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02-00 March 30 Rev 1

## **New Nose Gear Set-Up Installation Instructions**

Note: The following is not a mandatory aircraft up-grade.

### Required information:

- This Installation Instruction and attached drawings
- CH2000 Service Manual
- Parts Catalogue
- Required parts:

20-L-4-4/0	STOP RING	1
20-F-7-6/2	SLIDE COVERS	1 LEFT + 1 RIGHT
20-F-16-9/0	DOUBLER	1
20-F-7-5/1	STEERING BOX SLIDE	2
A5	5/32 RIVET	31
AS 5 Short	5/32 RIVET – STAINLESS STEEL	29
AS 4	1/8 RIVET – STAINLESS STEEL	12
20-F-16-7/3	GEAR ANGLE. Thickness = .040	2

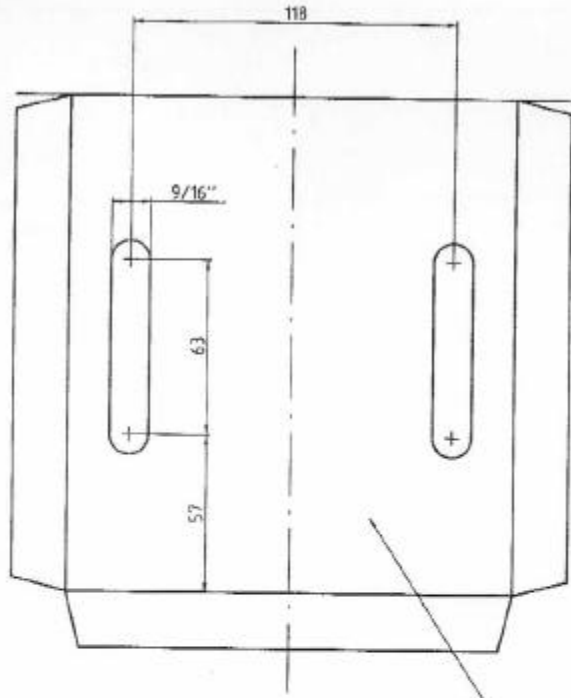
- A. Remove Nose Wheel Strut (20-L-4-1) by means of the bungee removal/installation tools, and by following the bungee removal/installation instructions.
- B. Remove the Steering Rods, left and right at the Nose Wheel Strut and at the Rudder Pedals.
- C. Remove the Firewall Steering Box Assembly (see parts catalog DGW 2-3, part 20-F-7-3) by first carefully punching out stainless steel rivet stems and then drilling them out, around the steering box assembly, and required bolts
- D. Remove the Steering Box Assembly from the cabin.
- E. Remove the two Slide Covers (20-F-7-6/1) on the **inside** of the box by removing the rivets.
- F. Lengthen the steering rod slots as per attached drawing with file. Diagram 2.
- G. Install the new Slide Covers (20-F-7-6/2) to the **outside** of the Firewall Steering Box Assembly as per attached drawing. Drill through existing Firewall Steering Box Assembly holes into new Slide Covers, and rivet with Stainless Steel rivets, AS 4. Diagram 6.
- H. Grease and install the Steering Box Slides (20-F-7-5/1).
- I. Lengthen the Firewall (20-F-7-1) slots as per attached drawing with a file. Diagram 1.
- J. Reinstall the Firewall Steering Box Assembly onto the firewall. Rivet bottom with aluminum A5 rivets and with Stainless Steel AS 5 short on firewall.
- K. Position and drill the new doubler (20-F-16-9/0) to the Center Channel (20-F-16-3) as per attached drawing. Diagram 3. The doubler goes on the inside of the Center Channel. The A5 rivets are

