



Hope Foundation's
Finolex Academy of Management & Technology,
Ratnagiri
Department of Mechanical Engineering

INDUSTRIAL VISIT TO MSRTC DIVISIONAL WORKSHOP, RATNAGIRI

The Department of Mechanical Engineering organized an Industrial Visit to **MSRTC DIVISIONAL WORKSHOP, RATNAGIRI** on 24th of August 2019 for B.E Mechanical Engineering students for the Elective Subject Automobile Engineering.

The visit was very informative and also gave good learning experience as well as industrial exposure to students. The students observed various aspects of vehicle systems along with different processes. 66 students of BE Mechanical along with 2 faculty members visited the MSRTC workshop. The visit was successfully planned and coordinated by **Prof. Tushar Kavatkar & Prof. Vikram Nagle, Assistant Professors**, Mechanical Engineering Department.

The visit was organized with the support and guidance of **Dr. Kaushal Prasad, Principal FAMS** and **Dr. Milind Yadav Head, Mechanical Engineering Department**. All Students of BE Mechanical (Automobile Elective) took the initiative under the guidance of **Prof. Tushar V. Kavatkar** for a successful visit.



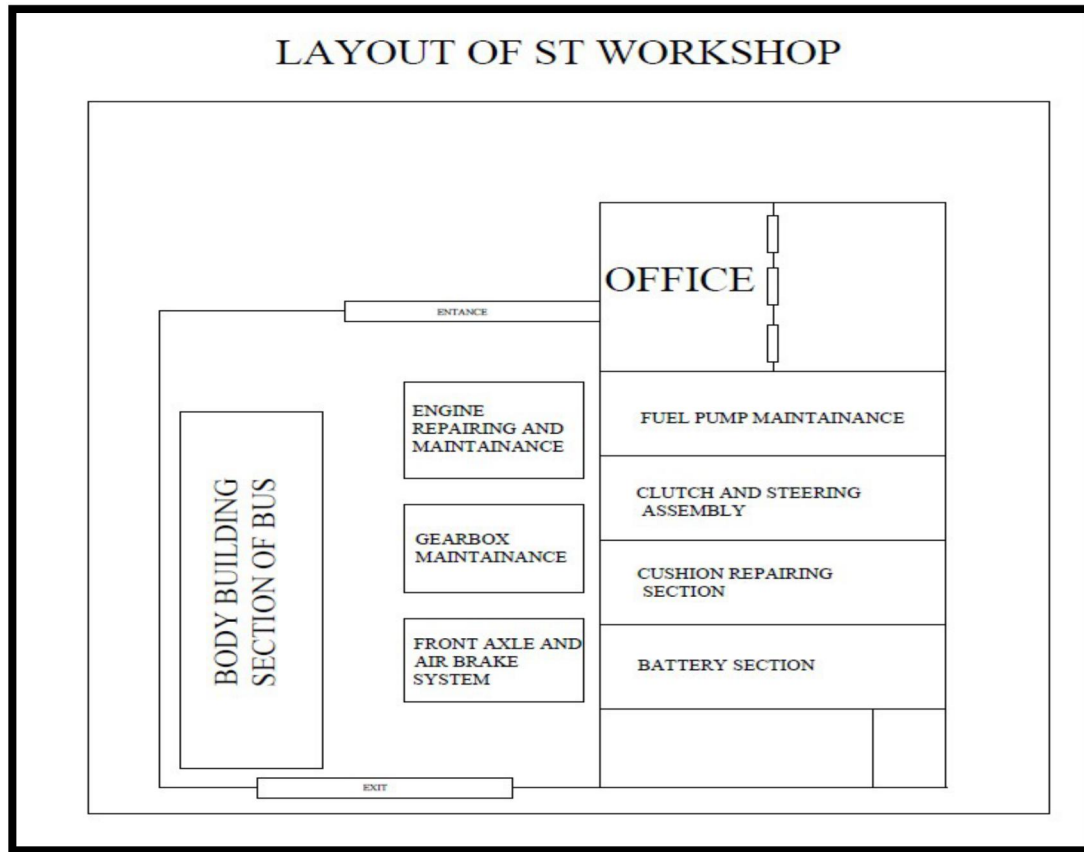


Prof. Tushar Kavatkar & Prof. Vikram Nagle along with Students at MSRTC Workshop during visit

Company Profile:

Maharashtra State Road Transport Corporation was established by State Government of Maharashtra as per the provision in Section 3 of RTC Act 1950. M.S.R.T.C is operating its services by the approved scheme of road transport published vide Notification MVA 3173/30303-XIIA dated 29.11.1973 in the official gazette. The area covered by the scheme is entire area of the State of Maharashtra. In 1950, a Road Transport Corporation Act was passed by the Central Government and it delegated powers to states to form their individual road transport corporations with the Central Government contributing one-third of the capital. The Bombay State Road Transport Corporation (BSRTC) thus came into being, later changing its name to MSRTC with the re-organization of the state. MSRTC has four tier organizational setup like Central Office at Mumbai and six Regional offices at Mumbai, Pune, Nashik, Aurangabad, Amravati, and Nagpur. 30 Divisional Offices are situated in different districts, and 248 Depots are situated at Tehsil Places. MSRTC workshop carries the maintenance and repairs of busses.

