



VISHWAKARMA GOVERNMENT ENGINEERING COLLEGE, CHANDKHEDA

Brief Report on Industrial Visit to ST Workshop Naroda, Ahmedabad

Name of Department/Organizer	:	Mechanical Engineering Department
Date & Time	:	26/8/2019
Venue	:	ST Workshop, Naroda, Ahmedabad
No of Participants	:	52 Students+ 2 Faculty

- **Objective of the Event**

5th semester students of **Mechanical Engineering Department** of Vishwakarma Government Engineering College Chandkheda visited ST workshop at naroda, situated in Ahmedabad district, Gujarat. The visit was organized for one days on **26/08/2019**. **Total 52 students** took benefit of this industrial visit. These students were accompanied by following faculty members.

- **Prof. JAY PARAMAR**
- **Prof. MANISH PARMAR**

- **About ST workshop**

In ST workshop, all the parts are assembled on the chasis, chasis was mported from outside. There all the parts are assembled and made for Gujarat ST service. It is one of the biggest workshop were a ST bus is manufactured. It is spread in acres of land.

- **About Visit**

The technical visit to ST workshop started at 26th August at 9:30 am from Vishwakarma Government Engineering College. Transportation was managed by the students. 2 faculty members were also present. The atmosphere of the workshop was very good. All the students enjoyed the visit. They got good knowledge about the fabrication of the bus and all other parts. They got to know the reality of automobile industry like how it runs and how is the industrial life of the engineer.

- **Diesel pump test rig**

The function of diesel pump test rig is that it shows that at how much speed how much amount of diesel fuel is used. There were 6 to 8 cylinders in the test rig. Main motor used was dual speed 5 H.P. 3 Phase, 415V, 50 Cycles in VSD & H.P. 3 Phase, 415V, 50 Cycles in BSD. Tachometer used was 0-9999 RPM with accuracy of 1 RPM. Fuel supply used was soundless gear pump. Pressure guage reading capacity was 0-100 lbs/in² and 0-500 lbs/in². Test injectors used were fitted with Calibrating Nozzles set at a standard pressure.



- **Pump assembly**

A rotary fuel injector pump is a positive displacement pump that consists of vanes mounted to a rotor that rotates inside a cavity. In some cases these vanes can have variable length and be tensioned to maintain contact with the walls as the pump rotates. The simplest vane pump has a circular rotor rotating inside a larger circular cavity. The centres of these two circles are offset, causing eccentricity. The external casting was made of cast iron, stainless steel, iron, and steel. Vanes and pushrods are made up of carbon, graphite. End plates are made of carbon graphite. They taught us how to assemble all the parts of the pump. They also taught what to do and what not to do and avoid such things which can damage your pump casing.



- **Tyres**

Here all the tyres were repaired again for reuse. And some tyres which couldn't be used their important parts like the outer grip portion was cutted and used on other tires. A series of process was carried out to repair or make a tyre. Here first there was a chamber the tyres are inspected.

Then if the tyre is useful for further reuse or not is decided. Then after the buffing of tire is done. After this the new grip is applied and is tapped and after that it is moulded so that the tyre is ready for reuse.



- **Model Room**

All the model used in the Gujarat state bus service were kept there. All the different types of engines were kept there. Models of the crankshaft, front axle, rear axle and nozzles were there.



- **Glimpse of the visit:**

The visit was truly professional and well managed till the end. The staff and students thankful to the S.T Workshop Naroda and Vishwakarma Government Engineering College for granting permission for the visit.

