

FMC Corporation Motor Coach Division 333 Brokaw Road Box 664 Santa Clara California 95052 ☐ URGENT

ROUTINE

MANDATORY INFORMATIONAL

Service Bulletin

DATE December 1,

2902-30001

ATTENTION: SERVICE MANAGER

GROUP

DESCRIPTION

This bulletin provides instructions for inspecting and reinforcing the upper body structure to lower frame mounting points. Inspection is to be accomplished on all motor homes within serial range as indicated.

SUBJECT

Frame

Reinforcement Instructions

2

COMPLIANCE

Owners should take their coach to one of the participating service centers listed as an attachment to the owners notification letter. FMC will reimburse for labor provided that this bulletin is accomplished no later than June 1, 1977.

PARTS REQUIRED

Oty.	Part Number	Description
6	5109097-01	Angle
16	5109247-04	Fastener (colored Red)
24	5109247-05	Fastener (colored Yellow)
8	5109247-07	Fastener (colored Brown)
25	M25029	Rivet-Fiberglass to Frame
35	M25032	Rivet-Shear Panels and Door Frame
25	M25044	Rivet-Exterior Door Molding
20	M25090	Rivet-Rub Rail Trim Molding
50	M25099	Rivet-Fiberglass Panels Upper
50	M25104	Rivet-Fiberglass Panels Lower

MODEL (S) **AFFECTED**

All Motor Homes 00001 to 01050 Model 2900R

TOOLS & EQUIPMENT

One special "Huck" gun for fasteners

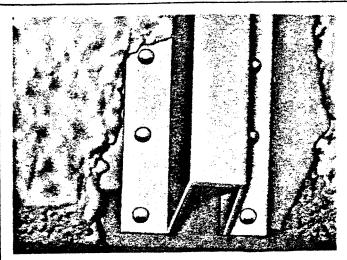
Zinc Chromate primer for aluminum to steel interface

Steel welding capacity and welding rod 3/32 O.D., alloy 7015, 7016, or 7018.

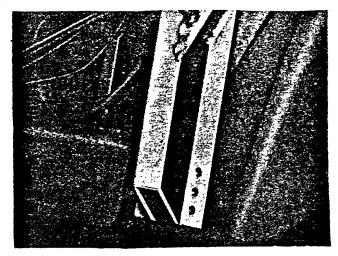
MANPOWER

Estimated accomplishment times per coach will depend upon coach condition as shown in Figures 1 and 2 and will vary from coach to coach. FMC/MCD will reimburse for labor per the following provided that WORK IS COMPLETED NO LATER THAN June 1, 1977.

F.M.C., AS 05 15/81/75, NO LONGER



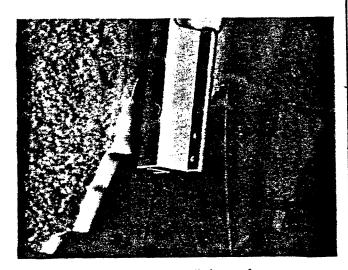
(A) Good section at frame proper cut-away of foam for rivet inspection



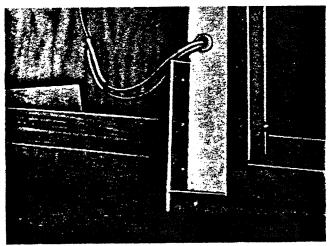
(B) Right front section with missing rivets



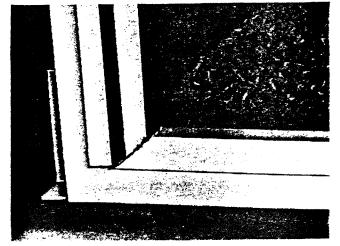
(C) Right rear support section pulled away from lower frame



(D) Left rear support section pulled away from lower frame



(E) Passenger door frame pulled away from lower frame



(F) Hairline crack lower aft corner of passenger frame

FIGURE 1. TYPICAL SECTION AND FRAME CONDITIONS.

