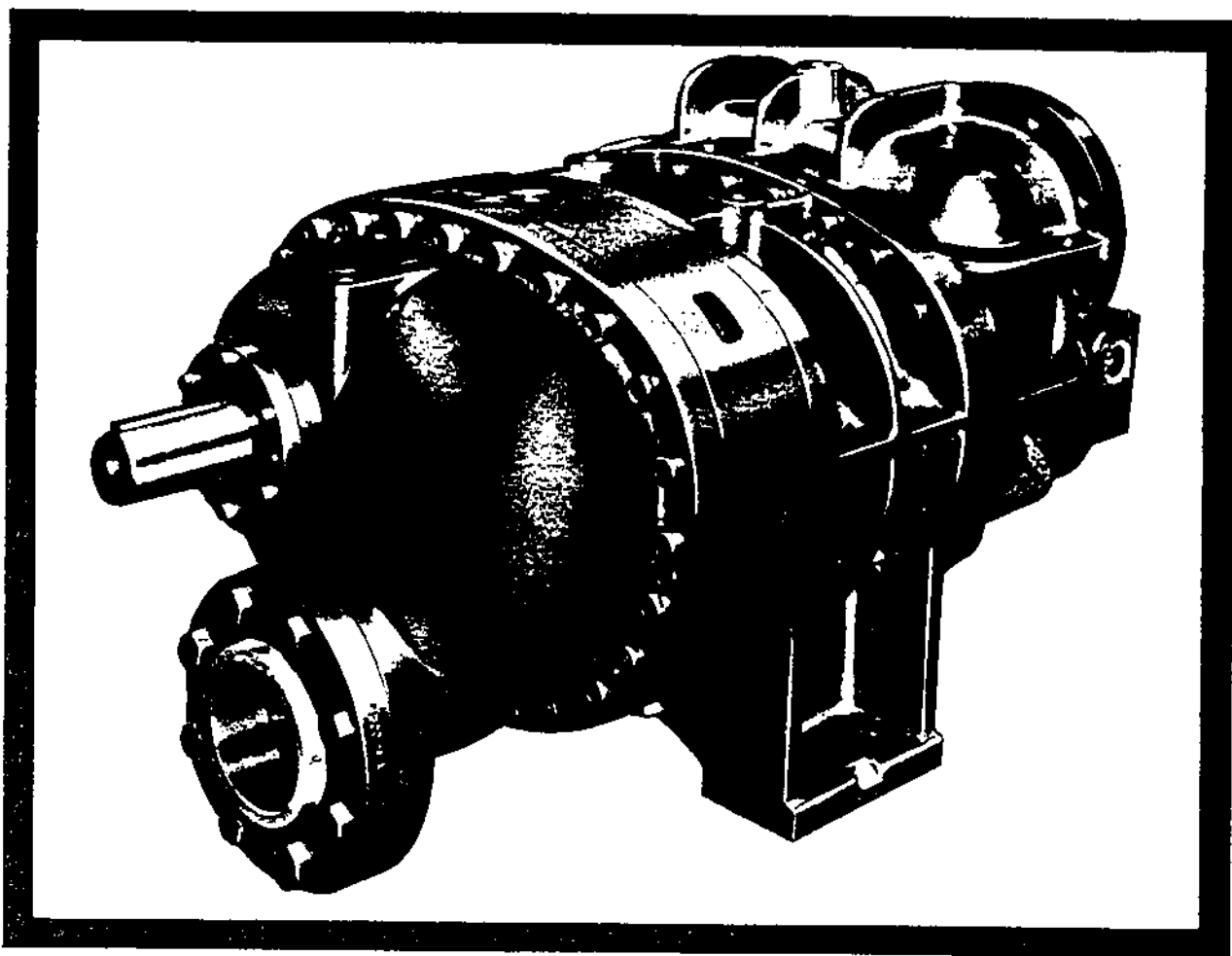


DUNHAM-BUSH

**DBX
COMPRESSOR
SERVICE MANUAL**



DUNHAM-BUSH, INC. • West Hartford, Connecticut 06110, U.S.A.

DBX - COMPRESSOR SERVICE MANUAL

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DUNHAM-BUSH

DBX COMPRESSOR SERVICE MANUAL

I. GENERAL

The Dunham-Bush screw compressor is a conservatively designed, ruggedly built piece of equipment, which can operate in excess of 50,000 hours without major maintenance.

The operating controls of the package are set up to provide pre-start up lubrication. The injected oil provides a continuous oil film between the driving male and driven female rotor.

Part of the total thrust load developed by the rotors is carried by the duplex mounted preloaded angular contact thrust bearings. The remaining thrust load is handled by the hydraulic counterbalance piston arrangement.

The journal bearings are heavy steel backed babbitt lined bushings that are machined in position. These bearings are lightly loaded even at maximum operating conditions.

In order to insure maximum compressor life, and in particular applications where unexpected down-time cannot be tolerated, a suitable preventive maintenance inspection program is recommended. In addition to routine maintenance listed in the unit I & O manuals, a compressor inspection should be scheduled around 25,000 hours operating time.

This inspection should include, but not be limited to, the shaft seal, the unloader seals, tightness and condition of thrust bearings, and slide valve assembly. All the areas inspected should be maintained within the limits outlined in this manual.

II. DIRECT DRIVE COMPRESSOR AND COMPRESSOR PORTION OF HERMETIC COMPRESSOR

A. SHAFT SEAL REPLACEMENT (DIRECT DRIVE)

- a. Isolate compressor using available line valves or check valve and line valves. Pump out low side or entire unit. Check and record coupling alignment with unit hot, if possible, before disassembly.
- b. (Refer to PCX Unit Pumpout procedure.) Pump out or purge refrigerant from compressor portion until atmospheric pressure is reached. *LOCK OUT MAIN CIRCUIT BREAKER TO PREVENT ENERGIZING MOTOR.*
- c. Remove compressor coupling guard.
- d. Disassemble center section of coupling and remove coupling half from compressor. Use Jack bolts to prevent distorting or damage to coupling.
- e. Refer to type 8-1 (unbalanced) or 881 (balanced) or type 9B seal replacement and disassembly instructions, pages 2, 3 and 4.
- f. After seal replacement, reassemble coupling and refer to alignment procedure on page 5.
- g. Using shaft spanner wrench, rotate shaft several times to help seat seal. Trace of refrigerant leakage might be noticed prior to starting unit. After compressor has operated a short time and seal parts are mated, refrigerant leakage should stop.
- h. Before restarting unit, check compressor coupling alignment with unit cold. Refer to table on page 5 for parallel and angular alignment requirements. Start unit and bring up to normal operating temperature. Shut down and immediately recheck alignment and adjust as required to be within listed angular and parallel alignment values.

B. TYPE 8-1 & 8B1 SEALS.

- a. Remove Seal Housing "9".
- b. Use hand or soft block and press on carbon ring to break the seal head free from shaft.
- c. Place two pieces of rod (Tip bent at 90° to form hook) into seal body holes and pull seal off of shaft.
- d. Use a soft drift to tap seal seat "7" out of Seal Housing.
- e. Remove chips and foreign material from shaft, seal cavity of seal housing. Stone all burrs created in removal of seal.
- f. Inspect shaft journal for nicks or other irregularities.
- g. Lubricate the secondary "O" Ring Seal on the inside of the carbon ring with refrigeration oil.
- h. By hand, slide Seal Head "5" on shaft so that the spring pin "4" engages in one of the seal body spring holes. Seal Head Body must be fully seated against seal ring "3".
- i. Install Seal Seat "O" Ring "8" in Seal Housing and Seal Housing "O" Rings "10" on Housing.
- j. By hand, press Seal Seat into Seal Housing.*
- k. Lubricate and install Seal Housing. Draw up the Seal Housing in an even manner.

*Inspect Seal Seat (part No. 7) carefully to determine which is the lapped face that runs in contact with the Carbon Ring, then install the Seat so that this polished surface is facing the Carbon Ring (Part No. 6). Using a protective piece of cardboard, seat may be tapped into housing if necessary. Operating face of seat should be parallel to seal housing "9" mounting flange within .002 TIR.

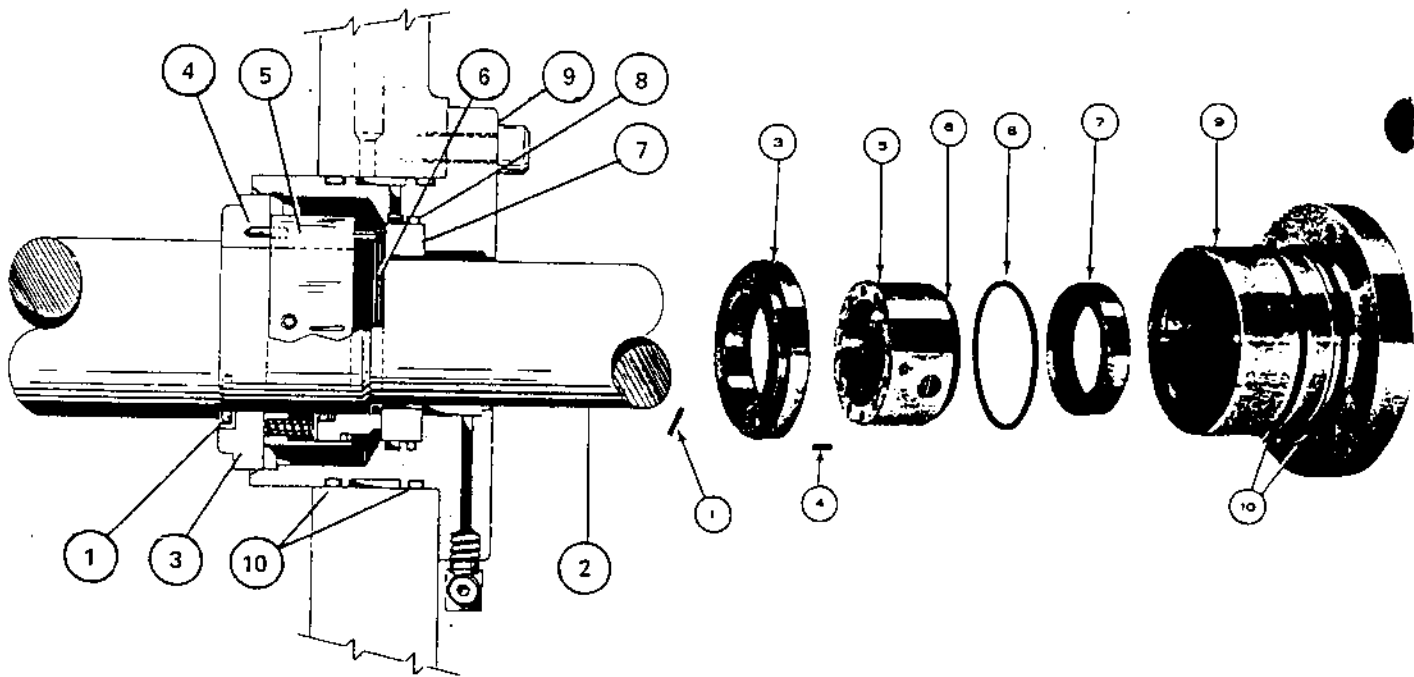


FIG. 1 — TYPE 8-1 AND 8B1 (LONG SEAL HOUSING)

- | | |
|---------------|----------------------------|
| 1. DRIVE PIN | 6. CARBON RING |
| 2. SHAFT | 7. SEAL SEAT |
| 3. SEAL RING | 8. SEAL SEAT "O" RING |
| 4. SPRING PIN | 9. SEAL HOUSING |
| 5. SEAL HEAD | 10. SEAL HOUSING "O" RINGS |

B. DBX SHAFT SEAL ASSEMBLY DIMENSIONS

DIMENSIONS

COMP.	SEAL TYPE	A	B	FREE C	WORKING C'
163	9B	25/32"	3/16"	1 31/32"	1 3/4"
163	8	23/32"	17/32"	1 9/16"	1 3/8"
163	8B	25/32"	5/32"	1 15/16"	1 3/4"
204	9B	27/8"	23/32"	2 5/32"	2 1/16"
204	8	27/8"	1"	1 7/8"	1 11/16"
204	8B	27/8"	5/8"	2 1/4"	2 1/16"
255	8	3"	1 1/8"	1 7/8"	1 11/16"
255	8B	3"	3/4"	2 1/4"	2 1/16"

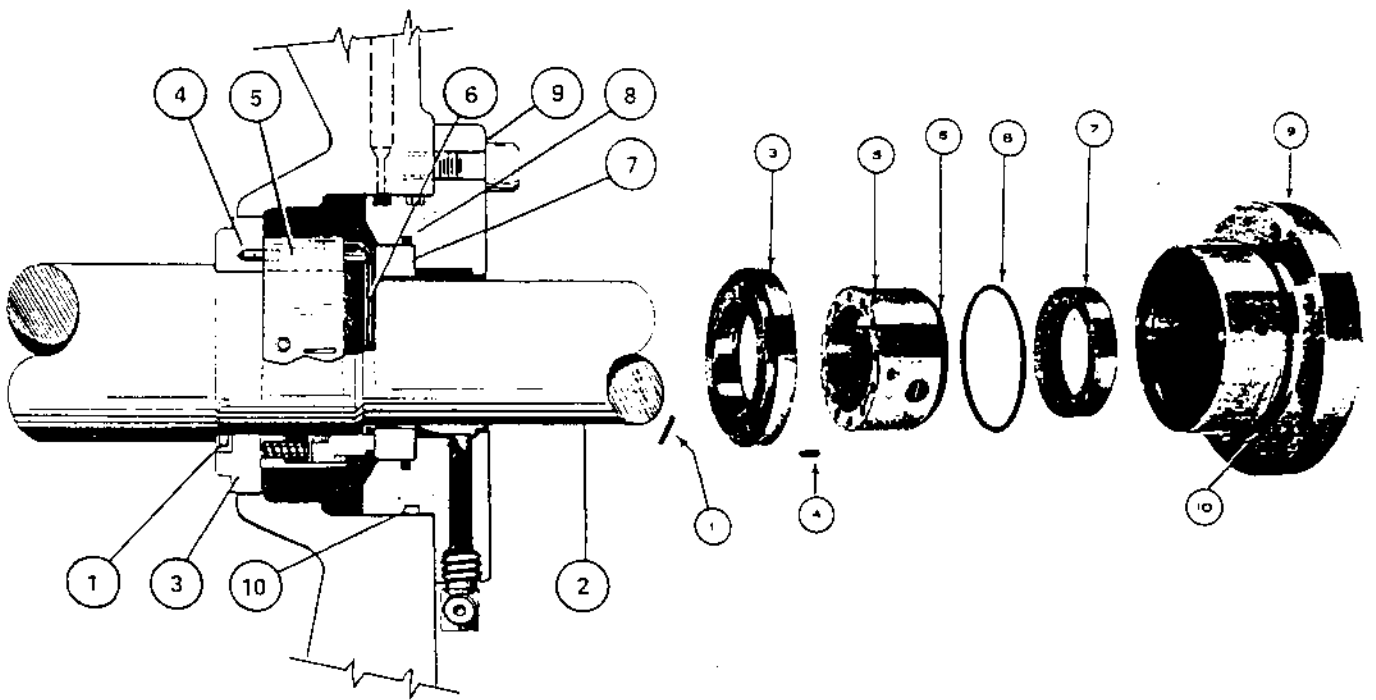
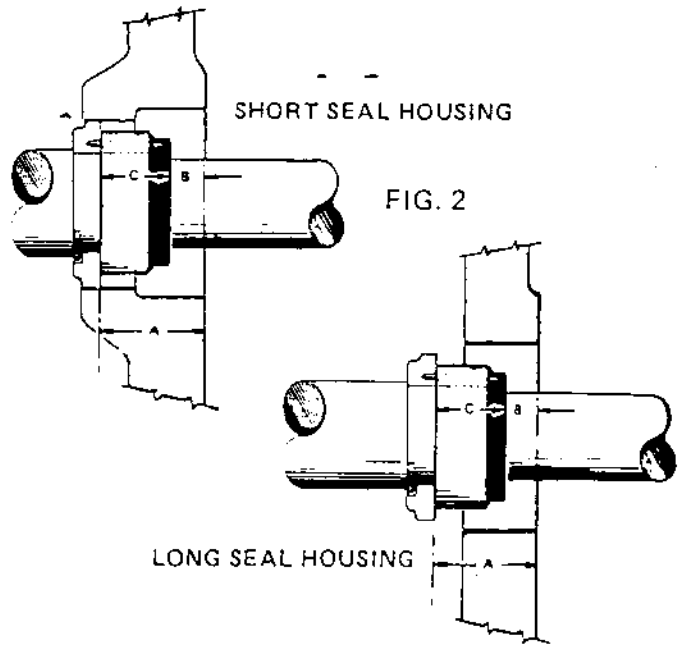


FIG. 3 - TYPE 8-1 AND TYPE 8B1 (SHORT SEAL HOUSING)

- | | |
|---------------|---------------------------|
| 1. DRIVE PIN | 6. CARBON RING |
| 2. SHAFT | 7. SEAL SEAT |
| 3. SEAL RING | 8. SEAL SEAT "O" RING |
| 4. SPRING PIN | 9. SEAL HOUSING |
| 5. SEAL HEAD | 10. SEAL HOUSING "O" RING |

C. TYPE 9B SEAL

- a. Remove seal housing "9B".
- b. Use hand or soft block and press carbon ring to break the seal head free from shaft.
- c. Place 2 pieces of Rod (Tip bent at 90° to form hook) into seal body holes and pull seal off of shaft.
- d. Use a soft drift to tap seal seat "7" out of seal housing.
- e. Remove chips and foreign material from shaft, seal cavity of seal housing. Stone any burrs created in removal of seal.
- f. Inspect shaft journal for nicks or other irregularities.
- g. Inspect seal ring "3" and lip seal "11". Replace lip seal "11" if worn, out of shape, or broken.
- h. Lubricate secondary Teflon wedge on inside of the Carbon ring with clean refrigeration oil.
- i. By hand slide seal head "5" on shaft so that the spring pin "4" engages one of the seal body spring holes. Seal head body must be fully seated against seal ring "3". Clean carbon face and coat with clean oil.
- j. Install seal seat "8" in seal housing bore and insure that anti-rotation pin "12" engages in hole in seat. A protective piece of cardboard may be used to protect seat face if it is necessary to install seat in housing. Clean seat surface and coat with clean oil. Operating face of seal seat should be parallel to seal housing flange within .002 TIR
- k. Install "O" rings "10" on seal housing.
- l. Lubricate "O" rings "10" and install seal housing. Using assembly bolts, draw up seal housing in an even manner.

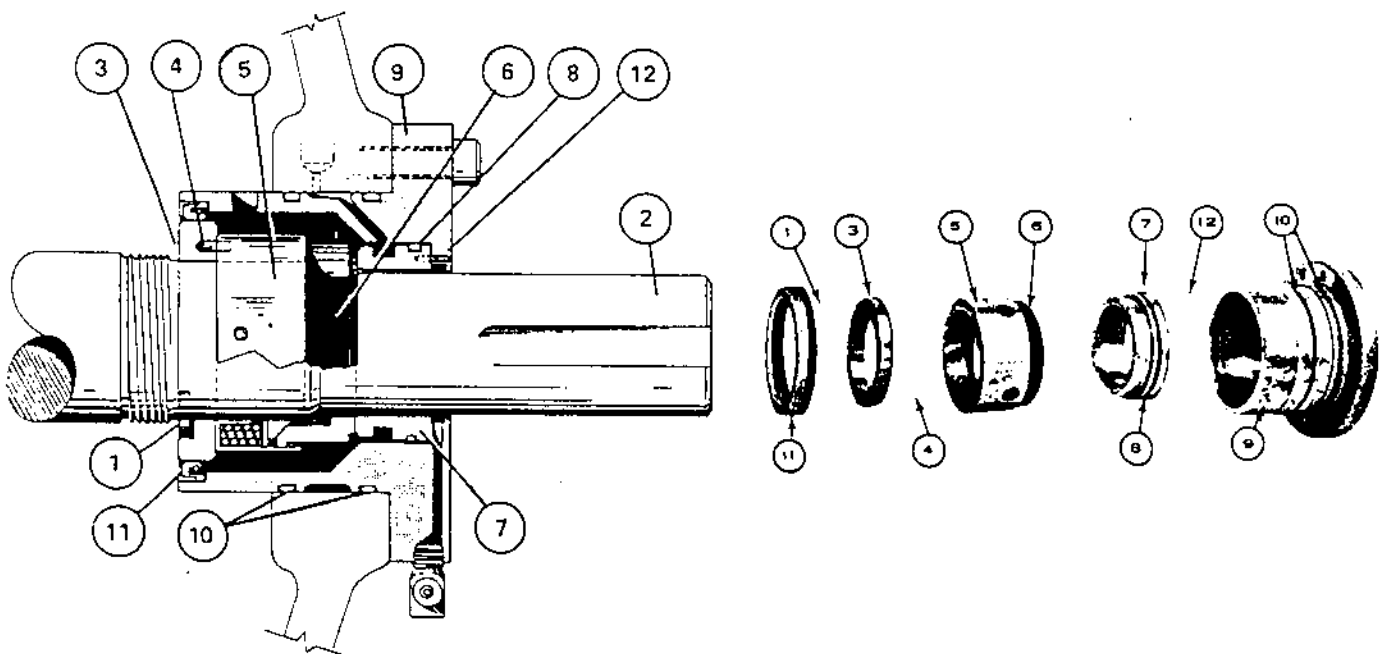
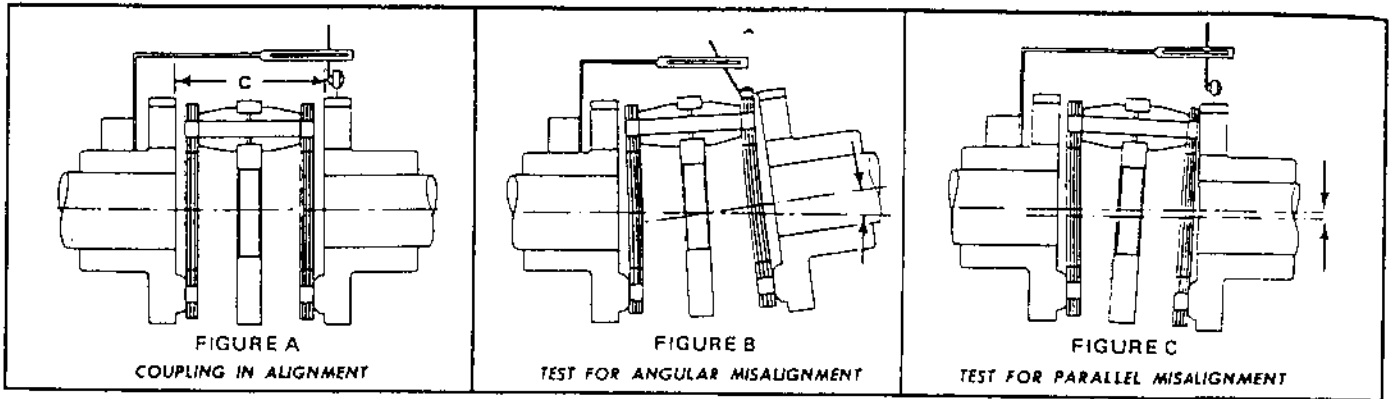


FIG. 4 – TYPE 9B SEAL

- | | | |
|---------------|-----------------------|----------------------------|
| 1. DRIVE PIN | 5. SEAL HEAD | 9. SEAL HOUSING |
| 2. SHAFT | 6. CARBON RING | 10. SEAL HOUSING "O" RINGS |
| 3. SEAL RING | 7. SEAL SEAT | 11. LIP SEAL |
| 4. SPRING PIN | 8. SEAL SEAT "O" RING | 12. SEAT ANTI-ROTATION PIN |

D. COUPLING ALIGNMENT
INDICATOR METHOD (RECOMMENDED)



1. To check angular misalignment (Figure B) mount indicator (as shown on left flange) with stem on face of right flange. Rotate Equipment noting maximum and minimum indicator reading. Move equipment as necessary to reduce the total indicator reading to that shown below.
2. To check parallel misalignment (Figure C) set indicator stem on outer surface of flange. Rotate equipment noting maximum and minimum indicator reading. Move equipment as necessary to reduce indicator reading to that shown below. Be careful not to disturb the setting of Step 1.
3. Repeat Steps 1 and 2 as necessary.
4. Coupling hubs to be spaced to dimension C.
5. This coupling should be rotated several revolutions to make sure no "endwise creep" in connected shafts is measured.
6. Tighten all bolts as shown in chart below.
7. When operating at full speed, both laminated rings should have a distinct and clearly defined appearance—not blurred when viewed from top and side.

NOTE: If unit had been previously aligned and doweled it may be necessary to redrill and taper-ream dowel holes and use next larger size taper dowel pins.

THOMAS COUPLING SERIES	FORM-FLEX COUPLING SERIES	BOLT TORQUE-FT. LB.		MISALIGNMENT		DIM. C (SEE FIG. A)
		THOMAS	FORM-FLEX	PARALLEL	ANGULAR	
163 DBZ-B	—	13	—	.003 TIR	.003 TIR	2 ⁷ / ₁₆ "
201 DBZ-B	—	25	—	.005 TIR	.005 TIR	2 ⁵ / ₁₆ "
226 DBZ-B	AK30	43	40	.005 TIR	.005 TIR	3 ¹³ / ₁₆ "
263 DBZ-B	AK35	63	40	.007 TIR	.007 TIR	4 ³ / ₁₆ "
301 DBZ-B	AK40	95	80	.007 TIR	.007 TIR	4 ⁷ / ₈ "
351 DBZ-B	AK45	175	80	.007 TIR	.007 TIR	5 ⁷ / ₈ "
350-51	—	95	—	.007 TIR	.007 TIR	6"

- NOTE:**
1. All dimensions and tolerances are in inches.
 2. Consult factory for complete engineering specification ASY-ES-1 if additional information is required.

E. DIRECT DRIVE DISASSEMBLY

The following illustrations show disassembly and assembly for the direct drive models.

Pump down compressor and isolate compressor from remaining part of system. Purge or pump out remaining refrigerant till 0 psig is reached. Pull main breaker switch. Lock out main circuit breaker.

Disassemble shaft coupling. Disconnect all compressor oil feed lines. Remove compressor assembly from unit and set up on suitable table. Refer Table 2 Page 20 for compressor weights. Remove coupling and key from compressor shaft. Use suitable wheel puller; do not hammer coupling off compressor.



FIG. 5 - SEAL HOUSING REMOVAL

Using 3/8" - 16 x 3 1/2" length jack bolts, remove seal housing, shaft seal and seal drive ring. Refer to Page 1 for instructions.

Insert several long studs in outlet end cover bolt holes to aid in removing end cover using four 5/8" - 11 x 3" long jack off bolts, tighten evenly and jack end cover off dowel pins.

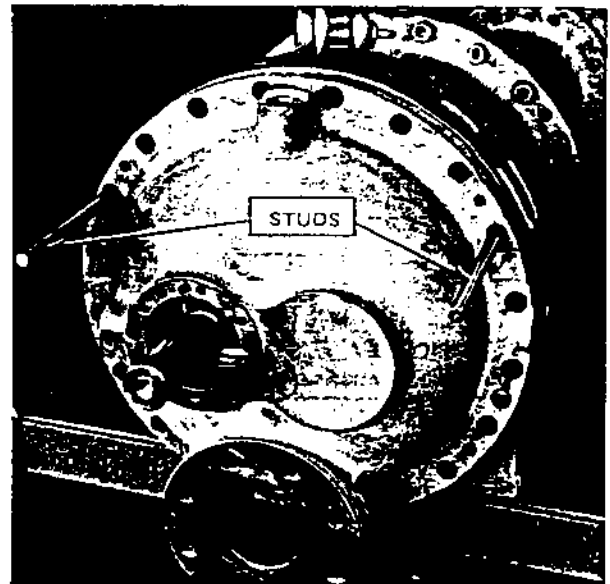


FIG. 6 - OUTLET END COVER REMOVAL

With slide valve in fully loaded position (pushed back toward suction end of compressor) use feeler gauges to determine rotor outlet end clearance. Slip feeler gauge between discharge end of rotors and outlet end plate. Measurement should be taken on both male and female rotor. Normal readings should be in range .004/.006". For field rebuild, figures of .003 min. to .008 max. can be used. If dimensions exceed these limits, refer to thrust bearing and adjustment section, Page 8. Compressor internal leakage and efficiency will vary with higher discharge outlet end clearances. Readings should be the same even with an axial push and pull exerted on the rotors. Any visible axial change of clearance indicates loose thrust bearing set up.

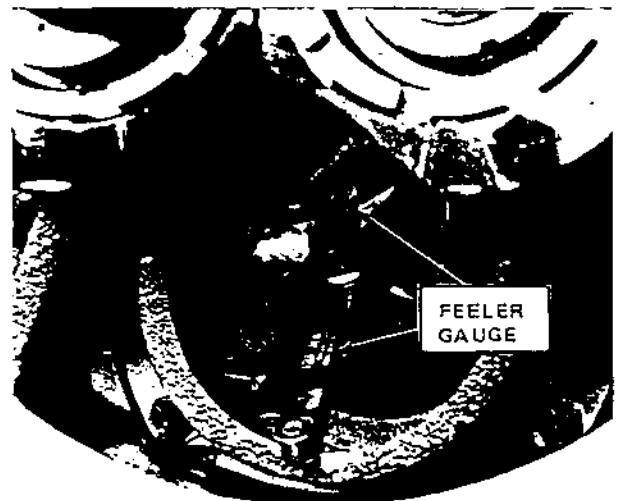


FIG. 7 - ROTOR END CLEARANCE
(MALE ROTOR)

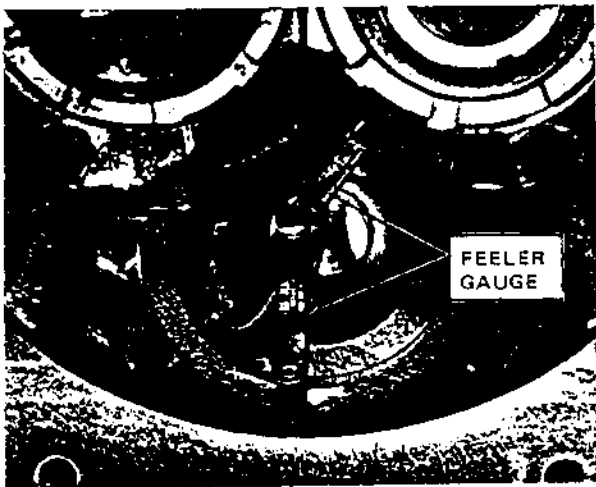


FIG. 8 - ROTOR END CLEARANCE
(FEMALE ROTOR)

Refer Section VI for servicing and removal of unloader controller indicator assembly.

Remove balance piston cover, unloader cylinder injection tube plate, unloader cylinder and unloader piston.

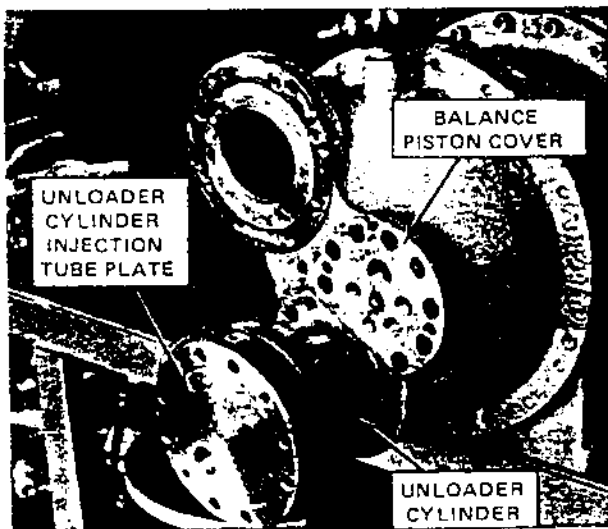


FIG. 9 - BALANCE PISTON COVER REMOVAL

Using feeler gauge, check clearance between balance piston and balance piston sleeve. Clearance should be .0005 to .003. Clearances much in excess of these figures indicate balance piston and sleeve should be replaced.



FIG. 10 - BALANCE PISTON CLEARANCE

Using snap ring pliers, remove snap ring from balance piston. By using small puller or by threading two bolts into balance piston, the balance piston can be removed from the male rotor. The balance piston sleeve can then be removed.



FIG. 11 - SNAP RING REMOVAL



FIG. 12 - BALANCE PISTON REMOVAL

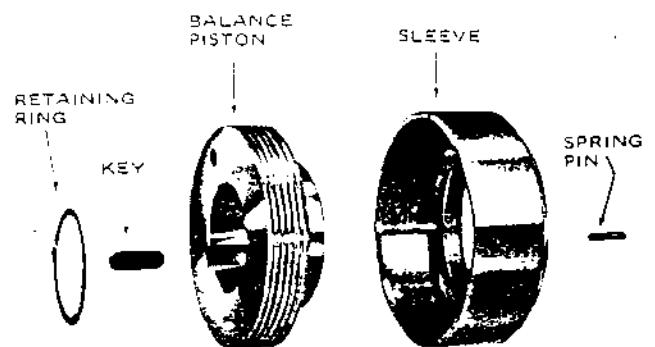


FIG. 13 - BALANCE PISTON ARRANGEMENT

F. THRUST BEARING ADJUSTMENT
(DB 163, 204, and 255)

Relieve locking corners bent over hex head bolts holding bearing sleeves to outlet end plate. Check torque of thrust bearing sleeve hold down bolts. Bolt torques should be 65 lb/ft.