Plant layout:



Overview / Purpose of Visit:

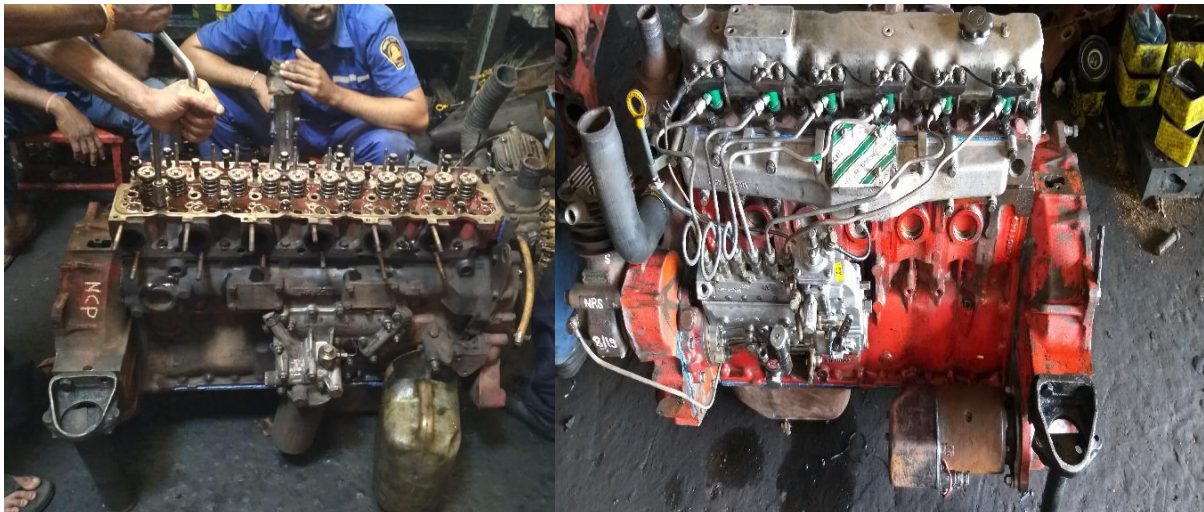
1. To understand the various components of Automobile Chassis and Engine.
2. To understand the working of various systems of Automobiles.
3. To understand the maintenance procedure of different Automobile systems.
4. To understand the function of Battery and it's Testing.

