

## **2/3 WHEELER MECHANIC [ 23WM ]**

### **General Information :**

1. Name of the Trade : 2/3 Wheeler Mechanic
2. Entry Qualification : Passed Class VIII
3. Duration of Training : 06 Months [Under Vocational Short Term Course]

### **Objective of The Course :**

The objective of the course is to impart necessary competencies with the focus on technical competencies like skill and knowledge so that they become employable in the small automobile shop and are able to set up own automobile industry.

At the end of the training the trainees will be able to :

- Identify different parts of a two-wheeler & three wheeler
- Identify tools, equipment in repair jobs.
- Have their idea on two wheeler & three wheeler mechanism and associated common defects.
- Undertake repair jobs independently.
- Asset requirement of cost involvement in a repair job.

### **Course Break-up :**

(a) Practical instruction	:	288 Hours
(b) Theoretical instruction	:	67 Hours
(c) Entrepreneurial Instruction	:	05 Hours
		Total : 360 Hours

### **Marks Alloted :**

(a) Practical	:	400
(b) Theory	:	100

### **Industrial Visit :**

Industrial cum study tour to at least two different types of automobile shop having modern machineries.

**Course Curriculum:**

- (1) General discussion. Different types of scooters & motorcycles.
- (2) Identification of different parts, their functions.
- (3) Shop practice.
- (4) Types of tools, special tools, measuring instruments for repairing work.
- (5) Fitting shop practice: use of file, vice, hammer, chisel, small job on fitting.
- (6) Welding practice : both gas and electric, small job for practice-idea on reventing.
- (7) Idea on power generation in engine; two stroke/ four stroke, single cylinder /multiple cylinder engine-brief description.
- (8) Idea on power transmission system-difference between scooter & motor cycle.
- (9) Repair works on scooter & motor cycle -part by part.
- (10) Engine System: dismantling engine, taking out parts, identifying possible defects, methods of rectification, refitting.
- (11) Fuel System: Taking out fuel tank, filter, cleaning refitting; carburetor-dismantling parts, cleaning, refitting, methods of adjusting fuel-air mixture at idle & low speed, partial & fuel throttling idea on common defects in carburetor, its remedies.
- (12) Transmission System: Taking out clutch (single & multiple), gear box, dismantling parts, checking and identifying defects, adjustment of gear position for different speeds, repair of sprocket system of motor cycle, adjustment of primary & secondary chain.
- (13) Ignition System: Spark plug, cleaning, adjustment of gaps; taking out different parts of ignition system, adjusting C.B. point, adjusting ignition timing, magneto ignition system.
- (14) Break & Wheel :
- (14a), Brakes: Taking out parts of breaking systems identifying defects, refitting, adjusting brake shoe, spring tension, brake-cable, foot pedal, front handle lever.
- (14b) Wheel System: Taking out wheel, dismantling by taking out tyre from wheel & refitting tyre; rectifying tube leakage; knowledge in preparation at tube-tyre specification, inflating tyre, use of foot pump, aligning wheel; idea on tyre pressure on different road condition.
- (15) Electrical System: Front light, rear light, horn: taking out in parts, rectifying defects, refitting, adjustment of horn-practice on electrical connection including ignition system; idea on meters used in two wheeler, their connection, care and maintenance of battery.
- (16) Repair works on other parts by taking out in parts, identifying defects, rectification of defects, refitting viz. kick starter, front wheel & rear wheel, suspension system, shock absorber, steering column; frame,

- mud guard; necessary repair by welding or patch repair by riveting; body painting work by hand or spray gun; cleaning & repair of silencer.
- (17) Fuels & Lubricants: Idea on different grades of fuel & oil suitable for two wheeler, necessity & importance of lubrication-lubrication parts, idea on amount of lubricants necessary, making lubrication schedule.
  - (18) Complete overhauling practice on motor cycle & scooter.
  - (19) Practice on tracing trouble both in shop and on road.
  - (20) Idea on preventive maintenance schedule; idea on air pollution by exhaust gas preventive measure (Video aided discussion preferable)
  - (21) Discussion on M.V. Acts-knowledge on signals in driving; road signals, traffic rules, accident, duties in, case of accidents.

### ENTREPRENEURIAL INSTRUCTION

SL No.	Course Curriculum	Hours
1.	Brief idea on nature of small business management and Industrial Technical skill.	
2.	Preparation of schemes and vetting to Financial Institutions/ Lead Bank for obtaining loans.	
3.	Rules for setting up of business / production Unit.	
4.	Maintenance of Accounts; Labour Capital etc.	
5.	Man Management, Communication, Motivation.	
6.	Operational Management.	
7.	Market Survey.	
8.	Quality Control.	
9.	Visit to Industrial units for gathering idea to start the unit.	
10.	Choice of technology as per demand of local people of the District / State.	
11.	Knowledge of Sales Tax etc.	
12.	Brief idea for Registration of SSI, Trade License, Project Report, Proposal for loans etc.	
		<b>Total 05</b>