

Service Letter

NUMBER: 20-103

DATE: 6-27-63

This Service Letter is FAA Approved

This Service Letter reidentified as
Service Bulletin M 20-103
per Service Instruction M20-15.

SUBJECT: Modification of Instrument Panel & Manifold Pressure System

MODELS AFFECTED: M20C, Serial Numbers 1852, 1940 through 2575
M20D, Serial Numbers 1, 101 through 190

TIME OF COMPLIANCE: At Owner's Discretion

INTRODUCTION

Certain modifications have been made to recent Model M20C and M20D instrument panels to improve the shock dampening efficiency of the flight panel, especially while starting and stopping the engine. We feel that these modifications will substantially reduce the vibration of the instrument panel and we therefore recommend that this be accomplished on the earlier aircraft as soon as practical. The manifold pressure system on the recent Model M20C and M20D aircraft has also been slightly changed to assure that no engine oil can penetrate the pressure line, thus giving an inaccurate reading on the gauge. We recommend that this modification be accomplished on the earlier models also.

INSTRUCTIONS

1. Remove the flight panel from the aircraft.
- *2. Modify the base panel cutout as indicated on Page 3, Detail A (located on Page 2 top).
- *3. Modify the flight panel as shown on Page 2, Detail B (located on Page 2 top).
- *4. Modify the base panel in the area of the master switch as indicated on Page 2, Detail C (located on Page 2 top).
5. If a rotary file, hand file, or grinder is used to remove the metal from the base and flight panel, the instrument should be removed from the panel. The vibration caused by filing and grinding could easily damage the sensitive bearings of the instruments.
6. Included in the service letter kit are two nylon straps and one felt pad. Install the pad between the directional gyro and the artificial horizon instrument cases and secure the two instruments together as shown in Detail D on Page 2 (located on Page 2 top).
7. Re-install the flight panel in the same manner as removed.
8. Remove the right side cowl from the aircraft and remove the 1/8" O.D. manifold pressure line from the aircraft.
9. Install parts Numbers 660000-13 and -15 lines as shown in Detail E on Page 4. Replace the side cowl.

Service Letter Kit 20-103 may be purchased from Mooney Aircraft, Inc. Spare Parts Department, P. O. Box 72, Kerrville, Texas, at a cost of \$3.50 each.