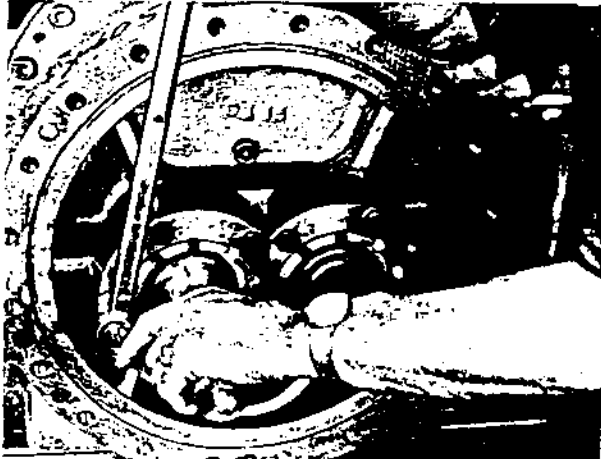


FIG. 14 – TORQUING SLEEVE BOLTS

With feeler gauges determine rotor outlet end clearance per Table 1. Normal readings should be .004/.006 clearance between rotors and outlet end plate. A higher clearance may be an indication that thrust bearing assembly is loose. By pushing and pulling on end of rotor determine if rotor end clearance changes. If thrust bearing assembly is loose, outer race lock nuts must be removed for inspection. If there is evidence of outer race turning, ball bearings should be removed. If there is no wear on nut face, proceed as follows;

1. Tighten inner race ball bearing lock nuts on both rotors to 250 lb. ft., using Tol. 1, 2, 3 for DB 163, 204, 255 respectively.
2. Tighten outer race lock nuts to 200 lb. ft. on 163, 204 and 400 lb. ft. on 255 using Tol. 6, 7 or 8 respectively to set assembly. Lightly scribe a line across outer nut and bearing sleeve.
3. Check rotor discharge end clearance. Clearance should be .004 to .006.
4. Back off outer bearing nut.
5. Tighten outer race nut and torque as follows:
 - DB 163, 200 lb. ft. Using Tol. 6
 - 204, 200 lb. ft. Using Tol. 7
 - 255, 400 lb. ft. Using Tol. 8
6. Scribe bearing line across outer nut and bearing sleeve.
7. Repeat for male rotor.
8. Recheck male and female outlet end clearance. Record on build sheet.
9. Assemble outer nut lock plate and bolt. Torque bolt to 30 lb. ft. Bend locking plate over hex bolt.

G. THRUST BEARING REPLACEMENT
(DBX 163, 204)

Relieve locking corners bent over four (4) hex bolts that hold male and female bearing sleeves to outlet end plate.

Loosen inner race lock nuts.
Loosen outer race lock nuts.
Loosen the four (4) hex head bolts on each bearing sleeve. Check and tag male and female bearing sleeves before removing.

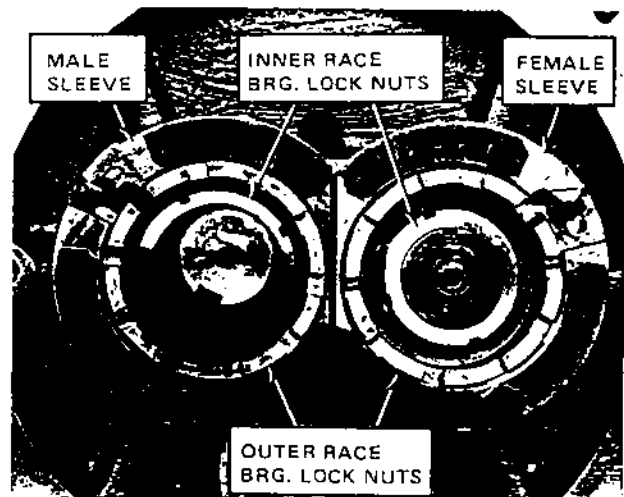


FIG. 15 – THRUST BEARING ASSEMBLY

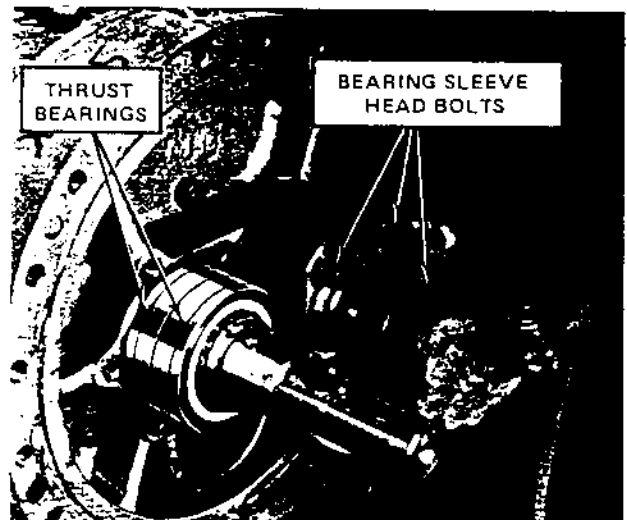


FIG. 16 – THRUST BEARING SLEEVE REMOVAL

Unbolt inlet end cover. Using inlet cover jack screw holes, jack off inlet cover. Since dowel pins are short, it is recommended that long rods are installed into opposite bolt holes for guiding. Inlet cover must be evenly moved backward until inlet cover clears rotor bearing journal ends.

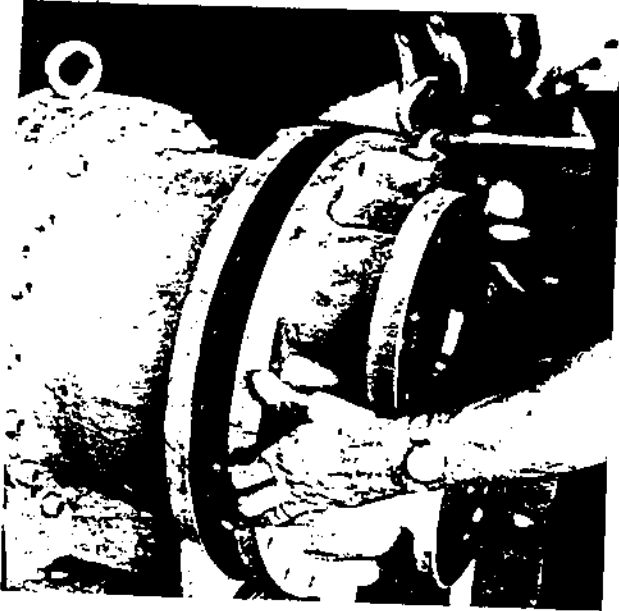


FIG. 17 - INLET HOUSING REMOVAL

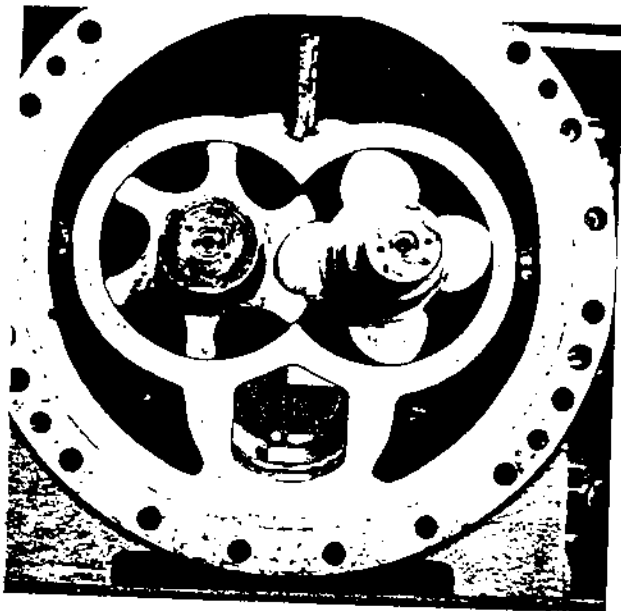


FIG. 18 - ROTOR INLET VIEW

With inlet end removed, inlet end of rotor housing and inlet end of rotors will be exposed. A puller plate (see Figure 19) can be used to push first the male rotor out and then the female. A soft plug or block should be placed between end of rotor and puller drive screw in order to protect end of rotor and rotor center. Care must be taken so that rotor does not drop once rotor moves axially enough to clear the journal bearing.

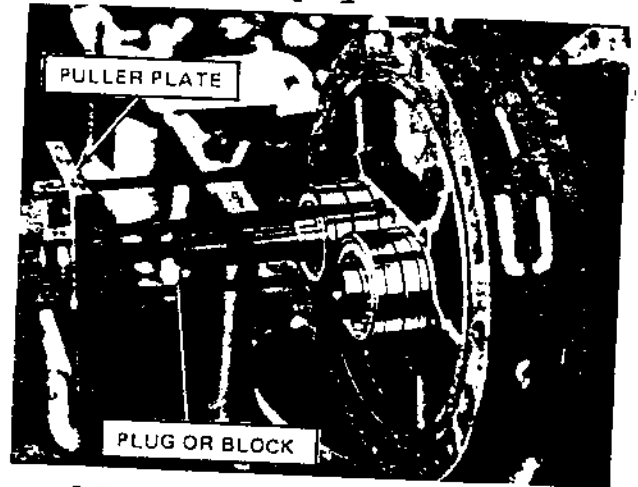


FIG. 19 - THRUST BEARING REMOVAL

Once rotor has moved 2"-3", the ball bearings will have been stripped off of their journal diameter. Tag bearings as being male rear and male front. Do not damage shim pack that is on rotor shoulder where ball thrust bearings have been mounted.

REPEAT PROCEDURE FOR FEMALE ROTOR.

Tag male and female shim pack and record thickness.

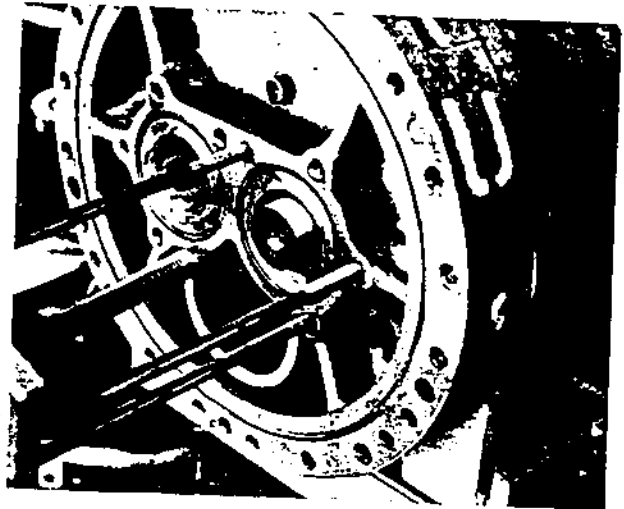


FIG. 20 - THRUST BEARINGS REMOVED

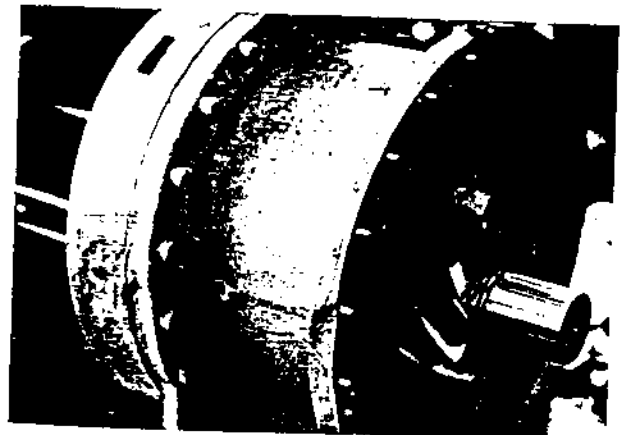
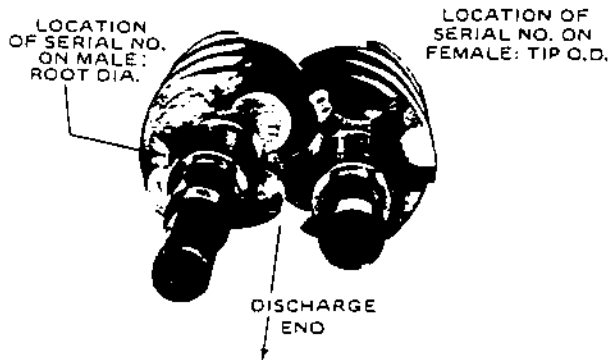


FIG. 21 - ROTOR REMOVAL

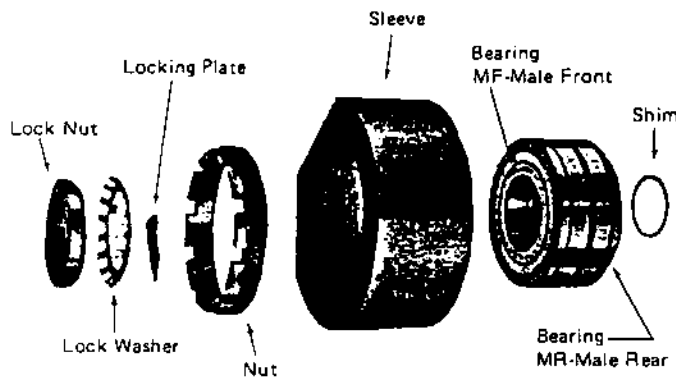
With both rotors out of the compressor examine for any nicks or burrs on the lobe profiles. Using a fine file or stone dress down any burrs or scratches that are present. Reinstall rotors in rotor housing by first putting male rotor in place. Notice location of rotor number on male rotor inlet and root diameter. Locate corresponding mark on female tip O.D. Screw female rotor into rotor housing by meshing with male rotor. Marked male rotor must start in same mesh as marked female rotor tip.

FIG. 22 – ROTOR SERIAL NUMBER LOCATION



Care must be taken when passing rotor journals thru the journal bearings. Rotors should be supported on both ends in order to avoid shaving bearing material. Install new "O" ring or gasket on inlet housing. Lightly oil journals and assemble inlet housing onto dowel pins using several bolts. Draw up evenly. This will support the inlet end of the rotors.

FIG. 23 – THRUST BEARING ARRANGEMENT



H. DBX THRUST BEARING ASSEMBLY (FEMALE ROTOR)

1. Using depth micrometer determine recess of rotor shoulder below outlet end plate. Rotors must be pulled hard against outlet end cover when this reading is taken.
2. Add .005 to this dimension and record.
3. Peel off shim pack until this thickness is reached. Put shim pack on shaft against shoulder.

4. Bearing pairs may be marked as shown by scribing MF, MR, FF, FR on cages for identification and assembly orientation. Degrease ball bearing sets to remove packing grease.
5. Heat ball thrust bearings to 250° to 300° F.
6. Quickly install on shaft in back to back (DB) arrangement. Bearing stamped races are exposed on outsides of bearing pair. Unstamped faces of inner ring are together.
7. Quickly add inner race lock nut washer and lock nut. Tighten lock nut against bearing and lock up tight.
8. Assemble bearing sleeves to outlet end plate. Assemble bolts and lock straps and torque bolts to 65 lb. ft. Lock tabs over bolt heads.
9. Allow bearing to cool to room temperature before tightening outer race lock nut. Squirt clean refrigeration oil into ball races and rotate shafts. Bearings should not be rotated in dry condition. Inner race lock nut tightness should be rechecked after bearings are cooled to room temperature. Loosen and retorque to 250 lb. ft. using Tol. 1, 2, 3 for DB 163, 204 or 255 respectively, secure nut with lock washer tab.
10. Turn lock nut into bearing sleeve.
11. Tighten outer race lock nuts to 200 lb. ft. on 163, 204 and 400 lb. ft. on 255 using Tol. 6, 7 or 8 respectively. Lightly scribe a line across outer nut and bearing sleeve.
12. Check rotor discharge end clearance; clearance should be .004 to .006. For field rebuild a clearance of .003 min. to .008 max. can be tolerated.
13. Back off outer bearing nut.
14. Tighten outer race nut and torque as follows:
DB 163 , 200 lb. ft. Using Tol. 6
DB 204 , 200 lb. ft. Using Tol. 7
DB 255 , 400 lb. ft. Using Tol. 8
15. Scribe heavy line across outer nut and bearing sleeve.
16. Repeat for male rotor.
17. Recheck male and female outlet end clearance. Record on build sheet.
18. Assemble outer nut lock plate and bolt. Torque bolt to 30 lb. ft. Bend locking plate over hex bolt.

I. THRUST BEARING REPLACEMENT (DBX 255)

Proceed as in 163 and 204 models, check and record rotor discharge end clearance. Remove thrust bearing sleeves. The DBX 255 model compressors are built with thrust bearing stripper plates that are located under the bearing sleeves in counterbores in the outlet end plate. The rotors do not have to be removed from the compressor in order to remove the bearings. The thrust bearings can be jacked off the rotors by using three 1/2"-13 bolts, 4 1/2" long or threaded rod and nuts with the thrust bearing stripper plates.

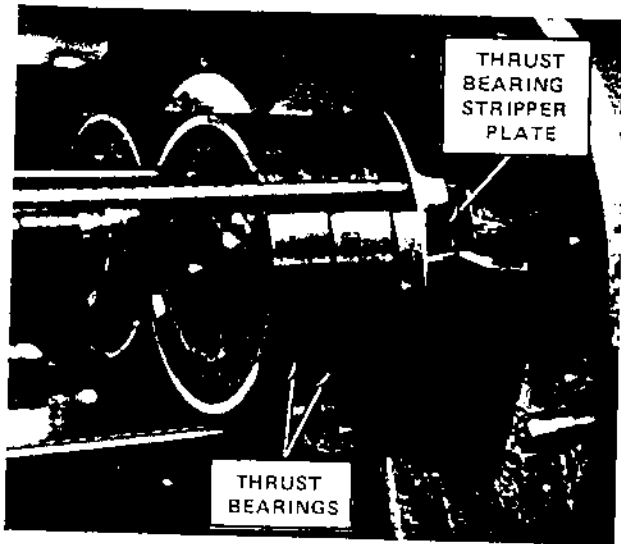


FIG. 24 - THRUST BEARING REMOVAL

Turn bolts evenly so that plate moves outward evenly thereby stripping off ball bearings. Repeat for female rotor.

