

"Single" forks on PA24-180 / Rib Mod.

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Nationality and Registration Mark

Date

1-13-2016

8. Description of Work Accomplished

The alteration was accomplished to reduce the exposed surface area at the main landing gear wells when the gear is retracted in order to reduce drag.

Removed original main landing gear dual fork P/N 20790-000 and installed PA32R main landing gear single leg forks P/N 67037-006 with axle, spacers, torque plates from PA32R-300, while the strut tubes, upper strut tube bearing and pins, lower strut tube plug, wheels, discs, brakes, and upper trunnion are maintained from the original PA24 installation. Relocated the brake caliper assembly to the inboard side of the fork and wheel assembly. Replaced main landing gear door brackets with P/N's 24842-000 (LH) and P/N 24842-001 (RH) as used on later model PA24-260 Comanches. In addition, modified the wing rib in each wheel well to be similar to the later model factory supplied ribs which allow for greater clearance between the rib and the brake caliper assembly. The left and right wing ribs located at station 33 were modified to accept the brake caliper inside of the wheel-well. Material of the rib flange was removed, starting at approximately 10 1/4" aft for the main wing spar. The forward cut extends approximately 1/2" up from the flange and then continues aft 6-1/2". The modified wing rib is reinforced using a 13-inch long 2024-T3 aluminum angle. The angle material has 3/4" x 3/4" legs and is 1/16" thick. The angle extends 3 inches forward of the cut and extends 4 inches aft of the removed flange, where it rests on the flange. The flange is fastened to the inboard side of the rib using a single row of AN470-4 rivets, spaced at 1-inch intervals, beginning 1/2-inch from the front of the flange. Modified brake hose length for inside mounting of brake caliper and secured. Adjusted landing gear per PA24 service manual. Performed landing gear retraction tests. Operation and clearances satisfactory. Revised weight and balance.

NOTE: This alteration effectively makes this aircraft's lower main gear forks, associated components, and modified wing rib like that of the later model Piper PA24-260 aircraft supplied from the factory with single forks.

- 1) Introduction: See Block 4.
 - 2) Description: See Block 8.
 - 3) Control Operation: No change.
 - 4) Servicing Information: No change.
 - 5) Maintenance Instructions: No change in the maintenance of the components.
 - 6) Troubleshooting Information: No change.
 - 7) Removal and Replacement Information: All components are the same as the original with the exception of the single fork assemblies, P/N 67037-006 which are used on PA32R-300 aircraft.
 - 8) Diagrams: N/A
 - 9) Special Instructions: N/A
 - 10) Application of protective coatings: N/A
- Continued on next page-

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is even
better

Additional Sheets Are Attached