INDUSTRIAL VISIT TO MSRTC DIVISIONAL WORKSHOP, RATNAGIRI

The department of Mechanical Engineering organized an Industrial Visit to "**MSRTC DIVISIONAL WORKSHOP, RATNAGIRI**" on 12th April, 2019 for B.E Mechanical Engineering students for the Elective Subject Automobile Engineering.

The visit was organized with the support and guidance from **Dr. Kaushal Prasad, Principal FAMT** and **Dr. Milind Yadav Head, Mechanical Engineering Department**. The entire visit was successfully planned and coordinated by **Mr. Tushar Kavatkar & Mr. Vikram Nagle, Assistant Professors**, Mechanical Engineering Department. Total 68 students of BE Mechanical along with 02 faculty members visited the MSRTC workshop.

All students of BE Mechanical (Automobile Elective) strived hard & took the initiative under the continuous guidance of **Prof. Tushar V. Kavatkar** to make the visit successful. Various aspects of vehicle systems along with different processes carried were observed. The visit was very informative and gave a good learning experience as well as industrial exposure to students.

Mr. Tushar Kavatkar & Mr. Vikram Nagle along with Students at MSRTC Workshop

Company Profile:

Maharashtra State Road Transport Corporation was established by the 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, six Regional offices at Mumbai, Pune, Nashik, Aurangabad, Amravati, Nagpur, 30 divisional offices situated different districts, and 248 depots are situated almost at Tehsil Places. MSRTC workshop involves in the maintenance of buses. All types of repairs are carried out.

## Plant layout:

LAYOUT OF ST WORKSHOP
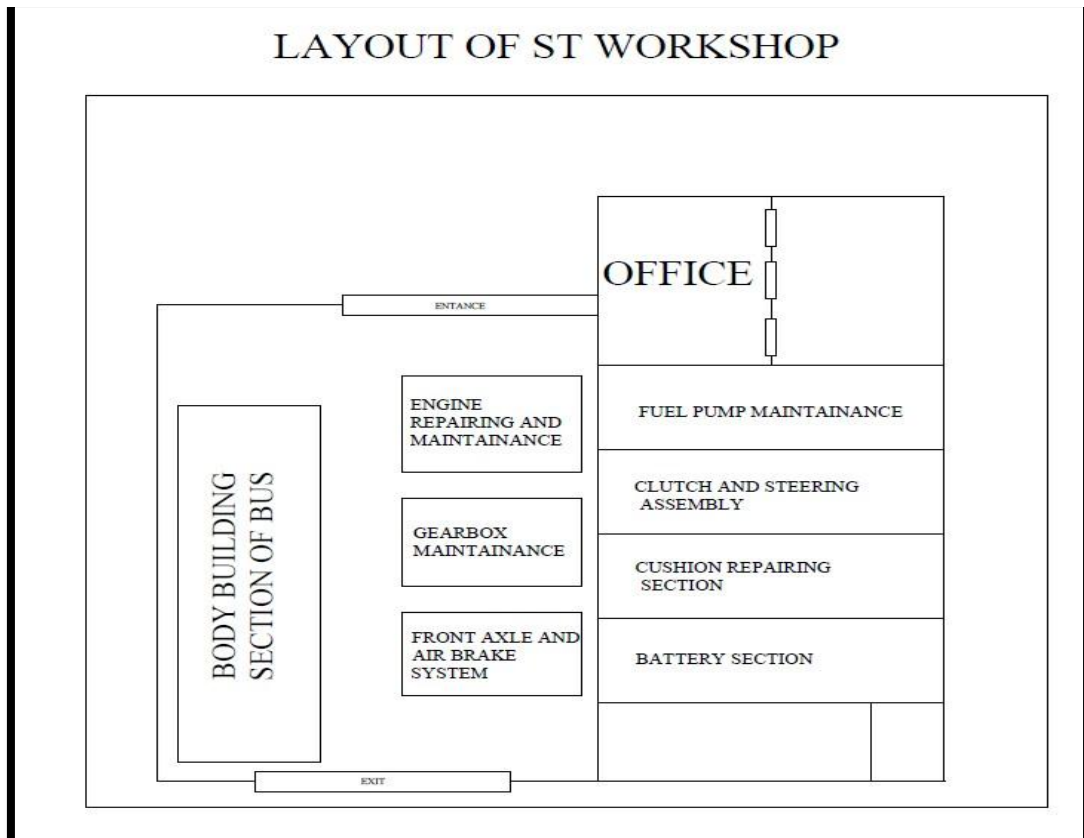
Overview / Purpose of Visit:

1. To understand various components of automobile chassis and engine
2. To understand tworking of various systems of automobiles
3. To understand maintenance procedure of different automobile systems
4. To understand function of battery and its testing

