

## Department of Mechanical Engineering

(NBA Accredited Programme)

**Has Organised Visit to**  
**For Third Year Diploma Students**

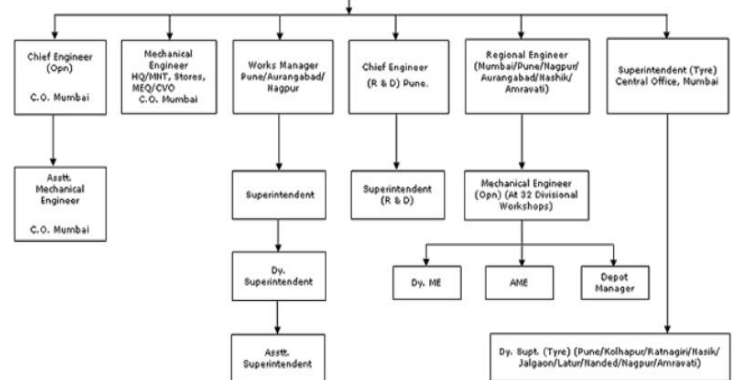
## MSRTC Divisional Workshop



**MSRTC**

### ORGANIZATION CHART - MECHANICAL DEPARTMENT

\*Source: MSRTC Official Website



**Monday, 17 February 2025 (10.00 am Onwards)**

### Objectives of Visit

- To study the organization structure of MSRTC Divisional workshop.
- To observe, identify and understand the various automobile systems.
- To observe and understand the maintenance practices used in MSRTC Divisional Workshop.
- To observe and study the Hydrometer testing, cell testing of Battery and alternator tests.

**MSRTC Divisional Workshop Nashik** is divided into many subsections in order to maintain the quality & repair work of the different parts of bus correctly. The area of w/s is much bigger, that it can handle 20 buses at a time.

### Coordinators:

Mr. S A Khan, Mr. A P Vadnere, Mr. U S Kolhe, Mr. S B Tamhane

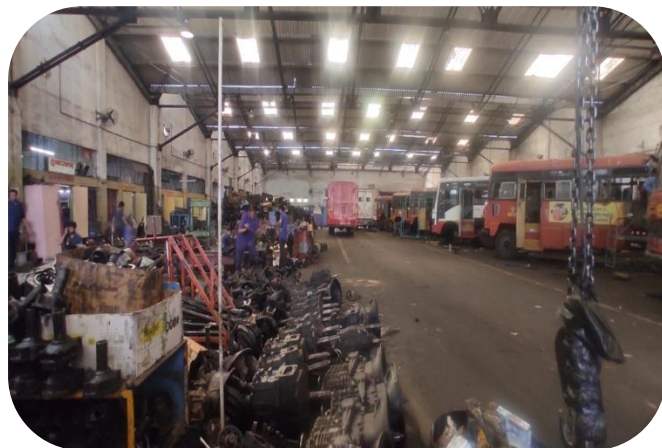
## Department of Mechanical Engineering

### Glimpses of Stud Visit at “MSRTC Divisional WS”

#### For Third Year Diploma Students of Mechanical Engineering

##### Objectives of Visit:

1. To familiarize students with the maintenance and repair practices of MSRTC buses.
2. To understand the organizational structure and workflow of a divisional workshop.
3. To observe the application of mechanical engineering principles in real-world scenarios.
4. To develop skills in observation, analysis, and problem-solving.



