

**CIGARETTE LIGHTERS (PETROL)**

**I. A. Introduction**

Cigarette lighter is a novelty used by smokers to light cigarettes in place of match stick. It is a handy and portable pocket piece, which can be readily used for many other purposes. The lighter consists of a small petrol tank and a wick submerged in it and adjustable. On the top a flint stone is fixed and a roller, which is rotated by a striking thumb lever, creates spark of the flint stone and the wick gets ignited and burns. When not required the thumb lever can be released and which puts off the burning. The thumb lever is spring actuated. A plug screw is provided at the bottom of the tank through which petrol can be filled.

The body of the lighter is available in many designs and pattern with decorative finish engraved on them. Reserved list sl. No. 807.

**B. Market Potential**

There is a good demand for this item even though many imported designs are available in the market. Attractively designed cigarette lighters have a good demand.

**II. Production Target (Per month)**

2500 Nos of cigarette lighters per month.

**III. Production Details and Process of Manufacture**

The process of operation involves press work such as blanking, piercing and forming of body. The tank portion is formed and can be of brazed at bottom. The upper lever arm is pressed with operations of blanking, piercing and forming. The fulcrum piece of rod hinged with the support of spring. The spring is a bought-out component. The knurled roller is turned from hard steel and the flint housing is made of brass rod and screwed on to the top of the body underneath the striking roller.

The body is fine, attractively finished by engraving according to the design of the body. Other parts are also electroplated.

All the parts are assembled. Sometimes the body can be purchased readily of aluminium cast piece and the tank is encased inside the same. However, the above process is based for a simple decorative engraved sheet metal bodied lighter.

**IV. Quality, Standards & Specification**

The parts must be rigid and the lever operation must be very smooth and actuate the roller

to rotate and rub the flint to fire. The design must be attractive and with high external finish to serve as a novelty and also as a utility device.

**V. Land and Building**

|                                     | No. | Rs.             |
|-------------------------------------|-----|-----------------|
| Covered area—200 sq. meters on rent |     | 2000 per month. |

**VI. Machinery and Equipment**

|  |   |          |
|--|---|----------|
| 1. Precision Bench capstan lathe-Bed length 300 mm with attachment and accessories . . . . .                         | 1 | 50,000   |
| 2. Hand Press No. 5 . . . . .  | 2 | 10,000   |
| 3. Hand operated toggle type lever press 1 ton capacity . . . . .  | 2 | 15,000   |
| 4. Straight line engine turning machine R. GUEDEL S.A. Model 41-35 complete with tool sharpening apparatus . . . . . | 1 | 1,00,000 |
| 5. Double-ended Bench Grinder wheel dia, 6" . . . . .  | 1 | 5,000    |
| 6. Bench drill machine 4" cap. . . . .   | 1 | 5,000    |
| 7. Horizontal polishing Machine . . . . .  | 1 | 5,000    |
| 8. Spot welder small capacity for gauge sheet 28 SWG . . . . .   | 1 | 10,000   |
| 9. Tools, Dies, Jigs and fixtures (lump sum) . . . . .   |   | 50,000   |
| 10. Hand Tools, measuring tools . . . . .  |   | 10,000   |
| 11. Office equipment . . . . .   |   | 10,000   |
| 12. Installation charges @ . . . . .   |   | 25,000   |
|  |   | <hr/>    |
|  |   | 2,95,000 |

**VII. Raw Material (Per month)**

|   | Rs.    |
|---|--------|
| 1. CRCA sheets 26 SWG, 20 SWG, brass rods 8 mm and 6 mm dias. M.S. Wire, EN-1 steel rods 12 mm dia. . . . . | 25,000 |
| 2. Consumables such as flint, stone, lubricants, coolant, torsion springs etc. . . . .                      | 2,500  |
| 3. Plating and finishing charges . . . . .  | 2,500  |
|   | <hr/>  |
|   | 30,000 |

**VIII. Staff & Labour**

|  |   | Rs.    |
|--|---|--------|
| <b>(A). Administrative &amp; Supervisory</b> |   |        |
| 1. Manager . . . . .                         | 1 | 1,500  |
| 2. Supervisor . . . . .                      | 1 | 1,200  |
| 3. Clerk . . . . .                           | 1 | 600    |
| 4. Peon . . . . .                            | 1 | 400    |
| 5. Chowkidar . . . . .                       | 1 | 400    |
| <b>(B). Technical and Others</b>             |   |        |
| 1. Skilled workers . . . . .                 | 4 | 3,200  |
| 2. Machine operator . . . . .                | 2 | 1,600  |
| 3. Helper . . . . .                          | 2 | 1,000  |
| 4. Packer . . . . .                          | 1 | 500    |
| <b>(C). Staff Welfare @ . . . . .</b>        |   |        |
|  |   | 1,600  |
|  |   | <hr/>  |
|  |   | 12,000 |

**IX. Other Expenses**

|                                  | Rs.   |
|----------------------------------|-------|
| 1. Power and water . . . . .     | 300   |
| 2. Maintenance . . . . .         | 300   |
| 3. Stationery, postage . . . . . | 200   |
| 4. Consumables . . . . .         | 500   |
| 5. Publicity . . . . .           | 1,000 |
| 6. Packing . . . . .             | 800   |
| 7. Transportation . . . . .      | 1,000 |
| 8. Taxes . . . . .               | 500   |
| 9. Miscellaneous . . . . .       | 400   |
| 10. Rent . . . . .               | 2,000 |
|                                  | 7,000 |

**X. Working Capital (Per month)**

|                             |        |
|-----------------------------|--------|
| 1. Raw Material . . . . .   | 30,000 |
| 2. Salary . . . . .         | 12,000 |
| 3. Other Expenses . . . . . | 7,000  |
|                             | 49,000 |

**XI. Working Capital (3 months)**

$$49,000 \times 3 = 1,47,000$$

**XII. Capital Investment**

|   |          |
|---|----------|
| 1. Machinery and Equipment . . . . .      | 2,95,000 |
| 2. Working capital for 3 Months . . . . . | 1,47,000 |
|   | 4,42,000 |

**XIII. Cost of Production (Per month)**

|   |        |
|---|--------|
| 1. Recurring expenses . . . . .                   | 49,000 |
| 2. Depreciation on machinery @ 10% . . . . .      | 2,500  |
| 3. Interest on capital investment @ 15% . . . . . | 5,500  |
|   | 57,000 |

**XIV. Sales Proceeds (Per month)**

|   | Rs.    |
|---|--------|
| By selling decorative cigarette lighters<br>2,500 nos. @ Rs. 260 each . . . . .   | 65,000 |
| Profit = Sales — Cost of Production<br>= 65,000 — 57,000 = 8,000 . . . . .  | 8,000  |
| Percentage of profit = $\frac{8,000 \times 100}{65,000}$ = 12.3%  |        |
| Rate of Return = $\frac{\text{Profit} \times 100 \times \text{one year}}{\text{Capital investment}}$<br>= $\frac{8,000 \times 100 \times 12}{4,42,000}$ = 21.7% |        |

**XV. Break Even Point**

|  |        |
|--|--------|
| Fixed cost $\times 100$                |        |
| Fixed cost + profit                    |        |
| Fixed cost (per month)                 |        |
| 1. Rent . . . . .                      | 2,000  |
| 2. Interest . . . . .                  | 5,500  |
| 3. Depreciation on machinery . . . . . | 2,500  |
| 4. 40% of salary . . . . .             | 4,800  |
| 5. 40% of other expenses . . . . .     | 2,000  |
|  | 16,800 |

$$\text{Therefore, B.E.P.} = \frac{16,800 \times 100}{16,800 + 8,000} = 67.7\%$$

**XVI. List of Machinery Suppliers**

1. M/s. Batliboi & Co. (P) Ltd., Forbes Street, Bombay-1.
2. M/s. Perfect Machine Tools (P) Ltd., Bell Building, Sir P.M. Road, Bombay-1.
3. M/s. Guindy Machine Tools (P) Ltd., Guindy Industrial Estate, Madras.
4. M/s. Maniklal & Sons, 113, Narayan Dhuru Street, Bombay-3.