



THIS BULLETIN IS FAA APPROVED FOR ENGINEERING DESIGN

SERVICE BULLETIN M20-292A

Date: December 22, 2006

SUBJECT: ENGINE MOUNT INSTALLATION AT FIREWALL

MODELS/ SN

AFFECTED:

M20M Serial Numbers 27-0317 thru 27-0355

M20R Serial Numbers 29-0290 thru 29-0448

TIME OF

COMPLIANCE:

RETORQUE UPPER LEFT AND UPPER RIGHT ENGINE MOUNTING HARDWARE WITHIN NEXT 25 FLIGHT HOURS.

VERIFY OR IMPLEMENT THIS BULLETIN PROCEDURE TO ASSURE INSULATION CLEARANCE BETWEEN FUSELAGE TUBULAR FRAME AND FIREWALL, AROUND UPPER RIGHT AND UPPER LEFT ENGINE MOUNTING HARDWARE AT NEXT SCHEDULED ANNUAL INSPECTION, BUT WITHIN NEXT 100 FLIGHT HOURS.

INTRODUCTION:

It has been determined that the firewall insulation and upholstery covering attached to the interior surface of the firewall, located behind the instrument panel, may be compressed between the fuselage tubular frame and the stainless steel firewall at the upper left and upper right engine mount points. This may prevent the engine mount attaching hardware from maintaining torque to engineering design. The upholstery and insulation material must be trimmed from around the engine mount attaching points on the interior surface of the firewall and the fuselage tubular frame, to allow metal to metal contact of these components. The engine mount attaching hardware must be replaced and retorqued to engineering design tolerances at the upper left and upper right engine mount locations.

INSTRUCTIONS:

Read entire procedure before beginning work.

Within next 25 flight hours:

1. Turn master switch - OFF.
2. Remove upper cowling.
3. Locate and retorque upper left and upper right engine mounting hardware (ref. Figures M20-292-1 & M20-292-2):

M20M

NAS6604-18 Torque 50-70 inch lbs.*

NAS6605-18 Torque 100-140 inch lbs.*

M20R

NAS6605-18 Torque 100-140 inch lbs.*

* Dry Torque

4. Install upper cowling.
5. Complete log book entry.
6. Return aircraft to service.

At next annual, but within next 100 flight hours:

7. Turn master switch - OFF.
8. Remove upper and lower engine cowling.
9. Using suitable engine hoist, attach hoist to lifting eye at top of crankcase. Slightly lift engine to relieve weight from engine mounts.
10. Remove pilot and co-pilot seats and store in protected area so as not to damage upholstery.
11. From a position below the instrument panel; locate, remove and discard the upper left engine mount attaching hardware (ref. Figure M20-292-3) and upper right engine mount attaching hardware (ref. figure M20-292-4). Electrical harnesses and vacuum tubing may require moving aside for access to the attaching hardware. Exercise care not to disconnect electrical or tubing connections.

12. Using a sharp utility knife, trim a 2" minimum diameter clearing through the upholstery and insulation material to allow full metal to metal contact of the fuselage tubular frame to the firewall.

NOTE

Fuselage tubular structure MUST contact firewall at attach points.

13. Replace attaching hardware with hardware provided in service bulletin kit applicable to the aircraft model/serial number being serviced. Reference Figures M20-292-5 and M20-292-6 for hardware stack-up.

14. Torque upper left and upper right engine mounting hardware (ref. Figures M20-292-5 & M20-292-6):

M20M

NAS6604-18 Torque 50-70 inch lbs.*

NAS6605-18 Torque 100-140 inch lbs.*

M20R

NAS6605-18 Torque 100-140 inch lbs.*

* Dry Torque

15. Return electrical harnesses and vacuum lines, that may have been moved to access engine mount attaching hardware, to their original positions. Verify no electrical or vacuum connections were disconnected or loosened during this procedure.

16. Remove engine hoist and re-install lower and upper cowling.

17. Ground check all systems are functional.

18. Complete log book entry.

19. Return aircraft to service.

20. Procedure complete.

WARRANTY: Mooney Airplane Company, Inc. will warrant labor:

Approximately 0.5 Hours for initial (before next flight) retorque

Approximately 2.0 Hours for final upholstery/insulation trim and hardware replacement when done in accordance with procedures of this bulletin.

