

Cleveland

Wheels & Brakes

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PRODUCT REFERENCE MEMO

REPLACEMENT TIE BOLTS, WASHERS AND NUTS ON 40-135A WHEEL ASSEMBLY WITH OPTIONAL HIGH STRENGTH HARDWARE

APPLICABILITY: Cessna Models 402C, 414A, 421C
Cessna Models converted to use Cleveland Brakes: 340, 340A, 401, 401A, 401B, 402, 402A, 402B, 402C, 411, 411A, 414, 414A, 421, 421A, 421B, 421C

PURPOSE: The purpose of this Product Reference Memo is to advise Cessna owners/operators that are using Cleveland 40-135A wheel assemblies on their aircraft that some commuter operators are experiencing bolt failures while operating at gross weight conditions. As a result of this, Parker is offering an optional high strength bolt, washer and nut to alleviate this condition.

INSPECTION PROCEDURE: At next periodic maintenance interval, completely disassemble 40-135A wheel assembly per maintenance manual instructions and inspect all AN5-32A tie bolts (Parker P/N 103-22400) for cracks by using magnaflux inspection procedures per MIL-1-6868.

ACCEPTANCE: After inspecting bolts 100% for cracks, AN5-32A bolts may be returned to service if NO evidence of cracks exist.

REJECTION:

1. Any crack in the bolt shank, root radius of head, or minor diameter of thread necessitates replacement of the AN5-32A bolts, AN960-516 washer and AN365-524 nuts with the following high strength hardware:

<u>ITEM</u>	<u>MS DESIGNATION</u>	<u>PARKER P/N</u>	<u>QUANTITY</u>
Bolts	MS21250-05044	103-24200	9
Washers	MS20002-C5	095-02800	18
Nut		094-13200	9

The above hardware should be installed as follows.

INSTALLATION OF OPTIONAL HIGH STRENGTH HARDWARE FOR 40-135A WHEEL ASSEMBLY:

1. Disassembly:
 - A. Disassemble and thoroughly clean 40-135A wheel assembly per instructions in Maintenance Manual.

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2. Reassembly

A. After aligning tube on wheel half and prior to joining inner and outer wheel halves together, apply anti-seize compound per MIL-T-5544B to contact surface under head of 103-24200 bolts, threads on bolt shank, both contact surfaces (faces) of 095-02800 washers and contact surface (face) of 094-13200 nuts.

B. Next, slide countersunk washer onto tie bolt making sure countersunk side of washer is facing bolt head.

NOTE: Bolt failure may result if washer is improperly installed.

C. Align wheel halves and slide tie bolt through the inner wheel half assembly side, P/N 161-09900. (See Fig. 1.)

NOTE: The nuts, P/N 094-13200, are located on the outer wheel half assembly side, P/N 162-09300.

D. Next, slide a countersunk washer onto each tie bolt (direction of countersunk is optional. It will not affect installation of nut). Next, install 094-13200 nuts onto bolts. Tighten nuts evenly and torque to 160 in-lbs. This torque value will allow for a true torque of 150 in-lbs. When all nuts have been torqued, retorqued a second time to make sure the required torque value has been achieved.

E. Return aircraft to service per procedure in manual.

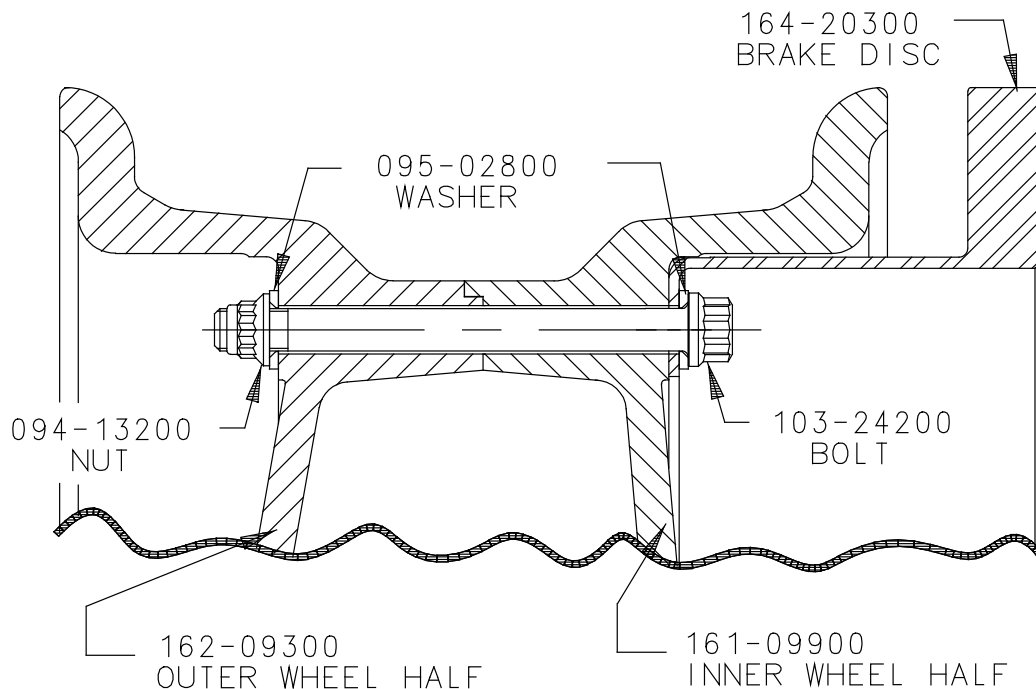


Figure 1
Installation of Optional High Strength Hardware on 40-135A Wheel Assembly