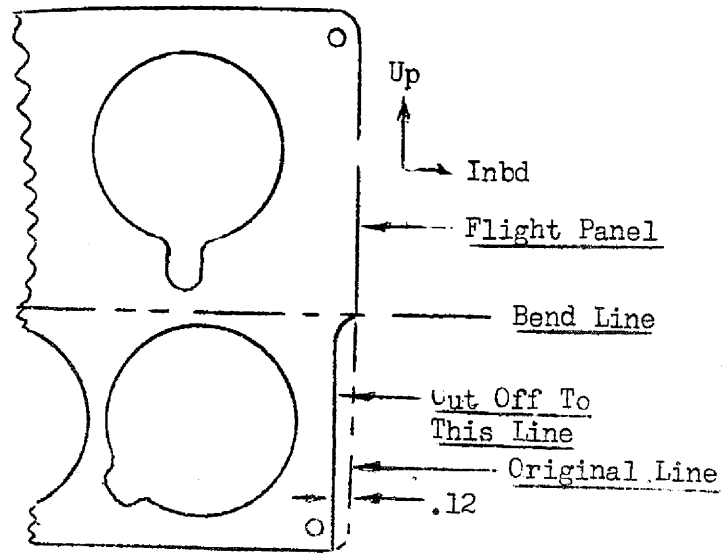
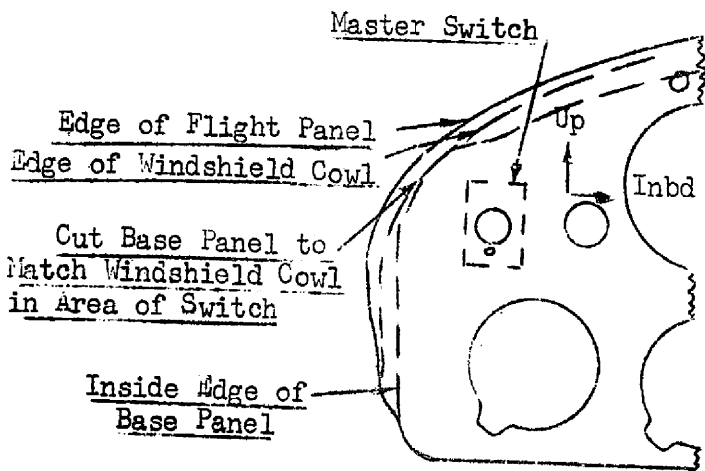
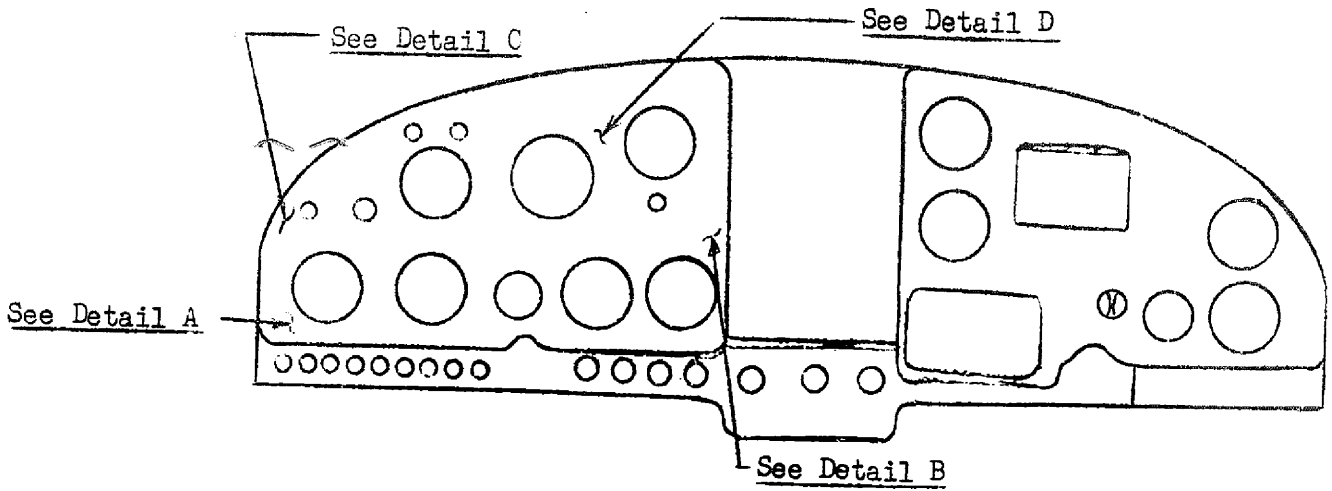
S.L. Kit 20-103

	No. Req'd.
1. Felt Pad .25 x 1.75 x 3.00	1
2. Nylon Straps Ty-27	2
3. AN816-4D	1
4. 660000-13 Tube	1
5. 660000-15 Tube	1
6. MS21919DG-4 Clamps	2
7. AN919-1D Reducer	1

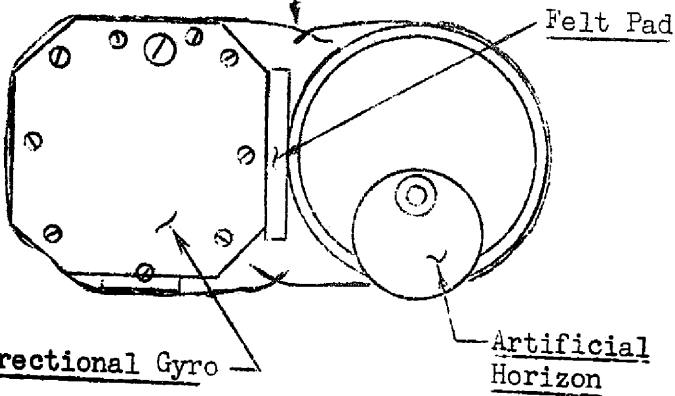
COMPLIANCE

Upon installation of this kit, please fill out and return the enclosed compliance card for our records.

