APPROVED
CANTEEN
CYCLE STAND
F.M. PLANT
F.M. PLANT EXTN
GEN. STORE
LAB
OFFICE
PANTRY
ROOM
MAINTENANCE SERVICE
OIL TANKS YARD
TRANS FORMER YARD
SUB STATION - I
BONDED GODOWN
R.G. STORES
AISLE
FINISHING SECTION
TELCO CELL
SHED TO BE DEMOLISHED
RAW MATERIAL STORAGE
TRANS FORMER YARD
SUB STATION - II
MIXING SECTION
KEY PLAN
MIXING SECTION
F.M. PLANT SECOND FLOOR
F.M. PLANT FIRST FLOOR
R&D BLOCK
R&D BLOCK FIRST FLOOR
COLOUR REFERENCE
PLAN SHOWING THE EXISTING & PROPOSED
MACHINERY LAY-OUT & SITE LAY-OUT FOR
M/S. RANE BRAKE LININGS LTD.
TECHNO DESIGNERS.
ECO
MADRAS - 30

LIST OF MACHINERY

SHEET NO-1

S.L No	M/C No	DESCRIPTION OF THE M/C	No of motor	TOTAL H.P	HEATING LOAD IN KW
		Tool Room			
1	29	KIRLASKAR LATHE	2	1.5	
2	30	DRILLING M/C	1	1.5	
3	31	TOOL & CUTTER GRINDER	2	3	
4	32	POWER HACK SAW	1	1	
5	33	SHAPING MACHINE	1	3	
6	34	PEDESTAL GRINDER	1	1	
7	35	RADIAL DRILLING MACHINE	2	3	
		Q.C. Lab			
1	36	DRILLING MACHINCE	1	1	
2	37	HOT AIR- OVEN			2
3	38	- DO -			2
4	39	MUFFLE FURNACE			4
5	40	VACCUM PUMP	1	1	
6	41	HOT PLATE (SETTING TIME)			1
7	42	FUM CHAMBER & EXTRACTOR	1	1	
8	43	SAXLET APPARATUS			1
9	44	GANSON - DISTILLED WATER STILL			3
10	45	ROTAP SIEVE MACHINE	1	1	
11	46	G S R D		10	
12	47	Q.A RIG	1	2	
		R.B.B. Section			
1	611	RAILWAY BLOCK PRESS	1	5	6
2	620	- DO -	1	5	6
3	617	- DO -	1	1.5	6
4	614	- DO -	1	1.5	6
5	615	- DO -	1	1.5	6
6	616	- DO -	1	1.5	6
7	612	- DO -	1	1.5	6
8	619	- DO -	1	1.5	6
9	613	- DO -	1	1.5	6
10	618	- DO -	1	1.5	6
11	621	45-T- RAILWAY BLOCK PRESS	1	5	6
12	622	- DO -	1	5	6
13	623	- DO -	1	5	6
14	624	- DO -	1	5	6
15	502	BOX OVEN	1	1	18
16	503	- DO -	1	1	18
17	48	SIEVE	1	1.5	
18	604	POLYMER KETTLE	1	3	
19	601	36 K.G. ZIGMA MIXTURE	2	12	4
20	602	100 K.G - DO -	2	18	6
21	606	DISINTIGATER	1	20	
		OLD F.M. Plant			
1	514	STANDARD GRINDER	1	10	
2	515	- DO -	1	10	
3	522	SIEVE	1	1.5	
4	524	- DO -	1	1.5	
5	520	100 K.G WING WORTH MACHINE	1	7.5	
6	521	50 K.G - DO -	1	5	
		NEW F.M. PLANT			
1	49	POLYMER PUMP	1	7.5	
2	566	PRE BLENDER	1	10	
3	557	TNHLO SIEVE	1	3	
4	558	- DO -	1	3	
5	561	SCREW CONVEYOR	1	3	
6	559	MIRACLE MILL	1	25	
7	560	- DO -	1	25	
8	555	COOLING BLENDER	1	7.5	
9	556	DO	1	7.5	
10	553	COOLING KETTLE	1	6	
11	562	ROTARY VALVE	1	1	
12	563	BLOWER (2 nos)	2	10	
13	564	INCLINED CONVEYOR	1	1	
14	565	HOPPER CONVEYOR	1	1	
15	554	ZIGMA MIXTURE No 1	3	43	14
16	567	- DO - No 2	3	43	14
17	551	REACTION KETTLE No 1	1	5	24
18	552	- DO - No 2	1	5	24
19	50	COOLING TOWER PUMP	2	6	
				376.50	196

