



ENREGISTRÉ-REGISTERED ISO 9001 & ISO 14001





PREVOST

DATE : January 2003		SECTION :	18 - Body		
EXPIRATION:	January 200	04			
SUBJECT : FRONT SUBFRAME INSPECTION AND					
INSTALLATION OF REINFORCEMENT PARTS					

Wb02-10

APPLICATION

Model	VIN	
H3-41, H3-45 Coaches Model Year : 1994 – 2003	From 2P9H33	495 <u>R</u> 100 <u>1012</u> up to 2PCH33416 <u>3</u> 101 <u>4492</u> incl.
VIP H3-45 Model Year : 1995 - 2003	From 2P9V33	494 <u>S</u> 100 <u>1057</u> up to 2PCV33494 <u>3</u> 101 <u>4497</u> incl.

DESCRIPTION

It has come to the attention of Prévost Car Inc. that on the above-mentioned vehicles equipped with a rigid front suspension, the front subframe may develop fatigue cracks. This could over a long period of time increase swaying of the vehicle. Reinforcement parts must be installed and cracks repaired if necessary in order to strengthen the front subframe.

MATERIAL

Part No.	Description	Qty
172744	Reinforcement part, L.H. side	1
172746	Reinforcement part, R.H. side	1
141409	"J" Hook	4
500868	Nut, Hex Nylon Insert M8-1.25	4

Note : Material can be obtained through regular channels.

PROCEDURE

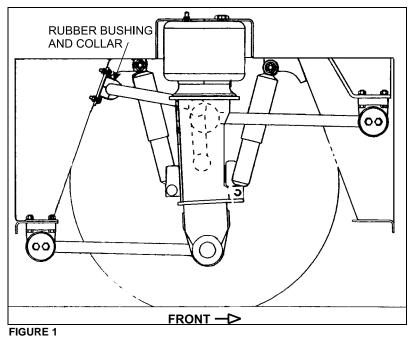
Warning : Park vehicle safely, apply parking brake, stop engine and set battery master switch(es) to the OFF position prior to working on the vehicle. Prior to working under an air-suspended vehicle, it is strongly recommended to securely support the body at the recommended jacking points.

1st PART

INSPECTION

Warning: Ensure to safely support the vehicle by its jacking points during repair. Only the recommended jacking points must be used as outlined in Section 18 of Maintenance Manual : "Body" under heading "Vehicle jacking points" or in Operator's Manual.

- 1. Disconnect connecting rod from height control valve rubber bushing then move valve lever upwards to raise suspension.
- 2. Unfasten the bolts and nuts securing the sway bar four rubber bushing collars (refer to fig. 1).
- 3. Partially unfasten the two links rubber bushing nuts then move the sway bar upwards. Temporarily secure sway bar using a locking tie.
- 4. Remove the secondary air tank fixing clamps and if applicable, the kneeling air tank and emergency/parking brake overrule air tank clamps. Leaving the tank hoses connected, rest the tank(s) onto the axle.



- 5. Remove asphalt base undercoating (Gravel Guard 3M) and any rust present near the risk or affected area, the risk areas are located near the sway bar four rubber bushing collars (refer to figures 2 and 3).
- Check if front subframe is cracked, check if cracks are superficial by grinding the affected area to make the cracks disappear. If cracks are only superficial, chip off or grind to bare metal then weld crack referring to paragraph: Steel – Steel Welding. Weld reinforcement parts referring to figures 2 and 3 welding specifications
- 7. If no cracks are present on front subframe, weld reinforcement parts referring to figures 2 and 3 welding specifications.
- 8. During cold weather, when base metal temperature is below 32 °F (0 °C), base metal must be preheated to at least 50 °F (10 °C) and this temperature must be maintained for the whole welding process. It is therefore preferable to leave the vehicle to repair in a heated area for about half a day or heat subframe until it reaches 50 °F (10 °C) minimum. You can also circulate warm air using a fan.

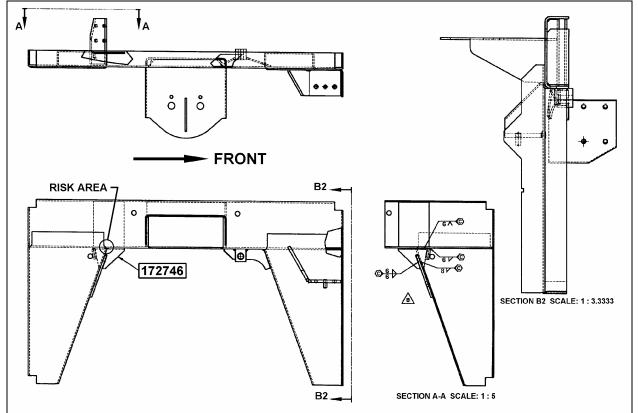
Caution: Do not heat over 150 °F (100 °C).