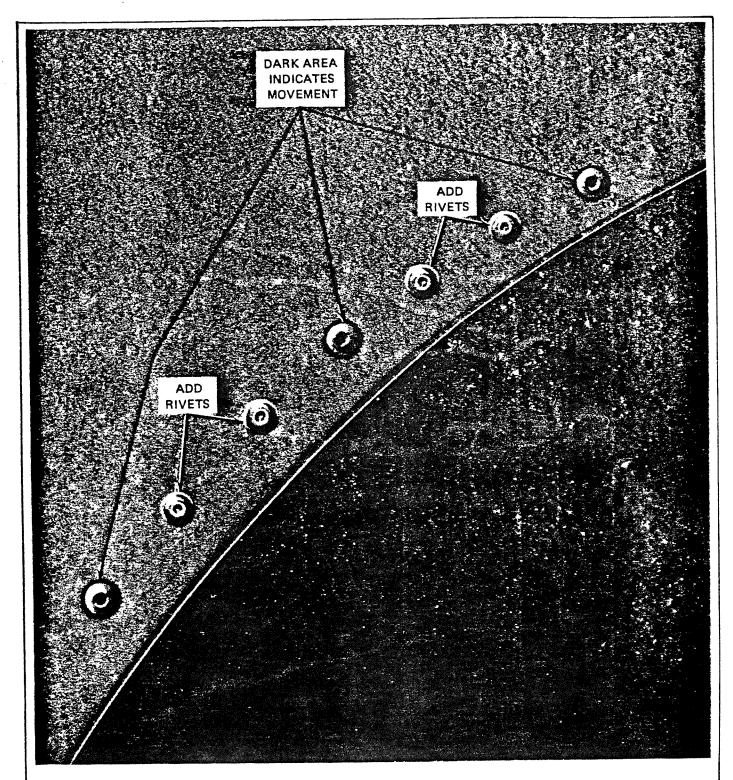


FIGURE 2. SHEAR PANEL TO WHEEL WELL CONNECTION.

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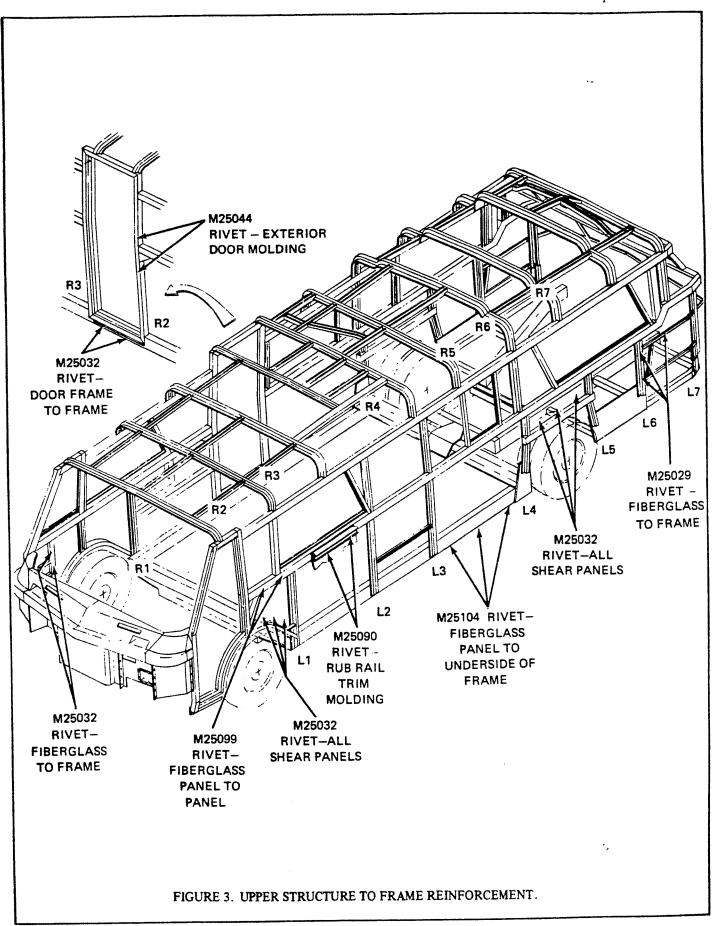
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Condition 1 - Right and left sections forward of rear wheels (positions L4 and R4 in Figure 3) need reinforcement 4 man hours. Please note that it is not necessary to completely remove coach panels to reinforce for this condition (see Joint Reinforcement Figure 5).	SUBJECT Frame Reinforcement Instructions			
Condition 2 - Right and left sections forward of rear wheels (L4 and R4) and all right side sections between rear wheel and front wheel (R3, R2 and R1) plus shear panels in front and rear right side wheel wells (see Figure 3) need reinforcement8 man hours.				
Condition 3 - Right and left sections forward of rear wheels (L4 and R4), all right side sections between rear wheel and front wheel (R3, R2 and R1) plus shear panels in front and rear right side wheel wells and left side sections rear of front wheel (L1, L2 and L3), plus shear panels in front and rear left side wheel wells (see Figure 3) need reinforcement. Call factory service representative 408-289-3665 regarding warranty reimbursement before proceeding with the work.	MODEL (S) AFFECTED All Motor Homes 00001 to 01050 Model 2900R			
Condition 4 - Right and left sections forward of rear wheels (L4 and R4), all right side sections between rear wheel and front wheel (R3, R2 and R1) plus shear panels in front and rear right side wheel wells and left side sections rear of front wheel (L1, L2 and L3), plus shear panels in front and rear left side wheel wells, and all four corners of passenger door frame (see Figure 3) need reinforcement. Call factory service representative 408-289-3665 regarding warranty reimbursement before proceeding with the work.				
INSPECTION				
A thorough inspection of each coach is essential before proceeding with the work to determine if all parts and equipment are in stock and to determine extent of frame reinforcement required.				
 Release lower edge of fiberglass side panels on left and right sides of coach (see Figure 5). 				
 Cut away foam insulation just enough to inspect all rivets on body sections and shear panels (Figure 1A). 				



