SERVICE BULLETIN

Title: 17DA/EA Compressor Impeller Fastening Bolt
Models Affected: All 17DA and 17EA Compressors

Number: C9309
Date: 5/7/93
Supersedes: New
Date:

Purpose:

To provide the field with the proper method for securing the impeller on a 17DA/EA compressor that is equipped with a tension bolt impeller retainer.

File: Compressor, Motor, Drive, Gears

Prepared By: Ted Libera

Approved By: Alan M. Johnson

Background:

In 1986 a design change was made to the impeller and shaft assemblies of the 17DA and 17EA compressors. The impellers are no longer retained by an "nosecone" locknut. A tension bolt is now used to retain the nosecone. The tension bolt eliminates the need for the difficult process of applying the proper torque to the original "nosecone" impeller locknut.

The tension bolt is a precision device which is simple to use but easy to destroy if the correct tensioning procedure is not followed. The bolt is hollow and contains a gauge rod which protrudes through the center of the bolt and is covered by a protective end cap. The bolt is properly tensional by tightening it until the gage rod becomes flush with the surface of the tension bolt. Do not tighten past this point or the tension bolt will stretch beyond its elastic limit and be ruined.

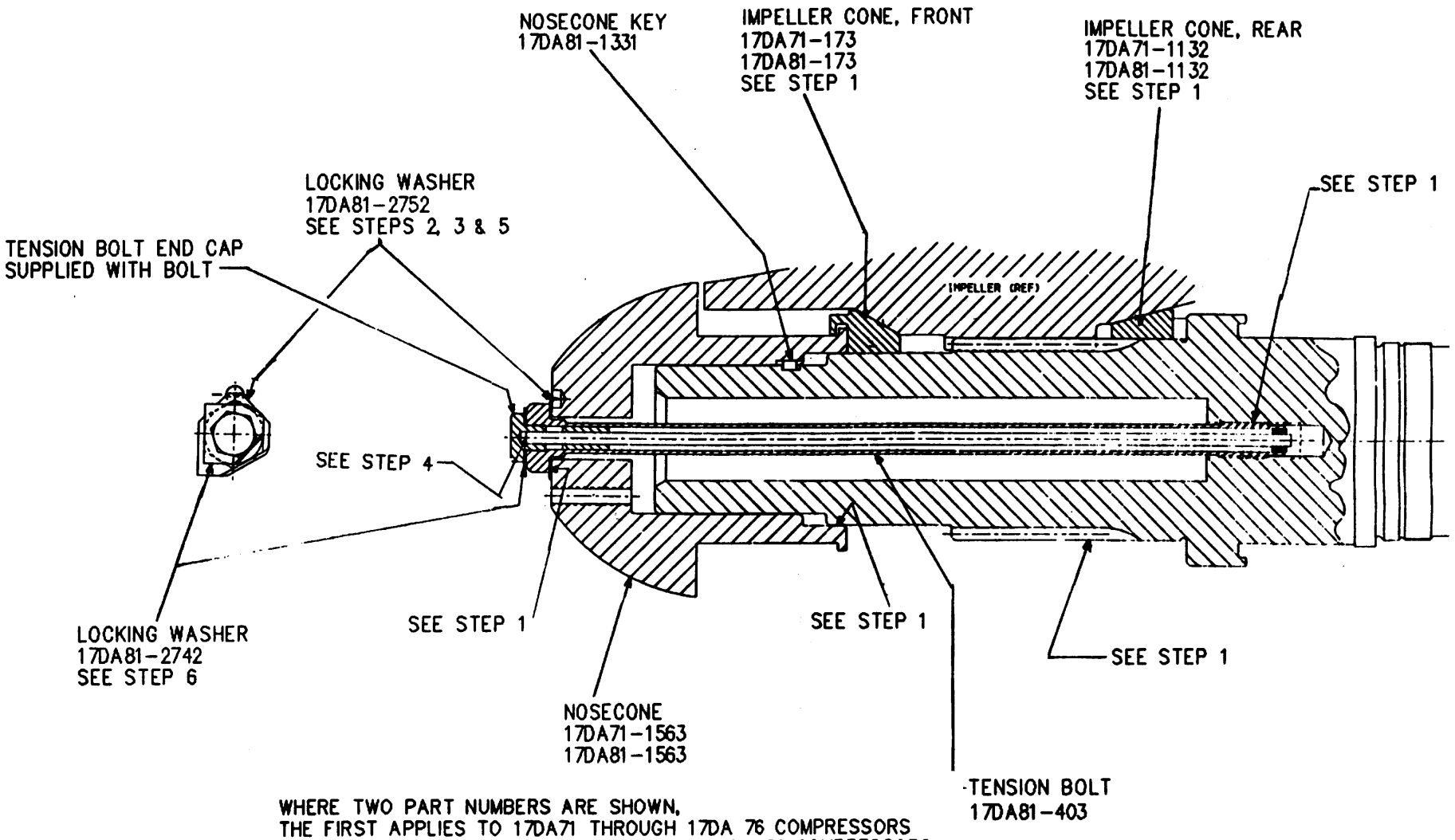
The same tension bolt is also used on the 17EA9 compressor. For 17EA part numbers, refer to the individual job parts information or contact RCD and provide the machine serial number.

Procedure:

1. Prior to installing the impeller, coat the following surfaces with molybdenum disulfide (Molykote):

I.D. and O.D. of both impeller cones.
I.D. of inner end of impeller nose cone.
Shaft spline
Thread surfaces of tension bolt
Contact surface under tension bolt head.

2. Insert tension bolt over lockwasher 17DA81-2752 and thread into place. Do not tighten yet
3. Bend point of lockwasher into hole in the nosecone.
4. Tighten tension bolt until internal 1/4 in. gage rod is flush with bolt head within ±0.001. DO NOT TIGHTEN TENSION BOLT ANY FURTHER. IF TIGHTENED BEYOND ITS ELASTIC LIMIT, IT IS RUINED.
5. Bend up corner of 17DA81-2752 lockwasher against flat of tension bolt.
6. Install tension bolt end cap and lockwasher 17DA81-2742. Bend one corner of washer on flat of end cap and one corner on flat of tension bolt.



WHERE TWO PART NUMBERS ARE SHOWN,
THE FIRST APPLIES TO 17DA71 THROUGH 17DA 76 COMPRESSORS
THE SECOND APPLIES TO 17DA81 THROUGH 17DA 86 COMPRESSORS.