S.L No	M/C No	DESCRIPTION OF M/C	No of motor	TOTAL H.P	HEATING LOAD IN K.W
20	51	BLOWER (1 nc)	1	5	
21	52	SCRUBBER PUMP	2	4	
22	53	BLOWER	1	15	
23	54	CHEMICAL PUMP (2 nos)	2	6	
24	55	UNIT DUST COLLECTOR	2	6	
25	56	HOIST	1	1.5	
26	57	CNSL PUMP	2	6	
		Maintenance service			
1	58	COMPRESSOR	1	1	
2	59	DRILLING M/C	1	1	
3	60	HYDRALIC TESTING UNIT	1	25	
		Reaserch & Development block			
1	61	GSRD	1	7.5	
2	62	BURSTING M/C	1	5.5	
3	63	DRILLING M/C	1	2	
4	64	LATHE	1	1.5	
5	65	MINI LODIGE M/C	2	6	
6	66	UNIVERSAL TESTING M/C	1	5	
7	67	OVEN			2
8	68	-DO-			2
9	69	- DO-			2
10	70	TUMBLER M/C	1	1	
11	71	AIR COMPRESSOR	1	5	
12	72	ZIGMA M/C- SMAPR	1	1	
13	73	INERTIA DYNAMO METER	2	160	
14	74	BLOWER-FOR- I. D. 2 nos	2	12.5	
15	75	I.F.W.	2	11	6
16	76	AIR COMP RESSOR	1	1	
17	77	CLUTCH DYNAMO METER	1	40	
18	78	FUME EXTRACTOR	1	2	
19	79	ACETONE EXTRACTOR			1
20	80	FURNACE			3
21	81	OVENS (2 nos)			4
22	82	ROTAP SIEVE SHAKER		0.25	
23	83	VACCUM PUMP		0.30	
24	84	WATER HEATER			1
25	85	DISTILLED WATER STILL			3
26	86	SALT SPRAY COMPRESSOR	1	2	
		Generator Room			
1	87	WATER PUMP 860-KVA GENSET	1	7.5	
2	88	AIR COMPRESSOR MOTOR 860-KVA GENSET	1	15	
3	89	COOLING TOWER MOTOR - DO -	1	7.5	
4	90	WATER PUMP - 608 KVA GENSET	1	7.5	
5	91	AIR COMPRESSOR	1	10	
6	92	COOLING TOWER MOTOR 608 KVA GEN SET	1	5	
7	93	CENTRI FUGE PUMP	1	1	
8	94	WASP PUMP	1	0.50	
		Utilities - Other services			
1	95	DUST COLLECTOR MOTOR (FINISHING)	1	30	
2	96	- DO -	"	"	
	97	DUST BLENDER	1	10	
	98	DUST COLLECTOR VACCUM CLEANER	1	40	
	99	COOLING TOWER WATER-PUMP	1	7.5	
	100	- DO-			
	101	OVERHEAD TANK - WATER PUMP	1	5	
	102	- DO -	1	5	
				523.05	24

S.L No	M/C No	DESCRIPTION OF M/C	No of motor	Total H.P	HEATING LOAD IN KW
	103	A.D. BLOCK WATER PUMP	1	2	
	104	CANTEEN WATER PUMP	1	2	
	105	CANTEEN BOREWELL PUMP (washp)	1	2	
	106	CANTEEN BOILER WATER PUMP	1	05	
	107	BOREWELL PUMP IN FRONT OF R & D	1	7.5	
	108	- DO - SOUTHSIDE BOUNDRY	1	20	
	109	MOTOR FOR FIRE EXTINGUISER	1	50	
	110	KIRLOSKAR COMPRESSOR	1	2	
		Canteen			
	111	WET GRINDER	1	2	
	112	- DO -	1	1	
	113	BOILER			
				107.00	38

Planning Permit No. C/PP/233B/5
APPROVED
SUBJECT TO THE CONDITIONS IN THIS OFFICE LETTER.
No. C2/14874/90 Date 5-10-90
FOR MEMBER SECRETARY
MADRAS METROPOLITAN DEVELOPMENT AUTHORITY
MADRAS - 600 008.

Scrutiny Sheet ②

TOTAL H.P 376.50
(+) 523.05
(+) 107.00
1006.55 — 1006.55 - HP

TOTAL K.W 196.00
(+) 24.00
(+) 38.06
158.06 (or) 214.97 - HP

GRAND TOTAL IN (H.P) 1221.52 - H.P

For RAJE BRAKE LININGS LIMITED.,

K. S. KRISHNASWAMY
Director & Chief Executive

K. GOVINDARAJAN,
CIVIL ENGINEER,
Licensed Surveyor Class I, (489)
CORPORATION OF MADRAS,
No. 9, Ist Street, Sakthi Nagar,
MADRAS-94.