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SUBJECT

Inspect all body section to frame mounts and door for missing rivets, possible movement or disfiguration of rivets (Figure 2) or movement of body section or door frame away from lower frame (Figures 1 and 3).

Frame Reinforcement Instructions

2

- 4. Inspect shear panels for missing rivets, possible movement or disfiguration of rivets (Figure 2) or movement of shear panel away from upper body sections. Note: If rivets show signs of movement, add two new rivets between each pair of existing rivets as shown in Figure 2.
- 5. If all upper body section to lower frame rivets are in place and shows no signs of deterioration, no reinforcement is necessary except at the right and left body sections (L4 and R4, Figure 3) forward of the rear wheels. New frame reinforcing angles will be added at these points regardless of the condition of the existing section and rivets.

ACCOMPLISHMENT INSTRUCTIONS

- A. Hull Section to Frame Angles (Figure 3, positions L4, R4, R2 and R3)
 - 1. Make certain coach is level at all four jacking points.

 Jack up body until distance from horizontal strut (just forward of right rear wheel) to bottom of frame is 39 to 39 1/4" as shown in Figure 4.
 - 2. Realign rivet holes as close as possible.
 - 3. Close gap between upper body section and lower frame with C clamp.
 - 4. Cut out shear panel only as necessary to install reinforcing angles.
 - 5. Grind or file off existing rivet heads to make angles flush with shear panel.
 - 6. Apply zinc chromate primer to reinforcing angles in all areas that come in contact with aluminum.
 - 7. Place reinforcing angles (5109097-01) against the body section and flush with lower frame. Secure with C clamps.

