JOB ROLE – AUTOMOTIVE SERVICE TECHNICIAN

Sector: Automotive
(Qualification Pack Code : **ASC/Q01402)**

PSS Central Institute of Vocational Education
Shyamla Hills, Bhopal – 462013, Madhya Pradesh, India

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UNIT 4 : Measuring Equipment's

Session- 4: Instruments on the Dash Board of a Vehicle

Content

Session Objectives

1. The student will be Able to explain importance of instruments used on the dash board of vehicle
2. Able to identify the instruments used on the dash board of the vehicle
3. Able to read instruments used on the dash board of the vehicle

Introduction

A dashboard can be considered as a control panel placed in front of the driver on which he keeps an eye for proper functioning of the vehicle. The dashboard has cluster of instruments and gauges which convey the health of vehicle to the driver. The instrument cluster contains gauges and indicators such as speedometer, tachometer, odometer and fuel gauge, and indicators such as gearshift position, seat belt warning light, parking-brake-engagement warning light and an engine-malfunction light. There may also be indicators for low fuel, low oil pressure, low tire pressure and faults in the airbag (SRS) system. Heating and ventilation controls and vents, lighting controls, audio equipment and automotive navigation systems are also mounted on the dashboard.

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Dash board and instrument panel of a vehicle

Important Components of Dashboard

1. Speedometer,
2. Tachometer,
3. Odometer and
4. Fuel gauge, and
5. Indicators such as gearshift position,
6. Seat belt warning light,
7. Parking-brake-engagement warning light and an
8. Engine-malfunction light.
9. Low fuel, low oil pressure,
10. Low tire pressure and
11. Faults in the airbag (srs) system.
12. Heating and ventilation controls and vents,
13. Lighting controls,

Speedometer

The speedometer tells the driver the speed of a vehicle whether he is driving fast or slow or within specified speed limit. Speed is measured in kilometers per hour. The control of vehicle rests with the driver therefore the speedometer helps the driver to keep the speed in safe limit depending on the situations for his own and passenger's safety.

Speedometer

Tachometer

Tachometer tells how fast engine is turning in revolutions per minute (rpm). Driver should avoid running engine so hard that it surges up into the “danger zone” as indicated on the tachometer. If the driver notice that tachometer is reading abnormally high on accelerating, it indicates problems and it is a time to get the vehicle checked in service station.

Tachometer

Odometer

An odometer is an instrument that indicates distance traveled by a vehicle, such as a bicycle or automobile. The device may be electronic, mechanical, or a combination of the both. The device is helpful to know the distance covered between two destination.

Malfunction Indicator Lamp

A malfunction indicator lamp (MIL), also known as a check engine light, is a tell-tale to indicate malfunction of a computerized engine management system. It is found on the instrument panel of most automobiles. When illuminated, it is typically either an amber or red colour.

Service Engine Soon

MIL-Check Engine

Automotive navigation system

An automotive navigation system is a satellite navigation system designed for use in automobiles. It typically uses a GPS navigation device to acquire position data to locate the user on a road in the unit's map database. Using the road database, the unit can give directions to other locations along roads also in its database. Various companies manufacture this unit and same can be fitted in dashboard of vehicle.

Navigator

Driver Information System (DIS)

Now days most of the vehicles are fitted with DIS System. This system enables driver about various information such as spontaneous fuel consumption, range of travel, available quantity of fuel in terms of kilometer, digital watch with atmospheric temperature.

Summary

- In this session you have learnt about, A dashboard can be considered as a control panel placed in front of the driver on which he keeps an eye for proper functioning of the vehicle.
- The speedometer tells the driver the speed of a vehicle whether he is driving fast or slow or within specified speed limit. Speed is measured in kilometers per hour.
- A malfunction indicator lamp (MIL), also known as a check engine light, is a tell-tale to indicate malfunction of a computerized engine management system.
- The fuel gauge informs abut status of the amount of fuel in the tank of vehicle. If you don't keep an eye on your fuel gauge, you could run out of fuel. at road due to absence of fuel.

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