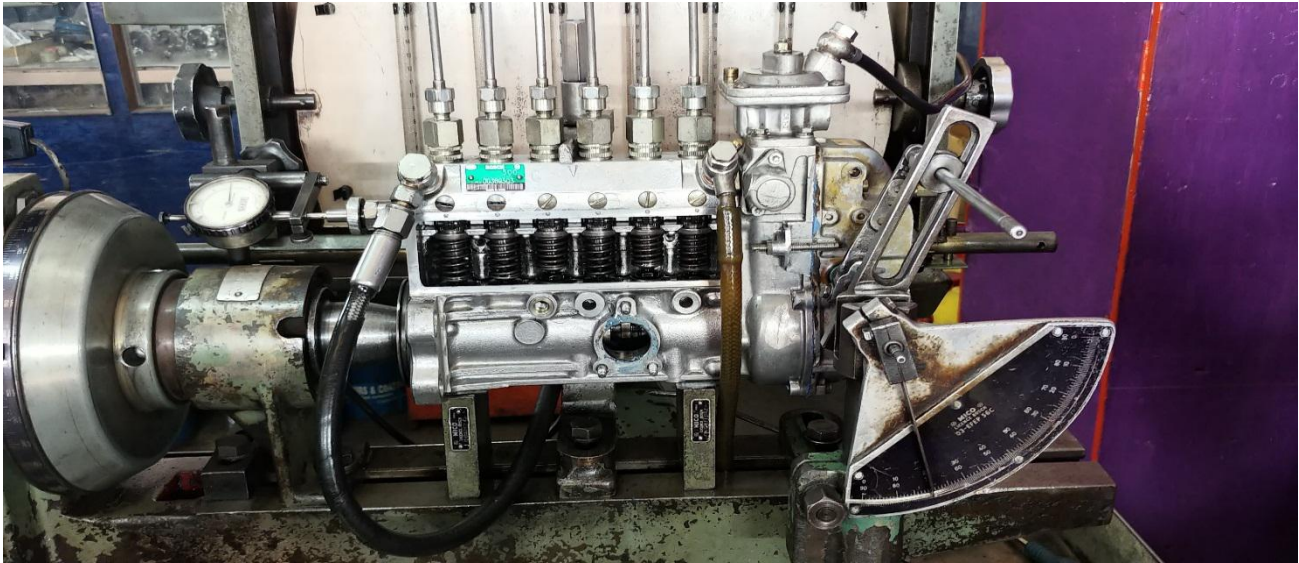
1. Open Chassis section



2. Engine assembly and disassembly section

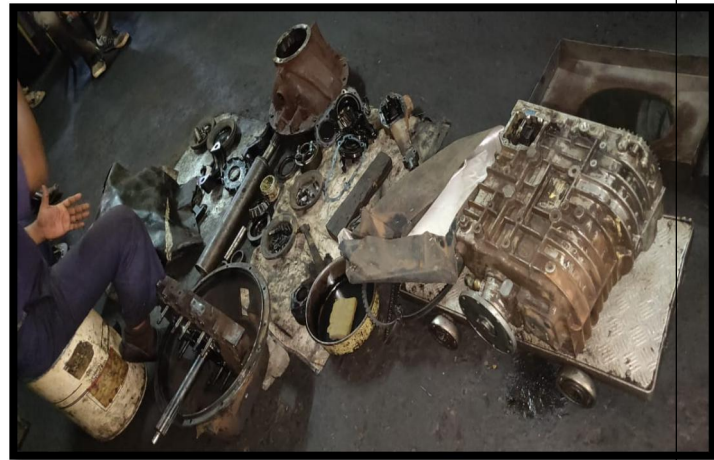
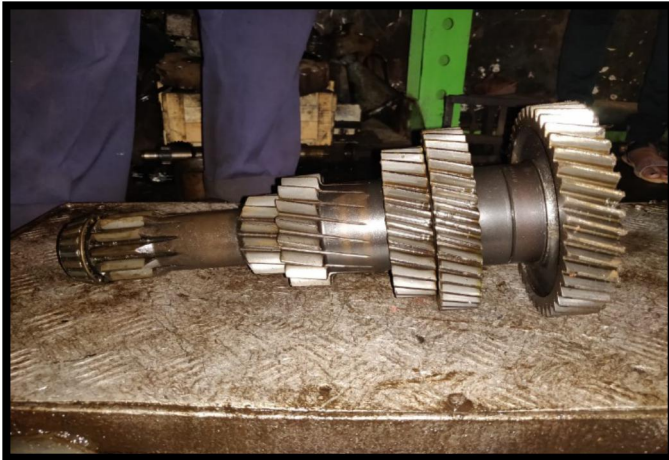
- a. Various components of engine are disassembled.
- b. Function of turbocharger.
- c. Care to be taken for the engine maintenance.
- d. Function of fuel pump.





3. Gear box Maintenance section

- a. Various parts of Synchronesh gear box
- b. Synchronizer ring
- c. Selector mechanism
- d. How the gearbox is dissembled from the vehicle



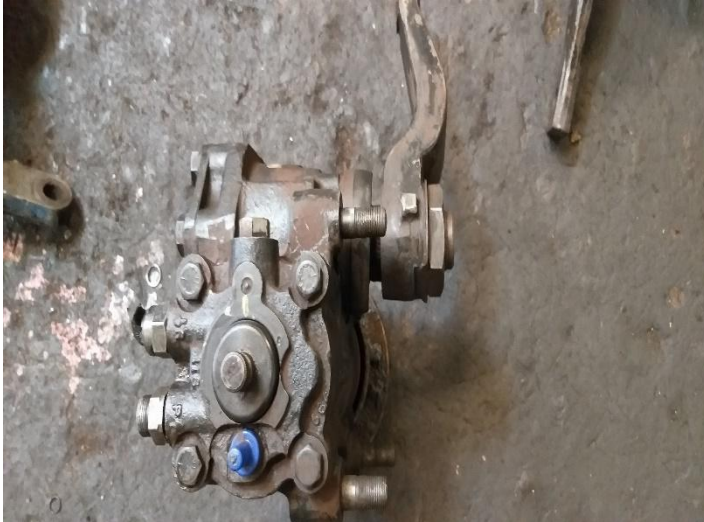
4. Clutch assembly section

- a. Single plate coil spring clutch
- b. Various components of clutch.
- c. Testing of clutch on Fixture.

4. Steering Section



- a. Components of steering linkages.
- b. Components of power steering
- c. Recirculating ball type steering mechanism
- d. Vane pump used for oil supply of power steering with detail components.



5. Front Axle and its Components

- a. Components of Front Axle, I beam Section
- b. Stub Axle and King Pin Angle Inclination



6. Battery

- a. Testing of Battery
- b. Equipment of Testing

- c. Battery charging Process
- d. Distilled water unit



7. Differential unit and its Components



8. Automotive Electrical Systems



9. Automotive Air Braking System

