

# SERVICE



# LETTER

Service Letter No. 186

April 21, 1952

TO: All Distributors, Dealers and Owners

SUBJECT: Clearance between the Engine Mount and the Exhaust Tail Pipe and  
Clearance in the Nose Wheel Steering Mechanism

MODELS AFFECTED: All Model PA-22 Airplanes

It has been brought to our attention that the clearance between the engine mount and the tail pipe on the subject model airplane is not adequate and in some cases the tail pipe has rubbed the diagonal motor mount tube causing the tube to become somewhat grooved, due to the rubbing and scrubbing action of the tail pipe.

It is requested that an inspection be conducted on all model PA-22 airplanes to ascertain whether or not this condition exists. If at the present time there is no sign of the tail pipe rubbing the motor mount tube it will not be necessary to make any adjustments, however if there are indications that this rubbing action has been taking place then it will be necessary to move the tail pipe location forward, by means of changing or adjusting the tail pipe braces. The clearance between the motor mount and the tail pipe brace should be approximately  $3/8$  inch. If there has been damage to the motor mount tube in that area it will be necessary to weld an outside sleeve reinforcement in accordance to C. A. A. Manual 18.

When moving the tail pipe forward to provide adequate clearance, there may be slight confliction between the tail pipe and the bottom engine cowl, in which event it will be necessary to cut out a small portion of the cowl.

In the event it is impossible to obtain the proper clearance then the tail pipe should be modified in accordance with the attached sketch.

It has been reported that there have been cases of interference between the cross-over exhaust stacks and the nose wheel steering rod ends. We suggest that you investigate the possibility of this condition existing in your airplane and take corrective action if necessary. Proper clearances can be obtained by denting the exhaust stack tubes at the points of contact by using the same steps and dimensions as shown in the tail pipe sketch.

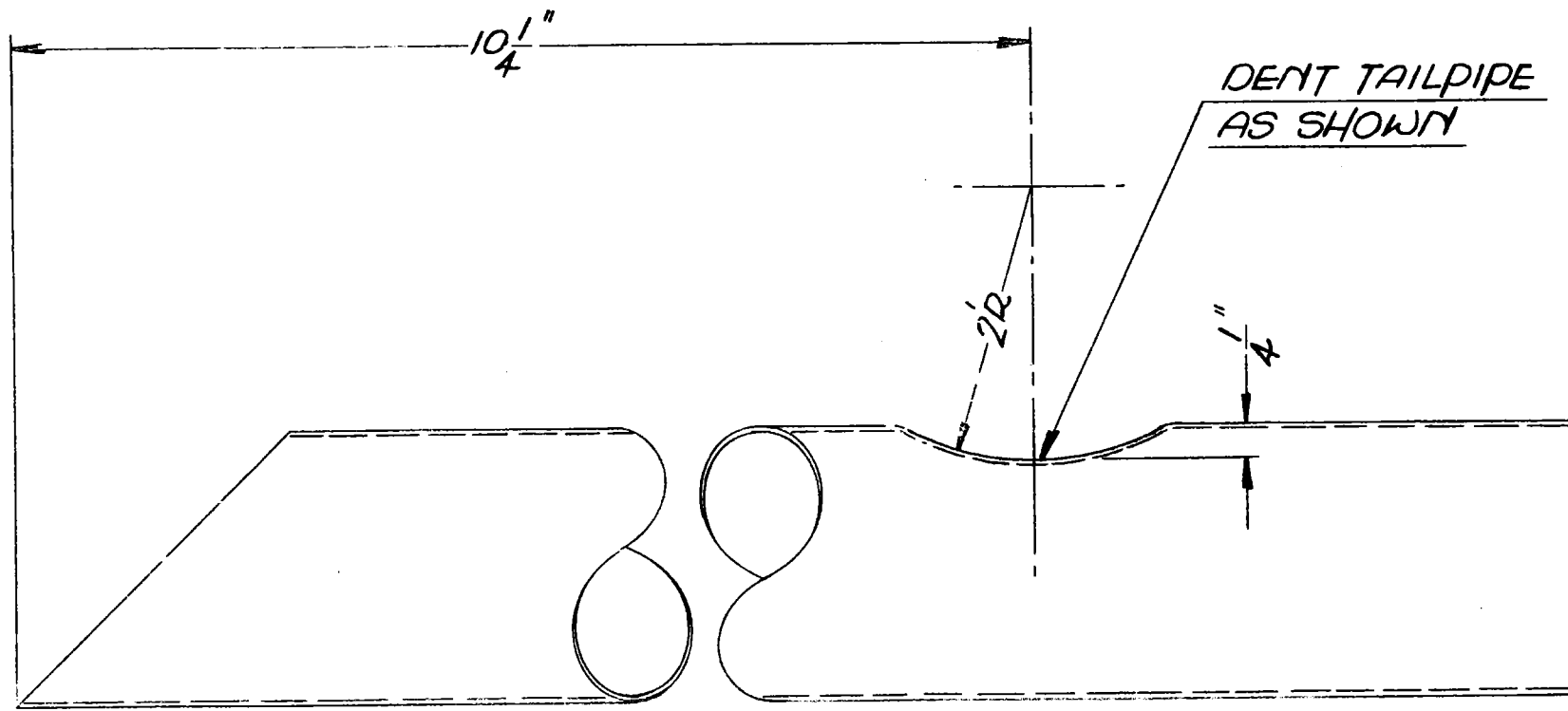
It is further suggested that the entire nose wheel steering control system, between the nose wheel and the rudder pedals, be checked for adequate clearances.

PIPER AIRCRAFT CORPORATION

A handwritten signature in dark ink, appearing to read "Rolland Boardman".  
Rolland Boardman  
Service Manager

RB:gh:z

**PIPER AIRCRAFT CORPORATION, LOCK HAVEN, PA., U. S. A.**



Sketch for Service Letter No. 186