

# PROJECT REPORT

Of

# BRAKE SHOE

## PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Brake Shoe Manufacturing unit.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]



**Lucknow Office:** Sidhivinayak Building ,  
27/1/B, Gokhley Marg, Lucknow-226001

**Delhi Office :** Multi Disciplinary Training  
Centre, Gandhi Darshan Rajghat,  
New Delhi 110002

**Email :** [info@udyami.org.in](mailto:info@udyami.org.in)  
**Contact :** +91 7526000333, 444, 555

**PROJECT AT A GLANCE**

- 1 Name of the Entrepreneur : xxxxxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
- Pin: xxxxxxxx State: xxxxx
- Mobile xxxxxxxx
- 5 Product and By Product : **BRAKE SHOE**
- 6 Name of the project / business activity proposed : **BRAKE SHOE MANUFACTURING UNIT**
- 7 Cost of Project : Rs.22.99 Lakhs
- 8 Means of Finance
- Term Loan Rs.15.42 Lakhs
- Own Capital Rs.2.3 Lakhs
- Working Capital Rs.5.28 Lakhs
- 9 Debt Service Coverage Ratio : 2.72
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 25%
- 13 Employment : 12 Persons
- 14 Power Requirement : 30.00 HP
- 15 Major Raw materials : Asbestos based friction material,Steel sheets and  
: Other Chemicals
- 16 Estimated Annual Sales Turnover (Max Capacity) : 176.67 Lakhs
- 17 Detailed Cost of Project & Means of Finance

**COST OF PROJECT**

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	16.53
Furniture & Fixtures	0.60
Working Capital	5.86
<b>Total</b>	<b>22.99</b>

**MEANS OF FINANCE**

Particulars	Amount
Own Contribution	2.30
Working Capital(Finance)	5.28
Term Loan	15.42
<b>Total</b>	<b>22.99</b>

# **BRAKE SHOE MANUFACTURING UNIT**

## **Introduction:**

Brake shoes are part of a drum brake system. Brake shoes are crescent-shaped components with a rough friction material on one side. They sit inside of a brake drum. When the brake pedal is pressed, the brake shoes are forced outward, pushing against the inside of the brake drum and slowing down the wheel. Drum brakes and brake shoes are parts of an older type of braking system and have become less common on modern vehicles. Brake shoes may outlast brake pads due to their location within the system. Since they are positioned in the rear of the vehicle, brake shoes may last longer as they aren't taking as much of the stopping force. Brake shoes are components of the drum brake assembly. They are forced to press against the inner surface of the brake drum. The friction produced between the shoes and the drum works to reduce speed and to stop the motorcycle. Brake shoes are generally thought to be good between 30,000-35,000 miles in urban use. In less demanding situations like highway driving in light traffic, brakes may last 80,000 miles or more.



## **Uses & Market Potential:**

Brake shoes carry the brake lining inside brake drumsystems. As when they are applied, they tend to stop the vehicle. When the driver applies the brake, a wheel cylinder in the drum brake system forces the brake shoe outward, against the inside of the drum. This creates friction between the lining and drum, causing the vehicle to brake. In the recent past, the automotive industry witnessed significant growth across the globe. Perennial increase in the sales of the passenger vehicle, two-wheeler, and LCV are significantly contributing to the growth of the brake shoe market. Moreover, continuous growing economies, urbanization or residential sector development, and various supportive government policies are attributing towards the production and consumption of automotive in both developed and developing countries across the globe. The rise in the demand for vehicles coupled with the overall rise and expansion of automobile sector, the demand for automotive brake shoe has risen. Data Bridge Market Research analyses that the automotive brake shoe market will show a compound annual growth rate of 7.20% for the forecast period of 2021-2028.

## **Product:**

Brake Shoe

## **Raw Material:**

The raw materials required are:

- Asbestos based friction material
- Steel Sheets
- Other Chemicals

## **Manufacturing Process:**

The steps are:

- Stamping
- Welding
- Hot-Pressing
- Bonding
- Grinding
- Riveting
- Packaging

## **Area:**

The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and polishing area. Also, some of the area of building is required for office staff facilities, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 1500-2000Sqft.

## **Cost of Machines:**

<b>Machine</b>	<b>Quantity</b>	<b>Rate</b>
Stamping Press	1	425000
Forging Press	1	250000
Hot Press	1	450000
Welding Machine	1	170000
Hand Grinder	1	8000
Riveting Machine	1	300000

Other Equipment's	-	50000
<b>Total Amount</b>		<b>1653000</b>

**Power Requirement-** The estimated Power requirement is taken at 30 HP.

**Manpower Requirement-** Following manpower is required:

- Machine operator-2
- Skilled/unskilled worker-3
- Helper-4
- Manager cum Accountant-1
- Sales Personnel-2

# FINANCIALS



**PROJECTED PROFITABILITY STATEMENT**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>A) SALES</u></b>					
Gross Sale	91.35	113.02	133.12	154.32	176.67
<b>Total (A)</b>	<b>91.35</b>	<b>113.02</b>	<b>133.12</b>	<b>154.32</b>	<b>176.67</b>
<b><u>B) COST OF SALES</u></b>					
Raw Material Consumed	59.40	70.69	82.40	94.55	107.16
Electricity Expenses	2.01	2.35	2.69	3.02	3.36
Repair & Maintenance	1.83	2.26	2.66	3.09	3.53
Labour & Wages	11.97	14.96	18.25	21.91	25.85
Depreciation	2.54	2.16	1.84	1.57	1.33
<b>Cost of Production</b>	<b>77.75</b>	<b>92.42</b>	<b>107.84</b>	<b>124.13</b>	<b>141.23</b>
<b>Add: Opening Stock /WIP</b>	<b>-</b>	<b>2.59</b>	<b>3.08</b>	<b>3.59</b>	<b>4.14</b>
<b>Less: Closing Stock /WIP</b>	<b>2.59</b>	<b>3.08</b>	<b>3.59</b>	<b>4.14</b>	<b>4.71</b>
Cost of Sales (B)	75.16	91.93	107.33	123.59	140.66
<b>C) GROSS PROFIT (A-B)</b>	<b>16.19</b>	<b>21.09</b>	<b>25.79</b>	<b>30.73</b>	<b>36.01</b>
	<b>17.72%</b>	<b>18.66%</b>	<b>19.37%</b>	<b>19.91%</b>	<b>20.38%</b>
D) Bank Interest i) (Term Loan )	1.67	1.37	0.99	0.61	0.24
ii) Interest On Working Capital	0.58	0.58	0.58	0.58	0.58
E) Salary to Staff	7.31	9.21	10.87	13.80	16.28
F) Selling & Adm Expenses Exp.	1.60	2.83	3.99	4.32	5.30
<b>G) TOTAL (D+E+F)</b>	<b>11.16</b>	<b>13.98</b>	<b>16.43</b>	<b>19.31</b>	<b>22.40</b>
<b>H) NET PROFIT</b>	<b>5.03</b>	<b>7.11</b>	<b>9.36</b>	<b>11.42</b>	<b>13.61</b>
	<b>5.5%</b>	<b>6.3%</b>	<b>7.0%</b>	<b>7.4%</b>	<b>7.7%</b>
I) Taxation	0.14	0.57	1.04	1.61	2.30
<b>J) PROFIT (After Tax)</b>	<b>4.89</b>	<b>6.54</b>	<b>8.32</b>	<b>9.80</b>	<b>11.31</b>



**PROJECTED CASH FLOW STATEMENT**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>SOURCES OF FUND</u></b>					
Own Contribution	2.30	-	-	-	-
Reserve & Surplus	5.03	7.11	9.36	11.42	13.61
Depreciation & Exp. W/off	2.54	2.16	1.84	1.57	1.33
Increase In Cash Credit	5.28	-	-	-	-
Increase In Term Loan	15.42	-	-	-	-
Increase in Creditors	2.97	0.56	0.59	0.61	0.63
<b>TOTAL :</b>	<b>33.54</b>	<b>9.83</b>	<b>11.79</b>	<b>13.59</b>	<b>15.57</b>
<b><u>APPLICATION OF FUND</u></b>					
Increase in Fixed Assets	17.13	-	-	-	-
Increase in Stock	4.57	2.04	1.10	1.15	1.20
Increase in Debtors	4.26	1.01	0.94	0.99	1.04
Repayment of Term Loan	1.71	3.43	3.43	3.43	3.43
Taxation	0.14	0.57	1.04	1.61	2.30
Drawings	4.00	4.40	5.20	6.00	8.00
<b>TOTAL :</b>	<b>31.81</b>	<b>11.45</b>	<b>11.70</b>	<b>13.18</b>	<b>15.97</b>
Opening Cash & Bank Balance	-	1.72	0.10	0.19	0.60
Add : Surplus	1.72	- 1.62	0.09	0.41	- 0.39
Closing Cash & Bank Balance	<b>1.72</b>	<b>0.10</b>	<b>0.19</b>	<b>0.60</b>	<b>0.21</b>