REFERENCE DATA:

MAC Service & Maintenance Manuals Chapters 25 & 71 (applicable A/C)

PARTS LIST:

Mooney Airplane Company, Inc., M20M (S/N 27-0317 THRU 27-0323) Parts Kit: M20-292-001

<u>Item</u>	<u>P/N</u>	<u>Description</u>	<u>Qty</u>
1.	NAS6604-18	BOLT, TOP, LH/RH	2
2.	NAS1149F0432P	WASHER, TOP, LH/RH	2
3.	MS21042L4	NUT, TOP, LH/RH	2

PARTS LIST:

Mooney Airplane Company, Inc., M20M (S/N 27-0324 THRU 27-0355) Parts Kit: M20-292-002

<u>Item</u>	<u>P/N</u>	<u>Description</u>	<u>Qty</u>
1.	NAS6605-18	BOLT, TOP, LH/RH	2
2.	NAS1149F0563P	WASHER	2
3.	MS21045-5	NUT, TOP, LH/RH	2

PARTS LIST:

Mooney Airplane Company, Inc., M20R Parts Kit: M20-292-003

<u>Item</u>	<u>P/N</u>	<u>Description</u>	<u>Qty</u>
1.	NAS6605-18	BOLT	2
2.	NAS1149F0532P	WASHER	4
3.	MS21042-L5	NUT	2

