

SUMMER INTERNSHIP REPORT

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M-15 : PROJECT REPORT ON BODY STRUCTURE REPAIR PROCESS USED IN CONVENTIONAL ELECTRIC LOCOMOTIVE



SUBMITTED BY:-

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INTRODUCTION

This project report outlines the assembly process of a MEMU (Mainline Electric Multiple Unit) Motor Coach, an important component of electric train transportation. The MEMU Motor Coach is designed to operate on mainline tracks with an electric traction system. It typically consists of motorized and non-motorized coaches that run in a multiple-unit formation.

MISCELLANEOUS SECTION

1.EMERGENCY WINDOW TO CHECK & REPAIR:-

An emergency exit is an exit that is used to provide a safe means of escape from a structure or area in the event of an emergency, such as a fire. The exit must be in an easily accessible, unobstructed, and permanent location. AC coaches also has to be provided with four Emergency windows two on either side of the coach, generally the third bay from both ends are provided with this facility. Any identified issues or damage should be addressed promptly by qualified technicians or maintenance personnel. Replace damaged components or windows

with genuine parts provided by the original equipment manufacturer (OEM).



FIG:-1

2.ALARM CHAIN POLLING SYSTEM (ACP) & REPAIR:-

When the alarm chain is pulled, the valve in the brake air pipe of the coach opens and the air is released. It causes the train to slow down. The air pressure of the brake of the train starts decreasing, and the loco pilot sees it on the pressure meter in front of him. Passengers feel more

confident and reassured knowing that the safety systems on the train are regularly checked and maintained.



FIG:-2

3.FOOT STEPS TO CHECK & REPAIR:-

Footstep check and repair in a train motor coach involves inspecting and maintaining the footstep assembly, which provides a safe platform for passengers to board and alight from the train. It's crucial to ensure that the footstep is in good condition to prevent accidents and

provide a comfortable experience for passengers. you find any cracked, broken, or severely damaged steps or brackets, replace them with new ones. Make sure to use genuine parts recommended by the train manufacturer.



Fig:-3

4.CORROSION REPAIR:-

Places:-Trough floor, Roof, Side body back

Repairing corrosion on a motor coach typically involves removing the affected area. Then repair first step are

- (a) Mark corrated area

- (b) Cutting of mark area
- (c) Welding of patch
- (d) Surface finishing by grinder



Fig:-4

5.CATTLE GUARD:-

It is use for protecting rail during cattle run over. All electric and diesel locomotives are provided with cattle guard for protecting locomotives from the cattle hits. Hence, the quantum of financial loss i.e. amount spent on related damage/repair of such incidents is nominal. Trains can cause significant harm to animals and

significant damage to the train if they collide, so it's crucial to keep animals away from the tracks. Cattle guards serve as a barrier between the tracks and the surrounding areas, dissuading animals from crossing onto the tracks. The typical shape is a blunt wedge with a shallow V-shape in plan.



Fig:-5

6.HANDRAIL WITH GRAB HANDLE:-

In a motor coach or motorized train, handrails play a crucial role in providing safety and stability for passengers during their journey. Handrails are typically

installed inside the train carriages to help passengers maintain their balance and prevent falls or accidents while the train is in motion. In case of sudden stops or other emergency situations, passengers can quickly grab onto handrails to prevent injuries and maintain their positions within the train.



Fig-6

7.BIRD GUARD:-

It is fitted in front of look out glass to protect it from birds.