**COMPUTATION OF CLOSING STOCK & WORKING CAPITAL**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>Finished Goods</u></b>					
(10 Days requirement)	2.59	3.08	3.59	4.14	4.71
<b><u>Raw Material</u></b>					
(10 Days requirement)	1.98	3.53	4.12	4.73	5.36
<b>Closing Stock</b>	<b>4.57</b>	<b>6.61</b>	<b>7.71</b>	<b>8.87</b>	<b>10.07</b>

**COMPUTATION OF WORKING CAPITAL REQUIREMENT**

<b>Particulars</b>	<b>Amount</b>	<b>Margin(10%)</b>	<b>Net Amount</b>
Stock in Hand	4.57		
Less:			
Sundry Creditors	2.97		
<b>Paid Stock</b>	<b>1.60</b>	<b>0.16</b>	<b>1.44</b>
Sundry Debtors	4.26	0.43	3.84
<b>Working Capital Requirement</b>			<b>5.28</b>
<b>Margin</b>			0.59
<b>MPBF</b>			<b>5.28</b>
<b>Working Capital Demand</b>			<b>5.28</b>

**REPAYMENT SCHEDULE OF TERM LOAN**

11.0%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
<b>I</b>	Opening Balance						
	Ist Quarter	-	15.42	15.42	0.42	-	15.42
	Iind Quarter	15.42	-	15.42	0.42	-	15.42
	IIIrd Quarter	15.42	-	15.42	0.42	0.86	14.56
	Ivth Quarter	14.56	-	14.56	0.40	0.86	13.70
					1.67	1.71	
<b>II</b>	Opening Balance						
	Ist Quarter	13.70	-	13.70	0.38	0.86	12.85
	Iind Quarter	12.85	-	12.85	0.35	0.86	11.99
	IIIrd Quarter	11.99	-	11.99	0.33	0.86	11.13
	Ivth Quarter	11.13		11.13	0.31	0.86	10.28
					1.37	3.43	
<b>III</b>	Opening Balance						
	Ist Quarter	10.28	-	10.28	0.28	0.86	9.42
	Iind Quarter	9.42	-	9.42	0.26	0.86	8.57
	IIIrd Quarter	8.57	-	8.57	0.24	0.86	7.71
	Ivth Quarter	7.71		7.71	0.21	0.86	6.85
					0.99	3.43	
<b>IV</b>	Opening Balance						
	Ist Quarter	6.85	-	6.85	0.19	0.86	6.00
	Iind Quarter	6.00	-	6.00	0.16	0.86	5.14
	IIIrd Quarter	5.14	-	5.14	0.14	0.86	4.28
	Ivth Quarter	4.28		4.28	0.12	0.86	3.43
					0.61	3.43	
<b>V</b>	Opening Balance						
	Ist Quarter	3.43	-	3.43	0.09	0.86	2.57
	Iind Quarter	2.57	-	2.57	0.07	0.86	1.71
	IIIrd Quarter	1.71	-	1.71	0.05	0.86	0.86
	Ivth Quarter	0.86		0.86	0.02	0.86	- 0.00
					0.24	3.43	

Door to Door Period      60 Months  
Moratorium Period        6 Months  
Repayment Period         54 Months

**CALCULATION OF D.S.C.R**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>CASH ACCRUALS</u></b>	7.43	8.70	10.16	11.37	12.65
Interest on Term Loan	1.67	1.37	0.99	0.61	0.24
Total	9.11	10.07	11.15	11.98	12.88
<b><u>REPAYMENT</u></b>					
Repayment of Term Loan	1.71	3.43	3.43	3.43	3.43
Interest on Term Loan	1.67	1.37	0.99	0.61	0.24
Total	3.39	4.79	4.42	4.04	3.66
<b>DEBT SERVICE COVERAGE RATIO</b>	<b>2.69</b>	<b>2.10</b>	<b>2.53</b>	<b>2.97</b>	<b>3.52</b>
<b>AVERAGE D.S.C.R.</b>			<b>2.72</b>		

### **Assumptions:**

1. Production Capacity of Brake shoe manufacturing unit is taken at 500 Sets per day. First year, Capacity has been taken @ 30%.
2. Working shift of 10 hours per day has been considered.
3. Raw Material stock and Finished goods closing stock has been taken for 10 days.
4. Credit period to Sundry Debtors has been given for 14 days.
5. Credit period by the Sundry Creditors has been provided for 15 days.
6. Depreciation and Income tax has been taken as per the Income tax Act,1961.
7. Interest on working Capital Loan and Term loan has been taken at 11%.
8. Salary and wages rates are taken as per the Current Market Scenario.
9. Power Consumption has been taken at 30 HP.
10. Selling Prices & Raw material costing has been increased by 3% & 2% respectively in the subsequent years.

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