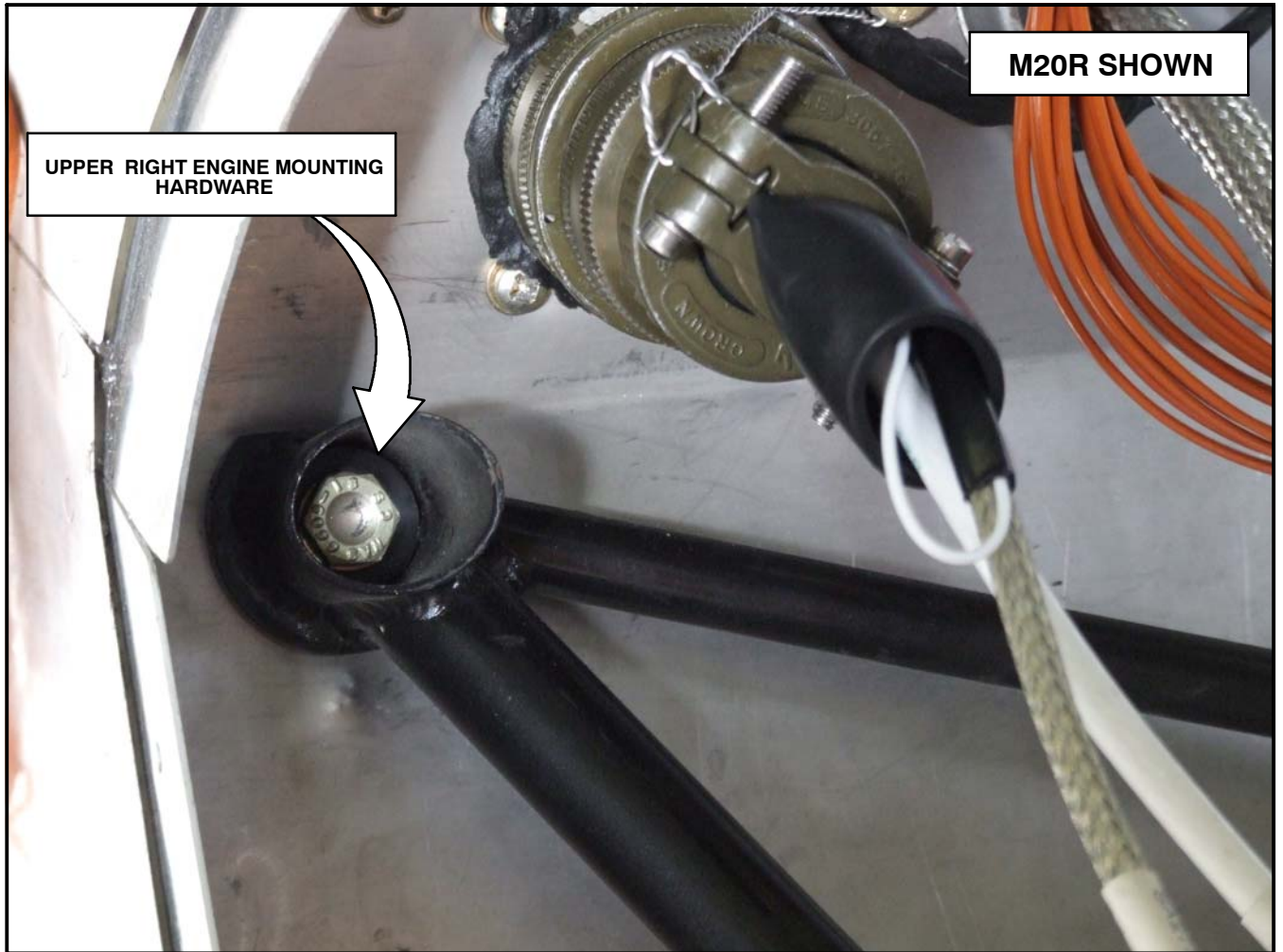


Figure SB M20-292-1



Figure SB M20-292-2