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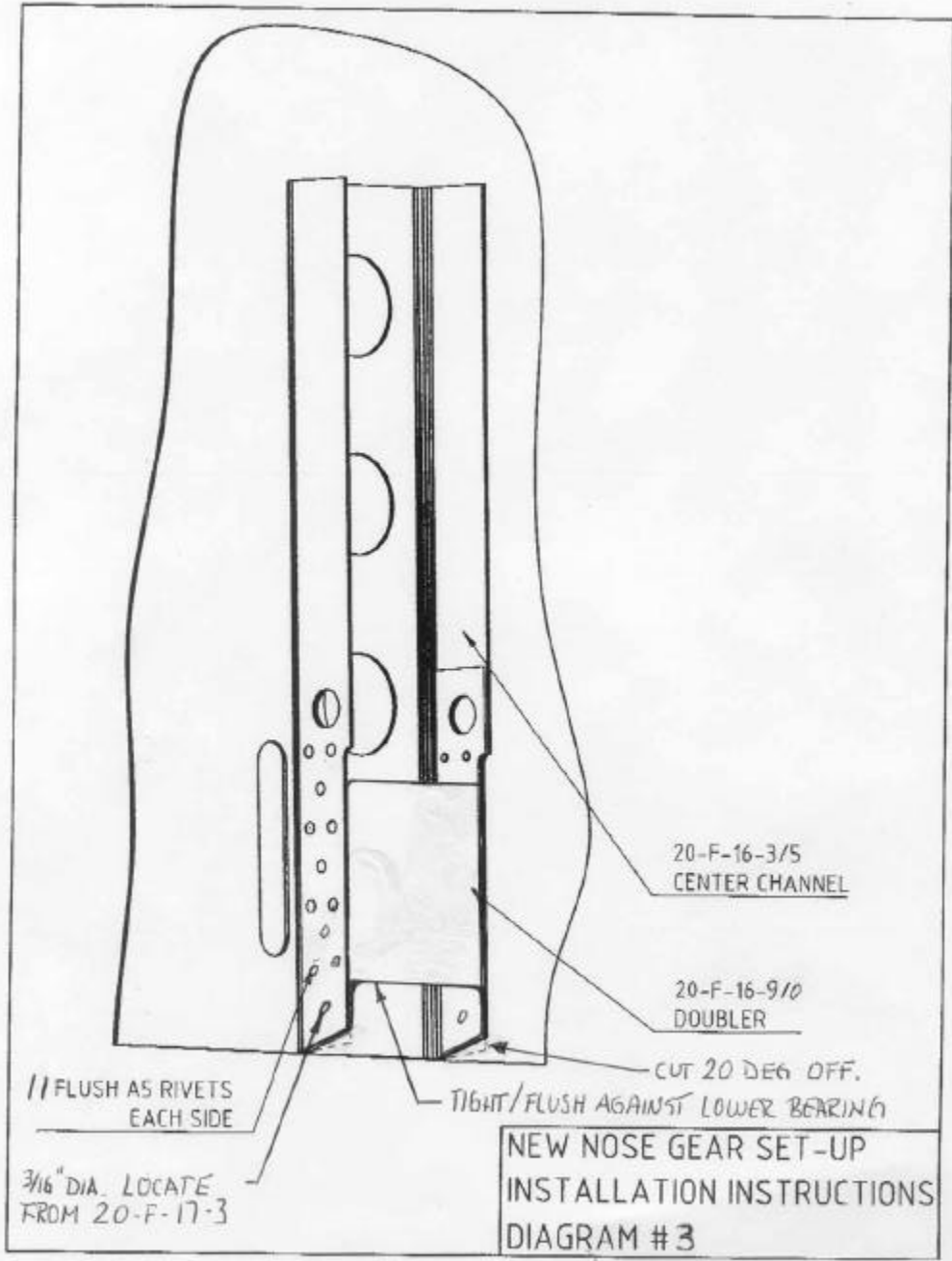
- countersunk from the outside of the channel, to the inside, so that the overall outside dimension of the Center Channel is not increased.
- L. Drill a 3/4" dia. hole for bungee pin.
  - M. Change the two gear angles 20-F-16-7/3 if the thickness is not .040" with AS5 rivets.
  - N. Reinstall steering rods 20-C-11-1, left and right, through the new Steering Box Slides (20-F-7-5/1).
  - O. On the Nose Wheel Strut (20-L-4-1) remove the 1/8 mild steel circular rod by grinding out the rod and not the strut.
  - P. Install a new 1/8 mild steel rod Stop Ring (20-L-4-4/0) as per attached drawing (diagram 5) by welding 3 evenly 1/2 inch spaced welds on the rear half of the strut and one 1/2 inch weld on the front of the strut.
  - Q. Bend back the rear bungee support plate on the Nose Wheel Strut (20-L-4-1) with a pliers, as per attached drawings (diagram 5).
  - R. Bend back the Upper Horizontal Zee (20-F-16-1) with pliers about 15 degrees open as per attached drawing (diagram 4). Drill a 3/16" dia. hole for lower nose gear bearing bolt.
  - S. Cut off both sides of the center channel and new doubler at the bottom at 20 deg. From firewall. See diagram 3.
  - T. Drill 3/16" dia. holes in new doubler for lower bearing rear bolt.
  - U. Fit the lower nylon bearing (20-F-17-3). The rear nylon bearing sides may have to be filed to fit.
  - V. Reinstall the Nose Wheel Strut with the bungee.
  - W. Reinstall the Steering Rods, left and right at the Nose Wheel Strut and at the Rudder Pedals.
  - X. Confirm that all bolts are tight, all rivets are installed and that cable tensions are as per Service Manual. Confirm that the Steering Rods do not have contact with the Center Channel when applying full deflection of the rudder, both ways.

