

PART - II

TABLES AND INTERPRETATIONS.

TABLE NO. 23

Different Categories of Personnel engaged in the Factories.

Types of factories.	Categories of workers.				Remarks	Total.
	Skilled	Un- skilled	Cleric	Self- Employ		
Oil Engine.	111	24	17	25	62.71	177
				14.12		
Castings.	7	3	2	3	46.66	15
				20		
Repairs & Spares.	27	6	2	27	56.25	43
				13.8		
Jobworking & finishing	31	-	4	6	75.60	41
				14.13		
Steel Welding & fabrication.	6	3	-	2	183.33	11
				18.18		
Production of Fly Wheel & others.	6	-	-	2	153.33	8
Total.	183	36	25	51	62.66	300
	62.66		8.33	7		

TABLE NO.5

Different types of factory & number of members of families of owners depend on the factory. (House holds)

Type of factory	Number of Industries	Total number of members of families	Average.
Oil engine.	17	180	11
Casting.	2	17	9
Repairs & Spares.	3	64	8
Job work & finishing.	4	35	9
Steel welding & fabrication.	2	23	12
Ply wheel & others.	2	8	2
Total	35	334	10

TABLE NO. 6

Different types of factories & number of member of families of owners working in the factory.

Types of factory	Number of industry	Total number of earner	Average
Oil engine	17	46	3
Casting.	2	6	3
Repairs & Spares.	8	20	2
Job work & finishing	4	8	2
Steel welding & fabrication.	2	12	6
Production of Plywheel & others.	2	3	2
Total	35	95	3
Average.			

TABLE NO. 30

Classification of factories according to the wages paid for labour.

Type of factories.	Wages paid in range of Rs. '000 per annum.							Total
	Self labour no	Up to 10	10 to 15	15 to 20	20 to 25	25 & above marks.		
Oil Engine	7	3	1	1	2	3	-	17
Castings	2	-	-	-	-	-	-	2
Repairs & Spares.	7	1	-	-	-	-	-	8
Job working & finishing	2	-	-	2	-	-	-	4
Steel Welding & fabrication.	2	-	-	-	-	-	-	2
Production of Flywheel & others.	2	-	-	-	-	-	-	2
Total.	22	4	1	3	2	3	-	35

TABLE NO. 13

Different types of factories paying total wages to
their regular worker.

Type of factory.	Total Number of factory:	Work:	Wages paid in 000				
			Up to:10	to: 20	to: 30 &	above	
Oil Engine.	17	177	10	3	1	3	17
Casting	2	15		2	-	-	2
Repairs & Spares.	3	43	7	1	-	-	3
Job Work & finishing	4	41	2	1	-	1	2
Steel Welding & Fabrication	2	11	2	-	-	-	2
Production of Ply wheel.	2	3	1	-	1	-	2
Total	35	300	22	7	2	4	35

TABLE NO. 12

Total number of labour working in the different types of factories.

Type of factory	No. of factories	Total number of labour	% of total
Oil engine	17	177	59
Casting	2	15	5
Repairs & Spares.	8	48	16
Job working & finishing	4	41	14
Steel Welding & fabrication	2	11	4
Prod. of Ply-wheel & others.	2	8	2
Total	35	300	100

TABLE NO. 22

Classification of factories according to the expenditure in-curred in the process of production, administration & disposal of products, services etc, (Expenditure other than production wages.)

Types of factories	Expenditure on Labour in the range of Rs.						Total
	Self	Up to : 2000	2000 to : 5000	5000 to : 10000	10000 to : 20000	20000 to : 25000	
	Employment No.						
	Expenditure						
Oil Engine.	1	1	4	5	6	17	
Casting.	-	-	-	-	2	2	
Repairs & Spares.	-	4	3	-	1	8	
Job-working & finishing.	-	-	1	1	2	4	
Steel Welding & fabrication.	1	-	1	-	-	2	
Production of Plywheel & others.	-	1	1	-	-	2	
Total.	1	6	10	6	5	35	

TABLE NO. 26

Different types of factories and factory cost of Production.

Type of ownership	Factory cost of production						Total.
	Up to: 100	100 to: 150	150 to: 200	200 to: 250	250 to: 300	300 to: 500	
Private Limited-	1	1	1	1	1	1	3
Partnership.	1	1	1	1	2	2	7
Semi Government.	1	1	1	1	1	1	1
Proprietorship.	1	1	1	1	1	1	1
Co-Operative.	1	1	1	1	1	1	2
Grand Total.	1	1	1	2	1	3	14

TABLE NO. 27

Different type of factories and value of Raw Material purchased.

Type of Ownership	Value of Raw Material Purchased '000					Total
	Up to: 50 to : 100 to: 150 to: 200 to: 300 and above					
	Up to 50	50 to 100	100 to 150	150 to 200	200 to 300	above 300
Private Limited.	1	1	-	-	1	3
Partnership	1	-	-	2	2	7
Semi-Government.	-	-	1	-	-	1
Proprietorship	-	-	1	-	-	1
Co-operative Society.	-	-	1	-	1	2
Grand Total.	2	1	3	2	4	14

TABLE NO. 23

Different types of factories and value of plant used
for production purpose.

Type of Ownership	Value of plant & machinery in Rs. '000						Total
	Up to: 50	50 to: 100	100 to: 125	125 to: 200	200 to: 300	300 & above	
Private Limited.	1	-	-	1	1	-	3
Partnership	2	2	1	1	-	1	7
Semi- Government	1	-	-	-	-	-	1
Proprietorship	1	-	-	-	-	-	1
Co-Operative	1	-	-	-	-	1	2
Grand total.	6	2	1	2	1	2	14

TABLE NO. 23

Classification of factories according to the Monthly Rent paid by them

Types of Factories.	Rent paid in the Month						Total
	Up to: 300	300 to: 500	500 to: 1000	1000 to: 1500	1500 to: 2000	2000 and above	
Oil Engine.	2	5	2	5	3	1	17
Castings.	-	2	-	-	-	-	2
Repairs & Spares	1	-	3	3	1	-	8
Job Working & finishing.	-	-	-	3	1	-	4
Steel Welding & Fabrication.	1	1	-	-	-	-	2
Production of Ply wheel & Others.	-	-	-	2	-	-	2
Total.	4	8	5	13	2	1	35

TABLE NO. 24

Different types of factories requiring various categories of Raw Material

for the Production Purpose.

Type of Factories.	Major Raw Material	Supplementary Raw Material	Other.
Oil Engine.	Casting Crank Piston : liner pigiron Bar Tins : : side-rap hard coak.	Tools & jigs Oil : paint Electricity.	Gas firewood : fuel Oil & : others etc.
Castings.	M.S. Plant, welding set. : casting material : : Pigiron soft Iron M.T.	Rix Paints coal & : coak 2 M.T.	Electricity : packing etc.
Repairs & spears	: Steel Casting.	: Grees & Coasting : Oil.	: Mobile.
Job working & finishing.	Machine tools casting : M.C.M.T.		Electricity : mobile.
Steel Welding & fabrication	: Steel, Iron rods angles : : bars, KIRK hard Iron : fast iron.	: Oil Paint contre- : per Colder tin.	: Oxygen Gas.
Production of Fly wheel & others.	: Oil, Grees Casting : Oil Paint.	: Oil Paint	: Electricity.

TABLE NO. 24

Different types of factories requiring various categories of Raw Material for the Production Purpose.

Type of Factories.	Major Raw Material	Supplimentary Raw Material	Other.
Oil Engine.	Casting Cran Piston :liner pigiron Bar Tins Bids-rap hard coak.	Tools & jigs Oil : paint Electricity.	Gas firewood : fuel Oil & others etc.
Castings.	M.S.Plant,Welding set. :casting material Pigiron soft Iron M.T. H.Z.	Fix Paints coal & : coak 2 M.T.	Electricity : packing etc.
Repairs & spears	:Steel Casting.	: Grees & Costing Oil.	: Mobile.
Job working & finishing.	Machine tools casting :M.C.H.T.		Electricity : mobile.
Steel Welding & fabrication	:Steel,Iron rods angles bars, KTER hard Iron fastiron.	: Oil Paint contre- par Culder tin.	: Oxygen Gas.
Production of Ply wheel & others.	Oil,Grees Casting :Oil Paint.	Oil Paint	Electricity.

TABLE NO. 16

Different types of factories and wage bill per year.

Types of Ownership.	No. of factories	No. of worker.	Salaries: Per annum in lacks.	Average No. of workers per factory	Average salary per worker.
Private Limited	3 (21%)	311	6.19		
Partnership.	7 (50%)	257	4.39		
Semi Government	1 (1%)	63	.77		
Proprietorship	1 (1%)	14	0.25		
Co-operative.	2 (1%)	194	3.69		
Total	14	839			

TABLE NO.16

Total Area of Land under different types of factories.

Type of factories	Total No. of workers.	Area of Land sq. mts.	Workers per 100 sq.mts.
Oil engine.	177	5752	3.08
Castings.	15	282	5.32
Repairs & Spares.	43	334	14.37
Job working & finishing	41	1563	2.62
Steel Welding & fabrication.	11	206	5.34
Production of plywheel & others.	8	26	30.77
Total	300	8163	3.68

TABLE NO. 33

Classification of factories according to the total area possessed & total Built up area.

Built up area.	Total area possessed & built up area in range of Sq. Mts.: Total.									
	Up to: 100	100 to 200	200 to 300	300 to 400	400 to 500	500 to 700	700 to 1000	1000 to 1000	above 1000	
Up to 50	15	1	-	-	-	-	-	2	-	13
50 to 100	6	1	-	-	-	-	-	-	-	7
100 to 200	-	1	2	-	-	-	-	-	-	3
200 to 300	-	-	2	-	-	-	-	-	-	2
300 to 400	-	-	-	1	-	-	-	-	-	1
400 to 500	-	-	-	-	-	-	-	-	-	-
500 to 700	-	-	-	-	-	4	1	2	-	4
Total.	21	3	4	1	-	1	3	2	-	35

TABLE NO. 1

Classification of factories as per total area possessed
and cost of Area in the range of Rs.

Cost of Land	Area in sq. meter.					Total	% to total	Remark:
	Up to: 300	300 to : 400	400 to : 500	500 &: above				
Up to 5000	21	-	-	-		21	60	
5000/10000	4	-	-	-		4	11	
10000/20000	-	-	-	4		4	12	
20000/30000	3	-	-	1		4	11	
30000/50000	-	-	-	-		-		
50000 & above	-	4	-	1		2	6	
Grand total	28	1	-	6		35	100	
% to total	80	3	-	17		100	x	

TABLE NO. 8

Location of different types of factories at from distinct places (K.M.S.)

Type of ownership.	Highway	Railway station	Bus Stand	Hospital	Total No. of factories.
Private Limited	3,3,1	2,4,	2,1	1,1	3
Partnership	3,3,1,5,1	2,2,3,5,2,1,2,	3,2,1,1,	1	7
Semi - Government.	-	4	4	1	1
Proprietorship	-	1	-	1	1
Co-operative.	1	1,9	-	9	2
					14

N.B. :

A factory which is located within the radius of .9 K.Ms. Ms. of distinct places, is not mentioned in the table.

TABLE 2

Different types of existing factories given
preference for different location for new plant.

Type of factory	Preference given for location for new plant.				
	:Shiroli	:S.U. nagar	:Laxmi- puri	:other places in city.	:Total.
Oil engine	: 7	: 1	: -	: 8	: 17
Casting	: 1	: -	: 1	: -	: 2
Repairs & spares.	: 6	: 1	: -	: 1	: 8
Job work & fininsing.	: 2	: -	: -	: 2	: 4
Steel Welding & fabrication	: 1	: 1	: -	: -	: 2
Prod.of Ply- wheel & other.	: 2	: -	: -	: -	: 2
Total	: 19	: 3	: 1	: 12	: 35

TABLE NO. 3

Different types of industries requiring water

(quantity)

Type of Industry.	Consumption of water in 000 ufres					Total
	Up to : 5/10	10/15	15 & above			
Oil engine	8	2	1	1	12	5
Casting	-	-	-	2	2	
Repairs & Spares.	7	-	-	-	7	1
Job Working	1	-	-	1	2	2
Steel Welding & fabrication.	1	-	-	-	1	1
Production plywheel	2	-	-	-	2	
Total	19	2	1	4	26	9

TABLE NO. 4

Different types of factories & connected load of electric power in the range of KW.

Types of factory.	Connected load in KW.				Total
	Up to 5	5/10	10/15	15 & above.	
Oil engine.	7	7	3	-	17
Casting	-	1	-	1	2
Repairs & spares.	4	2	2	-	4
Job working & finishing	2	-	2	-	4
Steel Welding & fabrication	-	1	1	-	2
Plywheel & others.	2	-	-	-	2
Total.	15	11	8	1	35

TABLE NO. 5

Different ~~year~~ types of factories received water (in 000
Ltrs.) 1975-76

	Public & Co-Operative water supplu (in								
Types of	-- range of Litters) '000.								
factories.	Up to	50 to	100 to	300 to	500 to	1000 &	Total		
	50	100	300	500	1000	above			
Private									
Limited.	1	-	-	-	1	-	1	3	
Partnership	-	-	1	3	1	-	2	7	
Semi-									
Government.	-	1	-	-	-	-	-	1	
Proprietor-									
ship .	-	1	-	-	-	-	-	1	
Co-Operative	-	-	-	1	-	-	1	2	
Grand Total.	1	2	1	4	2	-	4	14	

TABLE 7

Different types of factories requiring land for expansion of the business.

Type of factory	No. of factories having enough Land	No. of factories requiring additional land	Total Number of factories	% of factories requiry Add. Land	Remark
Oil engine	8	9	17	49	
Casting	-	2	2	6	
Repairs & spares	1	7	8	22	
Job Working & finistry	1	3	4	11	
Steel welding & fabrica	1	1	2	6	
Prod. & fly wheel & other	-	2	2	6	
Total	11	24	35	100	

TABLE NO. 9

Different sources of getting water of different factories.

Type of Ownership	Sources of Water.					Total
	Well	Miniciple: Tap	River	Others		
Private Limited.	1	2	-	-		3
Partnership.	-	7	-	-		7
Semi-Government.	-	1	-	-		1
Proprietorship.	-	-	-	1		1
Co-operative.	-	1	-	1		2
Total.	1	11	-	2		14

TABLE NO. 10

Total number of factories having inadequate or adequate supply of electric power.

Type of factory	No. of factory enough power.	No. of factories requiring addi- tional power.	Total.
Oil engine.	17	-	17
Casting.	1	1	2
Repairs & Spares.	7	1	8
Job Working & fabrication. finishing	3	4	7
Steel welding & Fabrication.	2	-	2
Prod. of Plywheel, & others.	2	-	2
Total.	32	3	35

TABLE NO.3

Number of factories requiring additional supply of water.

Type of factory	No. of factories having enough water.	No. of factories requiring add- tional water	Total
Oil engine	15	2	17
Casting	1	1	2
Repairs & spares	3	-	3
Job work & finishing	3	1	4
Steel welding & fab.	2	-	2
Prod. of Ply- wheel & other	2	-	2
Total	31	4	35

TABLE NO. 10

No. of factories requiring additional water for the purpose of process of the production.

Type of Ownership	No of factories demanding Water.		Total.
	Water demanding factories.	Water Supply is adequate.	
Private Limited.	3	-	3
Partnership.	7	-	7
Semi-Government.	1	-	1
Proprietorship.	-	1	1
Co-Operative.	1	1	2
Grand Total.	12	2	14

TABLE NO. 14

Different types of factories consuming Electricity for the
production purpose. 1975-76

Type of Ownership	Units consumed.						Total.
	Up to 2000 Units.	2000 to 5000	5000 to 10000	10000 to 20000	20000 & above		
Private Ltd.	-	1	-	-	2	3	
Partnership	-	1	3	-	3	7	
Semi-Government.	-	-	1	-	-	1	
Proprietor.	-	-	1	-	-	1	
Co-operative Societies.	-	1	-	-	1	2	
Total.	-	3	5	-	6	14	

TABLE NO. 17

Additional Labour (manpower) Requirement of different

Types of factories after expansion.

