

CHAMPION AIRCRAFT CORPORATION  
Osceola, Wisconsin

Originally Issued June 15, 1949  
Reissued March 16, 1961  
Reissued February 20, 1969

SERVICE LETTER #20

SUBJECT: Installation - Instructions - "No-Bounce" landing gear oleo assembly.

AIRPLANES AFFECTED: Optional modification of any Model 7AC, 7BCM, 7CCM, 7DC or 11 series airplane.

REFERENCES: Attached Sketches,

This optional modification involves the installation of 3-665 "No-Bounce" oleo assembly in the existing 4-541 oleo case frame assembly. Modification should be accomplished as follows;

1. Jack up the airplane so that all weight is removed from the landing gear.
2. Remove the AN365-482 nut, AN960-416 washer and AN4-22A bolt, located in the upper end of the 2-700 (2") forward Strut, or the 4-541 oleo case frame assembly. (See Figure 1).
3. Remove the AN380-3-3 cotter pin, AN310-6 nut, AN960-616 washer and AN6-23 bolt, attaching the lower end of the 3-433 oleo assembly, to the axle strut. (See Figure 1).
4. Remove the 3-433 oleo assembly from the 4-541 oleo case frame assembly.
5. Line ream the  $\frac{1}{8}$  inch diameter hole, in the upper end of the 2-700 (2") forward strut, of the 4-541 oleo case frame assembly to  $3125^{+.001}$  Diameter. (See Figure 2).
6. Install the 3-665 "No-Bounce" oleo assembly, in the 4-541 oleo case frame assembly. (See Figure 3)
7. Align the bushing located in the upper end of the 3-665 "No-Bounce" oleo assembly with the reamed hole in the 2-700 (2") forward strut, of the 4-541 oleo case frame assembly, and insert a AN5-22A bolt. Install a AN960-516 washer and AN365-524 nut on the AN5-22A bolt and tighten.
8. Attach the 3-665 "No-Bounce" oleo assembly, to the fitting at the lower end of the axle strut, using the original AN6-23 bolt, AN960-616 washer, AN310-6 nut and AN380-3-3 cotter pin. Should the original bolt show signs of wear, however, it should be replaced.
9. Repeat the procedure on the opposite gear.

Note: It will not normally be necessary to check the new 3-664 "No Bounce" oleo assembly for proper fluid content, as the parts are filled prior to shipment from the factory. However, should it become necessary to refill the oleo due to leakage or thru service, the following instructions should be followed rigidly.

- a) Remove the drain plug at the lower end of oleo and allow the fluid to drain.
- b) Actuate the oleo through its full stroke several times until all fluid is expelled. This may be done by rocking the airplane from side to side on the gear.
- c) Remove the oleo assembly from the airplane for refilling.
- d) Fill the oleo with exactly eight and one half ( $8\frac{1}{2}$ ) fluid ounces of ANVV-0-366 (or equivalent) oleo fluid. If the oleo will not hold the full eight and one half ounces, tap it gently. This will settle the fluid in the oleo and the remaining fluid may then be added. Caution must be taken not to fill with more than eight and one half ( $8\frac{1}{2}$ ) fluid ounces of fluid.
- e) Removal and replacement of the oleo should be accomplished as in the preceding instructions for installation of the 3-665 "No-Bounce" oleo assembly

PARTS REQUIRED PER AIRCRAFT:

<u>Quantity</u>	<u>Part No.</u>	<u>Part Name</u>
2	3-665	"No-Bounce" oleo assembly
2	AN5-22A	Bolt
2	AN960-516	Washer
2	AN365-524	Nut

PARTS TO BE DISCARDED:

<u>Quantity</u>	<u>Part No.</u>	<u>Part Name</u>
2	3-433	Oleo Assembly
2	AN4-22A	Bolt
2	AN960-416	Washer
2	AN365-428	Nut

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SPECIAL TOOLS REQUIRED: None

MANHOURS REQUIRED: Approximately 2.0 per airplane.

WEIGHT CHANGE:

The change in weight is negligible. No weight and balance revision is considered necessary.

PARTS: Part No. 3-665 "No-Bounce" oleo assemblies are now available and may be purchased from our Parts Department.

FIGURE NO.1 FOR USE WITH SERVICE LETTER NO. 20.