LIST OF MACHINERY

SHEET NO. 2

M.P.C. Area

S.L. No	M/C No	DESCRIPTION OF THE M/C	No. OF MOTOR	TOTAL H.P.	HEATING LOAD IN KW.
1	329	NEW 600-T DOUBLE DAY LIGHT CURING PRESS	3	56	12
2	330	- DO -	3	56	12
3	381	360-T CURING PRESS	1	20	10
4	382	- DO -	1	20	10
5	383	- DO -	1	20	10
6	391	- DO -	1	20	6
7	331	600-T TRIBLE DAYLIGHT CURING - PRESS	2	32	18
8	332	- DO -	2	32	18
9	374	500-T CURING PRESS	3	32	36
10	375	- DO -	3	37	27
11	376	- DO -	3	32	6
12	377	- DO -	3	32	36
13	378	- DO -	3	32	36
14	1	600-T SINGLE DAYLIGHT CURING PRESS	2	53	6
15	2	- DO -	2	53	6
16	388	- DO -	2	53	6
17	389	- DO -	2	53	6
18	390	- DO -	2	53	6
19	3	600-T DOUBLE DAY LIGHT CURING PRESS	3	56	12
20	4	- DO -	3	56	12
21	5	200-T PER FORM PRESS	2	18	
22	385	500-T CURING PRESS	3	32	6
23	386	- DO -	3	32	6
24	201	75-T PRE FORM PRESS	1	15	
25	202	- DO -	1	15	
26	231	- DO -	1	15	
27	232	- DO -	1	15	
28	233	- DO -	1	15	
29	221	- DO -	1	15	4
30	222	- DO -	1	15	4
31	223	- DO -	1	7.5	
32	363	100-T TOGGLE PRESS	1	25	30
33	364	150-T - DO -	3	63	37
34	365	- DO -	3	63	37
35	54	TOGGLE PRESS	3	63	37
36	208	160-T PRE FORM PRESS	2	25	
37	209	- DO -	2	25	
38	321	600-T DOUBLE DAY LIGHT CURING PRESS	2	32	12
39	322	- DO -	2	32	12
40	323	500-T - DO -	2	32	12
41	324	- DO -	2	32	12
42	325	- DO -	2	32	12
43	326	- DO -	2	32	12
44	327	- DO -	2	32	12
45	328	- DO -	2	32	12
46	204	75-T PRE FORM PRESS	2	15	
47	205	- DO -	2	15	
48	206	- DO -	2	15	
49	224	- DO -	1	15	4
50	202	- DO -	1	15	
51	242	50-T - DO -	1	7.5	
52	384	500-T SINGLE DAY LIGHT CURING PRESS	3	32	6
53	131	LODIGE MIXING MACHINE	4	35	
54	132	- DO -	4	35	
55	133	- DO -	4	35	
56	134	- DO -	7	55	
57	5B	TUMBLING M/C	1	3	
58	6	LIFT	1	2	
59	7	SIEVE M/C	1	1.5	
60	8	- DO -	1	1.5	
61	9	- DO -	1	1.5	
62	10	- DO -	1	1.5	
				1798	558

DISC PAD AREA

S.L. No	M/C No	DESCRIPTION OF MACHINERY	No. OF MOTOR	TOTAL H.P.	HEATING LOAD IN KW.
1	902	250-T CURING PRESS	2	17	24
2	914	- DO -	2	17	24
3	906	PAINTING OVEN	1	0.5	12
4	913	BAKING OVEN	1	1	18
5	904	DEGREASING UNIT			6
6	903	SHOT BLASTING MACHINE	1	2	
7	915	C-FRAME PREFORM PRESS 25-T	1	7.5	
8	901	- DO - 30-T	1	7.5	
9	910	GRINDING MACHINE	2	6	
10	911	GROOVE CUTTING MACHINE	1	3	
11	912	PROOF TESTING MACHINE	1	1.5	
12	11	SPOT COOLING MACHINE	1	6	
13	12	DUST COLLECTOR	1	1.5	
14	13	FUME EXTRACTOR	1	3	
15	14	PORTABLE DUST COLLECTOR	1	5	
16	15	SCREW COMPRESSOR	1	40	
17	16	DE-HUMMIDIFIER	1	0.5	3

Baking-ovens

S.L. No	M/C No	DESCRIPTION OF MACHINERY	No. OF MOTOR	TOTAL H.P.	HEATING LOAD IN KW.
1	706	BOX OVEN	2	2	36
2	704	BENGALIN OVEN	1	5	60
3	705	- DO -	1	5	60
4	707	BOX OVEN	1	3	18
5	701	- DO -	1	1	18
6	702	- DO -	1	1	18
7	703	- DO -	1	1	18
8	17	BLOWER	1	20	30