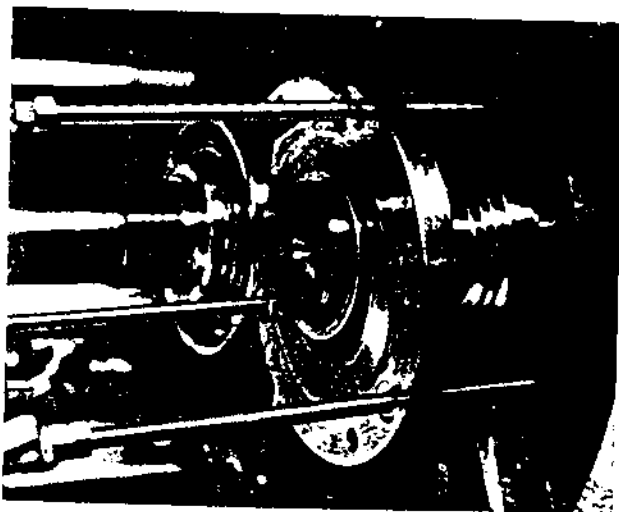


FIG. 25 - THRUST BEARINGS REMOVED

After bearings are removed from both male and female rotors, check parts for burrs or raised metal. Remove any raised metal with small file and stone. Also, check outlet end plate face and counterbores. If rotor end clearance as taken before disassembly is in the .004 to .006 range and the thrust bearing shims are not damaged, these shims may be reused.

Place thrust bearing plates in outlet end plate. Bolt thrust bearing plates to outlet end plate using 1/2"-13 bolts, 1 1/2" long with lock straps or soft washers under the bolt heads to avoid marking the thrust bearing plates. Torque bolts to 65 lb/ft.

Pull rotors toward outlet end plate. There should not be any clearance between discharge rotor ends and outlet end plate.

Using 0 to 1" depth micrometer, determine location of shaft shoulder to surface of thrust bearing plate. To this dimension add .005. Peel shim pack to this total dimension and record. Later, when this shim pack is placed on the rotor against shaft shoulder and sandwiched between ball bearing and shoulder, rotor outlet end clearance should result in nominal .005 dimension.

This can be double checked before assembly by placing .005 shim between rotor and outlet end plate and pulling rotor hard against outlet end plate. Place prepared shim pack on shaft against shoulder and check with depth micrometer. Face of shim pack should be flush with thrust bearing plate and micrometer reading should be 0.

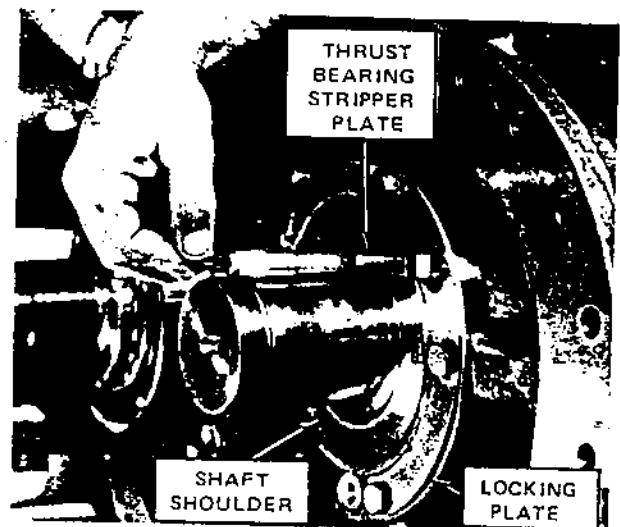


FIG. 26 - MEASUREMENT FOR
SHIM PACK THICKNESS

Repeat for other rotor.

Proceed to assemble new thrust bearings as outlined in paragraph II-H "DBX Thrust Bearing Assembly".

J. SERVICE OR REMOVAL OF SLIDE VALVE

The slide valve assembly can be removed after the compressor outlet end cover and unloader cylinder end plate has been removed.

Main hydraulic unloader parts are shown below.

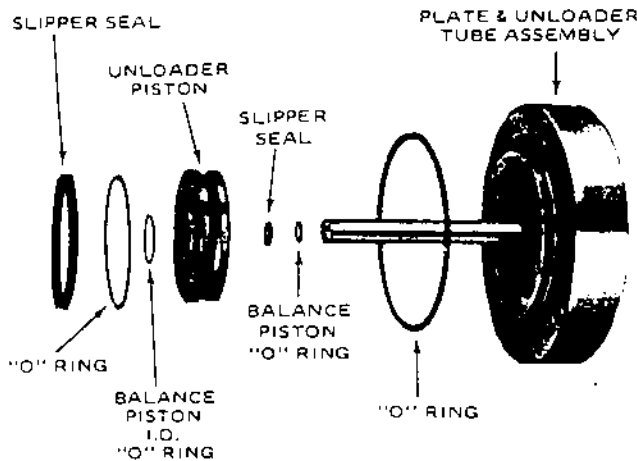


FIG. 27 – UNLOADER PARTS

Examine injection tube and hydraulic piston teflon slipper seats for wear, nicks, or cuts. These parts must be smooth for satisfactory operation and proper sealing. Any imperfections will cause oil leakage resulting in hydraulic unloader not being able to maintain a hold position which will also result in frequent cycling of unloader solenoid valves to balance compressor with system load requirements.

Inspect slide valve spindle bore for scratches and scoring.

These rings may be replaced by first removing old teflon ring and "O" ring. Then install new "O" ring and stretch new slipper seal over shaft or piston. Use care so as not to nick or crack new teflon ring. Ring must be fully seated over "O" ring in ring groove. Smooth ring to round shape concentric with groove. Oil parts before reassembly.

Slide valve spindle assembly may be removed by pushing slide valve thru outlet port in outlet end plate.



FIG. 28 – SLIDE VALVE REMOVAL

Once removed, examine slide valve for scratches or burrs on valve OD and on slide valve slot.

Check clearance between slide valve slot and slide guide block by measuring each part or by putting guide block in slot and using a feeler gauge. Guide block to slot. Clearance should be around .001". Clearances much larger than this indicate wear on either guide or slot. It may be necessary to replace guide block if block is worn.

Note that all guide blocks are marked "This side Up" and "Inlet End". Guide block must be installed in this position on guide block spindle in rotor housing.

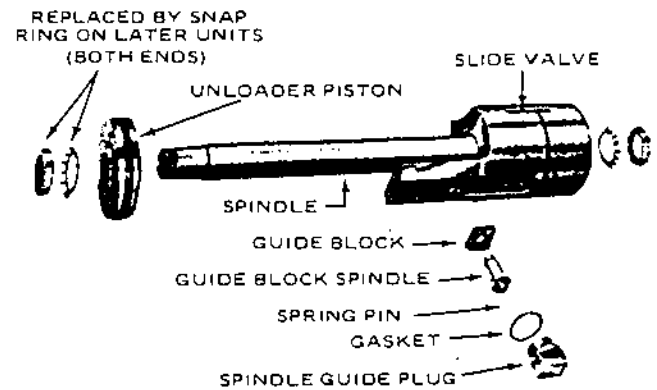


FIG. 29 – SLIDE VALVE PARTS & ARRANGEMENT

K. SLIDE GUIDE

1. Inspect condition of slide valve bore and slide guide. Check for any burrs and scoring. Stone as required and clean.
2. Check security of slide guide retaining bolts and slide guide locator pins. Tighten bolts if loose to torque shown in Table 5. Relock lock washer tabs over bolt heads.

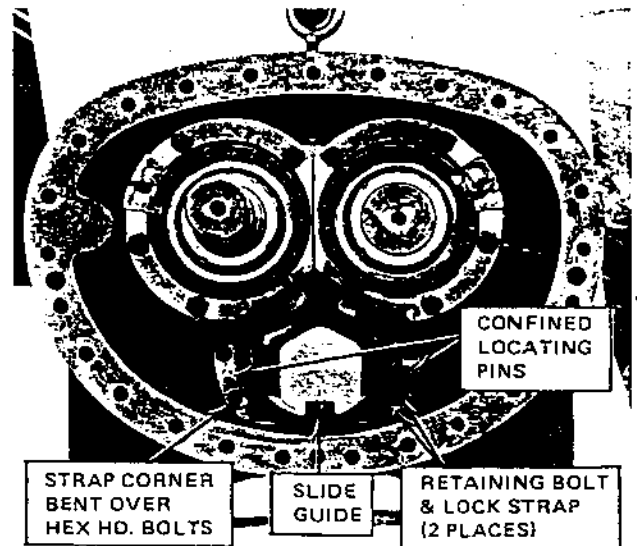


FIG. 30 – SLIDE VALVE BORE

L. DBX 163 DIRECT DRIVE (VERSIONS A, B, C & D)

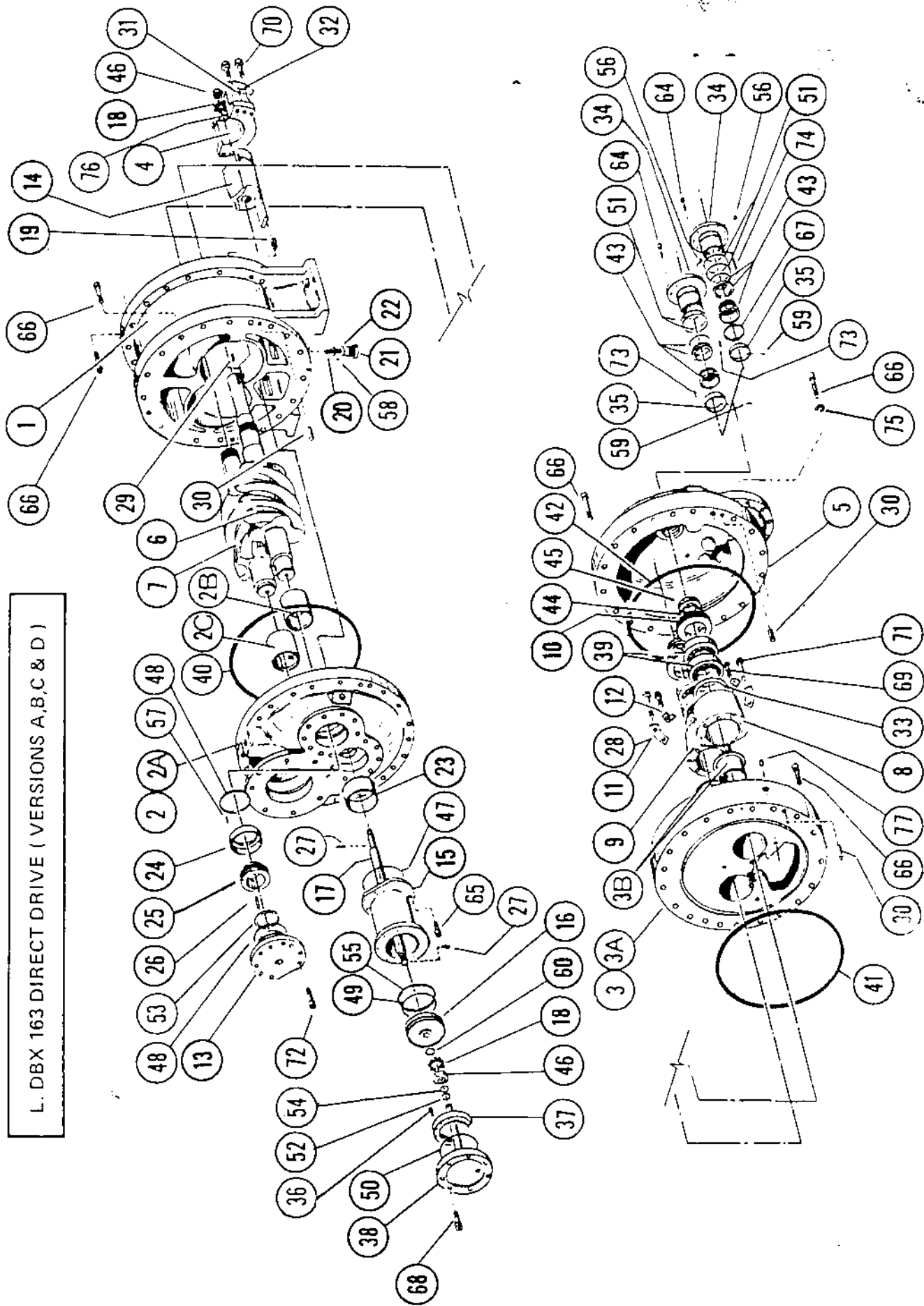


FIGURE 31

DBX 163 DIRECT DRIVE (VERSION A & B)¹

ITEM	DESCRIPTION	QTY.	(1610)	(1613)	(1615)
1	Housing Rotor	1	HSG58X	HSG58X	HSG58X
2	Housing Assembly, Inlet	1	HSG60AX	HSG60AX	HSG60AX
2A	Inlet Housing	1	HSG60X	HSG60X	HSG60X
2B	Journal Bearing, Male Rotor	1	BRG72	BRG72	BRG72
2C	Journal Bearing, Female Rotor	1	BRG73	BRG73	BRG73
3	Plate Assembly - Outlet End	1	PLT1824AX	PLT1824AX	PLT1824AX
3A	Plate Outlet End	1	PLT1824X	PLT1824X	PLT1824X
3B	Journal Bearing	2	BRG71	BRG71	BRG71
4	Guide, Slide	1	GDE9X	GDE9X	GDE9X
5	Cover, Outlet End	1	COVB4X	COVB4X	COVB4X
6	Rotor, Male	1	ROR22	ROR24	ROR24
7	Rotor, Female	1	ROR23	ROR25	ROR25
8	Sleeve (Bearing)	1	SLV13	SLV13	SLV13
9	Sleeve (Bearing)	1	SLV14	SLV14	SLV14
10	Nut (Bearing)	2	NUT28	NUT28	NUT28
11	Plate, Locking	2	PLT1044T1	PLT1044T1	PLT1044T1
12	Plate, Locking	2	ICOV85	ICOV85	ICOV85
13	Cover Balance Piston	1	IVAL508X	IVAL507X	IVAL507X
14	Valve, Sliding (High Temp. Compressor)	1	IVAL514X	IVAL514X	IVAL515X
14	Valve, Sliding (Low Temp. Compressor)	1			
15	Cylinder, Unloader Piston	1	CYL20	CYL20	CYL20
16	Piston, Unloader	1	PS71X	PS71X	PS71X
17	Spindle Assembly	1	ISPNIAX	ISPC2AX	ISPC2AX
18	Washer, Lock	2	WAS60	WAS60	WAS60
19	Guide, Block	1	GDE10	GDE10	GDE10
20	Spindle, Guide Block	1	SPN3	SPN3	SPN3
21	Plug, Spindle Guide	1	PLU105	PLU105	PLU105
22	Gasket, Plug	1	GKT238	GKT238	GKT238
23	Spacer, Piston	1	SPCR9	N/R	N/R
24	Sleeve, Balancing Piston	1	SLV15 ⁴	SLV15 ⁴	SLV15 ⁴
25	Piston, Balancing	1	PST72	PST72	PST72
26	Key, Balancing Piston	1	KEY5	KEY5	KEY5
27	Pin, Dowel	1	N/R	N/R	N/R
28	Plate, Locking	2	PLT1044T2	PLT1044T2	PLT1044T2
29	Key, Male Rotor	1	KEY6	KEY6	KEY6
30	Pin, Dowel	5	PN87T1	PN87T1	PN87T1
31	Pin, Dowel	2	PN51T3	PN51T3	PN51T3
32	Plate, Locking	2	PLT1043	PLT1043	PLT1043
33	Shim (Bearing)	2	SHM 8	SHM 8	SHM 8
34	Housing, Seal (Freon Compressor)	1	HSG61	HSG61	HSG61
34	Housing, Seal (Ammonia Compressor)	1	HSG99	HSG99	HSG99
35	Ring, Seal (Freon Compressor)	1	SLV16	SLV16	SLV16
35	Ring, Seal (Ammonia Compressor)	1	RNG139	RNG139	RNG139
36	Screw, Soc HD	1	N/R	034P09	N/R
37	Spacer, Piston	1	N/R	SPC127I2	N/R

ITEM	DESCRIPTION	QTY.	(1610)	(1613)	(1615)
38	Plate & Injection Tube Assembly	1	PLT627AX	PLT628AX	PLT628AX
39	Bearing, Thrust	2	BRG76	BRG76	BRG76
40	"O" Ring (Parker No. 2.385 C-147-7)	1	RNG203	RNG203	RNG203
41	"O" Ring (Parker No. 2.385 C-147-7)	1	RNG203	RNG203	RNG203
42	"O" Ring (Parker No. 2.385 C-147-7)	1	RNG203	RNG203	RNG203
43	Shaft Seal (Freon Compressor)	1	SEL24A	SEL24A	SEL24A
43	Seal Assembly (Ammonia Compressor)	1	SEL31A	SEL31A	SEL31A
44	Washer, Lock (SAE W-11)	2	WAS94	WAS94	WAS94
45	Nut, Lock (SAE N-11)	2	NUT65	NUT65	NUT65
46	Nut, Lock (SAE N-07)	2	NUT82	NUT82	NUT82
47	"O" Ring (Parker No. 2.350 C-147-7)	1	RNG202	RNG202	RNG202
48	"O" Ring (Parker No. 2.340 C-147-7)	2	RNG206	RNG206	RNG206
49	"O" Ring (Parker No. 2.340 C-147-7)	1	RNG205	RNG205	RNG205
50	"O" Ring (Parker No. 2.360 C-147-7)	1	RNG207	RNG207	RNG207
51	"O" Ring (Parker No. 2.238 C-147-7)	2	RNG135	RNG135	RNG135
52	"O" Ring (Parker No. 2.115 C-147-7)	1	RNG204	RNG204	RNG204
53	Ring, Retaining (Tie-rod No. 5100-200)	1	RNG212	RNG212	RNG212
54	Ring - Slipper Seal	1	RNG120X	RNG120X	RNG120X
55	Ring - Slipper Seal	1	RNG130	RNG130	RNG130
56	Elbow 90°	1	ELL75	ELL75	ELL75
57	Pin, Dowel (1/16 Dia. x 1/2 LG)	1	OG02P03	OG02P03	OG02P03
58	Pin, Spring (1/16 Dia. x 7/8 LG)	1	PN53	PN53	PN53
59	Pin, Spring (1/8 Dia. x 1/8 LG)	1	PN80T3	PN80T3	PN80T3
60					
61					
62					
63					
64	Screw, Soc HD Cup - 1/8 - 16 x 1 1/2 LG	6	036P13	036P13	036P13
65	Screw, Soc HD Cup - 1/8 - 13 x 1 1/2 LG	10	SCR94	SCR94	SCR94
66	Screw, Soc HD Cup - 1/8 - 11 x 2" LG	62	034BP19	034BP19	034BP19
67	Seal, Lip (Freon Compressor)	1	SEL25	SEL25	SEL25
68	Screw, Soc HD Cup - 1/8 - 13 x 2 1/4 LG	8	SCR95	SCR95	SCR95
69	Screw, HEX HD Cup - 1/8 - 16 x 3/4 LG	2	012P07	012P07	012P07
70	Screw, HEX HD Cup - 1/8 - 16 x 1 1/2 LG	4	012P15	012P15	012P15
71	Screw, HEX HD Cup - 1/8 - 13 x 3/4 LG	8	014P33	014P33	014P33
72	Screw, Soc HD Cup - 5/8 - 11 x 1 1/4 LG	8	034BP17	034BP17	034BP17
73	Pin, Spring - 1/8 Dia. x 3/4 LG	1	PN80T6	PN80T6	PN80T6
74	Pin, Spring (Freon Compressor)	1	PN76	PN76	PN76
75	Gasket, Bolt	1	GKT254	GKT254	GKT254
76	Shim	1	N/R	N/R	N/R
77					

1 Consult Factory - Part No. varies with application & accessories.
 2 Select part at assembly - use combination of P/LT1089 &/or P/LT1090 for a total of 2 locking plates.
 3 Low temperature not available with this compressor.
 4 Can use SLV61.

DBX 163 DIRECT DRIVE (VERSION C)

ITEM	DESCRIPTION	QTY.	(1610) PART NO.	(1613) PART NO.	(1615) PART NO.
1	Housing, Rotor	1	HSG58T1	HSG59T1	HSG59T1
2	Housing, Inlet	1	HSG60A11	HSG60A11	HSG60A11
2A	Inlet Housing	1	HSG60T1	HSG60T1	HSG60T1
2B	Journal Bearing, Mule Rotor	1	BRG72	BRG72	BRG72
2C	Journal Bearing, Female Rotor	1	BRG73	BRG73	BRG73
3	Plate Assembly - Outlet End (Ultra-Low Temperature)	1	PLT2151AT1	PLT2151AT1	PLT2151AT1
3A	Plate, Outlet End (Hi & Lo Temperature)	1	PLT824AT1	PLT824AT1	PLT824AT1
3B	Journal Bearing	1	PLT824T1	PLT824T1	PLT824T1
4	Guide, Slide	2	BRG71	BRG71	BRG71
5	Cover, Outer End	1	GDE9	GDE9	GDE9
6	Cover, Inlet End	1	COVB4T1	COVB4T1	COVB4T1
7	Rotor, Male	1	ROR22	ROR24	ROR24
8	Rotor, Female	1	ROR23	ROR25	ROR25
9	Sleeve (Bearing)	1	SLV13	SLV13	SLV13
10	Sleeve (Bearing)	1	SLV14	SLV14	SLV14
11	Nut (Bearing)	2	NUT28	NUT28	NUT28
12	Plate, Locking	2	PLT1044T1	PLT1044T1	PLT1044T1
13	Cover, Balance Piston	2	COVB5 ⁴	COVB5 ⁴	COVB5 ⁴
14	Valve, Sliding (High Temp. Compressor)	1	VAL738T4	VAL739T4	VAL739T4
14	Valve, Sliding (Low Temp. Compressor)	1	VAL738T3	VAL739T3	VAL739T3
14	Valve, Sliding (Ultra Low)	1	VAL738T1	VAL739T1	VAL739T1
15	Cylinder, Unloader Piston	1	CYL20	CYL20	CYL20
16	Piston, Unloader	1	PST71	PST71	PST71
17	Spindle Assembly	1	SPN1A	SPN2A	SPN2A
18	Guide, Block	1	GDE10	GDE10	GDE10
20	Spindle, Guide Block	1	SPN3	SPN3	SPN3
21	Plug, Spindle Guide	1	PLU105	PLU105	PLU105
22	Gasket, Plug	1	GKT238	GKT238	GKT238
23	Spacer, Piston	1	SPC89	N/A	N/A
24	Sleeve, Balancing Piston	1	SLV15 ⁷	SLV15 ⁷	SLV15 ⁷
25	Piston, Balancing	1	PST72	PST72	PST72
26	Key, Balancing Piston	1	KEY5	KEY5	KEY5
27	Pin, Dowel	2	PIN82T3	PIN82T3	PIN82T3
28	Plate, Locking	2	PLT1044T2	PLT1044T2	PLT1044T2
29	Key, Male Rotor	1	KEY6	KEY6	KEY6
30	Pin, Dowel	6	PIN87T1	PIN87T1	PIN87T1
31	Pin, Dowel	2	PIN51T3	PIN51T3	PIN51T3
32	Plate, Locking	2	PLT1043	PLT1043	PLT1043
33	Shim (Bearing)	2	SHM8	SHM8	SHM8
34	Housing, Seal	1	HSG138	HSG138	HSG138
35	Ring, Seal	1	RNG251	RNG251	RNG251
36	Screw, Soc. HD	2	N/R	034P09	N/R
37	Spacer, Piston	2	N/R	SPC127T2	N/R

ITEM	DESCRIPTION	QTY.	(1610) PART NO.	(1613) PART NO.	(1615) PART NO.
38	Plate & Injection Tube Assembly	1	PLT1066AT1	PLT1066AT1	PLT1066AT1
39	Bearing, Thrust (Freon Compressor)	2 pr.	BRG74	BRG74	BRG74
39	Bearing, Thrust (Ammonia Compressor)	2 pr.	BRG75	BRG75	BRG75
40	"O" Ring (Parker No. 2-385-C-147-7)	1	RNG203	RNG203	RNG203
41	"O" Ring (Parker No. 2-385-C-147-7)	1	RNG203	RNG203	RNG203
42	"O" Ring (Parker No. 2-385-C-147-7)	1	RNG203	RNG203	RNG203
43	Seal Assembly	1	SEL45T1	SEL45T1	SEL45T1
44	Washer, Lock (SAE W 11)	2	WAS94	WAS94	WAS94
45	Nut, Lock (SAE N 11)	2	NUT65	NUT65	NUT65
46	Ring, Retaining	2	RNG286	RNG286	RNG286
47	"O" Ring (Parker No. 2-350-C-147-7)	1	RNG202	RNG202	RNG202
48	"O" Ring (Parker No. 2-346-C-147-7)	2	RNG206	RNG206	RNG206
49	"O" Ring (Parker No. 2-344-C-147-7)	1	RNG205	RNG205	RNG205
50	"O" Ring (Parker No. 2-360-C-147-7)	1	RNG207	RNG207	RNG207
51	"O" Ring (Parker No. 2-360-C-147-7)	1	RNG207	RNG207	RNG207
52	"O" Ring (Parker No. 2-238-C-147-7)	2	RNG135	RNG135	RNG135
53	Ring, Retaining (Thru No. 5100 200)	1	RNG256	RNG256	RNG256
54	Ring - Slipper Seal	1	RNG212	RNG212	RNG212
55	Ring - Slipper Seal	1	RNG255	RNG255	RNG255
56	Elbow 90°	1	RNG130	RNG130	RNG130
57	Pin, Dowel (1/16 Dia. x 1/2 Lg.)	1	ELL136T1	ELL136T1	ELL136T1
58	Pin, Spring (1/16 Dia. x 3/8 Lg.)	1	0602P03	0602P03	0602P03
59	Pin, Spring (1/8 Dia. x 3/8 Lg.)	1	PIN53	PIN53	PIN53
60	"O" Ring (Parker No. 2-220-C-147-7)	1	PIN80T3	PIN80T3	PIN80T3
61	"O" Ring (Parker No. 2-220-C-147-7)	1	RNG275	RNG275	RNG275
62	Screw, Soc. HD Cap - 3/8 - 16 x 1 1/2 Lg.	6	036P13	036P13	036P13
63	Screw, Soc. HD Cap - 3/8 - 16 x 1 1/4 Lg.	10	SCR94	SCR94	SCR94
64	Screw, Soc. HD Cap - 5/8 - 11 x 2" Lg.	62	0348P19	0348P19	0348P19
65	Screw, Soc. HD Cap - 1/2 - 13 x 2 3/4 Lg.	8	SCR95	SCR95	SCR95
66	Screw, Hex HD Cap - 3/8 - 16 x 5/8 Lg.	2	012P07	012P07	012P07
67	Screw, Hex HD Cap - 3/8 - 16 x 1 1/2 Lg.	4	012P15	012P15	012P15
68	Screw, Hex HD Cap - 1/2 - 13 x 3 3/4 Lg.	8	014P33	014P33	014P33
69	Screw, Soc. HD Cap - 5/8 - 11 x 1 1/8 Lg.	8	0348P17	0348P17	0348P17
70	Pin, Spring - 1/8 Dia. x 3/4 Lg.	1	PIN80T6	PIN80T6	PIN80T6
71	Gasket, Bolt	1	GKT254	GKT254	GKT254
72	Shim	AR	GKT254	GKT254	GKT254

1 Consult factory - Part number varies with application.
 2 Select part at assembly - use combination of P.L.T 1089 &/or P.L.T 1090 for a total of 2 locking plates.
 3 Low temperature not available with this compressor.
 4 Specify cover with 4 tapped oil holes.
 5 Ultra-low temperature not available with this compressor.
 6 Use combination of SHM19T1 & SHM19T2 to obtain approximately .004 min. axial crr.
 7 Can use SLV6.

DBX 163 DIRECT DRIVE (VERSION D)

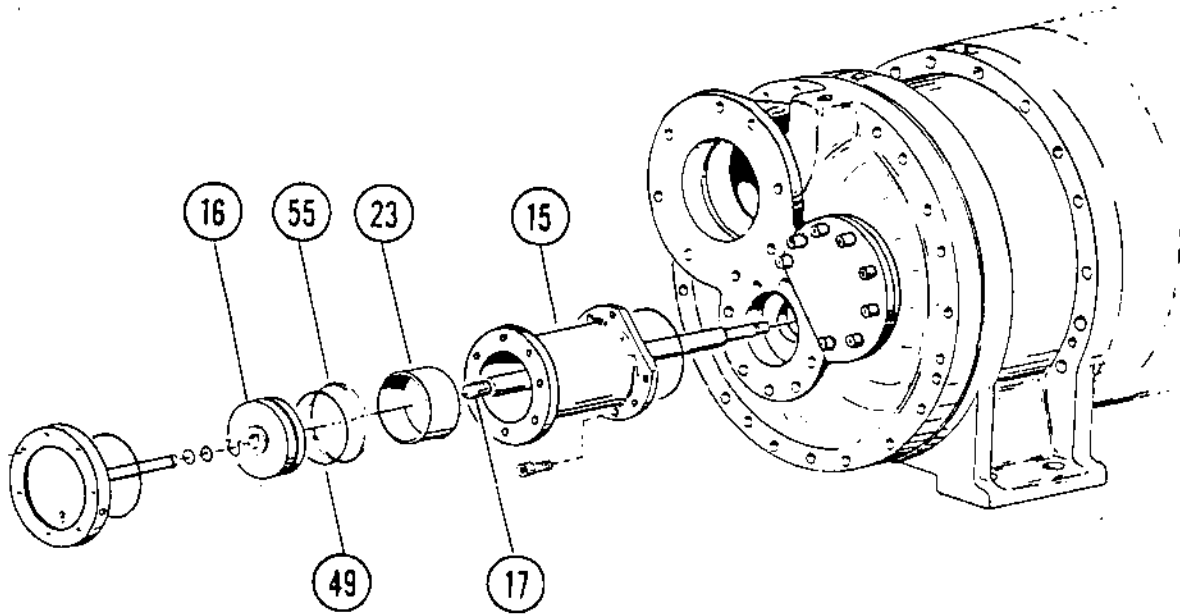
ITEM	DESCRIPTION	QTY	(1610) PART NO.	(1613) PART NO.	(1615) PART NO.
1	Housing, Rotor	1	HSG5812	HSG5912	HSG5912
2A	Housing Assembly, Inlet	1	HSG60A12	HSG60A12	HSG60A12
2B	Inlet Housing	1	HSG6012	HSG6012	HSG6012
2C	Journal Bearing, Male Rotor	1	BRG72	BRG72	BRG72
3	Journal Bearing, Female Rotor	1	BRG73	BRG73	BRG73
3	Plate Assembly - Outlet End (Ultra-low)	1	PLT2151A12	PLT2151A12	PLT2151A12
3A	Plate Assembly - Outlet End (Hi & Low Temperature)	1	PLT824A12	PLT824A12	PLT824A12
3B	Plate Outlet End (Hi & Low Temp)	1	PLT82412	PLT82412	PLT82412
4	Journal Bearing	2	BRG71	BRG71	BRG71
4	Guide, Slide	4	GDE9	GDE9	GDE9
5	Cover, Outlet End	1	COV842	COV842	COV842
6	Rotor, Male	1	ROR22	ROR24	ROR24
7	Rotor, Female	1	ROR23	ROR25	ROR25
8	Sleeve (Bearing)	1	SLV13	SLV13	SLV13
9	Sleeve (Bearing)	1	SLV14	SLV14	SLV14
10	Nut (Bearing)	2	NUT28	NUT28	NUT28
11	Plate, Locking	2	PLT1044T1	PLT1044T1	PLT1044T1
12	Plate, Locking	2	PLT1044T1	PLT1044T1	PLT1044T1
13	Cover, Balance Piston	1	COV85	COV85	COV85
14	Valve, Sliding (High Temp. Compressor)	1	VAL738T4	VAL738T4	VAL738T4
14	Valve, Sliding (Low Temp. Compressor)	1	VAL738T3	VAL738T3	VAL738T3
14	Valve, Sliding (Ultra-low)	1	VAL738T1	VAL738T1	VAL738T1
15	Cylinder, Unloader Piston	1	CYL20	CYL20	CYL20
16	Piston, Unloader	1	PST71	PST71	PST71
17	Spindle Assembly	1	SPN2A	SPN2A	SPN2A
18	Guide, Block	1	GDE10	GDE10	GDE10
19	Spindle, Guide Block	1	SPN3	SPN3	SPN3
20	Plug, Spindle Guide	1	PLU105	PLU105	PLU105
21	Gasket, Plug	1	GKT238	GKT238	GKT238
22	Spacer, Piston	1	SPC89	N/R	N/R
23	Sleeve, Balancing Piston	1	SLV61	SLV61	SLV61
24	Piston, Balancing	1	PST72	PST72	PST72
25	Key, Balancing Piston	1	KEY5	KEY5	KEY5
26	Pin, Dowel	2	PIN82T3	PIN82T3	PIN82T3
27	Pin, Dowel	2	PIN82T3	PIN82T3	PIN82T3
28	Plate, Locking	2	PLT1044T2	PLT1044T2	PLT1044T2
29	Key, Male Rotor	1	KEY6	KEY6	KEY6
30	Pin, Dowel	6	PIN87T1	PIN87T1	PIN87T1
31	Pin, Dowel	2	PIN81T3	PIN81T3	PIN81T3
32	Plate, Locking	2	PLT1043	PLT1043	PLT1043
33	Spinn (Bearing)	2	SPIN8	SPIN8	SPIN8
34	Housing, Seal	1	HSG142	HSG142	HSG142
35	Ring, Seal	1	RNG251	RNG251	RNG251
36	Screw, Soc HD	2	N/R	034P09	N/R
37	Spacer, Piston	2	N/R	SPC127T2	N/R