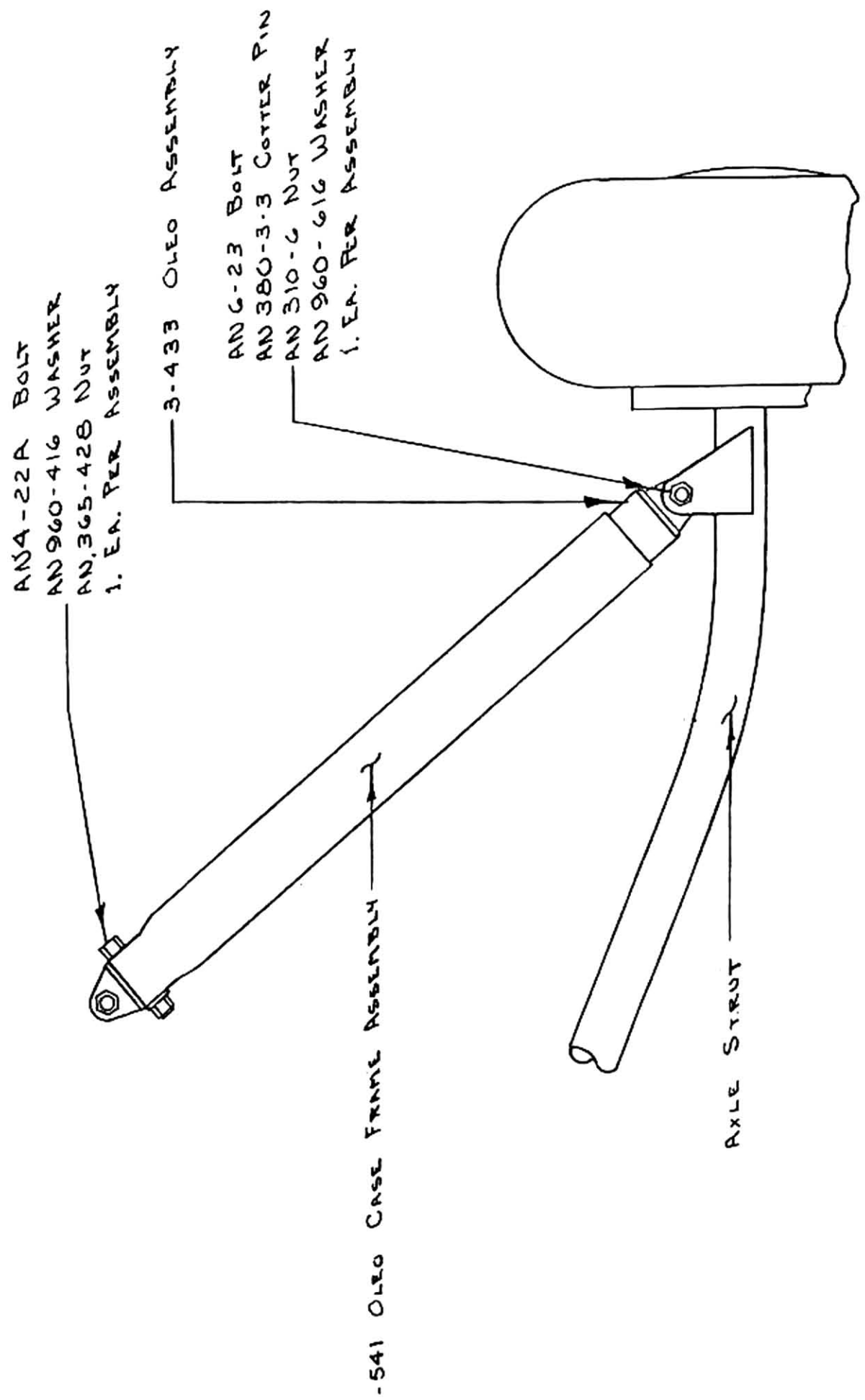


FIGURE No. 3 FOR USE WITH SERVICE LETTER No. 20

AN5-22A BOLT  
AN 960-516 WASHER  
AN 365-524 NUT  
1 EA. PER ASSEMBLY

3-665 "NO BOUNCE" OILO ASSEMBLY

AN6-23 BOLT  
AN 380-3-3 COTTER PIN  
AN 310-C NUT  
AN 960-616 WASHER  
1 EA. PER ASSEMBLY

LINE FROM THIS BOLT HOLE  
TO .3125 ± .001 DIAMETER

4-541 OILO CASE FRAME ASS'Y.