Finishing Section (pcv-cell)

S.L. No	M/C No	DESCRIPTION OF MACHINERY	No. OF MOTOR	TOTAL H.P.	HEATING LOAD IN KW.
1	445	INTERNAL GRINDER	2	6	
2	446	- DO -	2	6	
3	416	PASSANGER GANG SAW	2	22	
4	444	EXTERNAL GRINDER	2	27	
5	450	DOUBLE SIDE GRINDER (R)	1	7.5	
6	464	MULTI SPINDLE DRILLING MACHINE	9	27	
7	17	STRAPPING MACHINE	1	0.5	
8	18	PRINTING MACHINE	2	2	

Leyland-Lcycells

S.L. No	M/C No	DESCRIPTION OF MACHINERY	No. OF MOTOR	TOTAL H.P.	HEATING LOAD IN KW.
1	411	OUT OF MACHINE	1	15	
2	19	PROTEL EXTERNAL GRINDER	2	23	
3	20	INTERNAL GRINDER	2	6	
4	443	SMT EXTERNAL GRINDER	2	45	
5	415	GANG SAW	2	45	
6	21	PRINTING M/C	2	2	
7	463	MULTI SPINDLE DRILLING MACHINE	9	27	
8	461	- DO -	9	27	
9	22	ANGULAR HOLE DRILLING MACHINE	2	8	
10	47	DOUBLE SIDE GRINDER	1	7.5	

Telco cell.

S.L. No	M/C No	DESCRIPTION OF MACHINERY	No. OF MOTOR	TOTAL H.P.	HEATING LOAD IN KW.
1	414	NEW COMMERCIAL GANG SAW	2	45	
2	441	3 mt. AUTO EXTERNAL GRINDER	2	45	
3	442	IMPORTED EXTERNAL GRINDER	2	23	
4	413	CUT OFF MACHINE	1	15	
5	449	DOUBLE END GRINDER	1	7.5	
6	464	NEW MULTI SPINDLE DRILLING MACHINE	9	27	
7	462	MULTI SPINDLE DRILLING MACHINE	9	27	
8	23	PRINTING MACHINE	2	2	
				652	345

CLUTCH FACING

S.L. No	M/C No	DESCRIPTION OF MACHINERY	No. OF MOTOR	TOTAL H.P.	HEATING LOAD IN KW.
1	455	DOUBLE SIDE GRINDER	2	10	
2	24	MULTI SPINDLE DRILLING MACHINE	9	27	
3	25	- DO -	9	27	
4	26	HAND DRILLING MACHINE	3	1.5	
5	454	DOUBLE SIDE GRINDER	2	10	
6	27	GRINDING MASTER	3	45	
7	453	SINGLE SIDE GRINDER	2	20	
8	452	- DO -	2	10	
9	203	75 T PREFORM PRESS	2	15	
10	241	50 T PREFORM PRESS	1	7.5	
11	28	GAS HEATING OVEN	2	2	
12	387	CLUTCH CURING PRESS			
13	372	- DO -			
14	392	350 T 4 DAYLIGHT CLUTCH FACING CURING PRESS	3	31	
15	393	- DO -	3	31	20
16	394	- DO -	3	31	20
17	395	- DO -	3	31	20
18	396	200 T - DO	3	21	20
19		INSPECTION TABLE			
20	63	STORAGE AREAS RAW MATERIALS MIXING & PREFORM			
				320	100

TOTAL H.P. : 1798
(+) 652
(+) 320
2770 — 2770·00 - (H.P.)

TOTAL K.W. : 558
(+) 345
(+) 100
1003 — (or) — 1364·63 - H.P.

GRAND TOTAL — 4134·63 - H.P.

NET H.P FOR THE FACTORY
4134·63 - H.P. (sheet no. 2)
1221·52 H.P (sheet no. 1)
5356·15 H.P.

Planning Permission No. C/PP/232/2/90
APPROVED
SUBJECT TO THE CONDITIONS IN THIS OFFICE LETTER
No. C2/14827/90 Date 5-12-90
FOR MEMBER SECRETARY
MADRAS METROPOLITAN DEVELOPMENT AUTHORITY
MADRAS - 600 008

For RANE BRAKE LININGS LIMITED.
K. S. KRISHNASWAMY
Director & Chief Executive

K. GOVINDARAJAN,
CIVIL ENGINEER,
Licensed Surveyor Class I, (487)
CORPORATION OF MADRAS.
No. 9, Ist Street, Saktiai Nagar,
MADRAS 94