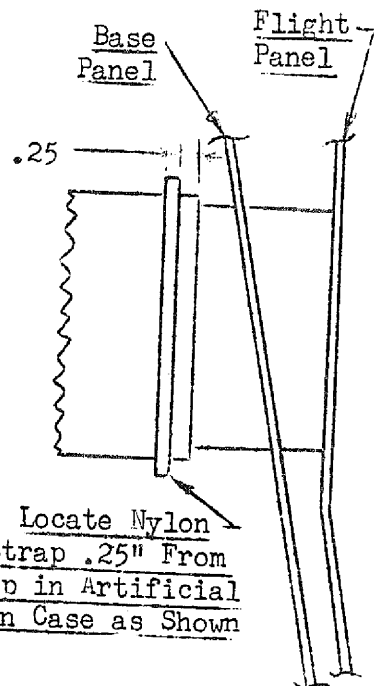
*NOTE: Items indicated by an asterisk have already been incorporated on all M20D aircraft and M20C, Serial 2297 and on.



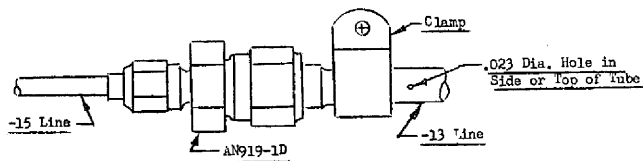
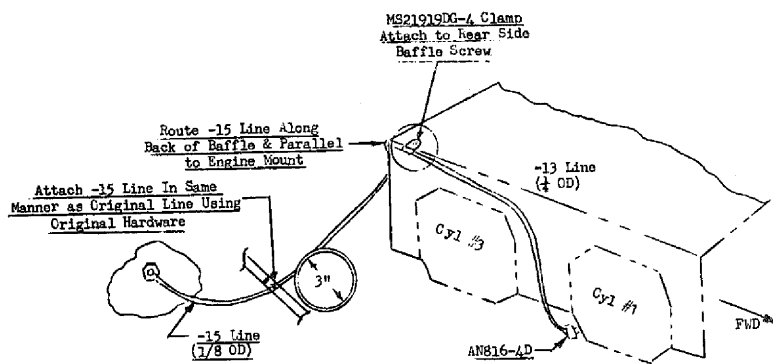
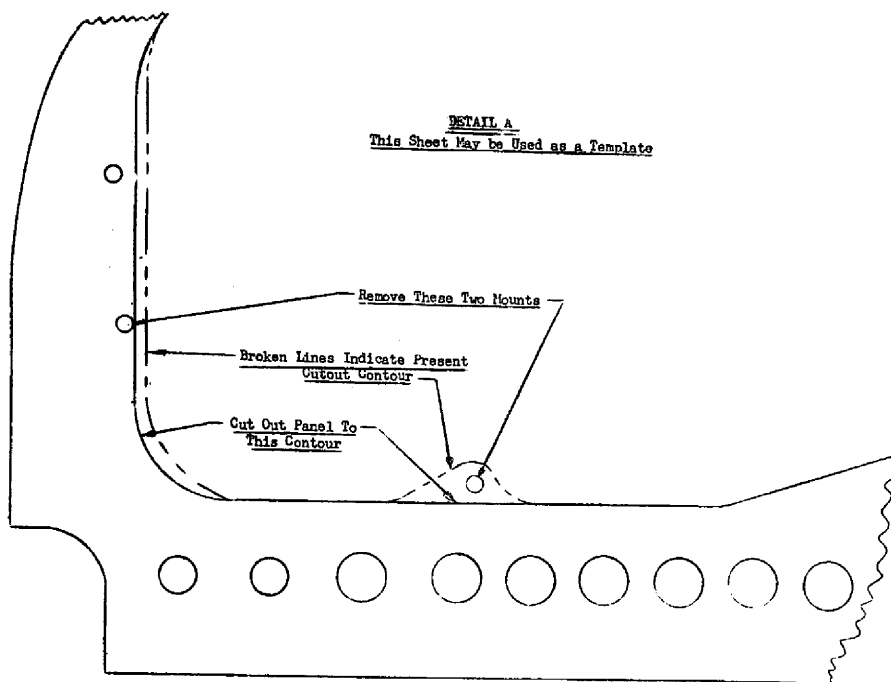
TY-27 Nylon Straps (2)
Joints Between Instruments as Shown



View Shown Looking at Back of Instrument Cases



DETAIL A
 This Sheet May be Used as a Template



DETAIL E