AXLE STRUT

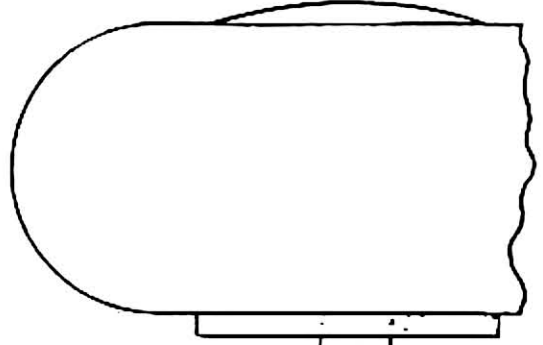
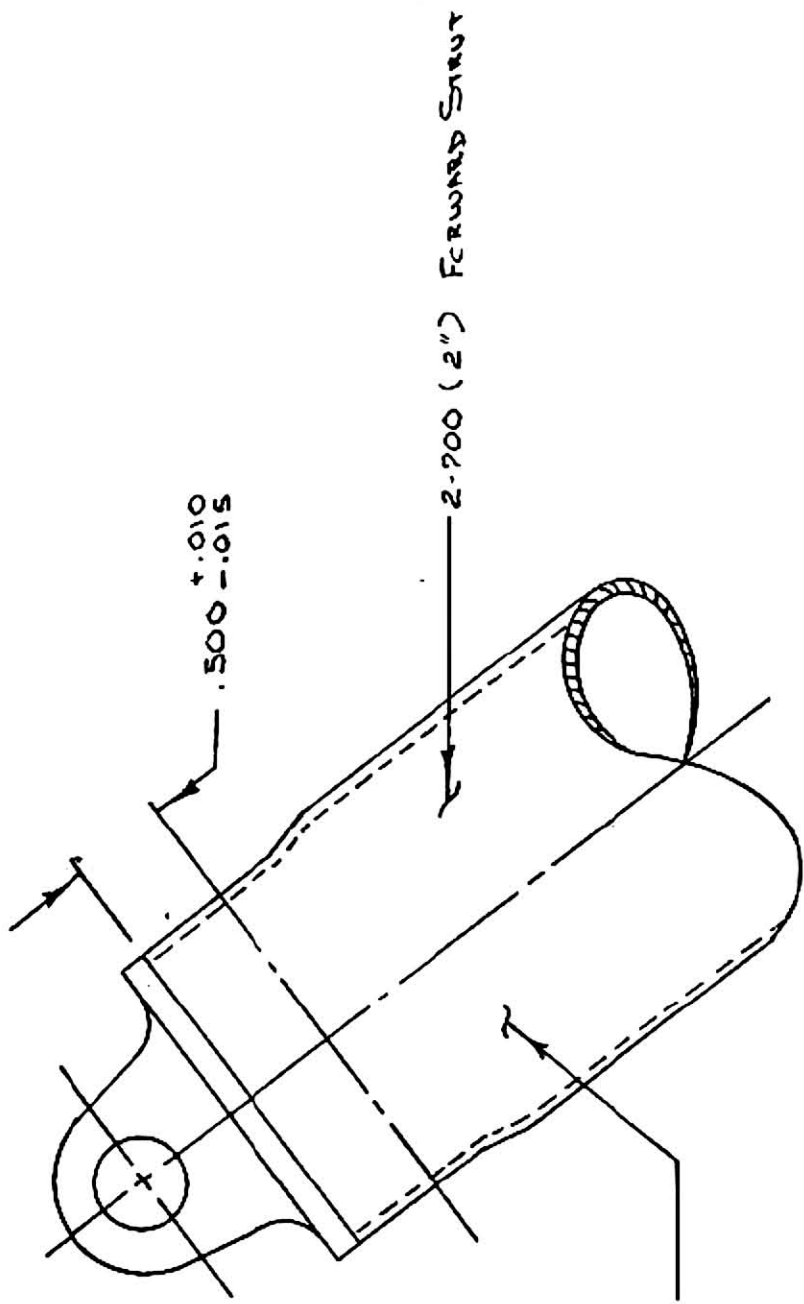


FIGURE No: 2 FOR USE WITH SERVICE LETTER No. 20



.3125<sup>+.001</sup> LINE REMN TARN.  
C.L. OF HOLE MUST PASS WITHIN  
.002 OF TUBE C.L. AND BE SQ.  
WITH C.L. OF TUBE WITHIN .002