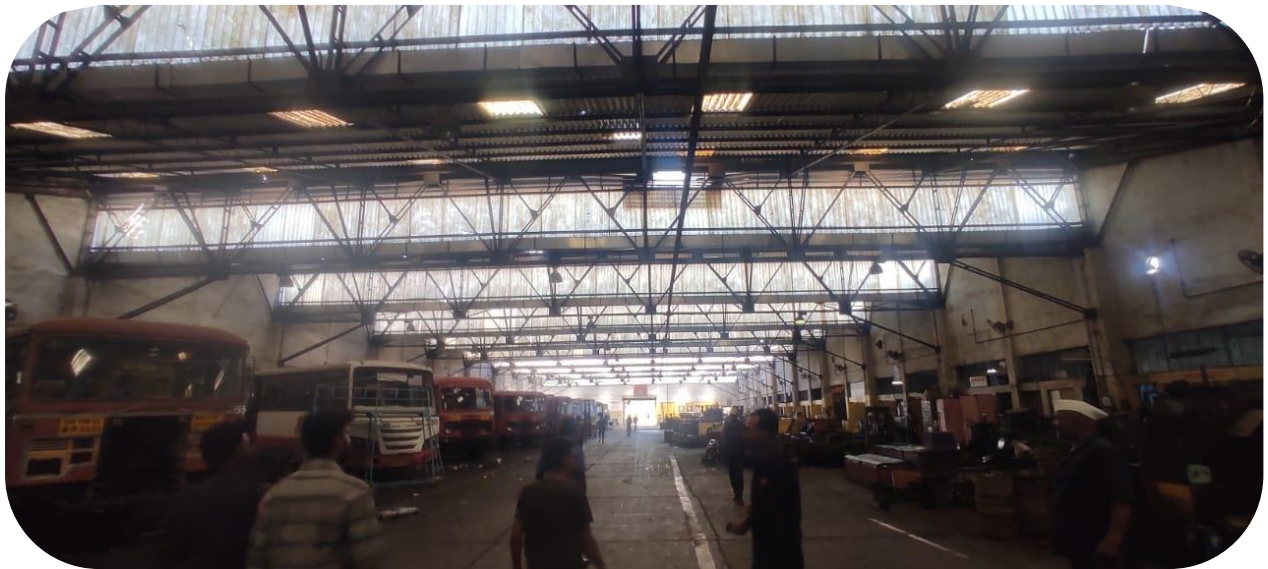
##### Summarized Technical Report:

The third-year diploma students of Mechanical Engineering visited the MSRTC Divisional Workshop, Nashik on 17th February 2025. The workshop is responsible for the maintenance and repair of MSRTC buses operating in the Nashik division. During the visit, students observed the various sections of the workshop, including the engine overhaul section, transmission section, brake section, FIP, PEM, Suspension, Electrical, Upholstery and body shop. They also saw the use of specialized service tools and equipment. The students interacted with the workshop staff and supervisors, who explained the maintenance schedules, repair procedures, and quality control measures in place. The students also learned about the importance of safety protocols and housekeeping practices in a workshop environment.

## **Key Takeaways:**

### **1. Maintenance practices:**

Students learned about the regular maintenance schedules and procedures followed by MSRTC to ensure the reliability and safety of their buses.



### **2. Repair procedures:**

Students observed the repair procedures for various bus components, including engines, transmissions, and brakes.

### **3. Specialized tools and equipment:**

Students saw the use of specialized tools and equipment in the workshop, such as engine testing machines.

### **4. Importance of safety protocols:**

Students learned about the importance of safety protocols and housekeeping practices in a workshop environment.





## **Maintenance and Repair Sections in MSRTC WS:**

### **1. Engine Overhaul Section:**

1. Engine testing and repair
2. Engine overhaul and rebuilding

### **2. Transmission Section:**

1. Transmission repair and overhaul
2. Gearbox and differential repair

### **3. Brake Section:**

1. Brake system repair and overhaul
2. Brake pad and lining replacement

### **4. Body Shop:**

1. Bus body repair and maintenance
2. Welding and fabrication



## 5. Paint Shop:

1. Bus body painting and refinishing
2. Touch-up and minor repairs

## Testing and Inspection:

1. Testing and Inspection Bay:
  1. Bus inspection and testing
  2. Emission testing and certification



## **Store and Inventory:**

### **1. Spare Parts Store:**

1. Storage of spare parts and components
2. Inventory management



### **2. Tool Room:**

1. Storage of specialized tools and equipment
2. Tool maintenance and repair





### **Conclusions:**

The industry visit to the MSRTC Divisional Workshop, Nashik was a valuable learning experience for the third-year diploma students of Mechanical Engineering. The visit provided students with hands-on experience and exposure to real-world applications of mechanical engineering principles. The visit also highlighted the importance of maintenance practices, repair procedures, and safety protocols in a workshop environment.

### **Coordinators:**

Mr. S A Khan, Mr. A P Vадnere, Mr. U S Kolhe, Mr. S B Tamhane