

# **FOUR WHEEL AUTO REPAIRING**

## **1. INTRODUCTION:**

The four wheelers like cars, buses, LCVs and HCVs, jeeps, Tractors, Earthmovers etc. require repairs of engine gear boxes, axles etc. for safety and durability of these vehicles.

Automobile Repair Station is a very common activity in urban and semi urban areas. It is the most essential need for all vehicle users. Such a service station can be established by entrepreneurs with experience or qualified persons, with low investment.

## **2. PRODUCT & ITS APPLICATION:**

The four wheel automobiles require several types of repairs viz minor as well as major repairs of Engine, gear boxes and axle/ propeller shafts, chassis etc. Depending on the damage, the repair consists of welding, machining, alignment and fitment. Some components may also be replaced.

This is service oriented business hence the basic parameter is the quality, reliability and cost of services rendered by the unit. Various types of vehicles require experienced manpower to instill confidence amongst customer bases.

## **3. DESIRED QUALIFICATIONS FOR PROMOTER:**

Preferably Degree or diploma in automobile engineering or diesel engines and with the experience in vehicle repairing and training in the same field.

## **4. INDUSTRY OUTLOOK/TREND**

The total number of registered motor vehicles in India was 210 million as on 31.03. 2015. Most of the vehicle population is in 7 states viz. Maharashtra, Tamil Nadu,

Uttar Pradesh, Gujarat, Karnataka, Rajasthan and Madhya Pradesh, having more than 10 million registered motor vehicles as on 31.03. 2015.

With growing population of Vehicles the auto servicing business in India is expected to grow exponentially in the near future. In terms of revenue, car servicing industry is estimated to be over 20,000 cr annually and slated to be at 33000 cr. By 2020.

The car servicing market can be classified into 3 categories - organized single brand segment-run by authorized car dealership network catering to a particular brand, organized multi-brand workshops that deal with multiple brands and a vast network of unorganized multi brand (local garages). The market is dominated by authorized workshops and SME independent small garages mostly for post warranty vehicle service market.

## **5. MARKET POTENTIAL AND MARKETING ISSUES. IF ANY:**

There is good demand for automobile repairing service business due to huge increase in the number of vehicles in recent years. Many latest auto models are launched by various companies competing in market. The 4-wheels companies also offer franchise for authorized service station that assures business volumes.

With the essential nature of service and repair, the owner of vehicles around a specific location will have increasing demand in the cities/urban areas especially for business persons and salaried persons. Now a day, all owners are maintaining 4-wheel vehicles, as they are essential for personal transport modes for consumers. Hence, there is a good demand for setting up of automobile servicing and repairing units particularly in some important semi urban / rural centers.

## **6. RAW MATERIAL REQUIREMENTS:**

While the services are skill based so there is no material requirements except the consumables viz grease, oil, compressed air, power, water etc. consumables and utilities. However the unit may require vehicle specific spares for repair which are charged to consumers at normal market prices with some profits.

## 7. MANUFACTURING PROCESS:

It is a service oriented unit, so different services like cleaning/ washing/ polishing of vehicles , major and minor repairs of engine, gear box , suspension, silencer, etc. servicing, well as engine overhauling activities are carried out. Certain body and general repairs can also be taken up for 4-wheel vehicles as per needs.

## 8. MANPOWER REQUIREMENT:

The unit can start from 12 employees initially and increase it to 18 or more depending on business volume.

Sr. No	Type of Employees	Monthly Salary	No of Employees				
			Year 1	Year 2	Year 3	Year 4	Year 5
1	Skilled Operators	18000	3	4	5	6	6
2	Semi-Skilled/Helpers	8000	6	8	8	8	8
1	Supervisor/Manager	25000	1	2	2	2	2
2	Accounts/Marketing	16000	1	1	1	1	1
3	Other Staff	8000	1	1	1	1	1
	TOTAL		12	16	17	18	18

## 9. IMPLEMENTATION SCHEDULE:

The unit can be implemented within 4 months from the serious initiation of work. The unit is based on selection of location, renting premises for the garage unit.

Sr. No	Activities	Time Required in Months
1	Acquisition of Premises	-
2	Construction (if Applicable)	-
3	Procurement and Installation of Plant and Machinery	2
4	Arrangement of Finance	2

5	Manpower Recruitment and start up	2
	Total Time Required (Some Activities run concurrently)	4

## 10. COST OF PROJECT:

The unit will require total project cost of Rs 37.22 lakhs as shown below:

Sr. No	Particulars	In Lakhs
1	Land	0.00
2	Building	0.00
3	Plant and Machinery	28.65
4	Fixtures and Electrical Installation	1.95
5	Other Assets/ Preliminary and Preoperative Expenses	1.20
6	Margin for working Capital	5.42
	TOTAL PROJECT COST	37.22

## 11. MEANS OF FINANCE:

The project will require promoter to invest about Rs 13.37 lakhs and seek bank loans of Rs 23.85 lakhs based on 70% loan on fixed assets.

Sr. No	Particulars	In Lakhs
1	Promoters Contribution	13.37
2	Loan Finance	23.85
	TOTAL :	37.22

## 12. WORKING CAPITAL REQUIREMENTS:

Working capital requirements are calculated as below:

Sr. No	Particulars	Gross Amount	Margin %	Margin Amount	Bank Finance
1	Inventories	2.07	40	0.83	1.24
2	Receivables	3.59	50	1.79	1.79
3	Overheads	1.98	100	1.98	0.00
4	Creditors	2.07	40	0.83	1.24
	TOTAL	9.70		5.42	4.27

### 13. LIST OF MACHINERY REQUIRED:

Sr. No	Particulars	UOM	Quantity	Rate	Total Value
	Main Machines/ Equipment				
1	Vehicle Lifting Jacks	Nos	1	25000	25000
2	Pressure Pump and Washing / polishing booth	Nos	1	450000	450000
3	Wheel balancing Unit	Nos	1	250000	250000
4	Crankshaft grinder	Nos	1	650000	650000
5	Body repair / Paint equipment	Nos	1	600000	600000
6	Lathe with Drill / bore attachment	Nos	1	40000	40000
7	Battery charging, electrical unit	Nos	1	350000	350000
8	Lapping /polishing machine and tools	Nos	1	250000	250000
9	Emission / Engine Test Bed	Nos	1	150000	150000
	subtotal :				2765000
	Tools and Ancillaries				
1	Tools and gauges	LS	1	70000	70000
2	Misc. tools etc.	LS	1	30000	30000
	subtotal :				100000
	Fixtures and Elect Installation				
	Storage racks and trolleys	LS	1	25000	25000
	Other Furniture	LS	1	20000	20000

<b>Sr. No</b>	<b>Particulars</b>	<b>UOM</b>	<b>Quantity</b>	<b>Rate</b>	<b>Total Value</b>
	Telephones/ Computer	LS	1	30000	30000
	Electrical Installation	LS	1	120000	120000
	subtotal :				195000
	Other Assets/ Preliminary and Preoperative Expenses	LS	1	120000	120000
	<b>TOTAL PLANT MACHINERY COST</b>				<b>3180000</b>

All the equipments and tooling are available from local manufacturers. The entrepreneur needs to ensure proper selection of equipments and tooling to have modern and flexible servicing. It may be worthwhile to look at reconditioned /used equipments and toolings. Some of the machinery and dies and toolings suppliers are listed here below:

1. Machineries and Spares  
Ranjit Chawla (Director)201, Karmastambh, LBS Marg, Vikhroli West  
Mumbai - 400083, Maharashtra, India
2. M/s. Samvit Garage Equipments  
Plot No. 105, Sector -18, Near State Bank Academy,  
VPO- Sarhaul, Gurgaon, Haryana, 122 001 (India)
3. Auto Service Equipment  
7-B, Gopala Towers, 25, Rajendra Place, New Delhi-110008
4. Sarveshwari Technologies Limited  
No. 355, Deepali, Pitampura,  
New Delhi-110034, Delhi, India
5. Tech Fanatics Garage Equipment  
Plot No. 487/36, National Market Peeragarhi  
New Delhi- 110087, Delhi, India

The above list of machine supplier is illustrative. There are many machinery, dies and tools suppliers and consultants at several industrial clusters all over India where you may find suppliers of services and machinery for a chosen product mix.

#### 14. PROFITABILITY CALCULATIONS:

Sr No	Particulars	UOM	Year Wise estimates				
			Year 1	Year 2	Year 3	Year 4	Year 5
1	Capacity Utilization	%	40	50	60	70	80
2	Sales	Rs Lakhs	43.04	53.80	64.56	75.33	86.09
3	Raw Materials & Other Direct Inputs	Rs Lakhs	16.52	20.65	24.78	28.91	33.04
4	Gross Margin	Rs Lakhs	26.52	33.15	39.78	46.41	53.04
5	Overheads Except Interest	Rs Lakhs	12.49	12.49	12.49	12.49	12.49
6	Interest	Rs Lakhs	3.34	3.34	3.34	3.34	3.34
7	Depreciation	Rs Lakhs	3.18	3.18	3.18	3.18	3.18
8	Net Profit Before Tax	Rs Lakhs	7.52	14.15	20.78	27.41	34.04

The basis of profitability calculation:

The Unit will have capacity of 10000 vehicles servicing and repair work including major / minor repair work for vehicles like Cars/ Vans Jeeps/ SUV etc. The prevailing service charges are ranging from Rs 500 to Rs 1500 per vehicle and oil change, repair costs etc are added depending on need.

The material requirements are mostly utilities and as all other material costs are charged extra at cost and labor. The windows/ glass panes, interior lining, seat etc washing is charged extra. The unit may get business of accessories and extra fitment business. The scrap of old worn out is wither returned or sold at @ Rs 20 ~ 50 per Kg and the income of same is added. Consumables costs also considered based on prevailing rate. Energy Costs are considered at Rs 7 per Kwh. The

depreciation of plant is taken at 10 % and Interest costs are taken at 14 -15 % depending on type of industry.

## **15. BREAK EVEN ANALYSIS**

The project is can reach break-even capacity at 28.66% of the installed capacity as depicted here below:

<b>Sr. No</b>	<b>Particulars</b>	<b>UOM</b>	<b>Value</b>
1	Sales at Full Capacity	Rs Lakhs	107.61
2	Variable Costs	Rs Lakhs	41.31
3	Fixed Cost incl. Interest	Rs Lakhs	19.01
4	Break Even Capacity	% of Inst Capacity	28.66

## **16. STATUTORY/ GOVERNMENT APPROVALS**

The unit will require state industry unit registration with District Industry center. No other procedures are involved. Other registration as per Labor laws are ESI, PF etc. Before starting the unit will also need GST registration for procurement of materials as also for sale of goods. As such there is no pollution control registration requirement, however the unit will have to ensure safe environment through installation of chimney etc as per rules. Solid waste disposal shall have to meet the required norms. Entrepreneur may contact State Pollution Control Board where ever it is applicable.

## **17. BACKWARD AND FORWARD INTEGRATION**

As such there is not much scope for organic backward or forward integration. The entrepreneur needs to ensure service speed to build up reputation, reliability and quality of services rendered. Also personal rapport of key persons can generate good business volumes.

## **18. TRAINING CENTERS/COURSES**

There are no specific training centers. The most important scope of learning is leading Brands / competitors across the world by scanning the Internet and



downloading data from websites of Viz. North American, Europe, China etc markets.

Udyamimitra portal (link: [www.udyamimitra.in](http://www.udyamimitra.in)) can also be accessed for hand-holding services viz. application filling / project report preparation, EDP, financial Training, Skill Development, mentoring etc.

Entrepreneurship program helps to run business successfully is also available from Institutes like Entrepreneurship Development Institute of India (EDII) and its affiliates.

**Disclaimer:**

Only few machine manufacturers are mentioned in the profile, although many machine manufacturers are available in the market. The addresses given for machinery manufacturers have been taken from reliable sources, to the best of knowledge and contacts. However, no responsibility is admitted, in case any inadvertent error or incorrectness is noticed therein. Further the same have been given by way of information only and do not carry any recommendation.

Source:- Udyami Mitra/Sidbi