

**PROJECT PROFILE ON HYDRAULIC
JACK UP TO 30 TON CAPACITY**

**NAME OF PRODUCT: Hydraulic Jack up to 30
Ton capacity**

NIC CODE NO: 29151

QUALITY CONTROL: NIL

**PRODUCTION CAPACITY: 24000 Nos.
(Per Annum)**

**MONTH & YEAR OF: MARCH 2011
PREPARATION OF
PROJECT PROFILE**

By

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1. PRODUCT AND ITS USES:

Hydraulic jack is a device used invariably in the lifting of heavy machinery and equipment. With the industrial development taking place rapidly, the use of hydraulic Jacks of different capacities is bound to increase in the years to come.

2. MARKET POTENTIALITY:

This equipment is a necessary item for Automobile Servicing Centers, Engineering Industries, material handling equipment manufacturers, Heavy structural fabricators etc. and as such market potential for this item is considered good.

3. BASIS AND PRESUMPTIONS:

- i) The basis for calculation of production capacity on maximum capacity utilization has been taken on single shift basis for 300 days a year. During first year, second year and third year of operations the capacity utilization is 70%, 80% and 90% respectively. The unit is expected to achieve full capacity utilization from the fourth year onward.
- ii) The salaries and wages, cost of raw materials, utilities, rents etc. are based on the prevailing rates in and around Allahabad. These cost factors are likely to vary with time and location.
- iii) Interest on term loan and working capital loan has been taken 16% per Annum.
- iv) The cost of machinery and equipment as indicated in the scheme are approximate of these ruling at the time of preparation of scheme. Entrepreneur may check up the latest and exact price for specific make and model of the machine selected.
- v) It is presumed that unit will get full capacity within four years.
- vi) It is presumed that operative period of unit will be 10 years.

4. IMPLEMENTATION SCHEDULE:

The major activities in the implementation of the project have been listed below and the average time for implementation of the project is estimated at 12 years:

| | Work schedule | Period (in months) |
|----|--|---------------------------|
| 1. | Preparation of project report | 1 |
| 2. | Registration and other formalities | 1 |
| 3. | Sanction of loan by financial institutions | 3 |
| 4. | Plant & Machinery | |
| | a) Placement of orders | 1 |
| | b) Procurement | 2 |
| | c) Power connection/Electrification | 2 |
| | d) Installation/Erection of machinery/ Test equipment | 2 |
| 5. | Procurements of raw material | 2 |
| 6. | Recruitment of Technical Staff etc. | 2 |
| 7. | Trial Production | in 11 th month |
| 8. | Commercial Production | in 12 th month |

Note:

1. Many of the above activities shall be initiated concurrently
2. Procurement of raw materials commences from the 8th month onwards.

5. TECHNICAL ASPECTS:

1. PROCESS OF MANUFACTURE:

The casting for the Main body of Hydraulic jack is to be purchased from outside. The production process involves rough turning, fine turning, drilling and slot cutting, grinding, inspection of parts, assembly and testing.

2. QUALITY CONTROL AND STANDARD:

Strict quality control is to be observed in the manufacture of Hydraulic Jacks, as the failure of Jack will be hazardous for the safety of men and material.

3. **PRODUCTION CAPACITY:**

This scheme envisages the manufacture of Hydraulic Jacks up to 30 Tones lifting capacity @ 2000 jacks per month.

4. **Motive Power:** 10 HP Power will be required.

5. **POLLUTION CONTROL:**

No pollution is involved in the manufacturing process of Hydraulic Jack.

6. **FINANCIAL ASPECTS:**

1. **FIXED CAPITAL:**

A) **Land and Building** (on rent per month):

Rent for covered shed of size 300 Sq. Meter
@ Rs. 100/- per Sq. meter

30,000/-

B) **Machinery & Equipments:**

| Sl. No. | Description | Quantity | Amount Rs. |
|---------|--|----------|------------|
| 1. | SS and SC Lathe 2400mm bed length, heavy duty, complete with all accessories | Two | 2,60,000/- |
| 2 | SS and SC Lathe 1800mm bed length, heavy duty, complete with all accessories | Four | 3,20,000/- |
| 3. | Turret Lathe 38mm bore size, complete with collets and other accessories. | One | 1,20,000/- |
| 4. | Shaping M/c 600mm stroke, complete with machine vice and other accessories. | One | 80,000/- |
| 5. | Pillar type Drilling M/c 30mm capacity, all geared heavy duty, complete with rotating table, machine vice etc. | One | 50,000/- |
| 6 | Bench drilling M/c 19mm capacity. | Two | 30,000/- |

