

National AirParts, Inc. N424R Fan & Pulley Installation



Inspection and Installation Instructions For Newly Shipped Alternators

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NOTE: To limit fan damage in shipment, National N424R alternators are frequently shipped from the factory with the fan removed. In this instance, an additional spacer is installed on the alternator shaft, in place of the fan, for purposes of shipment.

Upon receiving any alternator shipment, the receiving agency should make an immediate and careful inspection of the alternator and its components to insure that no transport damage has occurred. Any damage should be reported immediately to the transportation carrier.

The installer should use the following guidelines for proper fan and pulley installation:

1. Locate the P/N 8-4 fan. Inspect the fan and insure that there is no shipment damage before continuing with the fan installation.
2. Remove the rotor nut, P/N 13-8C, rotor washer, P/N 13-6C, supplied pulley and **ALL BUT ONE P/N N-1275 spacer** from the rotor shaft. See Reference Figure #1 as follows:

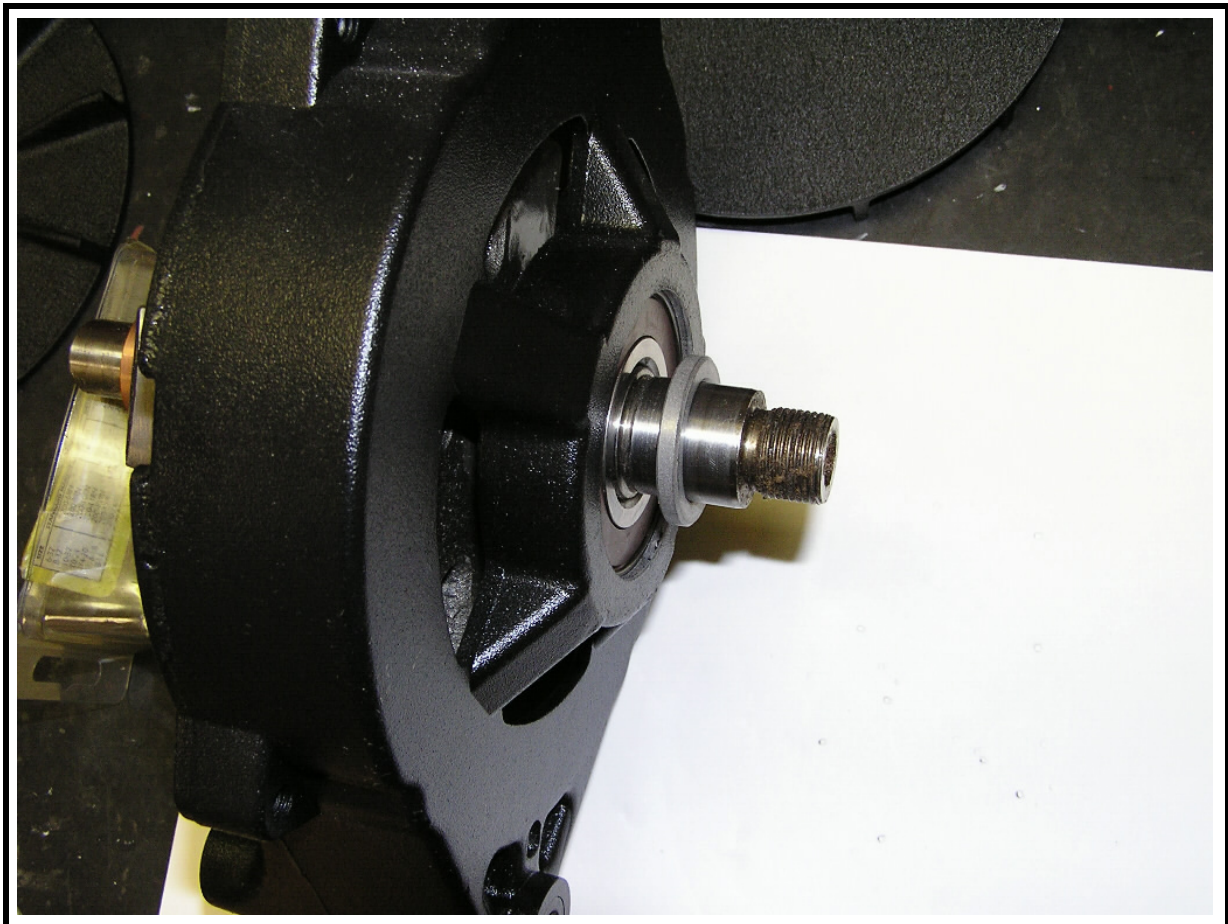


Figure 1. Showing the P/N N-1275 Spacer on the Rotor Shaft

3. Insure that ONLY one P/N N-1275 spacer is on the shaft. Then, install the P/N 8-4 fan on the rotor shaft, followed by the drive belt pulley, the P/N 13-6C split lockwasher and the P/N 13-8C rotor nut, as per Figure #2.