MODEL (S) AFFECTED

All Motor Homes 00001 to 01050 Model 2900R

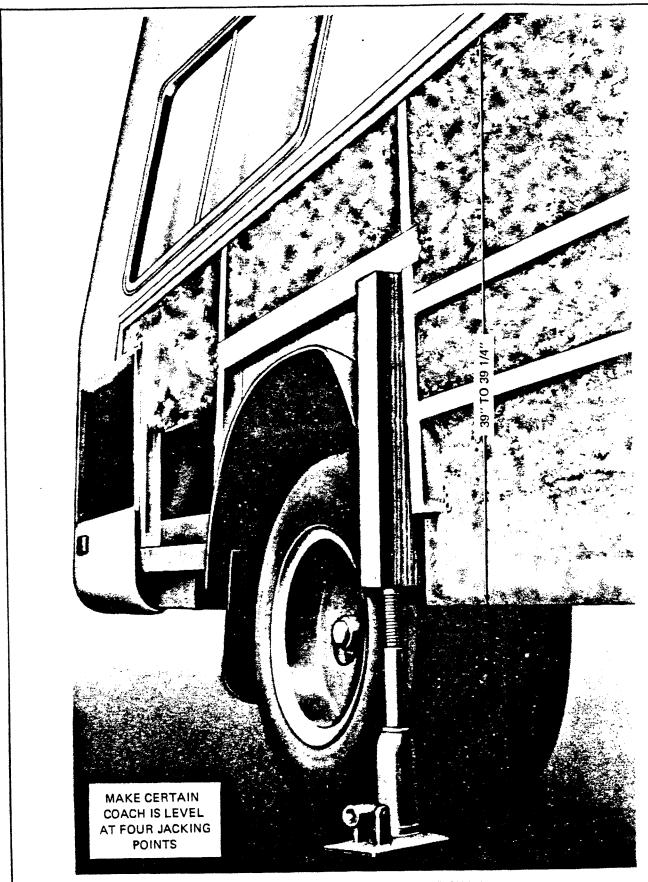


FIGURE 4. BODY TO FRAME DIMENSION.

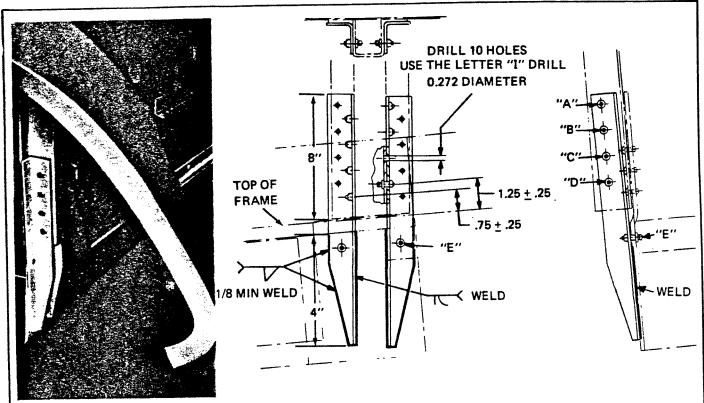
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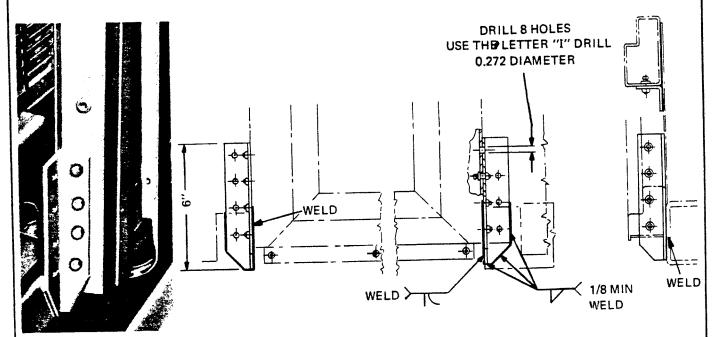
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ATTENT	2			
8.	Drill two holes through each angle, one into body section and one onto the lower frame at points "D" and "E" in Figure 5. Use an "I" size drill.	SUBJECT		
9.	Install one fastener (5109247-04, colored red) through body section and lower hole of angle ("D" in Figure 5) to secure each angle. Use special "Huck" gun on fastener.	Frame Reinforcement Instructions		
10.	Install one fastener (5109247-05, colored yellow) through frame and lower hole of angle ("E" in Figure 5) to secure angle at position L4 only (see Figure 3).			
11.	Install one fastener (5109247-05, colored yellow) through frame and lower hole of angle ("E" in figure 5) to secure angle at position R4 only (see Figure 3). Use special "Huck" gun on fastener.	MODEL (S) AFFECTED		
12.	Drill three holes through each angle into body sections for positions "A", "B" and "C" in Figure 5. Use an "I" size drill.	All Motor Homes 00001 to 01050 Model 2900R		
13.	Install fasteners (5109247-04, colored red) through body section to secure each angle. Use special "Huck" gun on fastener.			
14.	Remove paint and scale in areas to be welded. Degrease using small disc sander or wire brush prior to welding.			
15.	Weld angle to lower frame as indicated in Figure 5. A metal to metal fit is desirable. If gap exists, make two welding passes.			
B. Hu	11 Section to Frame (Figure 3, positions L1, L2, L3, L5, L7 and R1, R5, R6 and R7)			
1.	Drill out old rivets and replace with "Huck" fasteners per table listed below:			
	<u>Position</u> <u>Fastener</u>			
	L1, L2, L3, L5, L6, L7 5109247-05, colored yellow			
	R1, R5, R6, R7 5109247-07, colored brown			
2.	Realign rivet holes as close as possible.			
3.	Close gap between body section and lower frame with C clam	₽•		



JOINT REINFORCEMENT -- POSITION L4-R4 ONLY (FIGURE 3)



PASSENGER DOOR REINFORCEMENT - POSITION R2 AND R3 ONLY (FIGURE 3)

FIGURE 5. REINFORCING ANGLES.