| | | | |
|---------------------------|---|------|--------------------|
| 7 | Power Hacksaw M/c Hydraulic type 350mm stroke complete with adjustable feed control device, automatic lifting and lowering arrangement. | One | 30,000/- |
| 8 | Bench Grinder 200mm wheel size. | One | 12,000/- |
| 9 | Cylindrical Grinding M/c 1000mm, Height of center 130mm, complete with all accessories. | One | 3,00,000/- |
| 10 | Vertical surface Grinder with automatic feeding device. | One | 3,00,000/- |
| 11 | Tool post Grinder 1H.P, external grinding wheel 175x12mm, internal grinding wheel 20x6mm, complete with all fittings. | One | 50,000/- |
| 12 | Tapping attachment | One | 25,000/- |
| | | | TOTAL |
| | | | 15,77,000/- |
| Other fixed assets | | | |
| 13 | Inspection Accessories, measuring instruments, Hand Tools etc. | L.S. | 1,00,000/- |
| 14 | Jigs & Fixtures | | 1,00,000/- |
| 15 | Hydraulic testing equipments | | 50,000/- |
| 16 | Installation & Electrification | L.S. | 1,57,700/- |
| 17 | Office Equipments, furniture and working Table etc. | L.S. | 50,000/- |
| 18 | Preoperative expenses | L.S. | 1,00,000/- |
| | | | TOTAL |
| | | | 5,57,700/- |

TOTAL FIXED CAPITAL

21,34,700/-

C) Working Capital (Per Month):

(i) Staff & labour:

| Sl. No. | Designation | No. Of Persons | Salary/ Month Rs. | Total Salary per month Rs. |
|--------------|---------------------------|----------------|-------------------|----------------------------|
| 1 | Manager | 1 | 12,000/- | 12,000/- |
| 2. | Forman/Supervisor | 2 | 10,000/- | 20,000/- |
| 3. | Skilled Worker | 10 | 5,000/- | 50,000/- |
| 4. | Semi Skilled Worker | 5 | 3,500/- | 17,500/- |
| 5. | Helper | 5 | 2,500/- | 12,500/- |
| 6. | Accountant | 1 | 3,500/- | 3,500/- |
| 7. | Sores Clerk- cum typist | 1 | 3,500/- | 3,500/- |
| 8. | Peon/Watchman | 1 | 2,500/- | 2,500/- |
| 9. | Perquisites 15% of salary | | | 18,225/- |
| TOTAL | | | | 1,39,725/- |

(ii) Raw material requirement (per month):

| S. No. | Description | Quantity | Rate | Value (Rs.) |
|--------------|--|-----------|------|-------------------|
| 1 | Castings for 2000 Jacks, average weight per Jack 7.5.Kg. | 15000 Kg. | 40/- | 6,00,000/- |
| 2 | MS Round for 2000 Jack- average weight per Jack 4.Kg. | 8000 Kg. | 40/- | 3,20,000/- |
| TOTAL | | | | 9,20,000/- |

(iii) Utilities (Per month):

| S. No. | Description | Amount Rs. |
|--------------|-------------|-----------------|
| 1 | Power 10HP | 10,000/- |
| 2 | Water | 2,000/- |
| TOTAL | | 12,000/- |

(iv) Other contingent expenses (per month):

| S. No. | Description | Amount Rs. |
|---------------|---|-------------------|
| 1 | Rent | 30,000/- |
| 2 | Postage and stationery | 2,500/- |
| 3 | Telephone/Fax Charges | 2,500/- |
| 4 | Repair & maintenance | 10,000/- |
| 5 | Transport & conveyance charges | 5,000/- |
| 6 | Advt. & publicity | 10,000/- |
| 7 | Consumables tools, oils & lubricants etc. | 10,000/- |
| 8 | Miscellaneous expenditure | 15,000/- |
| TOTAL | | 85,000/- |

D) Total recurring expenditure per month:

(I + ii + iii + iv)

Rs. 11,57,000/-

Working Capital for 3 months: Rs. 34,71,000/-

E) Total Capital Investment:

| S.No. | Description | Amount Rs. |
|--------------|------------------------------|--------------------|
| 1 | Fixed Capital | 21,34,700/- |
| 2 | Working capital for 3 months | 34,71,000/- |
| TOTAL | | 56,05,700/- |