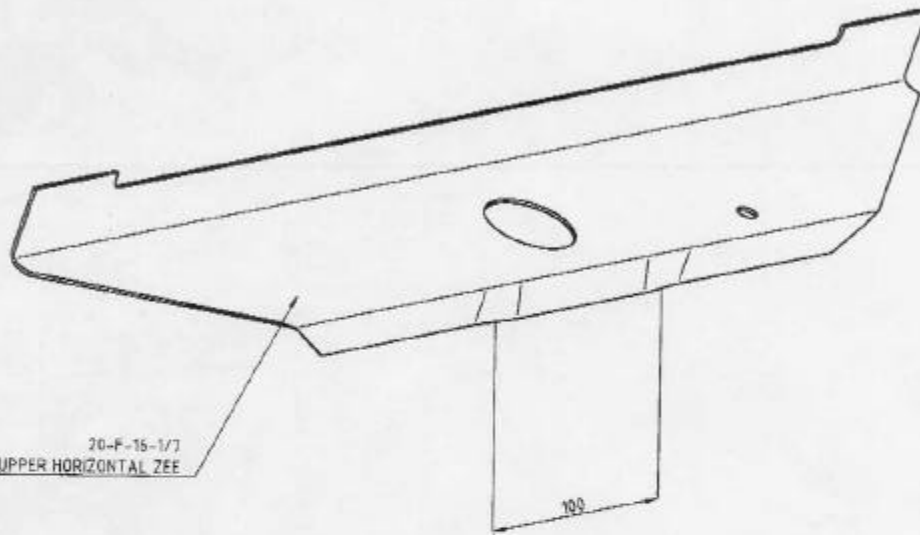


20-F-7-3/6

NEW STEERING ROD SLOTS IN  
20-F-7-3/6 FIREWALL STEERING BOX

NEW NOSE GEAR SET-UP  
INSTALLATION INSTRUCTIONS  
DIAGRAM # 2



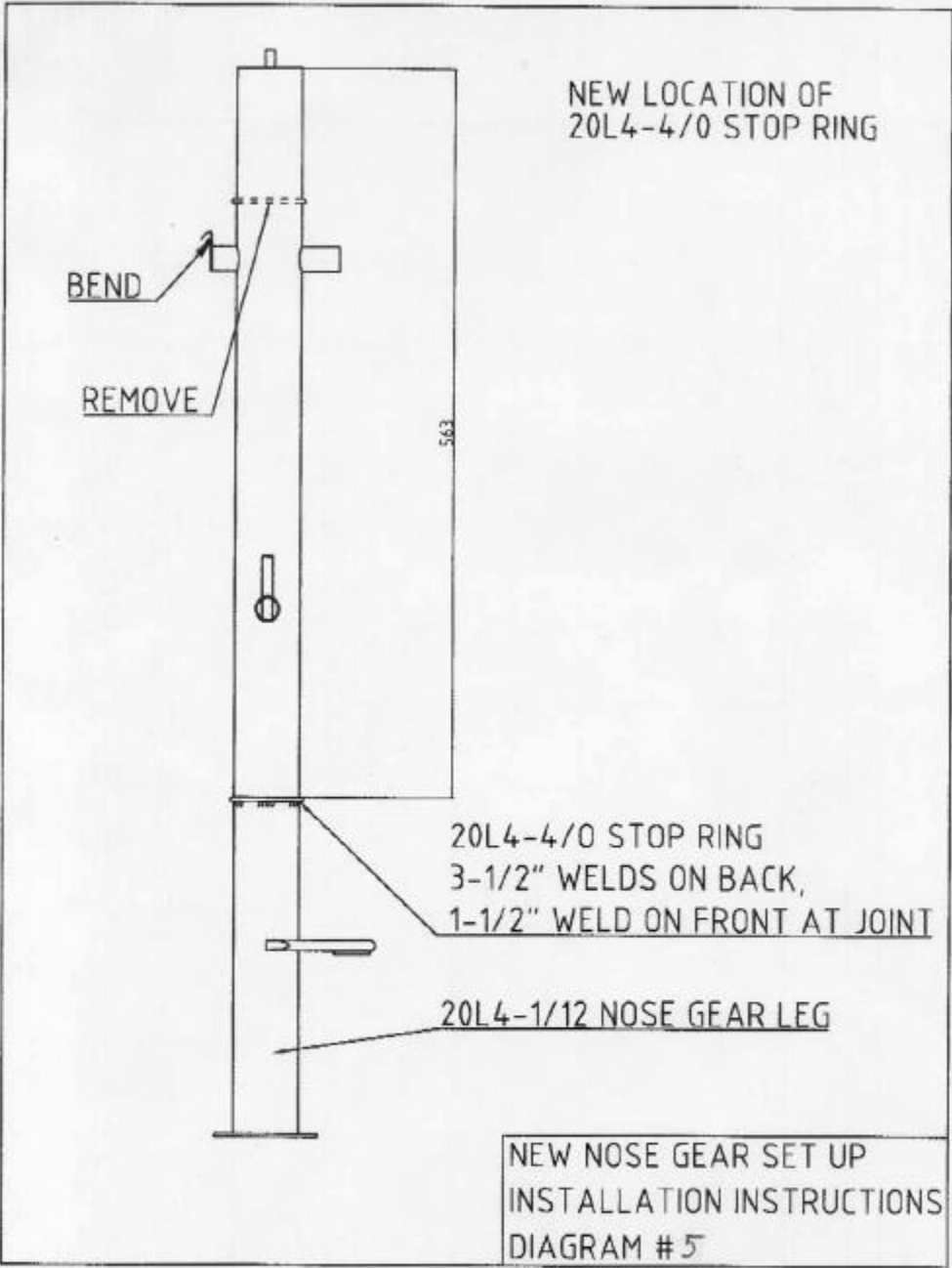


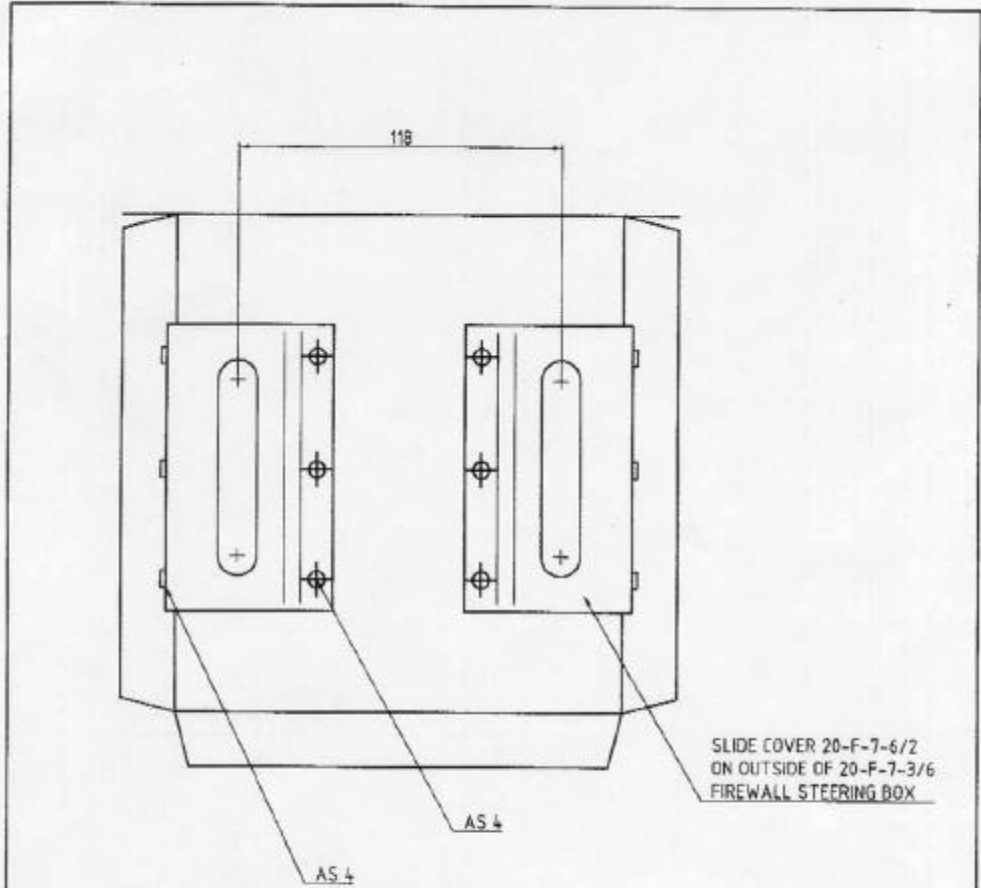
20-F-16-1/7  
UPPER HORIZONTAL ZEE

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BEND THIS AREA TO APPROX 15 DEG OPEN

NEW NOSE GEAR SET-UP  
INSTALLATION INSTRUCTIONS  
DIAGRAM #4





SLIDE COVER INSTALLATION

NEW NOSE GEAR SET-UP  
INSTALLATION INSTRUCTIONS  
DIAGRAM #6