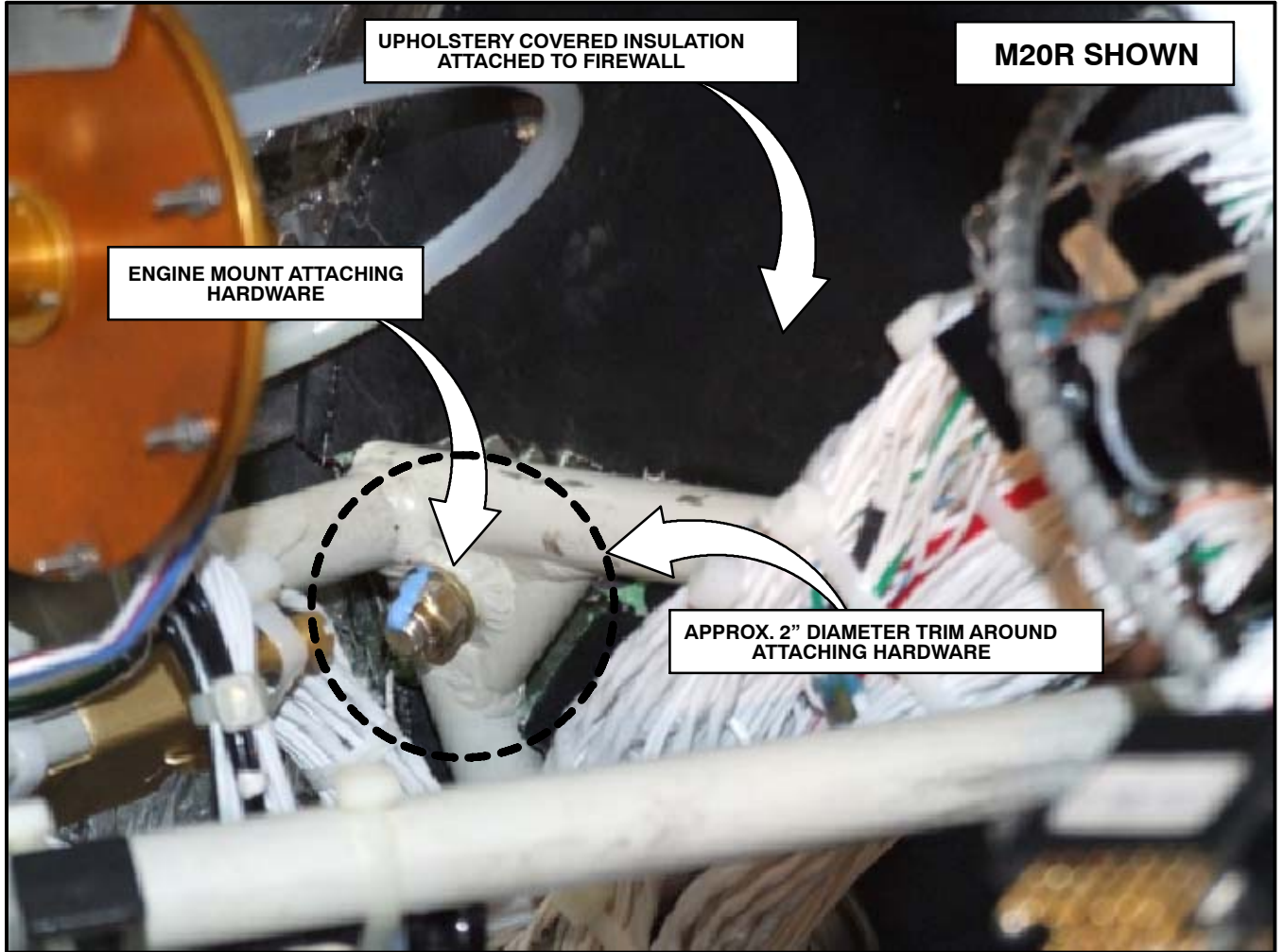


Figure SB M20-292-3