RESOURCES FOR FINANCE:

| S. No. | Description | Proposed Investment Rs. |
|---------------|---|--------------------------------|
| 1 | Term loan from Financial Institutions (80% of Fixed Capital) at 16% p.a. rate of interest | 17,07,760/- |
| 2 | Bank loan for 3 months (75% of working capital) at 16% p.a. rate of | 26,03,250/- |

| | | |
|--------------|--|--------------------|
| | interest | |
| 3 | Self raised capital from even funds & loan to meet the margin money needs at 18% p.a. rate of interest | 12,95,690/- |
| TOTAL | | 56,05,700/- |

F) Financial Analysis:

1. Cost of production per annum:

| S. No. | Description | Amount Rs. |
|---------------|---|----------------------|
| 1 | Total recurring expenditure | 1,38,84,000/- |
| 2 | Depreciation on Machinery and Equipment @10% | 1,57,700/- |
| 3 | Depreciation on tools, Dies and fixtures @25% | 62,500/- |
| 4 | Depreciation on office Equipment, furniture @ 20% | 10,000/- |
| 5 | Interest on total capital investment @ 16% | 8,96,912/- |
| TOTAL | | 1,50,11,112/- |
| Or say | | 1,50,11,200/- |

2. Turn over per annum:

| S. No. | Item with capacity in tones | Quantity | Rate/unit Rs. | Total Sales Rs. |
|--------------|-----------------------------|----------|---------------|----------------------|
| 1 | Hydraulic Jack 3 | 3000 | 400/- | 12,00,000 |
| 2 | Hydraulic Jack 5 | 3000 | 500/- | 15,00,000 |
| 3 | Hydraulic Jack 7 | 3000 | 600/- | 18,00,000 |
| 4 | Hydraulic Jack 10 | 3000 | 700/- | 21,00,000 |
| 5 | Hydraulic Jack 15 | 3000 | 750/- | 22,50,000 |
| 6 | Hydraulic Jack 20 | 3000 | 850/- | 25,50,000 |
| 7 | Hydraulic Jack 25 | 3000 | 1000/- | 30,00,000 |
| 8 | Hydraulic Jack 30 | 3000 | 1100/- | 33,00,000 |
| Total | | | | 1,77,00,000/- |

3. Profit per annum (before taxes):

Turnover per annum-Cost of production per annum= **Rs. 26,88,800/-**

$$4. \quad \text{Net profit Ratio} = \frac{26,88,800 \times 100}{1,77,00,000} = 15.19\%$$

$$5. \quad \text{Rate of Return} = \frac{26,88,800 \times 100}{56,05,700} = 47.97\%$$

6. Break Even Point:

Fixed Cost per annum:

| S. No. | Description | Amount Rs. |
|-------------------------|---|--------------------|
| 1 | Rent | 3,60,000/- |
| 2. | Depreciation on Machinery & Equipment @ 10% | 1,57,700/- |
| 3 | Depreciation on tools, dies & fixtures @ 25% | 62,500/- |
| 4 | Depreciation on office equipment, furniture @ 20% | 10,000/- |
| 5 | Interest on total Capital Investment @ 16% | 8,96,912/- |
| 6 | 40% of Salary & wages | 6,70,200/- |
| 7 | 40% of Other Contingent (excluding rent) | 2,64,000/- |
| 8 | 40% of Utilities | 57,600/- |
| Total Fixed Cost | | 24,78,912/- |

$$\text{Break Even Point} = \frac{\text{Fixed Cost} \times 100}{\text{Fixed Cost} + \text{Profit}}$$

$$= \frac{24,78,912 \times 100}{24,78,912 + 26,88,800} = 47.97\%$$

Name & Addresses of Machinery suppliers:

1. M/s International Machine Tools Corporation, Bank Street, behind State Bank Of India, Fort, Mumbai (M.S.)
2. M/s Machine Tools Traders, 25, Ganesh Chandra Avenue, Calcutta.
3. M/s Chanana Brothers, 26, Okhla Industrial Estate, New Delhi-110020
4. M/s Cooper Engg. Co. Ltd, Chinchwad, Pune.
5. M/s New Bijli Foundry Works (Regd.), G.T.Road, Batala, Punjab.
6. M/s Indu Udyog co. (P) Ltd., Okhla Industrial Estate, New Delhi-110020