2nd PART

REINFORCEMENT PARTS INSTALLATION

Note : Welding must be done only by a qualified and experienced person.

- 1. Protective shields must be placed in order to protect components against heat, welding flash, welding arc and other elements associated with welding.
- 2. Always wear the appropriate safety equipment.
- 3. Weld in clean and well-ventilated area, and always have an appropriate fire extinguisher within your reach.
- 4. The following precautions are to be taken to protect the electronic control components :
- Cut off battery power (battery master switch) from battery compartment.
- Disconnect wiring harness connectors from ECM (Electronic Control Module). The ECM is mounted on the starter side of the engine.
- For vehicles equipped with an automatic transmission, disconnect wiring harness connectors from ECU (Electronic Control Unit). The ECU is located in rear electrical compartment.
- For vehicles equipped with ABS (Anti-Lock Brake System), disconnect wiring harness connectors from ABS Electronic Control Unit. The ABS Electronic Control Unit is located in the front service compartment.



• Do not connect welding cables to electronic control components.

- FIGURE 2: INSTALLATION OF REINFORCEMENT PART 172746 ON R.H. SIDE RAIL
- 5. Weld reinforcement parts as per figure 2 and refer to paragraph: **Steel Steel Welding** for welding specifications:

6. Once the welding beads are cold, sand blast or apply some lacquer thinner before applying a coat of primer onto the welding beads and onto both sides of reinforcement parts.

Note : Sand blasting the welding beads and reinforcement parts is preferable.

- 7. Then, apply an asphalt base undercoating (Gravel Guard 3M) onto both sides of reinforcement parts.
- 8. Reconnect components mentioned at step 4.
- Reinstall the air tanks removed for modification and torque the bolts and nuts securing the sway bar four rubber bushings to 70 - 80 lb-ft (95 - 110 Nm). Torque the link assembly upper nuts to 100 – 120 lb-ft (136 – 163 Nm) and the lower nuts to 70 - 80 lb-ft (95 - 110 Nm).

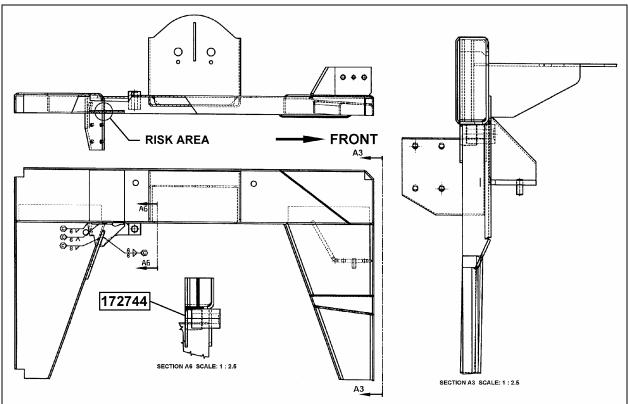


FIGURE 3: INSTALLATION OF REINFORCEMENT PART 172744 ON L. H. SIDE RAIL

STEEL – STEEL WELDING

Caution : Before welding, disconnect electronic modules and battery terminals.

Warning : Welding surfaces must be free of scale, slag, rust, paint, grease, humidity or other foreign material that would render welding impossible.

Warning : Welding must be done only by a qualified and experienced person.

- FCAW (Flux Cored Arc Welding) process ;
- Electrode wire conforms to A5.20 AWS (American Welding Society) specifications ;
- E4801T-9-CH, type electrode wire with 0,045" diameter (1,14 mm) ;

Material Thickness	Voltage	Current	Wire Feed Rate	Shielding Gas
1/8" to ½"	26 ± 2 volts	260 Amps	450 ipm. approx.	75% argon – 25% CO2 or 100% CO2

If necessary and with great care to prevent perforating the material, it is possible to use a conventional electric arc welding machine according to the following specifications :

- SMAW (Shielded Metal-Arc Welding) process ;
- Welding rod conforms to A5.1 of AWS (American Welding Society) specifications ; E 7018 type welding rod with 1/8" diameter (3,2 mm).
- Current: 100 amperes to 150 amperes; optimum at 120 amps.

It is important to grind weld bead starts and stops and also to grind arc strikes from surfaces.

WARRANTY

This modification is covered by Prévost Car's normal warranty. We will reimburse you the parts and two hours (2.0) of labor upon receipt of a completed A.F.A. form on which you must specify as per "Warranty Bulletin 02-10".

Parts / Waste disposal:

Discard waste according to applicable environmental regulations (Municipal/State[Prov.]/ Federal)