



File in _____ SRC _____ Manual(s).

SERVICE BULLETIN

Supersedes: NOTHING

1093

Form 180.00-SB3

File with Form: 180.23-M1, 180.23-M2

SUBJECT: "J" COMPRESSOR DISCHARGE VALVE CAGE BOLT FAILURES

A sporadic problem has been identified on "J" compressors. The cause of the problem is improper torquing of the center bolt on the discharge valve cage assembly. The scope of the problem appears to affect an unknown number of compressors manufactured in 1991 & 1992. Generally, improperly torqued bolts will cause compressor failure within the first year of operation. The first signs of a problem will be abnormal vibration in the compressor when the bolt first begins to loosen.

Recently in Service Bulletin 180.23-M2 (SB2) (attached), you were informed of a redesign in the discharge valve cage assembly. The reason for the change was to make the torque requirements on the center bolt less difficult to repetitively achieve in the manufacturing process which reduces the possibility of the bolt becoming loose.

If a compressor is found to vibrate, check for a loose discharge valve cage bolt in the suspect head. If a broken or loose bolt is found, check all compressor heads on all "J" compressors on the site for proper torque on the discharge valve cage bolts. This will assure no further problems will be encountered on other compressors manufactured within the same time period. **NOTE:** A letter relating to this problem was sent out recently by R.L. Fisher to a number of International Service offices with additional guidelines to be followed. These guidelines should continue to be followed.

Place any charges associated to this problem on a warranty. Please include Model and Serial number of the chillers as is usually done. In the description, add the Model #, Serial # and Date Code of the compressors along with a description of the defects found.

When checking torque, keep in mind the valve cage assembly must be removed and clamped securely in a vise. Check the torque on the bolt by putting an allen head (socket hex head) wrench on the bottom conical screw and a torque wrench on the top self-locking nut.

Attached is additional information outlining bolt torquing specs and also head torquing if removal is required. This is identical to the information in the "J" compressor MAINTENANCE MANUAL FORM 180.23-M2 (1092).



File in _____ SN3 _____ Manual(s).

SERVICE BULLETIN

Supersedes: NOTHING

293

Form 180.23-M2 (SB2)

File with Form: 180.23-M2

SUBJECT: "J" COMPRESSOR DISCHARGE VALVE PLATE TORQUES

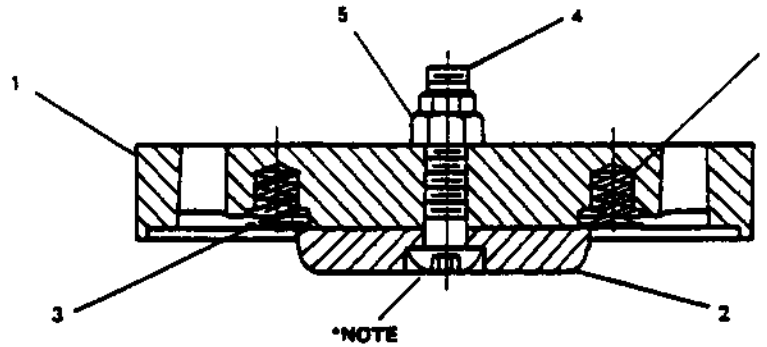
A design change has been made to the Discharge Valve Plate for "J" Model Compressors. Although the change in the design is minor, it is very important to note the torque on the center bolt has changed. The bolts **MUST BE** torqued correctly for each type assembly or damage may occur to the compressor.

Torques, photographs, and part numbers of the new and old style components are provided in the recently published "J" Compressor Maintenance Manual FORM 180.23-M2 (1092). Part numbers for the new and old components are listed on Page 26 of this form (180.23-M2). Be sure to replace your old manuals with the new one. At present the old style parts are still available and will be available for some time. It is permissible to use new and old style assemblies on a compressor, but **DO NOT** attempt to mix parts from each type assembly on a single cylinder.

Mike Greiman

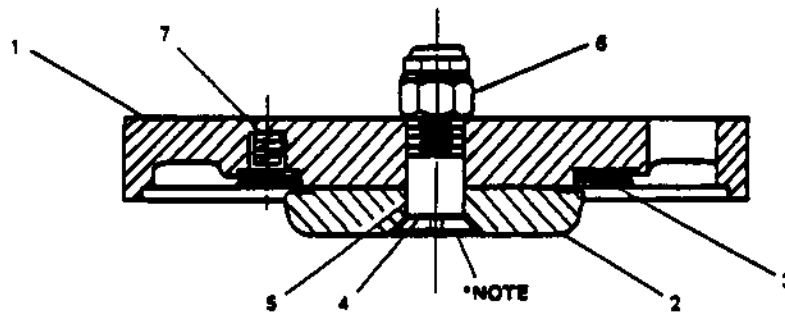
DESIGN HISTORY

CURRENT DESIGN - ITEM #5 TORQUE TO BE 53 - 61 LB. FT.



ITEM	COMPONENT	DESCRIPTION
1	064-43146-000	Cage Valve Discharge
2	064-48032-000	Plate Valve
3	064-43012-000	Valve Discharge
4	021-17649-000	Screw Cap Bu
5	021-09932-000	Nut Hex Self
6	029-13248-000	Spring Hel C
*	664-48037-000	Assembly (Items 1 thru 6) (Current Design)

ORIGINAL DESIGN - ITEM #6 TORQUE TO BE 35 - 40 LB. FT.



ITEM	PART NO.	DESCRIPTION	QUAN. PER UNIT
1	064-43146	Cage, Discharge Valve	1
2	064-46281	Plate, Discharge Valve	1
3	064-43012	Valve, Discharge	1
4	028-08386	Gasket	1
5	021-13856	Screw, Inner Discharge	1
6	021-09932	Nut, Self-locking, Hex	1
7	029-13248	Spring, Helical	6
*	664-42306	Assembly (Items 1 thru 6) (Original Design)	