ITEM	DESCRIPTION	QTY	(1610) PART NO.	(1613) PART NO.	(1615) PART NO.
38	Plate & Injection Tube Assembly	1	PLT1066A11	PLT1066A11	PLT1066A11
39	Bearing, Thrust (Front Compressor)	2 pr	BRG74	BRG74	BRG74
39	Bearing, Thrust (Ammonia Compressor)	2 pr	BRG75	BRG75	BRG75
40	Gasket (Inlet)	1	GKT466	GKT466	GKT466
41	Gasket (Rotor Inlet)	1	GKT467	GKT467	GKT467
42	Gasket (Outlet End)	1	GKT468	GKT468	GKT468
43	Seal Assembly	1	SEL45T1	SEL45T1	SEL45T1
44	Washer, Lock (SAE W-11)	2	WAS94	WAS94	WAS94
45	Nut, Lock (SAE N-11)	2	NUT65	NUT65	NUT65
46	Ring, Retaining	2	RNG286	RNG286	RNG286
47	"O" Ring (Parker No. 2 350 C.147-7)	1	RNG202	RNG202	RNG202
48	"O" Ring (Parker No. 2 346 C.147-7)	2	RNG206	RNG206	RNG206
49	"O" Ring (Parker No. 2 344 C.147-7)	1	RNG205	RNG205	RNG205
50	"O" Ring (Parker No. 2 360 C.147-7)	1	RNG207	RNG207	RNG207
51	"O" Ring (Parker No. 2 238 C.147-7)	2	RNG135	RNG135	RNG135
52	"O" Ring (Parker No. 2 118 C.147-7)	1	RNG256	RNG256	RNG256
53	Ring, Retaining (Truarc No. 5100 200)	1	RNG212	RNG212	RNG212
54	Ring - Slipper Seal	1	RNG255	RNG255	RNG255
55	Ring - Slipper Seal	1	RNG130	RNG130	RNG130
56	Elbow 90°	1	ELL136T1	ELL136T1	ELL136T1
57	Pin, Dowel (1/16 Dia. x 1/2 Lg)	1	0602P03	0602P03	0602P03
58	Pin, Spring (1/16 Dia. x 1/2 Lg)	1	PIN53	PIN53	PIN53
59	Pin, Spring (1/16 Dia. x 1/2 Lg)	1	PIN80T3	PIN80T3	PIN80T3
60	"O" Ring (Parker No. 2 220 C.147-7)	1	RNG275	RNG275	RNG275
61					
62					
63					
64					
65	Screw, Soc HD Cap - 1/8 - 16 x 1 1/2 Lg	6	036P13	036P13	036P13
65	Screw, Soc HD Cap - 1/8 - 13 x 1 1/4 Lg	10	SC104	SC104	SC104
66	Screw, Soc HD Cap - 5/16 - 11 x 2" Lg	62	0348P19	0348P19	0348P19
67	Screw, Soc HD Cap - 1/2 - 13 x 2 1/4 Lg	8	SC109	SC109	SC109
68	Screw, Hex HD Cap - 1/8 - 16 x 5/8 Lg	2	012P07	012P07	012P07
70	Screw, Hex HD Cap - 1/8 - 16 x 1 1/2 Lg	4	012P15	012P15	012P15
71	Screw, Hex HD Cap - 1/2 - 13 x 3 1/4 Lg	8	014P33	014P33	014P33
72	Screw, Soc HD Cap - 5/16 - 11 x 1 3/4 Lg	8	0348P17	0348P17	0348P17
73	Pin, Spring - 1/16 Dia. x 1/1 Lg	1	PIN8016	PIN8016	PIN8016
74	Gasket, Bolt	1	GKT254	GKT254	GKT254
76	Spinn	AH			
77	Plug, Pipe - Flush Seal	1	PLU142T3	PLU142T3	PLU142T3

1 Consult Factory - Part number varies with application
 2 Select part at assembly - see continuation of PL11089 and/or PL11090 for a total of 2 locking plates
 3 Low temperature not available with this compressor
 4 Ultra low temperature not available with this compressor
 5 Use combination of S10M1311 and S10M1312 to obtain approximately 004 mm axial dr

M. DBX 163 WITH OVERSIZE UNLOADER

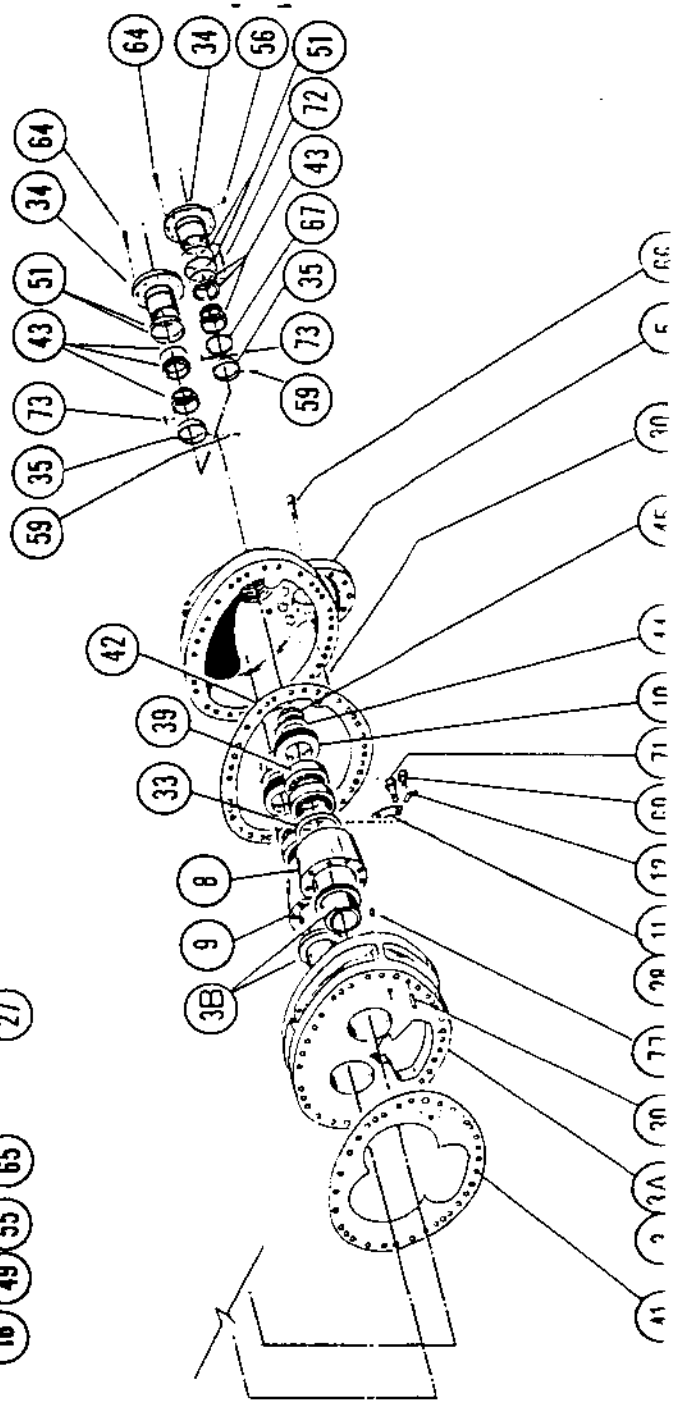
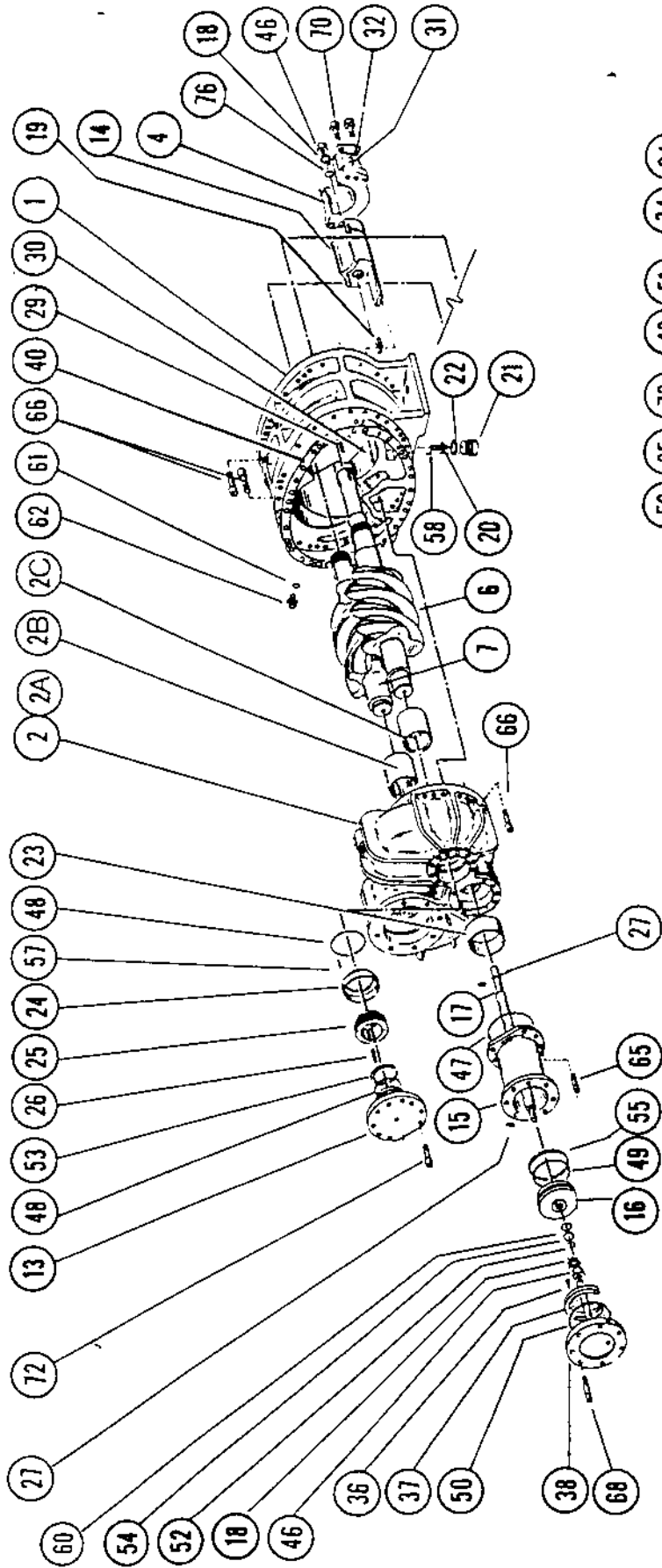
FIGURE 32



ITEM	DESCRIPTION	QTY.	1610 A & B	1610 C & D	1615 A & B	1615 C & D
15	Cylinder, Unloader	1	CYL24	CYL24	CYL24	CYL24
16	Piston, Unloader	1	PST109 ¹	PST110	PST109 ¹	PST110
17	Spindle Assembly	1	SPN10A ¹	SPN12A	SPN11A ¹	SPN13A
23	Spacer, Inboard	1	SPC124	SPC124	N/R	N/R
49	"O" Ring	1	RNG206	RNG206	RNG206	RNG206
55	Ring, Slipper Seal	1	RNG242	RNG242	RNG242	RNG242

For part number of part not identified, see DBX 163 Direct Drive Charts.

¹ Consult factory — part number varies with application.



N. DBX 204 DIRECT DRIVE
(VERSIONS A, B & C)

DBX 204 DIRECT DRIVE (VERSION A & B) 1

ITEM	DESCRIPTION	QTY	120101 PART NO.	120131 PART NO.	120151 PART NO.
1	Housing, Rotor	1	609612	609670	609670
2A	Housing Assembly - Inlet	1	609689	609689	609689
2B	Housing, Inlet	1	609613	609613	609613
2C	Journal Bearing, Female Rotor	1	BRG115	BRG115	BRG115
3	Plate Assembly - Outlet End	1	609695	609695	609695
3A	Plate, Outlet End	1	600614	609614	609614
3B	Journal Bearing	2	BRG70	HRG70	BRG70
4	Guide, Shaft	1	609615	609615	609615
5	Cover, Outlet End	1	609627	609627	609627
6	Rotor, Male	1	RDR14	RDR19	RDR19
7	Rotor, Female	1	ROH16	ROH21	ROH21
8	Sleeve (Bearing), Male Rotor	1	SLV53	SLV53	SLV53
9	Sleeve (Bearing), Female Rotor	1	SLV54	SLV54	SLV54
10	Nut (Bearing)	2	NUT77	NUT77	NUT77
11	Plate, Locking (1/4" between Centers)	2	PLT1046T1	PLT1046T1	PLT1046T1
12	Cover, Locking Piston	1	COV1401	COV1401	COV1401
13	Valve, Sliding (High Temp. Compressor)	1	609632	609632	609632
14	Valve, Sliding (Low Temp. Compressor)	1	609632B1	609632B1	609632B1
15	Cylinder, Unloader Piston	1	CYL23	CYL23	CYL23
16	Piston, Unloader	1	609635	609635	609635
17	Sprindle Assembly	1	609636	609636	609636
18	Washer, Lock	2	WAS601	WAS601	WAS601
19	Guide, Block	1	GDE10	GDE10	GDE10
20	Sprindle, Guide Block	1	SPN3	SPN3	SPN3
21	Plug, Sprindle Guide	1	PLU105	PLU105	PLU105
22	Gasket, Plug	1	GKT238	GKT238	GKT238
23	Spacer, Piston	1	SPC121	N/R	N/R
24	Sleeve, Balance Piston	1	SLV55	SLV55	SLV55
25	Piston, Balance	1	PST108	PST108	PST108
26	Key, Balance Piston	1	KEY5	KEY5	KEY5
27	Pin, Dowel	2	PIN8713	PIN8713	PIN8713
28	Plate, Locking (3/4" Between Centers)	2	PLT1046T2	PLT1046T2	PLT1046T2
29	Key, Male Rotor	1	KEY11	KEY11	KEY11
30	Pin, Dowel	6	PIN8711	PIN8711	PIN8711
31	Pin, Dowel	2	PIN8113	PIN8113	PIN8113
32	Plate, Locking	2	PLT1045	PLT1045	PLT1045
33	Shims (Bearing)	2	SHM18	SHM18	SHM18
34	Housing, Seal (Freon Compressor)	1	HSG63A	HSG63A	HSG63A
34	Housing, Seal (Ammonia Compressor)	1	HSG971	HSG971	HSG971
35	Ring, Seal (Freon Compressor)	1	SLV10	SLV10	SLV10
36	Ring, Seal (Ammonia Compressor)	1	RNG138	RNG138	RNG138
37	Screw, Soc. HD	1	N/R	034P09	N/R
	Spacer, Piston	1	N/R	SPC90	N/R

ITEM	DESCRIPTION	QTY	120101 PART NO.	120131 PART NO.	120151 PART NO.
38	Plate & Injection Tube Assembly	1	ASV986X1	PLT640A1	ASV989X1
39	Bearing, Thrust	2 or	BRG80	BRG80	BRG80
40	Gasket (Inlet)	1	GKT390	GKT390	GKT390
41	Gasket (Rotor Casing Outlet)	1	GKT389	GKT389	GKT389
42	Gasket (Outlet End Cover)	1	GKT388	GKT388	GKT388
43	Shaft, Seal (Freon Compressor)	1	SEL32A1	SEL32A1	SEL32A1
43	Shaft, Seal (Ammonia Compressor)	1	WAS99	WAS99	WAS99
44	Washer, Lock (SAE W14)	2	NUT56	NUT56	NUT56
45	Nut, Lock (SAE N14)	2	NUT56	NUT56	NUT56
46	Nut, Lock (SAE N 071)	2	NUT82	NUT82	NUT82
47	"O" Ring (Parker No. 2 255-C-147-71)	1	RNG211	RNG211	RNG211
48	"O" Ring (Parker No. 2 431-C-147-71)	2	RNG209	RNG209	RNG209
49	"O" Ring (Parker No. 2 428-C-147-71)	1	RNG210	RNG210	RNG210
50	"O" Ring (Parker No. 2 360-C-147-71)	1	RNG207	RNG207	RNG207
51	"O" Ring (Parker No. 2 242-C-147-71)	2	RNG166	RNG166	RNG166
52	"O" Ring (Parker No. 2 115-C-147-71)	1	RNG204	RNG204	RNG204
53	Ring, Retaining (Truarc No. 5100-260)	1	RNG1213	RNG1213	RNG1213
54	Ring, Slapper Seal	2	RNG129X1	RNG129X1	RNG129X1
55	Ring, Slapper Seal	1	RNG131	RNG131	RNG131
56	Elbow - 90°	1	ELL751	ELL751	ELL751
57	Pin, Dowel - 1/16 Dia. x 1/2 Lg.	1	0602P03	0602P03	0602P03
58	Pin, Spring (1/16 Dia. x 7/4 Lg.)	1	PIN53	PIN53	PIN53
59	Pin, Spring (1/8 Dia. x 1/4 Lg.)	1	PIN8013	PIN8013	PIN8013
60	Gasket (Nozzle)	1	GKT245X1	GKT245X1	GKT245X1
61	Nozzle (Inlet Injection)	1	NOZ1X11	NOZ1X12	NOZ1X12
62	Screw, Soc HD Cap - 1/8 - 16 x 1 1/4 Lg.	6	036P13	036P13	036P13
63	Screw, Soc HD Cap - 1/2 - 13 x 1 1/2 Lg.	10	SCR124	SCR124	SCR124
64	Screw, Soc HD Cap - 5/8 - 11 x 2" Lg.	74	0348P19	0348P19	0348P19
65	Screw, Soc HD Cap - 1/2 - 13 x 2 1/4 Lg.	1	SEL23	SEL23	SEL23
66	Screw, Hex HD Cap - 1/2 - 16 x 1 1/2 Lg.	8	SCR95	SCR95	SCR95
67	Screw, Hex HD Cap - 1/2 - 16 x 1 1/2 Lg.	2	012P07	012P07	012P07
68	Screw, Hex HD Cap - 1/2 - 16 x 1 1/2 Lg.	4	012P15	012P15	012P15
69	Screw, Hex HD Cap - 1/2 - 13 x 4 1/4 Lg.	8	014P37	014P37	014P37
70	Screw, Soc HD Cap - 5/8 - 11 x 1 1/4 Lg.	10	0348P17	0348P17	0348P17
71	Pin, Spring (Freon Compressor)	1	PIN8016	PIN8016	PIN8016
72	Pin, Spring (Freon Compressor)	1	PIN76	PIN76	PIN76
73	Pin, Spring (Freon Compressor)	1	N/R	N/R	N/R
74	Shim	1	N/R	N/R	N/R
75					
76					
77					