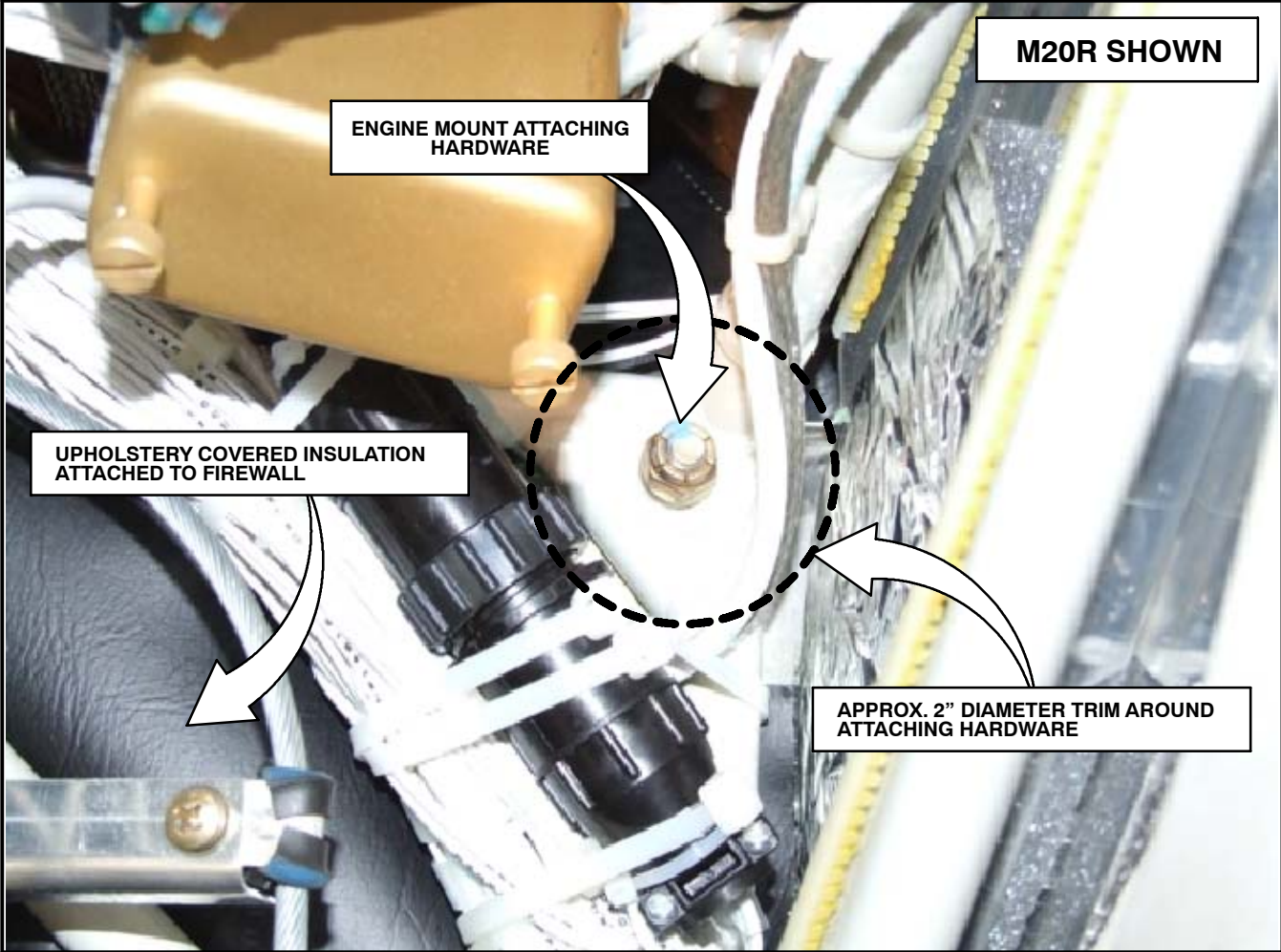


Figure SB M20-292-4

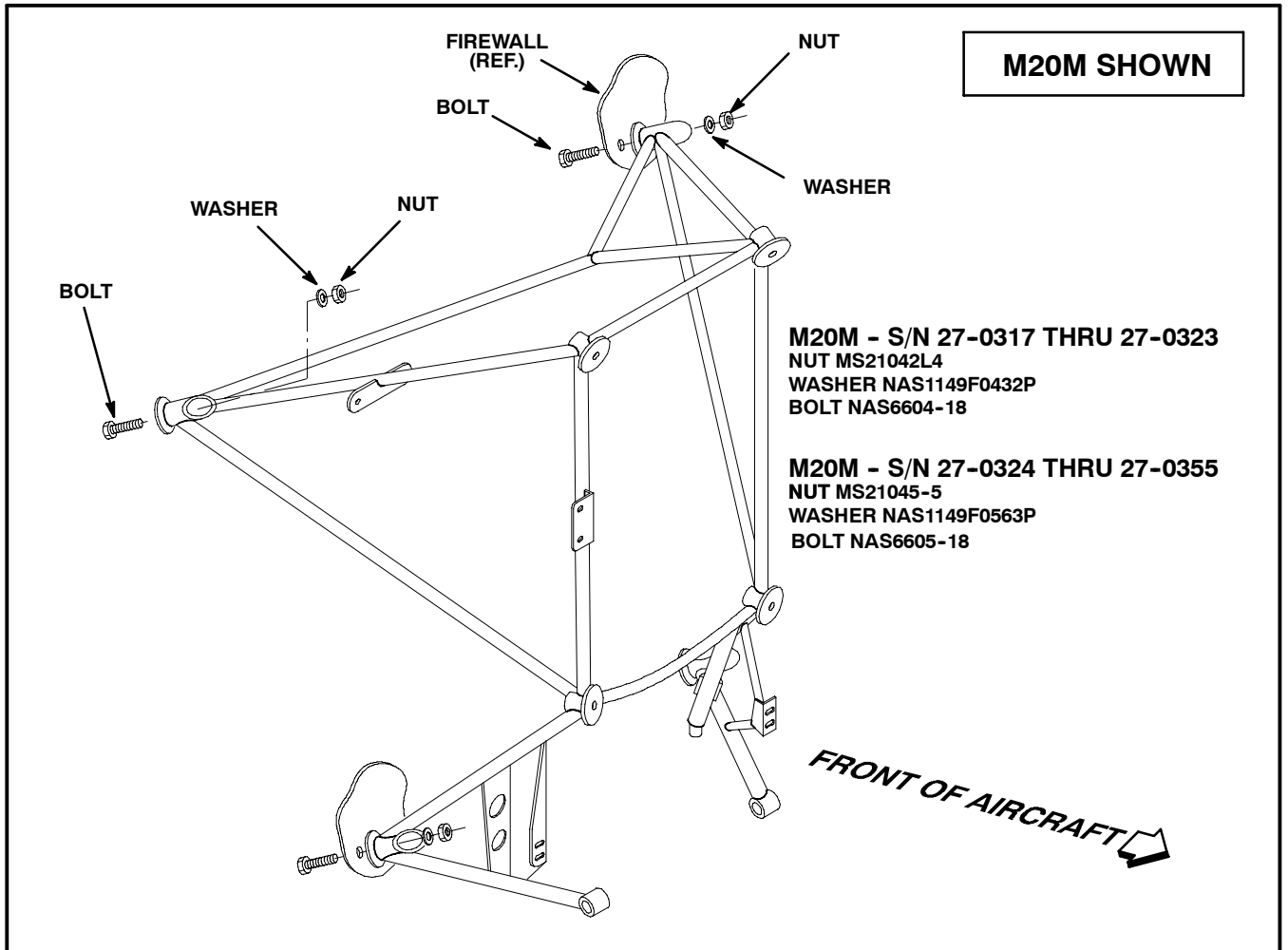