Types of factories:	Total No.of: workers- required.	No.of factories : contemplating Expansion of the business.	Remarks : worker per factory.

Oil Engine	95	9	10

Castings	18	2	9

Repairs of spares.	18	3	6

Job working & finishing	50	3	16

Steel working & fabrication	2	1	2

Production of Plywheel & others.	16	2	8

Total.	199	20	10

TABLE NO. 15

Factories incurring Expenditure on electric powers for the production purpose.

Type of Ownership	Expenditure on Electric Power (in the range of Rs.)				
	Up to : 500	500 to : 1000	1000 to : 3000	3000 to:5000 5000 10000 above	Total
Private Limited.	1	-	-	2	3
Partnership.	1	1	2	1	7
Semi-Government.	-	-	1	-	1
Proprietorship	-	-	1	-	1
Co-Operative Society.	-	-	1	1	2
Grand Total.	2	1	5	4	14

TABLE NO. 7

TOTAL connected Load of Electric Power too different
factories.

.....		
Type of Ownership	Total connected Load	Total No. of factories.
.....		
Private Limited.	62, 3.7, 36,	3

Partnership.	15,26,21,16.5,3.73, 21, 3.73	7

Semi Government.	37,	1

Proprietorship	7.4,	1

Co-operative.	11.25, 50	2

Maximum connected Load.	62	

Minimum connected Load.	3.7	

TABLE NO. 6

Different types of factories using the area (sq. Mtrs) for production purposes.

Types of Ownership	Area in use (sq. mtrs.)					
	Up to : 300	300 to : 500	500 to : 700	700 to : 1000	1000 to : 2000	2000 to : 3000 & above
Private Limited.	-	-	1	-	1	1
Partnership	1	-	4	1	-	1
Semi Government.	-	-	1	-	-	-
Proprietorship	-	4	-	-	-	-
Co-Operative.	-	-	-	-	1	1
Total.	1	1	6	1	2	2

TABLE NO.22

Different types of factories and value of building used for production purpose.

Type of Ownership.	Value of building in Rs.										Remarks: Total
	Up to: 50000	50000 to 75000	75000 to 100000	100000 to 125000	125000 to 150000	150000 to 200000	200000 to 250000	250000 to 500000	500000 to 1000000	1000000 & above	
Private Limited.	1	-	-	1	-	1	-	-	-	-	3
Partnership.	1	1	2	1	1	-	1	-	-	-	7
Semi Government.	1	-	-	-	-	-	-	-	-	-	1
Proprietorship.	1	-	-	-	-	-	-	-	-	-	1
Co-Operative Society.	1	-	-	-	-	-	1	-	-	-	2
Grand Total.	5	1	2	2	1	1	2	-	-	-	14

TABLE NO. 11

Classification of factories according to the area used for administration purpose & the total area used for production purpose. (in the range of sq. mtrs.)

Area used for Administration purpose.	Total area in use.					
	Up to : 300	300 to : 500	500 to : 700	700 to : 1000	1000 to : 2000	2000 to : 3000 & above
Up to 20	2	-	4	-	1	5
20 to 40	1	-	1	-	-	(36)
40 to 60	-	1	-	-	1	2
60 to 80	-	-	-	1	-	(14)
80 to 100	-	-	-	-	-	1
100 to 200	-	-	-	-	-	(7)
200 to 300	-	-	1	-	-	2
300 & above.	-	-	-	-	1	(14)
Grand Total.	1 (7)	1 (7)	6 (43)	1 (7)	2 (14)	14 (15)

TABLE NO. 12

Classification of factories according to total area under Plant & total built up area (in sq. mtrs.)

Area Under Plant Sq. Mtrs.	Total Built up area.					
	Up to : 300	300 to : 500	500 to : 700	700 to : 1000	1000 to : 2000	2000 to : 3000 & above
Up to 200	1	-	3	-	-	4
200 to 300	-	1	2	-	1	4
300 to 500	-	-	1	-	1	2
500 to 700	-	-	-	1	-	1
700 to 1000	-	-	-	-	1	1
1000 to 2000	-	-	-	-	-	1
2000 to & above.	-	-	-	-	-	1
Total.	1	1	6	1	2	14
	(7)	(7)	(43)	(7)	(14)	(15)

TABLE NO. 13

Classification of factories according to total area under godown & total built up area in use. (in sq. mtrs.)

Total area under godown.	total built up area.					
	Up to: 300	300 to 500	500 to 700	700 to 1000	1000 to 2000	2000 to 3000 & above
No godown.	-	-	3	-	-	3
	-	-	-	-	-	(21)
Up to 30	1	1	-	1	-	3
	-	-	-	-	-	(22)
30 to 50	-	-	1	-	-	1
	-	-	-	-	-	(7)
50 to 70	-	-	1	-	1	3
	-	-	-	-	-	(22)
70 to 100	-	-	-	-	-	-
	-	-	-	-	-	-
100 to 200	-	-	-	-	-	1
	-	-	-	-	-	(7)
200 to 300	-	-	1	-	-	1
	-	-	-	-	-	(7)
300 to 500	-	-	-	-	1	1
	-	-	-	-	-	(7)
above 5000	-	-	-	-	-	1
	-	-	-	-	-	(7)
Grand Total.	1 (7)	1 (7)	6 (44)	1 (7)	2 (14)	2 (14)

TABLE NO. 20

Classification of the factories according to total area of land (built up - area + Veeant area.) and value of land in the range of Rs.

Total Area.	Value of Land.					Total.
	Up to: 10000	10000 to 30000	30000 to 50000	50000 to 100000	100000 & above	
Up to 300	-	-	1	-	-	1 (7)
300 to 500	-	1	-	1	-	2 (14)
500 to 700	1	-	1	2	-	4 (29)
700 to 1000	-	-	1	-	-	1 (7)
1000 to 2000	-	-	-	1	1	2 (14)
2000 to 3000	-	1	-	-	-	1 (7)
3000 & above.	-	-	2	1	-	3 (21)
G. Total.	1 (7%)	2 (14%)	5 (36%)	5 (36%)	1 (7%)	14

TABLE NO. 1

Ownership Pattern of the selected factories.

Name of the selected factory.	Ownership Pattern.				
	Private : Limited	Partner-ship :	Semi-ship :	Propr- etor-ship :	Co-Opera- tives. Total.
The Quality Iron & Steel Works Pvt. Ltd.	1				1
Parendeekar & Sons.		1			1
Division Work-shop M.R.V.M.			1		1
Meghdoot Engineering Pvt. Ltd.	1				1
Diamond Engineering Works.				1	1
Ranchandra Engineering Works.		1			1
The Rocket Engineering P. Ltd.	1				1
The Kolhapur Auto Works.		1			1
Southern Engineering Works.		1			1
Savant Engineering Works.		1			1
Utkar & Co.		1			1
Kolhapur Eng. Co-Op. Society.				1	1
Ashok Iron Works.		1			1
The Maharashtra Co-Op. Enl. Society Ltd.				1	1
	3 (21%)	7 (50)	1 (?)	1 (?)	2 (12%)
					14

TABLE NO. 21

Classification of factories according to the total built up area and Rent/

L.taxes paid . (1975-76)

Total built up area in sq.mtrs.	Rent paid in Rs.									
	Up to :200	200 to :300	300 to :500	500 to :700	700 to :1000	1000 to :1300	1300 to :1500	1500 to :2000	2000 & above	Total
Up to 300	-	-	-	-	-	-	-	-	1	1
300 to 500	1	-	-	-	-	-	-	4	-	2
500 to 700	-	-	1	-	1	1	-	-	1	4
700 to 1000	-	-	-	-	-	-	1	-	-	1
1000 to 2000	-	-	-	-	-	-	-	-	2	2
2000 to 3000	-	-	-	-	-	-	-	-	1	1
3000 & above.	1	-	-	-	-	2	-	-	-	3
Total.	2	-	1	-	1	3	1	1	5	14

TABLE NO. 2

Ownership Pattern & No. of Workers in the selected
factories.

Type of Ownership	No. of factory.	No. of workers.	Percentage of workers to total workers.
Private Limited.	3	311	37.06
Partnership	7	257	30.63
Semi Government	1	63	7.50
Proprietorship	1	14	1.66
Co-Operatives.	2	194	23.12
Total.	14	839	100.00

TABLE NO. 15

Factory selling & administrative & COA of the different
types of factories .

Type of factory.	COA in 000					Total.
	Up to 25	25 to 50	50 to 100	100 to 200	200 & above.	
Oil Engine.	9	2	-	3	3	17
Casting.	1	1	-	-	-	2
Repairs & Spares.	7	-	1	-	-	8
Job Working & finishing.	1	2	-	-	1	4
Steel, Welding & fabrication.	2	-	-	-	-	2
Prod. of the Plywheel & others.	1	-	-	-	1	2
Total.	21	5	1	3	5	35

TABLE NO. 2

Classification of factories as per different types of production (major) undertaken.

Types of Production	Number of Industries	% to total.
Oil engine	17	49
Casting	2	6
Repairs & Spares	8	22
Job Working & finishing	4	11
Steel Welding & fabrication	2	6
Production of Ply wheel & others.	2	6
Total	35	100

TABLE NO.20

Classification of different Type of Industries according to their liabilities to third parties.

Type of Industry	Liabilities (in the range of Rs.							Total
	No. credit	up to 25	25 to 50	50 to 100	100 to 150	150 & above		
Oil engine	4	8	1	-	4	-	17	
Castings	-	1	1	-	-	-	2	
Repairs & spares.	5	3	-	-	-	-	8	
Job working & finishing	1	1	1	1	-	-	4	
Steel welding & fabrication.	2	-	-	-	-	-	2	
Production of Plywheel & others.	1	1	-	-	-	-	2	
Total	13	14	3	1	4	-	35	

TABLE NO. 21

Classification of different type of according to
theirs Debtors.

Type of Industry	Debtors in the range of Rs.						Total
	No. Debit:	Up to 10	10 to 20	20 to 50	50 to 75	75 & above	
Oil engine	6	5	2	2	2	-	17
Castings.	1	1	-	-	-	-	2
Repairs & spares.	5	3	-	-	-	-	8
Jobworking & finishing	2	2	-	-	-	-	4
Steel Welding & fabrication.	2	-	-	-	-	-	2
Production of Plywheel & others.	1	1	-	-	-	-	2
Total	17	12	2	2	2	-	35

TABLE NO. 14

No. of factories borrowed the amount.

Type of factory	Total borrowing in 000						Total
	up to 25	25 to 50	50 to 100	100 to 200	200 to above		
Oil engine	7	3	2	1	4		17
Casting	1	1	-	-	-		2
Repairs & spares.	6	1	-	1	-		8
Job working & spares.	1	1	1	-	1		4
Steel welding & fabrication	1	1	-	-	-		2
Production of Plywheel & others.	1	-	-	-	1		2
Total.	17	7	3	2	6		35

TABLE NO. 17

Classification of different types of factories
according to their credit-standing in the Market (in the
range of Rs.)

-----,-----									
Types of Industries	Credit standing (in the range of Rs.							Remarks	Total
	No credit:	up to:1	to:2	to:5	to:10	& above			
	1	2	5	10					
Oil engine	7	2	2	3	3	-			17
Castings	2	-	-	-	-	-			2
Repairs & spares.	4	4	-	-	-	-			8
Job working & finishing	2	-	-	1	1	-			4
Steel Welding & fabrication.	1	1	-	-	-	-			2
Production of Flywheel & others	1	-	1	-	-	-			2
Total	17	7	3	4	4	-			35

TABLE NO. 25

Different types of factory and value of working capital

Types of Ownership	Working capital in the Range of Rs.							Total
	Upto: 50	50 to 100	100 to 150	150 to 200	200 to 300	300 & above		
Private Limited.	1	-	-	1	1	1	3	
Partnership.	1	1	-	1	2	2	7	
Semi-Government.	-	-	-	1	-	-	1	
Proprietorship.	-	-	-	-	1	-	1	
Co-Operative.	-	-	-	1	-	1	2	
Grand Total.	1	1	-	4	4	4	14	

TABLE NO. 26

Factories receiving loans (in the rang of Rs.)

for the different purposes.

Purposes.	Loans in range of Rs.						Total
	Up to: 5	5 to: 15	15 to: 30	30 to: 50	50 & above	Remarks:	
Promotional Capital	-	5	7	7	16		35
Fixed-capital.	-	-	-	-	-		-
Plant & machinery tools - pictures etc.	1	8	8	11	9		35
other purposes not mentioned above.	21	8	2	1	-		32
Working capital.	9	7	6	-	6		28
Building	6	1	3	3	3		16

TABLE NO. 27

Classification of factories. According to Loan received for the major purposes from the different sources.

Purposes of loans	Sources of Loans				
	Government	Co-Op.	Money lender	Others	Individu- al - finance.
Initial Capital	9	2	2	20	35
Fixed Capital	8	2	1	11	34
Working capital	1	-	2	11	25
Grand total	18	4	5	42	

TABLE NO. 31

Classification of factories according to raw material purchases from different places.

Places.	Total factories	% of total.
Local (Kolhapur)	27	77
Out of Kolhapur District.	4	11
No raw material required (Service Centres)	4	12
Total	35	100

TABLE NO. 19

Factories Purchasing Major Raw Material from the different Places.

Major Raw-Material.						Total No.	
	Sangli Kolha- pur- Region	Mahara- shtra.	Mysore:	Fore- ign	Re- mark:	of factories	
Cement.	2	1	-	-	-	14	
Paints.	2	2	-	-	-	14	
Castings	4	-	2	-	-	14	
Spare Parts.	4	3	-	-	-	14	
Oil.	5	-	-	-	-	14	
Ply Wheel.	4	1	-	-	-	14	

TABLE NO. 19

Classification of different types of factories according to the Turn Over.

Types of factories.	Turn Over (in there range of Rs. in (000)					Remarks:	Total.
	Up to: 50	50 to: 100	100 to: 200	200 to: above	&:		
Oil Engine.	11	1	1	4	-		17
Casting.	2	-	-	-	-		2
Repairs & Spares.	7	-	1	-	-		8
Job-Working & finishing	2	1	-	1	-		4
Steel Welding & fabrication	2	-	-	-	-		2
Production of Plywheel & Others.	1	-	-	1	-		2
Total.	25	2	2	6	-		35

TABLE NO. 4

Places of Marketing of Different Factories.

Types of factory	Areas or Places of Marketing.
i) Private Ltd.	Kolhapur, Sangli, Satara, Belgaum, Poona, Aurangabad, Bid, Nagar, Gujrat, Rajastan.
ii) Partner-Ship	Maharashtra, A.P., Mysore, Madras, Poona, Bombay, Ahamadabad, Costal Area, Nasik, Aurangabad.
iii) Semi Government.	Kolhapur region.
iv) Proprietorship.	Nasik, Shrirampur, Kolhapur.
v) Co-Operatives.	Kolhapur, Shrirampur, Bombay, Poona.
vi) Usual Market or Usual Places of Market where finished produ- cts are sold in large quantity.	Kolhapur region, Costal Area, Gujrat, Mysore, Madras, Rajstan.

TABLE NO. 18

Value of Raw Material Purchased by different types of factories. (75-76)

Type of Ownership	Value of Raw Material Purchased (in the range of Rs.) '000						Total No. of factories
	Up to 10	100 to 200	200 to 300	300 to 500	500 & above		
Private Limited	-	1	-	1	1	3	
Partnership	2	1	2	1	1	7	
Semi-Government.	-	1	-	-	-	1	
Proprietorship	-	1	-	-	-	1	
Co-Operative	-	1	-	1	-	2	
Total.	2	5	2	3	2	14	

TABLE NO. 3

Details of Major portion of finished goods
manufactured by the different factories (1975-76)

-----;		
Types of Ownership.	:	The details of finished goods so far manufactured.
-----;		
Private Limited.	:	Cement Pypes, Tiles & Engineering Spares
	:	Oil Engines & Spare Parts, Electric
	:	Motors.
-----;		
Partnership	:	Electric Motor Starters, Oil Engines &
	:	their components, Trailors(Four Wheel
	:	& two wheels) Spare Parts, C.I. Castings
	:	& Ply Wheels.
-----;		
Semi Government.	:	Electrical Accesories- E.G. Tippins,
	:	transmissions set, T.O.W. Pln Pair Pin
	:	D.P. Sets etc.
-----;		
Proprietorship.	:	Verticle Engines (5 H.P.)
-----;		
Co-Operative	:	Oil Engines & Castings.
-----;		
Average trend of production.	:	Oil Engines & their spare parts.
	:	
-----;		

TABLE NO. 32

Classification of factories according to the expenditure incurred on transport in the process of disposal of finished products.

Type of factories	Expenditure incurred in the range of Rs.							
	No. Expenditure on Transport	Up to 300	300 to 500	500 to 1000	1000 to 1500	1500 & above	Total	
Oil Engine.	4	4	1	1	7	-	17	
Castings.	-	2	-	-	-	-	2	
Repairs & Spares.	5	2	-	1	-	-	8	
Job working & finishing	1	-	1	-	2	-	4	
Steel-Welding & fabrication	1	1	-	-	-	-	2	
Production of Flywheel & others.	-	-	-	-	2	-	2	
Total.	11	9	2	2	11	-	35	

TABLE NO. 11

Different types of factories effecting different value
of production in range of Rs. '000

Type of factory	Range of Rupees 000				Total.
	Up to 10	10 to 50	50 to 100	100 & above	
Oil Engine.	3	7	2	5	17
Casting	-	1	-	1	2
Repairs & Spares.	4	3	-	1	8
Total Working & finishing.	-	2	1	1	4
Steel Welding & fabrication.	-	1	1	-	2
Production of Ply Wheel & Others.	-	1	-	1	2
Total.	7	15	4	9	35

CHAPTER IV

LOCATION OF ENGINEERING UNITS.

1) Table No. 23,12,2,5,6 .

Out of the 300 workers engaged in 35 small units a larger number of workers (177) are employed in oil engines, (59%) followed by repairs and spares (48) jobworking and finishing (16%) (41) castings (15) steel welding and fabrication (11) --- (14%) (5%) (4%) and production of flywheel and others (8). The p.c. of skilled (2%) workers is 62.66% . This shows that workers in engg. units in Kolhapur are specialized in oil engines and they have acquired skill, Recession has affected this industry and some units --- resorted to repairs and spares production. Tables 5 and 6 --- reveal that small units possess some features of cottage ---- industry in the sense that they take help of family members in the production. Naturally when there is recession in this --- industry, it creates a problem for the families who depend on oil engines only.

Location.

Table- 9

" Out of 35 factories surveyed, 19 factories are located in Shirol i.e. in Industrial area (MIDC) 12 --

factories are located in other places in the city. Factories located in the city were due to early incentives available - there. But the recent trend is towards shifting to industrial area. Out of 19 factories that are located in Shirolī, 7 are oil engine units, one is castings, 6 units are repair shops, 2 are jobworking units, 2 are flywheels. Out of 24 factories preferring expansion, 19 factories prefer expansion at ---- Shirolī.

.....

SPACE - LAYOUT AND RENTS.

Table - 13, 11, 12, 21 and 20 :

The factory premises (built-up-area) are mostly used for the production purposes as well as for purpose of storage of raw-materials and finished products. The larger the area under the possession of factory the better will be the possibilities of convenient plant-layout. However, in Kolhapur it is found out that most of the factories do not possess, adequate space for the purpose of convenient or scientific storage. It seems from table-13 that out of the total Sampled units as much as 65% units possessed built-up area less than 1000 Sq. metres and rest i.e. 35% - possessed more than 1000 Sqr. metres.

The proportion of space occupied by the godowns as compared to the total built up area does not seem in - conformity to the growing needs of storage. Thus it seems from the table-13 that out of the total sampled units 58% units had the space under godown ranging between 30 Square metres and 200 square metres whereas 21% units did not have area under godown. The absence of the facilities of godown as it is observed, usually deteriorates the quality of -

finished products. In some factories the open-space of plant area is used for storing raw material or finished product. This naturally causes hindrances to the process of production. It can be deduced from the findings that the expanding units should provide adequate space for - the facilities of storages. The Government may give some Subsidies for the construction of separate godowns.

Table No.11 :

It seems from the table that the area used for the purpose of administrative office was smaller than the area allocated for the purpose of production. Thus 61% of the units had an area under office below 80 Sqr.metres. It shows that entrepreneurs in Kolhapur are least aware of the advantages which could be derived from well - - - furnished and spacious administrative offices. Hence there is need to provide well-furnished administrative offices that are usually found in Poona and Bombay.

Table No.12 :

A scientific plant layout is the need of - modern factory, because it ensures convenient co-ordination

and continuity in the follow-up process of production and thereby creates the possibilities of internal economies. It is observed in the survey that the organization of - plant layout of some factories meets the above said - - requirements. The production units manufacturing components do not consist of elaborate and complicated process and - hence area needed for installation of machinery is limited. Thus we find that out of the total sampled units 58% units had area under machinery less than 300 square metres.

Table - 21:

Majority i.e. 64% of the factories was paying the rent below Rs.2000/- whereas rest i.e. 36% of factories were paying the rent more than Rs.2000/- per annum. The - predominance of the large number of factories paying low rents can be attributed to the fact that, either the lands occupied by the factories were small in size or they were paying the rents at old rates. The low cost of occupying ~~the~~ land can be a magnetic factor which would pull the entrepreneurs even from Poona or Bombay.

Table - 20 :

Shows the value of land occupied by various -

factories in the range of rupees. It seems from the table that out of the total sampled units as large as 72% units had lands worth Rs. between 30,000 to 1,00,000 whereas 14% units had between Rs. 10,000 to 30,000; 7% units had - rupees worth less than 10,000 and the remaining 7% had land worth rs. above 10,000.

The value of lands of some factories was on - - rising scale, because of the larger area of land in their possession. Thus out of the above 72% factories having land worth rupees between 30,000 to 50,000, 30% units had an area of land above 3000 square metres, 20% units had an area of land between 700 square metres to 1000 square metres, 30% had between 500 to 700 square metres and the rest 20% had the area of land below 500 sq. metres.

If the above statistics are considered in the light of rising values of land developed in the metropolitan centres(like Bombay, Poona), they give an encouraging picture in the matter of future industrial expansion. These rents when compared to above mentioned cities are low enough so that they may attract outsiders.

..... X

EXPANSION PROGRAMME, WATER, ELECTRICITY, LABOUR
REQUIREMENTS.

Table Nos.- 7, 8, 3, 4, 10, 17A :

Table - 7:

Out of 35 factories, 24 factories are in need of expansion. These 24 factories Comprise of 9 units - manufacturing oil engines 2 units of castings, 7 units of repairing, 3 units of job working, one unit of welding and 2 units of flywheel production. Table-8: reveals that oil engines, castings and job working need additional - supply of water. Table-3 , reveals more than 60% of units require water upto 5,000 litres, 4 factories require more than 15,000 litres water supply. The need of water changes according to the change in size and type of work. Oil - engines castings and job working require more than 15,000 litres of water supply.

Table 10, 4 reveal that supply of - - - electricity is not a problem, but it is irregular and - inadequate sometimes. 3 factories need additional power. Out of 35 factories, majority i.e. 15 factories need - electricity upto 5 Kwh., Eleven factories need between 10 - 15 Kwh. and one needs more than 15 Kwh.

Table -17-A:

We can say that job-working and finishing -
factories require a large number of workers per factory
as compared to other factories. One new oil engine requires
10 workers, Castings require 9 workers, repair Shop 6 -
workers, job work 16, Steel fabricators 2 and production of
flywheel 8 more persons. This means for the manufacture of
one oil engine 20 additional persons are needed. Out of -
35 factories, 24 factories were in need of expansion, but
only 20 factories provide additional job facilities and -
remaining 4 factories do not provide additional job - - -
facilities i.e. they have sufficient workers.

..... X

ELECTRICITY.

(Table - 17 :

It is seen from the table No.17 that most of the sampled factories were using electric power as a major source of motive power for the purpose of manufacturing - of engineering goods. The major reason for such greater reliance on electricity is cheapness and regularity of its supply. Since 1966, on account of expansion of industrial activities the supply of electricity has become irregular and shortage of electricity has been experienced. This - shortage was also one of the contributing factors sustain- -ing the recessionary trends. It is told that the - - - expansion programmes of the then existing factories were held up mainly due to reluctance of MSEB authorities. - - - Though the new additional requirements of transmission of electricity were not permitted, the observed expenditure on electricity in comparison with other other sources of motive power was considerably larger in magnitude. Thus it is seen that out of the total sampled factories, 36% spent the amount on electricity in the range between Rs.1000 and Rs.3000; 7% spent between Rs.3000 to 5000; 29% between -

Rs. 5000 to 10,000 7% of the factories spent the amount exceeding Rs.10,000. Some factories i.e. 21% spent the amount less than Rs.1000/- for the purpose of electricity.

The expenditure incurred on oil and gas was found insignificant because of gas or oil in production process of the engineering units is of marginal nature.

The engineering units also need coal and gas for the purpose of melting the pig-iron or such other activities i.e. fabrications etc. They in addition to expenditure on electricity have to incur the expenditure on coal and gas. Thus it seems from the observed data that out of the total sampled units 71% used, in addition to electric power, Coal and gas in the process of production.

Table No.-14 - provides the information about the consumption of electricity in units. It seems that as large as 43% units, consumed more than 2000 units of electricity in the year under study.

From the statistics and other information in the survey the following conclusions can be deduced. - -

- i) The big sized engineering units use electricity as a main source of motive power.
- 2) The supply of electricity seems to be inadequate when compared to demand.
- 3) Most of the manufacturing units are eager to get more supply of units of electricity and they have demanded the increase in the total connected load. Table - 7 shows the present position of total connected load of the engineering concerns in Kolhapur.)

..... X

Table - 30 :

In all the 35 units surveyed 63% units are - - self employed; 11.4% units pay wages upto Rs.10,000 p.a., 28% units pay between Rs.10 - 20 thousand and 11% units pay between Rs.25000/- and above.

This shows payment of wages is not a problem before small units as they depend on their own labour.

Table - 13:

It is revealed that 63% of units pay wages upto 10 thousand only; 7 units in repair 3 oil engines and - 1 jobwork unit pay wages between Rs.30 thousand and above p.a., and the remaining units pay between Rs.10 to 20 - thousand. Wages paid do not show much significance.

Table - 29:

Reveals that 28% of small units surveyed spend between Rs.2000/- to 5000/-; 50% spend between Rs.5000/- to Rs.25000/- on process of production administration, disposal of products.

Table - 26:

Reveals the position of 14 units. Partnerships show that all the 7 units spend above Rs.2500/- to 10000 and above. Proprietorship firms spend between Rs.1500 to 2000. Partnerships seem to be more significant. 50% of these units have partnerships.

Table - 27:

Out of 14 units, 28.57% units spend between - - Rs.3000/- and above; 50% spend between Rs.1000/- to 3000/- and 21% between Rs.500/- to 1000/- on raw materials. Number of units spending more than Rs.3000/- is less as compared to 70% units spending less i.e. between Rs.500/- to Rs.3000/- p.a.

Table - 23:

Reveals the value of plant and machinery used is small. 50% units have spent upto Rs.50,000/- and 50% units - spent between one lakh to 3 lakhs. The remaining spend - - between Rs.50,000/- and Rs.one lakh.

Table - 23: Monthly rent paid.

Out of 35 units surveyed. 11.42% units do not pay any rent. They carry on production in their own house; with the help of their family members as revealed behind. 22.85% units pay upto Rs.300/-; 14.28% units pay Rs.300/- to 500/-; 37.14% units pay between Rs.500/- to Rs.1000/-; 14.28% pay between Rs.1000/- to Rs.1500/- only.

As compared to wages, expenses on rents are less but more as compared to raw material.

Table - 24 :

Shows different raw materials needed by - - - different factories. The raw material of oil engines viz. Piston liner etc. are the end products of ancillaries. - Besides the units need pigiron, paints etc. they have to be imported. These units' use electricity and gas. Plentiful though sometimes inadequate and irregular - electricity is available. Spare parts produced locally are available.

Table - 24-A:

Out of 14 units the value of tools used by 42.85% units was between Rs.25 thousand to Rs. one lakh; and - - another 42.85% units used tools worth Rs.25,000/- only;

14.28% units used from Rs.150,000/- to above 2 lakhs - -
 machinery. The number of units using expensive machinery
 is small. As compared to these small units, other units -
 spend between Rs.25,000/- to Rs.125000 .Majority of units
 use between Rs.25 thousand to Rs.50,000/- worth machinery.

This shows that as they specialize in spare -
 and component parts, they do not use costly machinery. -
 This may reflect another point. These units have been - -
 established earlier, so they got the advantage of low - -
 prices. Hence expenses seem to be low.

Table -- 16:

Reveals that 21% factories which are private Ltd.
 pay Rs.6.19 lakh among their 311 workers i.e. approximately
 Rs.160/- p.m. per worker. 50% of factories which are - -
 partnerships pay Rs.4.39 lakhs among 257 workers i.e. -
 Rs.142/- p.m. per worker. Co-operatives pay Rs.158/- p.m.
 per worker.

2) Private Ltd. units spend Rs.17194/- per month
 on factory expenses; Partnership units spend Rs.5226/- per
 month and Co-operatives spend Rs.15375/- per month on - -

factory expenses.

It reveals that the position of private Ltd. units is sound, as they spend comparatively more on workers and factory; followed by Co-operative units. Partnership units are comparatively less sound in both respects.

Table - 16 :

Reveals space requirement. Job-working and Oil engines need large space. We found that oil engines show willingness to shift to Shirolu because of this consideration.

Table - 33 :

Reveals that out of 35 units surveyed, 21 units have upto 100 Sq. mts. total area. Out of this 15 units have upto 50 Sq.mts. built up area; 6 units have 50 to 100 Sq. mts. built up area. This shows that large number of units surveyed have ample open space, but they did not build it. 51.42% of units have built up area upto 50 Sq.mts. only; 20% units have built up area between 50 to 100 Sq.mts; 8% units have built up area between 100 to 200 Sq.mts; 5% have built between 200 to 300 Sq.mts. 2.85% have built between

300 to 400 Sq. mts., 11% have built up area between 500 to 700 Sq. mts.

8% units have open space between 100 to 200 Sq. mts., out of this one unit has built up area between 100 to 200 Sq.mts., 4 units have open space between 200 to 300 Sq.mts. Out of that 2 units have built up area between 200 to 300 Sq.mts. One unit has 300 to 400 Sq.mts. open space and it built up the entire space. One unit has 500 to 700 Sq.mts. open space which is completely built up. Three units have between 500 to 700 Sq.mts. open space; out of that one unit built up the entire space Two units have 1000 Sq.mts. and above, which is entirely built up.

This shows that units having larger open space in the range from 300 to 700 Sq. mts. and above have built up the entire area. Small units have comparatively limited space and 60% units in this category could build up upto 50 Sq.mts. only. Their difficulties seem to be 1) financial and low profits due to decline in the demand for their products.

Table - 1 :

80% units have land upto 300 Sq.mts., out of which 60% have lands costing upto 5000 only. 17% units have 500 and above sq.mts. land. 2.85% units have lands costing

between Rs.50,000/- and above; and remaining five units - have lands costing between Rs.10,000/- and Rs.30,000. This shows costs of lands are Cheap, but land has not been - properly utilized for plant layout.

We have seen some units need additional land, - water and labour. But this additional demand must have been made by large among small units. The small units i.e. 19 - nits do not need additional facilities, such as water, - electricity.

Table - 3 :

Reveals that number of units requiring additional water above 50,000 ltr. is 4 only.

Table - 15 :

Out of 14 units, one unit spends more than Rs.10,000/- on electricity, 4 units between Rs.5000/- to Rs.10,000/-; 5 units between Rs.1000/- to Rs.3000/-; 3 units between - Rs.500/- to Rs.1000/- on electricity. Use of electricity is larger.

Table - 6 :

Out of 14 units surveyed 2 units use more than

3000 Sq.mts. land for production purposes, of this one unit is Co-operative and one is private Ltd. One out of 7 - - - partnership units uses 2000 to 3000 Sq. mts. land for - - - production purposes. 8 units use land between 500 to 700 Sq.mts. for production purposes. Number of units using - larger area for production purposes is small.

Table -22 :

Reveals that out of 6 units in the range between one to more than two lakhs, 2 units have production - - - buildings worth Rs.2 lakhs or above; 2 units have one to 1.25 lakh Rs. worth buildings; 2 units have one to two lakh Rs. worth building. The value of buildings used for production does not seem to be high as compared to Bombay and Poona. The land value, construction costs are cheaper. Majority of the units do not have modern plant layout.

Table - 15 :

Out of 35 units, 5 units have spent Rs.200,000 and above on Selling and administrative costs; 3 units - spent between one to two lakhs; one unit between Rs.50 - thousand to one lakh, and 26 units spend between - - - -

Rs.25,000/- to Rs.50,000/- on administration and selling costs. Majority of the units have depended on 'local - markets ' and they are their own managers, administrators and sellers. Hence they do not have more marketing and - administrative expenses.

The small number of larger units are developing and expanding their markets. They have to incur expenses on administration and marketing.

Table - 22:

65.71% units face difficulties on account of - - capital, 34.25% on account of raw material; 25.71% on plant and machinery, and selling respectively ; 8.57% Units face difficulty in getting license; 5.71% need guidance; 2.55% face transport difficulty. Thus the real difficulty seems to be 1) Finance 2) Raw Material 3) Marketing and 4) Machinery. The financial institutions have to play important role; they have played the role. Marketing difficulties point out that the units are in need of outside markets, as we have seen (Table-15) they do not spend more on selling. New markets must be explored. This needs quality products. Improvement in

quality of spare and component parts of oil engines also can open wide markets. Diversification is desirable; but does not seem to be possible on a large scale.

----- X -----

CHAPTER - VIIIFINANCETable 20 :

Out of 35 factories surveyed, 13 factories do - not require any finance from other sources as they have their own capital. The number of production units which need finance in the range upto 25,000 is 14, the units in the range of -- 25- 50 thousand are 3, and in 50 - 100 thousand the number is one, in the range of 1 lakh and above the number is 4. Majority of the units is small, hence they need finance upto 25 thousand rs. Firms producing oil engines need between 1 to 2 lakhs of rs.

Table 21.

It reveals the liability of the production units in various ranges. Oil engine units seem to be highly indebted due to the failure of sales during recession. Ancillaries are not demanded by the oil engines as recession is extended to them also.

Table- 17

17 factories do not have credit standing in the - market. Out of them 7 are in oil engines. They have credit - standing in the range of one to two thousand, 4 in two to -- five and remaining four in the range of 5 and 10 thousand.

Table- 14

17 factories borrowed the amount upto 25,000 only i.e. 50% of factories need finance upto 25000, 6 factories need finance above 2 lakhs and out of 6 factories 4 are oil engines. Oil engines require more finance.

Table- 25.

Out of 69 proposals submitted by 35 units surveyed, 42 were sanctioned by financial institutions, 5 were ---- sanctioned by money lenders, 4 by co-operative institutions and 13 by Government.

Table-26

More than 50,000 rs. are required for meeting the following types of capital, 16 factories need loans for ----

promotional capital 9 need for ' plant and machinery ', 6 need for 'working capital ' and 3 for building . Major amount of -- loan is needed by 50% , of the factories i.e. for ' promotional capital'. Larger amount for promotional purpose is needed by 16 factories.

Table-27

It reveals that institutions provided initial --- capital to 20 cases, fixed capital in 11 cases and working capital to 11 cases. Role of Government and co-operatives is insignificant. Individual's contribution is considerable.

.....

CHAPTER - IXMarketing Problems.Table - 32:

Out of 35 units 13 units have incurred on transport in the process of disposal of finished products in the range of Rs.300/- to Rs.1000/-; Eleven units do not have to incur expenditure at all; another eleven units spend between - - Rs.1000/- to Rs.1500/- only. This shows that the units rely on i) Sells to local market 2) to adjoining places and -- districts in the State of Maharashtra and 3) to other States in India, in order of expenses.

Table - 3:

Shows they have concentrated on Oil engines, - - - mainly spare and component parts. They are slowly trying to diversify the products.

Table - 18:

Out of 14 units, 2 units spent more than Rs.500,000/- on raw material; 3 in the range of Rs.3 to 5 lakhs; 2 units in the range of 2 to 3 lakh; 5 in the range of one to two - lakhs and two units spend upto Rs.10,000/- only. P.C.of units

spending above Rs.5 lakhs is small (2), Twelve units spend upto Rs.5 lakh only on raw materials.

Table - 11 :

As a result of the use of all the facilities - available or difficulties faced different types of units effected different value of production. Out of 35 units -- surveyed, 17 units were oil engine units. Out of 17 such -- units, 5 units earned more than lakh Rs; 2 units between Rs.50,000/- to one lakh, and 10 units between Rs.10,000/- to Rs.50,000/- only. One casting unit, one repair and spare, one finishing and one flywheel unit effected value above - Rs. one lakh. 15 units (consisting of all types) out of - - 35 units surveyed effected value between Rs.10 to 50 thousand, and 7 units upto ten thousand. Thus 22 units effected -- between Rs.10 to 50,thousand units earning more than one lakh are less.

All these tables reveal that larger number of -- small units carried production in limited space, used - - family labour, did not need more raw material, electricity or water, nor did they spend more on administration, selling and transportation.

They relied on one product viz. spare, components of oil engines; and allied services; and depended on local market.

These units fared well their number rose till - the occurrence of recession. When recession was coming up intermittantly, they faced the real difficulties in - - survival. Due to decline in demand for oil engines in - - Kolhapur, the problem became serious. Kolhapur market - - protected the units for some times by giving them assured markets; but extension of electricity, discontinuation of taccavi loans, the units could not be protected. They had to improve the quality of the products or diversify the products. But untrained in other products, unaware of new - market trends, Unfamiliar with modern technology or - - - management, the units find difficulties in survival in the traditional set up or pattern of product and organization. One has to admit that mere skill and efficiency is not - sufficient in modern industrial world. It must be accompanied by organizational abilities in which management, of finance, marketing, production or personnel is inseparable. The - ability to utilize the facilities in changing world is a constraint.

In Kolhapur we find few firms who could diversify and export successfully. They have utilized the facilities in a better way. They are private Ltd. units; followed by co-operatives. They try to survive and grow successfully. The past experience shows, engineering units in Kolhapur - have shown gradual transformation over preceding traditions, under the impetus or motivations given by earlier rulers, and mestris. In recent times the govt. sponsored units and modern entrepreneurs will motivate the units who are lagging behind; in the art of organization and management. - - - - Engineering units have ample scope.

----- X -----

DESCRIPTION LISTER 6 H.P.

PLATE I - CAMSHAFT IDLER GEAR ASSEMBLY.

1. Camshaft.
2. Cam for Exhaust Valve.
3. Cam for Inlet Valve.
4. Cam for Fuel Pump.
5. Governor Gear Wheel.
6. Governor Weight.
7. Governor Weight Spindle.
Governor Weight Spindle Split Pin.
- 8) Governor Sleeve.
9. Collar for Camshaft.
10. Taper Pin for Cams (No.6) 5/16"
11. Idler Gear Wheel.
12. Idler Spindle.
Idler Spindle Spring Washer.
Idler Spindle Lock Nut.

PLATE II - FUEL BRACKET ASSEMBLY.

1. Fuel Pump Bracket
2. Fuel Pump Bracket Bush.
3. Camshaft End Cover Joint.
4. Nut for fixing Fuel Pump Bracket to Crank Case.
5. Pump Tappet (WITH FOOT)
6. Governor Inside Lever with Roller and Pin.

PLATE II (contd.)

7. Governor Bottom Lever Spindle.
8. Governor Inside Lever Spindle Taper Pin 3/16".
9. Governor Bottom Lever.
10. Governor Bottom Lever Bush.
11. Governor Connecting Rod (with Fork)
12. Governor Connecting Rod Fork.
13. Joint Pin for Fork.
Split Pin.
14. Governor Upper Lever.
15. Governor Upper Lever Fulcrum Pin.
16. Fulcrum Pin Washer.
17. Upper Lever Eye End Joint Pin.
Split Pin.
18. Governor Upper Lever Eye End.
19. Joint Pin for Fork.
20. Governor Spring.
21. Governor Spring Hook.
22. Governor Spring Hook Adjusting Nut.
23. Bracket for Governor Spring.
24. Cut off Hand Lever.
25. Cut Off Spindle and Eccentric.
26. Cut Off Spindle Taper Pin.
27. Tappet for Fuel Pump With Roller and Pin.
28. Tappet Adjusting Screw.
29. Tappet Adjusting Screw Lock Nut.
30. Tappet Fixing Screw.
31. Tappet Fixing Screw Lock Nut.
Oil Seal for Fuel Pump bracket.

PLATE III - CRANKCASE ASSEMBLY.

1. Crank Case Body.
2. Crank case Rear Door.
3. Crank case Front Door.
4. Crank case Breather Body.
5. Breather Plate.
6. Spacing Bush for Breather Plate.
7. Breather Cover.
8. Breather Disc.
9. Splash Guard for Door.
10. Crank case Splash Plate.
11. End Bearing for Camshaft.
12. Valve Tappet (Inlet & Exhaust)
13. Valve Tappet Guide.
14. Valve Lifter.
15. Valve Lifter Operating Handle.
16. Valve Lifter Swivel Pin.
17. Valve Lifter Pin.
18. Cylinder Liner with rubber ring.
19. Cylinder Head Gasket.
20. Cover for Camshaft End.
21. Crank case Rear Door Joint.
22. Crank case Breather Body Joint.
23. Oil Drain Plug.
24. Dip Stick.
25. Bolt for fixing Breather Body.
26. Screw for Breather Plate.

PLATE - III (contd.)

27. Set Screw for Breather Cover.
28. Cylinder Head Stud ($\frac{3}{8}$ " BSW)
29. Liner Rubber Ring.
30. Cylinder Head Stud (9/16" BSW)
31. Stud for Rear Door.
32. Stud for Main Bearing Housing.

Clamps for Tappet Sleeve

Drain Plug with Washer for Mark II Engines.

Front door packing.

Tappet Sleeve for Mark II Engines.

PLATE - IV- CRANKSHAFT CONNECTING ROD & PISTON ASSEMBLY.

1. Crankshaft with Pinion.
2. Main Bearing Oil Seal.
3. Crankshaft Main Bearing Bush.
4. Crankshaft Main Bearing Bush Screw.
5. Crankshaft Main Bearing Housing.
6. Main Bearing Housing Joint.
7. Main Bearing Housing Nut.
8. Spring Washer for (7)
9. Connecting Rod with Bolts and Nuts.
10. Connecting Rod Small End Bush,
11. Connecting Rod Bearing (Pair)
12. Connecting Rod Bearing Shim.
13. Connecting Rod Big End Bolt.

PLATE - IV (contd.)

14. Nut for (13)
15. Connecting Rod Dipper with Nut.
16. Piston.
17. Piston Compression Rings.
18. Piston Oil Scraper Ring.
19. Gudgeon Pin.
20. Gudgeon Pin Retaining Clips
- Crankshaft Gear.
- Flywheel
- Flywheel Key.

PLATE V - CYLINDER HEAD ASSEMBLY.

1. Cylinder Head.
2. Combustion Chamber.
3. Plug for Combustion Chamber.
4. Stud for Water Flange $3/8"$ BSW x $1\frac{1}{2}"$ L
5. Water Flange Joint.
6. Water Flange.
7. Stud for Injector $7/16"$ x $3-\frac{3}{8}"$ L
8. Injector Flange.
9. Valve for Cylinder Head (Inlet & Exhaust)
10. Push Rod for Exhaust Valve (with Collar)
11. Push Rod for Inlet Valve.
12. Exhaust Valve Guide.
13. Inlet Valve Guide.
14. Valve Spring Outer.
- Valve Spring Inner.

PLATE V- (contd.)

15. Valve Spring Carrier.
 16. Valve Couters (pairs)
 17. Valve Stem Cap.
 18. Valve Rocker Striking Pin.
 19. Valve Rocker.
 20. Valve Rocker Bracket.
 21. Valve Rocker Shaft.
 22. Valve Rocker Shaft Greaser.
 23. Valve Rocker Bush,
 24. Rocker Shaft Spring.
 25. Washer for Greaser.
 26. Grease Connection (for Rocker Shaft)
 27. Grease Cup.
 28. Rocker Adjusting Screw with Lock Nut.
 29. Head Cover.
 30. Air Inlet Stud $3/8"$ x $1\frac{1}{2}"$ L
 31. Air Inlet Joint.
 32. Air Inlet Body.
 33. Spring Washer.
 34. Stud for Head Cover.
 35. Expansion Plug.
- Set of Joints in Kit.
- Bracket for Mounted fuel tank
- Valve Rocker with Bush and Striking Pin
- Head Cover Nut
- Exhaust Silencer Body.
- Exhaust Silencer Pipe.

PLATE VI - FUEL OIL SYSTEM.

1. Filter Union Screw.
 2. Washer for (1).
 3. Fuel Filter Body.
 4. Filter Vent Lock Screw.
 5. Washer for (4)
 6. Filter Vent Screw.
 7. Filter Element (Felt)
 8. Filter Element Container
 9. Fuel Pipe Filter to Pump.
 10. Banjo Union for Fuel Pump.
 11. Washer for (10)
 12. Banjo Bolt for Fuel Pump.
 13. Fuel Pump (Mico Bosch)
 14. Fuel Pipe Pump to Injector.
 15. Lock Nut for (14)
 16. Washer for (14)
 17. Fuel Injector complete.
- Fuel Injector Nozzle.
- Fuel Injector Nozzle Cap Nut.
- Fuel leak off pipe.
- Fuel Filter Complete Unit.
- Fuel Tank 20 Litres Capacity.
- Fuel Tank 6 Litres Capacity.
- Clamps for Tank.
- Brass Cock for Fuel Tank.

PLATE VII - LUBRICATING OIL SYSTEM.

1. Lubricating Oil Pump Body.
 2. Lubricating Oil Pump Plunger.
 3. Lubricating Oil Pump Spring.
 4. Lubricating Oil Pump Spring Cover.
 5. Lubricating Oil Pump Tappet (with Foot)
 6. Tappet Foot End Pin.
 7. Pump Hand Lever.
 8. Pump Hand Lever Swivel Pin.
 9. Pump Delivery Pipe.
 10. Pump Outlet Connection.
 11. Pump Ball Valve Spring.
 12. Pump Ball Valve.
 13. Suction Strainer.
 14. Foot Valve with Ball.
 15. Pump Suction Pipe Complete Assembly.
 16. Washer for (15)
 17. Locking Nut for Suction Pipe.
 18. Pump Body fixing Bolt.
 19. Distribution Pipe Lock Nut.
 20. Washer for Distribution Pipe.
 21. Distribution Pipe and Union.
 22. Distribution Pipe and Support.
 23. Distribution Pipe Lock Nut.
- Straight Pipe 10" Long.
- Oil Seal for L.O.P. Body.