1. Consult Factory - part number varies with application and accessories
 2. Low temperature version not available with this compressor

DBX 204 DIRECT DRIVE (VERSION C)

ITEM	DESCRIPTION	QTY	(2010)	(2013)	(2015)	(2018)
			PART NO.	PART NO.	PART NO.	PART NO.
1	Housing, Rotor	1	HSG121T1	HSG120T1	HSG120T1	HSG134T1
2	Housing Assembly - Inlet	1	HSG122AT1	HSG122AT1	HSG122AT1	HSG122AT1
2A	Housing, Inlet	1	HSG122T1	HSG122T1	HSG122T1	HSG122T1
2B	Journal Bearing, Male Rotor	1	BRG115	BRG115	BRG115	BRG115
2C	Journal Bearing, Female Rotor	1	BRG116	BRG116	BRG116	BRG116
3	Plate Assembly - Outlet End - Ultra-Low Temperature	1	PLT2152AT1	5	PLT2152AT1	PLT2152AT1
3A	Plate, Outlet End (Hi & Low Temp)	1	PLT2016AT1	PLT2016AT1	PLT2016AT1	PLT2016AT1
3B	Journal Bearing	2	PLT2016T1	PLT2016T1	PLT2016T1	PLT2016T1
4	Guide, Slide	1	BRG70	BRG70	BRG70	BRG70
5	Cover, Outlet End	1	GDE24	GDE24	GDE24	GDE24
6	Rotor, Male	1	COV139T1	COV139T1	COV139T1	COV139T1
7	Rotor, Female	1	ROR559	ROR561	ROR561	ROR555
8	Sleeve (Bearing), Male Rotor	1	ROR560	ROR575	ROR575	ROR576
9	Sleeve (Bearing), Female Rotor	1	SLV53	SLV53	SLV53	SLV53
10	Nut (Bearing)	2	SLV54	SLV54	SLV54	SLV54
			NUT77	NUT77	NUT77	NUT77
11	Plate, Locking (4 1/4 Between Centers)	2	PLT1046T1	PLT1046T1	PLT1046T1	PLT1046T1
12	Plate, Locking	2	PLT1052	PLT1052	PLT1052	PLT1052
13	Cover, Balance Piston	1	COV140 ⁴	COV140 ⁴	COV140 ⁴	COV140 ⁴
14	Valve, Sliding (High Temp. Compressor)	1	VAL740T4	VAL741T4	VAL741T4	VAL742T4
14	Valve, Sliding (Low Temp. Compressor)	1	VAL740T3	?	VAL741T3	VAL742T3
14	Valve, Sliding (Ultra-Low Temp)	1	VAL740T1	5	VAL741T1	VAL742T1
15	Cylinder, Unloader Piston	1	CYL23	CYL23	CYL23	CYL25
16	Piston, Unloader	1	PST107	PST107	PST107	PST107
17	Spindle Assembly	1	SPN8A	SPN9A	SPN9A	SPN14A
18						
19	Guide, Block	1	GDE10	GDE10	GDE10	GDE10
20	Spindle, Guide Block	1	SPN3	SPN3	SPN3	SPN3
21	Plug, Spindle Guide	1	PLU105	PLU105	PLU105	PLU105
22	Gasket, Plug	1	GKT238	GKT238	GKT238	GKT238
23	Spacer, Piston	1	SPC121	N/R	N/R	N/R
24	Sleeve, Balance Piston	1	SLV55	SLV55	SLV55	SLV55
25	Piston, Balance	1	PST108	PST108	PST108	PST108
26	Key, Balance Piston	1	KEY5	KEY5	KEY5	KEY5
27	Pin, Dowel	2	PIN82T3	PIN82T3	PIN82T3	PIN82T3
28	Plate, Locking (3 1/4 Between Centers)	2	PLT1046T2	PLT1046T2	PLT1046T2	PLT1046T2
29	Key, Male Rotor	1	KEY11	KEY11	KEY11	KEY11
30	Pin, Dowel	6	PIN87T1	PIN87T1	PIN87T1	PIN87T1
31	Pin, Dowel	2	PIN51T3	PIN51T3	PIN51T3	PIN51T3
32	Plate, Locking	2	PLT1045	PLT1045	PLT1045	PLT1045
33	Shims (Bearing)	2	SHM18	SHM18	SHM18	SHM18
34	Housing, Seal	1	HSG138	HSG138	HSG138	HSG138
35	Ring, Seal	1	RNG138	RNG138	RNG138	RNG138
36	Screw, Soc HD	1	N/R	034P09	N/R	N/R
37	Spacer, Piston	1	N/R	SPC90	N/R	N/R
38	Plate & Injection Tube Assembly	1	PLT1066AT1	PLT1066AT2	PLT1066AT2	PLT1066AT2
39	Bearing, Thrust	2 pr	BRG80	BRG80	BRG80	BRG80
39						
40	Gasket (Inlet)	1	GKT390	GKT390	GKT390	GKT390
41	Gasket (Rot. Casing Outlet)	1	GKT389	GKT389	GKT389	GKT389
42	Gasket (Outlet End Cover)	1	GKT388	GKT388	GKT388	GKT388
43	Shaft, Seal	1	SEL46T1	SEL46T1	SEL46T1	SEL46T1
44	Easher, Lock (SAE W-14)	2	WAS93	WAS93	WAS93	WAS93
45	Nut, Lock (SAE N-14)	2	NUT56	NUT56	NUT56	NUT56
46	Ring, Retaining	2	RNG286	RNG286	RNG286	RNG286
47	"O" Ring (Parker No. 2-255-C-147-7)	1	RNG211	RNG211	RNG211	RNG211
48	"O" Ring (Parker No. 2-431-C-147-7)	1	RNG209	RNG209	RNG209	RNG209
49	"O" Ring (Parker No. 2-428-C-147-7)	2	RNG210	RNG210	RNG210	RNG210
50	"O" Ring (Parker No. 2-360-C-147-7)	1	RNG207	RNG207	RNG207	RNG207
51	"O" Ring (Parker No. 2-242-C-147-7)	2	RNG166	RNG166	RNG166	RNG166
52	"O" Ring (Parker No. 2-118-C-147-7)	1	RNG256	RNG256	RNG256	RNG256
53	Ring, Retaining (Truarc No. 5100-268)	1	RNG213	RNG213	RNG213	RNG213
54	Ring, Slipper Seal	1	RNG255	RNG255	RNG255	RNG255
55	Ring, Slipper Seal	1	RNG131	RNG131	RNG131	RNG131
56	Elbow - 90°	1	ELL136T1	ELL136T1	ELL136T1	ELL136T1
57	Pin, Dowel - 3/16 Dia. x 1/2 Lg.	1	0602P03	0602P03	0602P03	0602P03
58	Pin, Spring (3/16 Dia. x 7/8 Lg.)	1	PIN53	PIN53	PIN53	PIN53
59	Pin, Spring (1/8 Dia. x 3/4 Lg.)	1	PIN80T3	PIN80T3	PIN80T3	PIN80T3
60	"O" Ring (Parker No. 2-220-C-147-7)	1	RNG275	RNG275	RNG275	RNG275
61						
62						
63	Screw, Soc HD Cap - 3/8 - 16 x 1 1/4 Lg.	6	036P13	036P13	036P13	036P13
64	Screw, Soc HD Cap - 1/2 - 13 x 1 1/2 Lg.	10	SCR124	SCR124	SCR124	SCR124
65	Screw, Soc HD Cap - 3/8 - 11 x 2" Lg.	74	0348P19	0348P19	0348P19	0348P19
66						
67						
68	Screw, Soc HD Cap - 1/2 - 13 x 2 3/4 Lg.	8	SCR95	SCR95	SCR95	SCR95
69	Screw, Hex HD Cap - 3/8 - 16 x 1 1/2 Lg.	2	012P07	012P07	012P07	012P07
70	Screw, Hex HD Cap - 3/8 - 16 x 1 1/2 Lg.	4	012P15	012P15	012P15	012P15
71	Screw, Hex HD Cap - 1/2 - 13 x 4 1/4 Lg.	8	014P37	014P37	014P37	014P37
72						
73	Screw, Soc HD Cap - 3/8 - 11 x 1 3/4 Lg.	10	0348P17	0348P17	0348P17	0348P17
74	Pin, Spring - 1/8 Dia. x 3/4 Lg.	1	PIN80T6	PIN80T6	PIN80T6	PIN80T6
75						
76	Shim	AR	6	6	6	6
77						

1 Consult Factory - Part number varies with application and accessories
 2 Low temperature version not available with this compressor
 3 Specify cover with 4 tapped oil holes
 4 Ultra-Low version not available with this compressor
 5 Use combination of SHM19T1 and SHM19T2 to obtain approximately .004 min. axial clear.

DBX 204 DIRECT DRIVE (VERSION D)

ITEM	DESCRIPTION	QTY	(2010)	(2013)	(2018)	(2018)
			PART NO.	PART NO.	PART NO.	PART NO.
1	Housing, Rotor	1	HSG121T2	HSG120T2	HSG120T2	HSG134T2
2	Housing Assembly - Inlet	1	HSG122A2	HSG122A2	HSG122A2	HSG122A2
2A	Housing, Inlet Journal Bearing	1	HSG122T2	HSG122T2	HSG122T2	HSG122T2
2B	Journal Bearing, Male Rotor End	1	BRG115	BRG115	BRG115	BRG115
2C	Journal Bearing, Female Rotor End	1	BRG116	BRG116	BRG116	BRG116
3	Plate Assembly - Outlet End - Ultra Low	1	PLT2152AT2	PLT2016AT2	PLT2152AT2	PLT2152AT2
3	Plate Assembly - Outlet End (Hi & Low Temperature)	1	PLT2016AT2	PLT2016AT2	PLT2016AT2	PLT2016AT2
3A	Plate, Outlet End (Hi & Low Temp)	1	PLT2016T2	PLT2016T2	PLT2016T2	PLT2016T2
3B	Journal Bearing, Outlet End - Male & Female Rotor	2	BRG70	BRG70	BRG70	BRG70
4	Guide, Slide	1	GDE24	GDE24	GDE24	GDE24
5	Cover, Outlet End	1	COV139T1	COV139T1	COV139T1	COV139T1
6	Rotor, Male	1	ROR558T4	ROR561T4	ROR561T4	ROR558T4
7	Rotor, Female	1	ROR560T4	ROR575T4	ROR575T4	ROR578T4
8	Sleeve (Bearing), Male	1	SLV53T2	SLV53T2	SLV53T2	SLV53T2
9	Sleeve (Bearing), Female	1	SLV54T2	SLV54T2	SLV54T2	SLV54T2
10	Nut (Bearing)	2	NUT77	NUT77	NUT77	NUT77
11	Plate, Locking - Sleeve (4 1/4" Centers)	2	PLT1046T1	PLT1046T1	PLT1046T1	PLT1046T1
12	Plate, Locking - Nut	2	PLT2227	PLT2227	PLT2227	PLT2227
13	Cover, Balance Piston	1	COV140	COV140	COV140	COV140
14	Valve, Sliding (High Temp Compressor)	1	VAL740T4	VAL741T4	VAL741T4	VAL742T4
14	Valve, Sliding (Low Temp Compressor)	1	VAL740T3	VAL741T3	VAL741T3	VAL742T3
14	Valve, Sliding (Ultra-Low Temp)	1	VAL740T1	VAL741T1	VAL741T1	VAL742T1
15	Cylinder, Unloader Piston	1	CYL23	CYL23	CYL23	CYL25
16	Piston, Unloader	1	PST107	PST107	PST107	PST107
17	Spindle Assembly	1	SPN18AT5	SPN18AT8	SPN18AT8	SPN18AT7
18						
19	Guide, Block	1	GDE10	GDE10	GDE10	GDE10
20	Spindle, Guide Block	1	SPN3	SPN3	SPN3	SPN3
21	Plug, Spindle Guide	1	PLU105	PLU105	PLU105	PLU105
22	Gasket, Plug - Spindle	1	GKT238	GKT238	GKT238	GKT238
23	Spacer, Piston - Unloader	1	SPC121	N/R	N/R	N/R
24	Sleeve, Balance Piston	1	SLV55	SLV55	SLV55	SLV55
25	Piston, Balance	1	PST108	PST108	PST108	PST108
26	Key, Balance Piston	1	KEY5	KEY5	KEY5	KEY5
27	Pin, Spring - Spindle	2	PIN82T3	PIN82T3	PIN82T3	PIN82T3
28	Plate, Locking - Sleeve (3 1/4" Centers)	2	PLT1046T2	PLT1046T2	PLT1046T2	PLT1046T2
29	Key, Male Rotor	1	KEY11	KEY11	KEY11	KEY11
30	Pin, Dowel	6	PIN87T1	PIN87T1	PIN87T1	PIN87T1
31	Pin, Dowel - Slide Guide	2	PIN51T3	PIN51T3	PIN51T3	PIN51T3
32	Plate, Locking - Slide Guide	2	PLT1045	PLT1045	PLT1045	PLT1045
33	Shim, Bearing - Thrust	AR				
34	Housing, Seal - Type 88	1	HSG138	HSG138	HSG138	HSG138
34	Housing, Seal - Type 98	1	HSG63	HSG63	HSG63	HSG63
36	Ring, Seal - Type 88 Seal	1	RNG138	RNG138	RNG138	RNG138
36	Ring, Seal - Type 98 Seal	1	SLV10	SLV10	SLV10	SLV10
36	Screw, Soc HD	1	N/R	034P09	N/R	N/R
37	Spacer, Piston - Unloader	1	N/R	SPC90	N/R	N/R
38	Plate & Injection Tube Assembly	1	PLT1066AT1	PLT1066AT2	PLT1066AT2	PLT1066AT2
39	Bearing, Thrust	2 pr	BRG80T2	BRG80T2	BRG80T2	BRG80T2
40	Gasket (Inlet)	1	GKT417	GKT417	GKT417	GKT417
41	Gasket, Rotor Housing Outlet	1	GKT416	GKT416	GKT416	GKT416
42	Gasket (Outlet End Cover)	1	GKT415	GKT415	GKT415	GKT415
43	Seal, Shaft - Type 88	1	SEL22A	SEL22A	SEL22A	SEL22A
43	Seal, Shaft - Type 98	2	SEL46T1	SEL46T1	SEL46T1	SEL46T1
44	Washer, Lock - SAE W-14	2	WAS93	WAS93	WAS93	WAS93
45	Nut, Lock (SAE N-14)	2	NUT56	NUT56	NUT56	NUT56
46	Ring, Retaining (Truarc No. 5160-137)	2	RNG286	RNG286	RNG286	RNG286
47	"O" Ring (Parker No. 2-255-C-147-7)	1	RNG211	RNG211	RNG211	RNG211
48	"O" Ring (Parker No. 2-431-C-147-7)	2	RNG209	RNG209	RNG209	RNG209
49	"O" Ring (Parker No. 2-428-C-147-7)	1	RNG210	RNG210	RNG210	RNG210
50	"O" Ring (Parker No. 2-380-C-147-7)	1	RNG207	RNG207	RNG207	RNG207
51	"O" Ring (Parker No. 2-242-C-147-7)	2	RNG166	RNG166	RNG166	RNG166
52	"O" Ring (Parker No. 2-118-C-147-7)	1	RNG256	RNG256	RNG256	RNG256
53	Ring, Retaining (Truarc No. 5100-268)	1	RNG213	RNG213	RNG213	RNG213
54	Ring, Slipper Seal Spindle	1	RNG255	RNG255	RNG255	RNG255
55	Ring, Slipper Seal Unloader Piston	1	RNG131	RNG131	RNG131	RNG131
56	Elbow - 90° - Seal Housing	1	ELL136T1	ELL136T1	ELL136T1	ELL136T1
57	Pin, Dowel - 1/16 Dia. x 1/2 Lg.	1	0602P03	0602P03	0602P03	0602P03
58	Pin, Spring (1/16 Dia. x 3/8 Lg.)	1	PIN53	PIN53	PIN53	PIN53
59	Pin, Spring (1/8 Dia. x 3/8 Lg.)	1	PIN80T3	PIN80T3	PIN80T3	PIN80T3
60	"O" Ring (Parker No. 2-220-C-147-7)	1	RNG275	RNG275	RNG275	RNG275
61						
62						
63						
64	Screw, Soc HD Cap - 3/8 - 18 x 1 1/4 Lg.	6	036P13	036P13	036P13	036P13
65	Screw, Soc HD Cap - 1/2 - 13 x 1 1/2 Lg.	10	SCR124	SCR124	SCR124	SCR124
66	Screw, Soc HD Cap - 3/8 - 11 x 2" Lg.	74	0348P19	0348P19	0348P19	0348P19
67	Seal, Lip - Type 98 Seal	1	SEL23	SEL23	SEL23	SEL23
68	Screw, Soc HD Cap - 1/2 - 13 x 2 3/4 Lg.	8	SCR95	SCR95	SCR95	SCR95
69	Screw, Hex HD Cap - 3/8 - 16 x 1 1/2 Lg.	2	012P07	012P07	012P07	012P07
70	Screw, Hex HD Cap - 3/8 - 16 x 1 1/2 Lg.	4	012P15	012P15	012P15	012P15
71	Screw, Hex HD Cap - 1/2 - 13 x 4 1/4 Lg.	8	014P37	014P37	014P37	014P37
72	Screw, Soc HD Cap - 3/8 - 11 x 1 3/4 Lg.	10	0348P17	0348P17	0348P17	0348P17
73	Pin, Spring - 1/8 Dia. x 3/4 Lg.	1	PIN80T6	PIN80T6	PIN80T6	PIN80T6
74	Pin, Spring - Type 88 Seal	1	PIN81T1	PIN81T1	PIN81T1	PIN81T1
75						
76	Shim, Spindle	AR				
77	Plug, Pipe	1	PLU142T5	PLU142T5	PLU142T5	PLU142T5
78	Screw, Set - 3/8 - 18 x 1 3/4 Lg.	2	SCR176	SCR176	SCR176	SCR176
79	Nut, Hex - 3/8 x 18	2	012P00	012P00	012P00	012P00
80	Washer, Split Lock - 3/8	2	012P01	012P01	012P01	012P01

1 Consult Factory - Part number varies with application and accessories
2 Low temperature version not available with this compressor
3 Specify cover with 4 tapped oil holes
4 Ultra-Low version not available with this compressor
5 Use combination of SHM19T1 and SHM19T2 to obtain approximately .004 min. axial clr.
6 Use combination of SHM21T11, T12, T13, T14 and T15 to obtain approximately .004 to .006 rotor discharge and clearance.

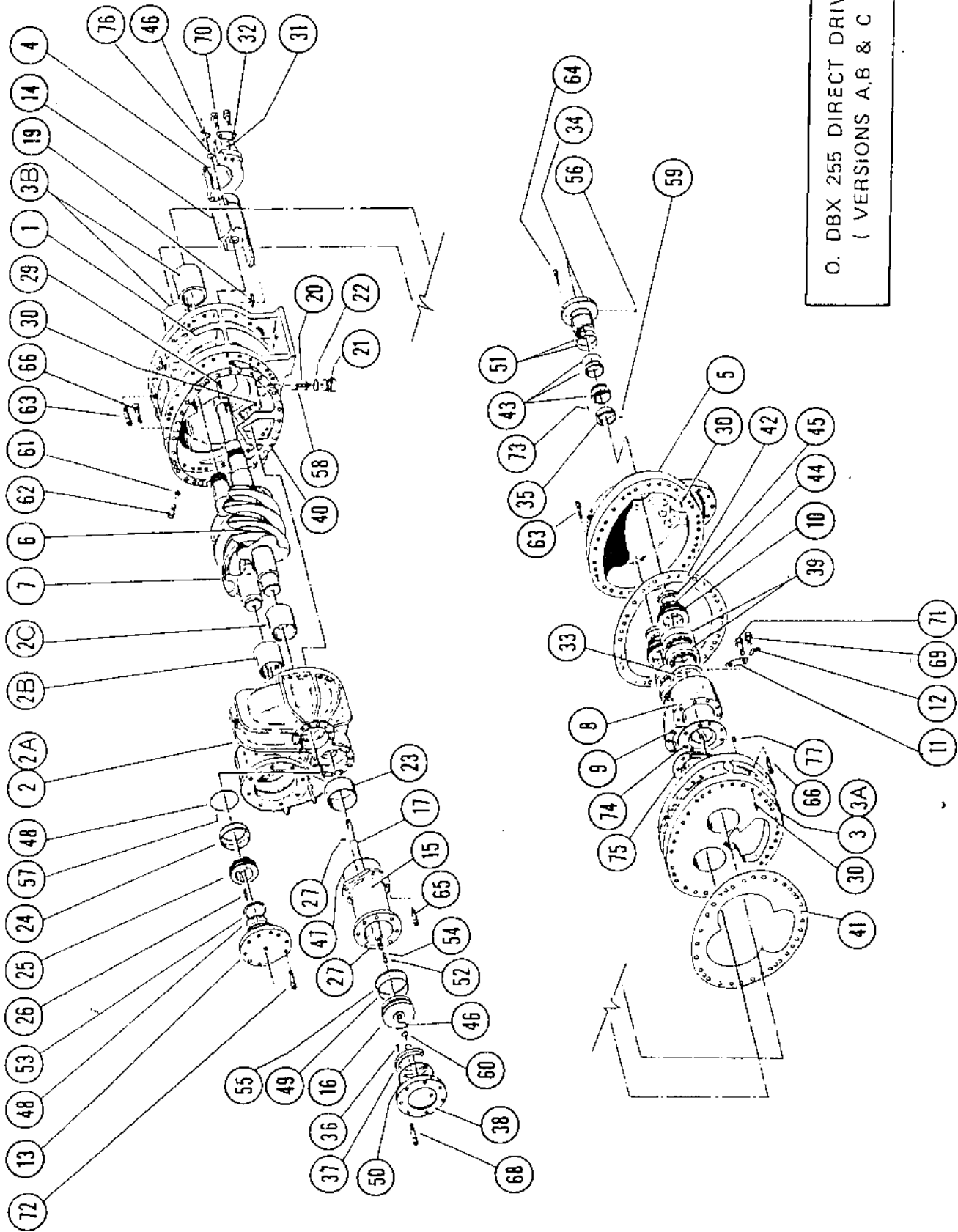


FIGURE 34

DBX 255 DIRECT DRIVE (VERSION A & B)-

ITEM	DESCRIPTION	QTY.	(2510)	(2512)	(2514)	(2515)	(2516)
			PART NO.	PART NO.	PART NO.	PART NO.	PART NO.
1	Housing, Rotor	1	HSG100X	HSG7471	HSG106X	HSG106X	HSG7371
2	Housing Assembly, Inlet	1	HSG104AX	HSG104AX	HSG104AX	HSG104AX	HSG104AX
2A	Housing, Inlet	1	HSG103X	HSG103X	HSG103X	HSG103X	HSG103X
2B	Bearing, Inlet End - Male Rotor	1	BRG77	BRG77	BRG77	BRG77	BRG77
2C	Bearing, Inlet End - Female Rotor	1	BRG78	BRG78	BRG78	BRG78	BRG78
3	Plate Assembly - Outlet End	1	PLT880AX ¹	PLT880AX ¹	PLT880AX ¹	PLT880AX ¹	PLT880AX ¹
3A	Plate - Outlet End	1	PLT881X	PLT881X	PLT881X	PLT881X	PLT881X
3B	Bearing, Male & Female - Outlet End	2	BRG76	BRG76	BRG76	BRG76	BRG76
4	Guide, Slide	1	GDE14	GDE14	GDE14	GDE14	GDE14
5	Cover, Outlet End	1	COV98X ¹	COV98X ¹	COV98X ¹	COV98X ¹	COV98X ¹
6	Rotor, Male	1	ROR517	ROR35	ROR521	ROR521	ROR31
7	Rotor, Female	1	ROR518	ROR37	ROR522	ROR522	ROR33
8	Sleeve (Bearing), Male	1	SLV31	SLV31	SLV31	SLV31	SLV31
9	Sleeve (Bearing), Female	1	SLV32	SLV32	SLV32	SLV32	SLV32
10	Nut (Bearing)	2	NUT34	NUT34	NUT34	NUT34	NUT34
11	Plate, Locking	4	PLT1047	PLT1047	PLT1047	PLT1047	PLT1047
12	Plate, Locking	2	PLT882	PLT882	PLT882	PLT882	PLT882
13	Cover, Balancing Piston	1	COV99X ¹	COV99X ¹	COV99X ¹	COV99X ¹	COV99X ¹
14	Valve, Sliding (High Temp. Compressor)	1	VAL604 ¹	VAL672	VAL605	VAL605 ¹	VAL671
14	Valve, Sliding (Low Temp. Compressor)	1	VAL606 ¹			VAL607 ¹	VAL713
15	Cylinder, Unloader Piston	1	CYL21 ¹	CYL21	CYL21	CYL21 ¹	CYL21
16	Piston, Unloader	1	PST73 ¹	PST73	PST73	PST73 ¹	PST73
17	Spindle Assembly	1	SPN4A ¹	SPN7A ¹	SPN5A ¹	SPN5A ¹	SPN6A ¹
18	Guide, Block	1	GDE10	GDE10	GDE10	GDE10	GDE10
20	Spindle, Guide Block	1	SPN3	SPN3	SPN3	SPN3	SPN3
21	Plug, Spindle Guide	1	PLU105	PLU105	PLU105	PLU105	PLU105
22	Gasket, Plug	1	GKT238	GKT238	GKT238	GKT238	GKT238
23	Spacer, Piston	1	SPC120T1 ¹	SPC120T2	SPC120T3	SPC120T3 ¹	N/R
24	Sleeve, Balance Piston	1	SLV50	SLV50	SLV50	SLV50	SLV50
25	Piston, Balance	1	PST74	PST74	PST74	PST74	PST74
26	Key, Balance Piston	1	KEY5	KEY5	KEY5	KEY5	KEY5
27	Pin, Spring	2	PIN82T3 ¹	PIN82T3	PIN82T3	PIN82T3 ¹	PIN82T3
28							
29	Key, Male Rotor	1	KEY9	KEY9	KEY9	KEY9	KEY9
30	Pin, Dowel	6	PIN87T1 ¹	PIN87T1	PIN87T1	PIN87T1 ¹	PIN87T1
31	Pin, Dowel	2	PIN51T3	PIN51T3	PIN51T3	PIN51T3	PIN51T3
32	Plats, Locking	2	PLT1048	PLT1048	PLT1048	PLT1048	PLT1048
33	Shims (Bearing)	2	SHM12	SHM12	SHM12	SHM12	SHM12
34	Housing, Seal	1	HSG105X ¹	HSG105X ¹	HSG105X ¹	HSG105X ¹	HSG105X ¹
35	Ring, Seal	1	RNG141	RNG141	RNG141	RNG141	RNG141
36	Screw, Soc HD Cap	1	N/R	N/R	Q34P10	N/R	N/R
37	Spacer, Piston	1	N/R	N/R	SPC122	N/R	N/R
38	Plate & Injection Tube Assembly	1	PLT1050AT1 ¹	PLT1050AT2	PLT1050AT2	PLT1050AT2 ¹	PLT1050AT2
39	Bearing, Thrust	2 pr.	BRG83	BRG83	BRG83	BRG83	BRG83
40	Gasket (Inlet) - F.F.	1	GKT336X ¹	GKT336X ¹	GKT336X ¹	GKT336X ¹	GKT336X ¹
41	Gasket (Rotor Housing Outlet) - F.F.	1	GKT337X ⁴	GKT337X ⁴	GKT337X ⁴	GKT337X ⁴	GKT337X ⁴
42	Gasket (Outlet End Cover) - F.F.	1	GKT338X ⁵	GKT338X ⁵	GKT338X ⁵	GKT338X ⁵	GKT338X ⁵
43	Seal Shaft	1	SEL33A ¹	SEL33A ¹	SEL33A ¹	SEL33A ¹	SEL33A ¹
44	Washer, Lock (SAE W-17)	2	WAS67	WAS67	WAS67	WAS67	WAS67
45	Nut, Lock (SAE N-17)	2	NUT35	NUT35	NUT35	NUT35	NUT35
46	Ring, Retaining (Truarc No. 5100-137)	2	RNG142	RNG142	RNG142	RNG142	RNG142
47	"O" Ring (Parker No. 2-440-C-147-7)	1	RNG144	RNG144	RNG144	RNG144	RNG144
48	"O" Ring (Parker No. 2-439-C-147-7)	2	RNG145	RNG145	RNG145	RNG145	RNG145
49	"O" Ring (Parker No. 2-436-C-147-7)	1	RNG146	RNG146	RNG146	RNG146	RNG146
50	"O" Ring (Parker No. 2-365-C-147-7)	1	RNG147	RNG147	RNG147	RNG147	RNG147
51	"O" Ring (Parker No. 2-246-C-147-7)	2	RNG148	RNG148	RNG148	RNG148	RNG148
52	"O" Ring (Parker No. 2-212-C-147-7)	1	RNG230 ¹	RNG230 ¹	RNG230 ¹	RNG230 ¹	RNG230 ¹
53	Ring, Retaining (Truarc No. 5100-350)	1	RNG143	RNG143	RNG143	RNG143	RNG143
54	Ring - Slipper Seal	1	RNG229 ¹	RNG229 ¹	RNG229 ¹	RNG229 ¹	RNG229 ¹
55	Ring - Slipper Seal	1	RNG132	RNG132	RNG132	RNG132	RNG132
56	Elbow - 90°	1	ELL75 ¹	ELL75 ¹	ELL75 ¹	ELL75 ¹	ELL75 ¹
57	Pin, Dowel - 3/16 Dia. x 1/2 Lg.	1	0602P03	0602P03	0602P03	0602P03	0602P03
58	Pin, Spring - 3/16 Dia. x 7/8 Lg.	1	PIN53	PIN53	PIN53	PIN53	PIN53
59	Pin, Spring - 1/8 Dia. x 3/4 Lg.	1	PIN80T3	PIN80T3	PIN80T3	PIN80T3	PIN80T3
60	"O" Ring (Parker No. 2-220-C-147-7)	1	RNG275 ¹	RNG275 ¹	RNG275 ¹	RNG275 ¹	RNG275 ¹
61	Gasket (Nozzle)	1	GKT245X ¹	N/R	GKT245X ¹	GKT245X ¹	N/R
62	Nozzle (Oil Injection)	1	NOZ2XT1 ¹	N/R	NOZ2XT2 ¹	NOZ2XT2 ¹	N/R
63	Screw, Soc HD Cap - 5/8 - 11 x 2 1/2	55	Q348P23 ¹	Q348P23	Q348P23	Q348P23 ¹	Q348P23
64	Screw, Soc HD Cap - 3/8 - 16 x 1 1/4	6	Q36P13	Q36P13	Q36P13	Q36P13	Q36P13
65	Screw, Soc HD Cap - 5/8 - 11 x 1 3/4	10	Q348P17	Q348P17	Q348P17	Q348P17	Q348P17
66	Screw, Soc HD Cap - 5/8 - 11	32	Q348P21 ¹	Q348P21	Q348P21	Q348P21 ¹	Q348P21
67							
68	Screw, Soc HD Cap - 5/8 - 11 x 2 3/4 Lg.	8	Q348P25	Q348P25	Q348P25	Q348P25	Q348P25
69	Screw, Hex HD Cap - 3/4 - 16 x 5/8 Lg.	2	O12P07	O12P07	O12P07	O12P07	O12P07
70	Screw, Hex HD Cap - 3/4 - 16 x 1 1/2 Lg.	4	O12P15	O12P15	O12P15	O12P15	O12P15
71	Screw, Hex HD Cap - 1/2 - 13 x 5 1/2 Lg.	8	O14P47	O14P47	O14P47	O14P47	O14P47
72	Screw, Soc HD Cap - 5/8 - 11 x 2 Lg.	10	Q348P19 ¹	Q348P19	Q348P19	Q348P19 ¹	Q348P19
73	Pin, Spring - 1/8 Dia. x 3/4 Lg.	1	PIN80T6	PIN80T6	PIN80T6	PIN80T6	PIN80T6
74	Plate, Bearing - Male	1	PLT883	PLT883	PLT883	PLT883	PLT883
75	Plate, Bearing - Female	1	PLT884	PLT884	PLT884	PLT884	PLT884
76	Shim	AR					
77							

1 Consult Factory - part number varies with application and accessories.
 2 Low temperature version not available with this compressor.
 3 GKT446 can be used by trimming internal oil tap.
 4 GKT447 can be used.
 5 GKT448 can be used by trimming internal oil tap.
 6 Use combination of SHM19T1 and SHM19T2 to obtain approximately .004 axial clr.