1. Engine Assembly and DisassemblySection
   a. Various components of engine are disassembled and observed
   b. Function of turbocharger
   c. Care to be taken for the engine maintenance
   d. Function of fuel pump
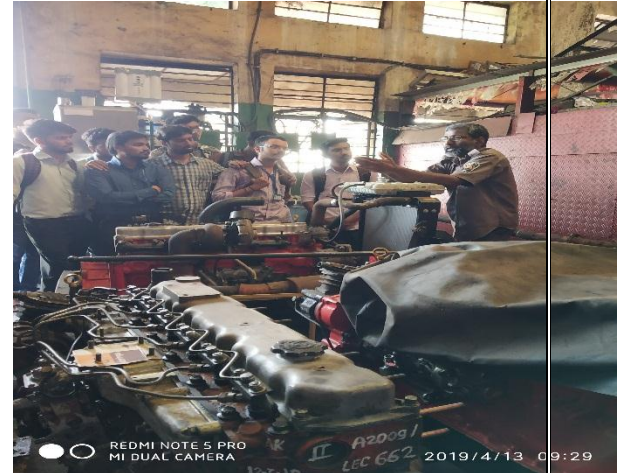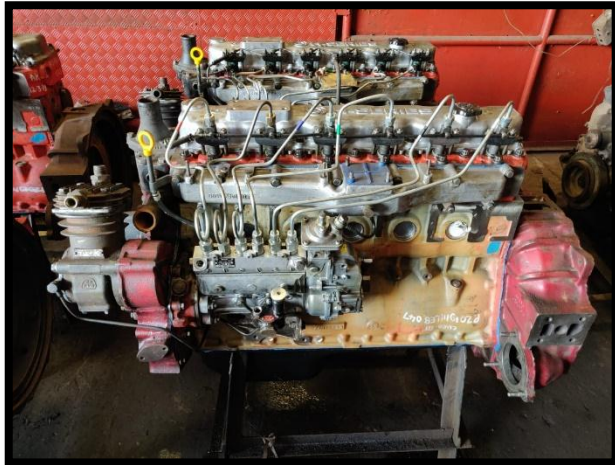
2. Gear box Maintenance section

    a. Various parts of Synchromesh gear box were separately observed.

    b. Synchronizer ring is observed**.**

    c. Selector mechanism is observed.

    d. How the gearbox is dissembled from the vehicle is observed.
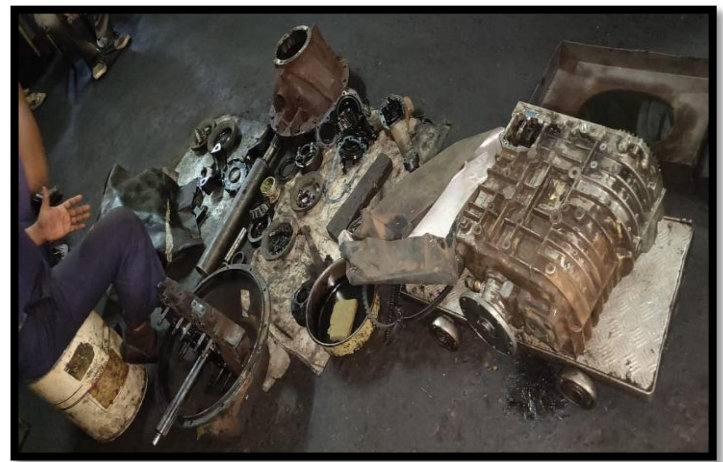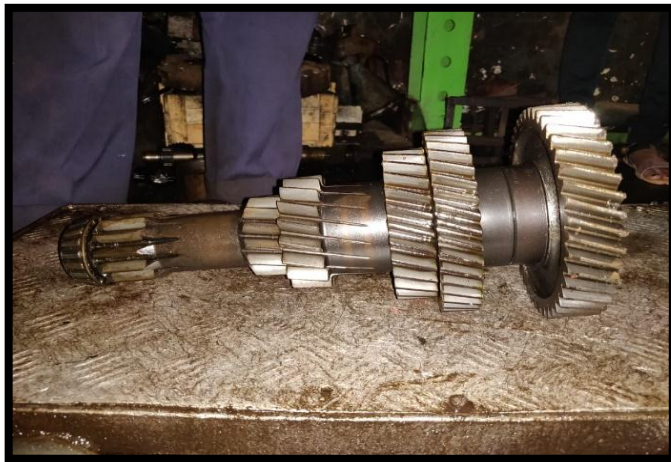
3. C

lutch Assembly Section:

    a. In this   section single plate
coil   spring clutch was
observed.

    b. Various   components of clutch

    c. Testing   of clutch on fixture.

4. Steering Section:
a. In this section various components of steering linkages were observed.
b. The components of power steering were observed.
c. Recirculating ball type steering mechanism is observed.
d. Vane pump used for oil supply of power steering is observed with detail components.

5. Front Axle and its Components :
a. Observed the 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: