

## **AUTOMOBILE REPAIRING**

### **1. INTRODCUTION:**

All types of motor vehicles like two wheelers like Scooters and Motorcycles, as also 4 wheelers like cars, buses, LCVs and HCVs, jeeps, etc. require regular normal service and repairs for safety and durability of these vehicles.

Automobile Service station is a most common business 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 experience or qualified persons, with low investment.

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

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 base.

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

The promoter with hands on experience in vehicle repair business and Degree/ diploma qualification and training in automobile engineering/ diesel engine will be able to be able to manage the project well.

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

The Indian auto industry is one of the largest in the world. The industry accounts for 7.1 per cent of the country's Gross Domestic Product (GDP). The Two Wheeler segment with 80 per cent market share is the leader of the Indian Automobile market owing to a growing middle class and a young population. Moreover, the growing interest of the companies in exploring

the rural markets further aided the growth of the sector. The overall Passenger Vehicle (PV) segment has 14 per cent market share. Production of passenger vehicles, commercial vehicles, three wheeler and two wheeler grew at 5.41 per cent in FY17 to 25,316,044 vehicles from 24,016,599 vehicles in FY16. The sales of passenger vehicles, commercial vehicles and two wheeler grew by 9.23 per cent, 4.16 per cent and 6.89 per cent respectively, during the period April-March 2017.

The Indian automotive spare component - aftermarket is estimated to grow at around 10-15 per cent to reach US\$ 16.5 billion by 2021 from around US\$ 7 billion in 2016. It has the potential to generate up to US\$ 300 billion in annual revenue by 2026, create 65 million additional jobs and contribute over 12 per cent to India's Gross Domestic Product.

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

There is good demand for automobile service centre 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-wheelers 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 days, all owners are maintaining 4-wheel vehicles, due to affordable price and essentiality of 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.

The Indian auto-components industry has experienced healthy growth over the last few years. Some of the factors attributable to this include: a buoyant end-user market, improved consumer sentiment and return of adequate liquidity in the financial system. The auto-component industry of India has expanded by 14.3 per cent because of strong growth in the

after-market sales. This indicates the growth of auto repairs and servicing industry in the country.

The Auto repair trend has developed new techniques that have been evolving with addition of several automation and testing machines to ensure better performance of repairs of body and engine parts.

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

While the services are skill based and most important materials are grease, oil, compressed air, power, water etc. consumables and utilities. However the unit may require vehicle specific spares for repair and are charged at normal trending market prices.

## **7. MANUFACTURING PROCESS:**

It is a service oriented unit, so different services like cleaning/ washing/ polishing of vehicles , engine, gear box , suspension, silencer, etc. servicing, break wires replacements etc. services and general repairs, can be taken up for 4-wheel vehicles. Body repairs and painting is also undertaken for the vehicles.

## **8. MANPOWER REQUIREMENT:**

The unit shall require highly skilled service persons for vehicle and system specific services viz engines, electrical system and body repairs. The unit can start from 6 employees initially and increase it to 25 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	15000	1	4	4	6	6
2.	Semi-Skilled/ Helpers	8000	2	8	8	12	12
3.	Supervisor/ Manager	25000	1	1	2	2	2
4.	Accounts/ Marketing	12000	1	1	2	3	3
5.	Other Staff	7000	1	1	2	2	2
	TOTAL		6	15	18	25	25

## 9. IMPLEMENTATION SCHEDULE:

The unit can be implemented within 5 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
2	Construction (if Applicable)	-
3	Procurement and Installation of Plant and Machinery	2
4	Arrangement of Finance	2
5	Manpower Recruitment and start up	1
	Total Time Required (Some Activities run concurrently)	5

## 10. COST OF PROJECT:

The unit will require total project cost of Rs 36.94 lakhs as shown below:

Sr. No.	Particulars	In Lakhs
1	Land	-
2	Building	-
3	Plant and Machinery	27.17
4	Fixtures and Electrical Installation	1.53
5	Other Assets/ Preliminary and Preoperative Expenses	3.50
6	Margin for working Capital	4.75
	<b>TOTAL PROJECT COST</b>	<b>36.94</b>

## 11. MEANS OF FINANCE:

The project will require promoter to invest about Rs 15 lakhs and seek bank loans of Rs 22.54 lakhs based on 70% loan on fixed assets.

Sr. No.	Particulars	In Lakhs
1	Promoters Contribution	14.41
2	Loan Finance	22.54
	<b>TOTAL :</b>	<b>36.94</b>

## 12. WORKING CAPITAL REQUIREMENTS:

Working capital requirements are calculated as below:

Sr. No.	Particulars	Gross Amount	Margin %	Margin Amount	Bank Finance
1	Inventories	6.00	40	2.40	3.60
2	receivables	1.22	50	0.61	0.61
3	Overheads	1.50	100	1.50	0.00
4	Creditors	0.60	40	0.24	0.36
	TOTAL	9.32		4.75	4.57

## 13. LIST OF MACHINERY REQUIRED:

The service unit is based on good layout of work stations for different servicing activities like cleaning/ washing polishing with partial automation as seen in good garages.

Sr. No.	Particulars	UOM	Quantity	Rate	Total Value
	Main Machines/ Equipments				
1	Air Compressor and Piping	Nos.	1	350000	350000
2	4-Wheel Hydraulic Lifting Platform	Nos.	1	450000	450000
3	Washing Polishing Platform Automatic	Nos.	1	1250000	1250000
4	Vacuum Clean Station	Nos.	1	80000	80000
5	Engine Tuning Unit	Nos.	1	500000	500000
6	Electric drilling machine	Nos.	1	20000	20000
7	Electric bench grinder	Nos.	1	5000	5000
8	Welding Machine	Nos.	1	12000	12000

Sr. No.	Particulars	UOM	Quantity	Rate	Total Value
	subtotal :				2667000
1	Tools and Ancillaries				
2	Tool Boxes	Nos.	4	8000	32000
3	Hydraulic Jack	Nos.	3	2000	6000
	Greasing & Washing Tools	LS	2	6000	12000
	subtotal :				50000
	Fixtures and Elect Installation				
	Store Racks	Nos.	5	2500	12500
	Other Furnitures	LS	1	10000	10000
	Telephones/ Computer	LS	1	30000	30000
	Electrical Installation	LS	1	100000	100000
	subtotal :				152500
	Other Assets/ Preliminary and Preoperative Expenses	LS	1	350000	350000
	TOTAL PLANT MACHINERY COST				3219500

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. Pacific Engineering Corporation  
A-297, MIDC-Mahape, Near Mahape Bus Depot,  
Anthony Garage, Thane-Belapur Road, Mahape Midc,  
Navi Mumbai-400710, Maharashtra, 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 machineries 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.	Sales	Rs Lakhs	42.53	54.68	66.83	78.98	91.13
2.	Raw Materials & Other Direct Inputs	Rs Lakhs	8.03	10.32	12.62	14.91	17.20
3.	Gross Margin	Rs Lakhs	34.50	44.35	54.21	64.07	73.92
4.	Overheads Except Interest	Rs Lakhs	22.60	22.60	22.60	22.60	22.60
5.	Interest	Rs Lakhs	2.70	2.70	2.70	2.70	2.70
6.	Depreciation	Rs Lakhs	3.22	3.22	3.22	3.22	3.22
7.	Net Profit Before Tax	Rs Lakhs	5.97	15.83	25.68	35.54	45.40

The basis of profitability calculation:

Unit will have capacity of servicing 500 nos cars and large auto vehicles and 1500 nos of two vehicles / small vehicles work including modification/major repair work for vehicles like vans Jeeps/ SUV. The repairing involves replacing parts at cost, however there is a margin of approx 10% or more on these components for servicing unit. The average billing of service and repair varies from 300 to 1000 for 2 wheelers and that for car and SUVs etc are ranging from 2500 to 10000 per vehicle.

The material requirements are almost nil as parts replaced and consumables like fasteners, clips, oil and grease, for which the cost is always charged. The repair also generates old worn parts wastage/ scrap to be sold at @ Rs 20 ~ 80 per Kg depending on type. 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. BREAKEVEN ANALYSIS**

The project is can reach break-even capacity at 28.94% 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	121.50
2	Variable Costs	Rs Lakhs	22.94
3	Fixed Cost incl. Interest	Rs Lakhs	28.53
4	Break Even Capacity	% of Inst Capacity	28.94

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

The unit may obtain industry unit registration from District Industry center. Shops in city areas shall need to get shop and establishment registration from local municipality etc. no other procedures are involved. Before starting the unit will also need GST registration for procurement of spares etc. materials as also for sale of goods and services. As such there is no pollution control registration requirement, however the unit will have to ensure safe environment and Solid waste disposal shall have to meet the required norms.

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

The machines and equipment offer scope for diversification in to servicing other consumer and industries. As such there is not much scope for organic backward or forward integration. The vehicle service and repair business needs building up reputation, ensuring reliability and quality of services rendered. Also personal rapport of key persons can generate good business volumes from corporate fleet owners and vehicle producers offering authorized service station franchise. The location with good catchment area ensures good market potential to new



business units.

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

There are no specific training centers for production technology. Most of the training is given by Auto Vehicle manufacturers upon getting authorized service station or through apprenticeship with experienced vehicle repair shops.

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 all over India.

### **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.