Figure SB M20-292-5

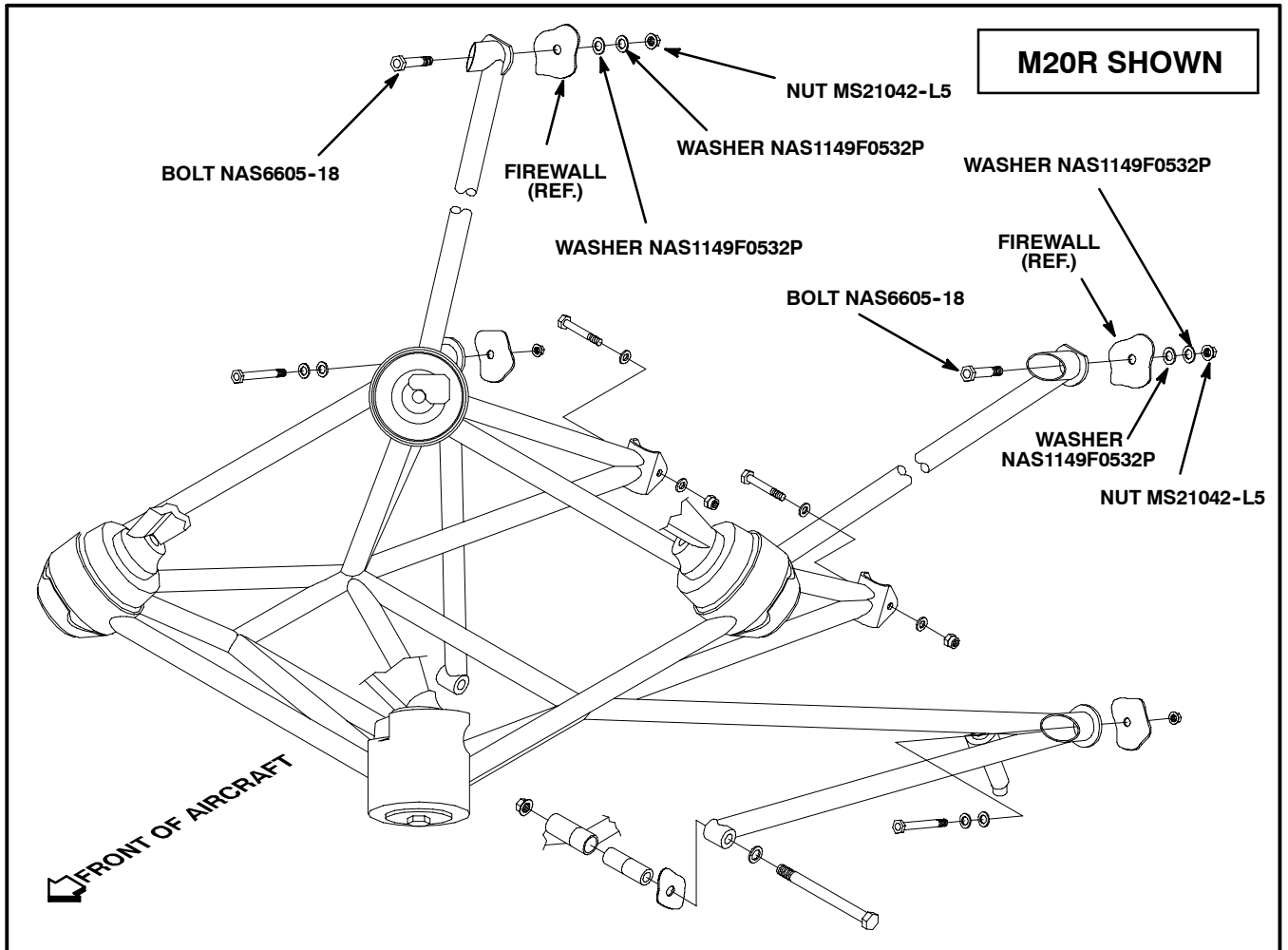


Figure SB M20-292-6