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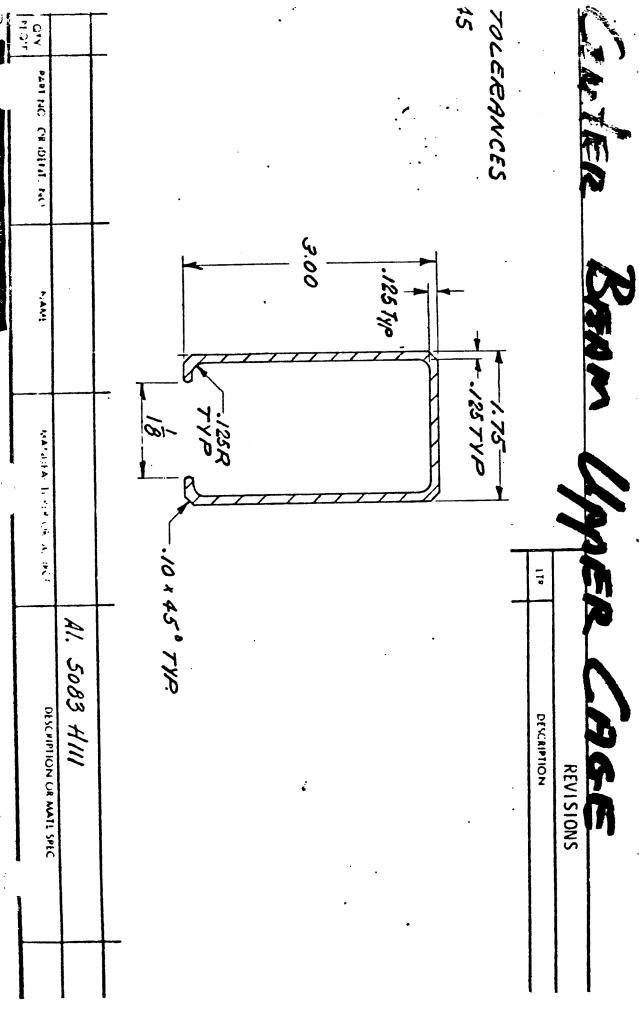
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	4. Use an "I" size drill to drill out rivet heads.	PLID IFOT	
	5. Install fasteners per table above.	SUBJECT	
_	Passenger Door Frame	Frame Reinforcement	
		Instructions	
	1. Realign rivet holes as close as possible.		
	 Replace damaged or missing cherry rivets, bottom edge of door frame, with new rivets (M25032). 		
	3. Apply zinc chromate primer to reinforcing angles in all areas that come in contact with aluminum.		
	4. Place angle (Modify 5109097-01, per Figure 5) flush against door frame and secure with "C" clamps.	MODEL (S) AFFECTED	
	5. Drill four holes into door frame. Use an "I" drill.	All Motor Homes	
	 Install four fasteners (5109247-04), colored red) through door frame to secure each angle. Use special "Huck" gun on fastener. 	Model 2900R	
	 Remove paint and scale in areas to be welded. Degrease using small disc sander or wire brush prior to welding. 		
	8. Weld angle to lower frame as indicated in Figure 5. A metal to metal fit is desirable. If gap exists, make two welding passes.		
D.	Passenger Door Frame Cracks		
	Some coaches have developed hairline cracks in two or possible four corners of the aluminum door frame (Figure 1F). These cracks can be repaired by aluminum welding.		



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OTES TOLERANCES PER FED. STD. 245 O.I TYP O.I TYP 1 R MAX TYP 134 PART NO. OR IDENT. NO. ITEM NO. QTY REQ'D NAME UNLESS OTHERWISE SPECIFIED TITLE DIMENSIONS ARE IN INCHES TOLERANCES ON ANGLES DECIMALS ENGINEER .XX±

FRACTIONS

CKG MFG

MANUFACTURER C

SHAPE