NOTE: The P/N 8-F4CS pulley (for Option 25) pictured is NOT symmetrical. It should be installed with the THICK pulley edge AWAY FROM the fan.

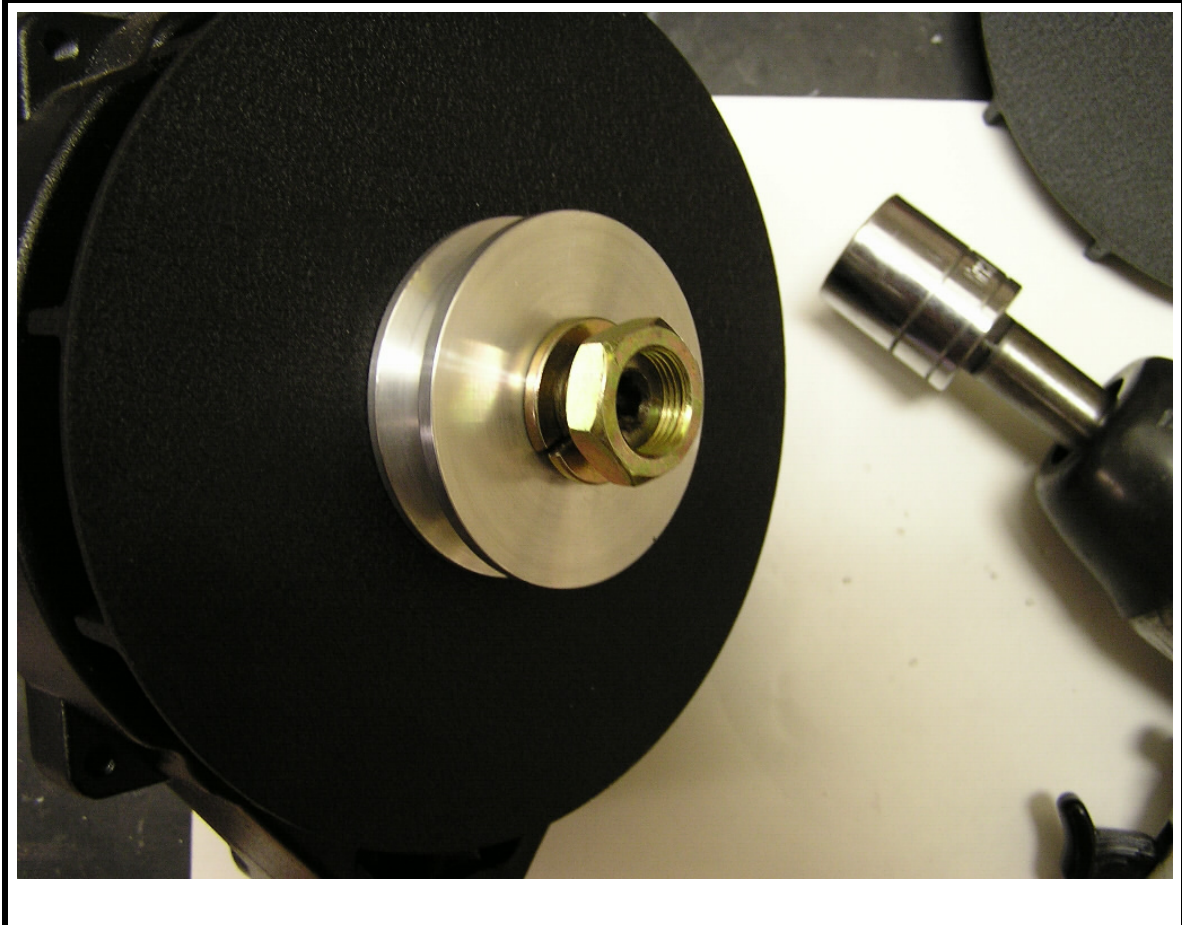


Figure 2.

4. Torque the rotor nut to 70 +/- 5 ft. lbs. (Maximum permissible is 105 ft lbs.). This can be most readily accomplished by using an air wrench set for the correct torque range and simply holding the fan/pulley by hand, or with a pulley wrench, while torquing the rotor nut. Use of an allen wrench to hold the rotor shaft is NOT recommended.

5. Spin the alternator by hand to verify smooth rotor operation and proper fan tracking. The normal fan track should be within +/- 1/8" (See Figure #3, following:). If fan tracking exceeds these limits, the fan should be replaced, or the cause of the track variation should be otherwise determined and corrected.

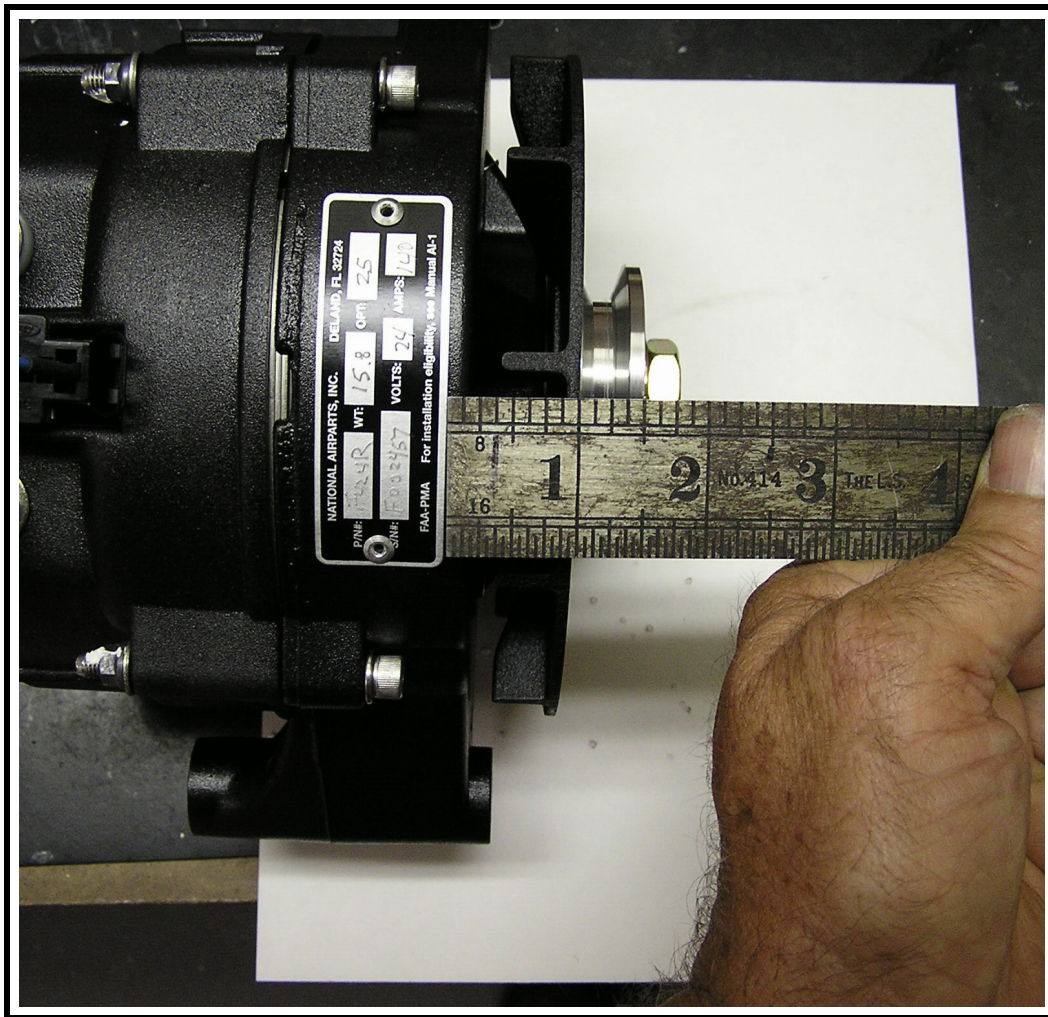


Figure 3. Checking Alternator Fan Tracking

6. If the previous fan installation procedures have been satisfactorily accomplished, the alternator should be considered as in proper condition for installation.

NOTE: Options 20, 21, 22 and 23 alternators are identical except for the installed pulleys. Likewise, Options 24, 25, 26 and 27 alternators are identical except for the pulley utilized. Alternators within these groups may be changed from one Option to another by simply selecting and installing the proper pulley. Under these circumstances, a log entry should be performed indicating the change, and the “Option” section of the dataplate stamped with the additional option number change.

Review the current N400 Alternator Information and Specification file at <http://www.nationalairparts.com/N400.html> , or contact National AirParts for any technical support.

Informational Items:

1. N400 alternators are supplied EITHER with single-wire or 2-wire FIELD connection. Either configuration is available on request from the factory.

2. With a 2-wire FIELD connection, the second wire is used for the stator tap, or “R” terminal. If a single wire FIELD connector is used, the stator tap, or “AUX” terminal, is a terminal post on the rear of the alternator case.

The “R” or “AUX” terminal should never be grounded. It is commonly used on some applications to operate a relay to indicate an “alternator INOP” condition.

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