Ministry of Physical Infrastructure and Transport Department of Roads Mechanical Branch

Chakupat, Lalitpur

Guideline for Estimating Equipment Ownership and Operating Costs



Date of Amendment: 2077.12.32 (BS)

Department of Roads Norms/Rate of Plant and Machinery

		#C			100 miles (100 miles (Fuel	Electricity Dem	and	Crew, hr	Assistant,hr
SN:	Equipments Harring Williams	Activity/ Usages	Ownership Cost (NRs/Hr)	Servicing (NRs/Hr)	Maintenance (NRs/Hr)	Fuel (L/hr)	Electricity (Units/hr)	Fuel Oil (Heating) (L/hr)	Skilled	Helper/Unskille
1	Air compressor /compressor with pneumatic breaker	General	192	42	50	5.73			0.125	
2	Asphalt Plant (Batch mix HMP/Drum mix plant/Hot Mix Plant)	Asphalt/DBM Production	693	108	173	6.91	15.00	200.00	0.125	
3	Batching Plant	Concrete Production	352	44		6.14	25.00		0.125	0.25
4	Bentonite pump	Drilled Hole Stabilization	26	3			2.00			
5	Bitumen boiler	Bitumen Heating	40	3	8	1.96		5.00		
6	Bitumen pressure distributor/Bitumen Distributor/ Bitumen Sprayer	Bitumen Spray	443	63		10.24		3.00	0.125	
7	Chip spreader	Surface Dressing/Chips Seal/Otta Seal	196	30		7.06			0.125	0.12
8	Cold mix plant	Cold Mix Asphalt/Premix	375	50	75	3.89	20.00		0.125	Company of the second
9	Concrete Pump	Concreting	80	5	10	3.06		March 1981	0.125	0.12
10	Crane	Lifting	820	145	338	10.13			0.125	0.12
11	Crane (3 T)	Lifting	599	106		6.75			0.125	0.12
12	Crane 15 t capacity	Lifting	1,147	163	431	14.63			0.125	0.12
13	Crane with grab bucket/dredger crane	Dredging	1,000	120	200	8.96			0.125	0.12
14	Dozer	Earthwork	1,300	330	550	14.14			0.125	
15	Drilling machine with bit and accessories	Earth Hole Drilling	126	24	36	1.30			0.125	0.12
16	Electric generator	Electricity	77	10		4.54			0.125	
17	Electric hand driller (HDEP work)	Hole Drilling	105	0			1.00			
18	Electric heating plate	Connection work	63	6	12		1.00			
19	Emulsion pressure distributor	Emulsion distribution	46	4		1.15			0.125	
20	Excavator	Excavation/Earthwork	620	165		14.40			0.125	
21	Grout Injection Equipment	Crack Repair	68	12			1.00		0.125	
22	Grouting pump with agitator	PSC Bridge construction related	147	28			2.00		0.125	
23	Hacking Machine	Jacketing prupose	42	8	16	1.30			0.125	A STATE OF THE STA
24	Hydraulic Jack (40 tonne capacity)	Bearing Installation/Repair	105	20	40	0.00				
25	Hydraulic Jack (required capacity normally 200 tonne)	Bearing Installation/Repair	256	33	56		5.00			
26	Jack hammer /Rock drill / Portable rock driller	Earthwork	22	3	5	1.62				
27	Loader	Material Loading	543	136	227	9.79			0.125	
28	Mastic cooker	Mastic Asphalt Production	69	5			1.00	2.88	0.125	
29	Mixture machine/Concrete Mixture Machine	Concrete Production	31	3	11	1.92				
30	Mobile slurry seal equipment	Maintenance	211	32		6.07			0.125	0.12
31	Motor grader	Laying	1,016	256	351	8.67			0.125	
32	Paver finisher	Asphalt	775	119		6.94			0.125	0.12
33	Piling rig (with all accessories)	Pile Construction upto 1.2m	1,600	267	267	7.84			0.125	
34	Plate compactor/power rammer	Light Compaction	54	9	19	1.46			0.125	
35	Pneumatic roller/Pneumatic tired roller	Compaction	539	57	296	8.19			0.125	
36	Premix Mixer	Premix Production	115	25	25	4.25		20.00	0.125	0.1
37	Road marking machine	Thermoplastic Painting	92	8		1.30				Ma
38	Road sweeper/Mechanical broom	Sweeping	297	34	68	6,40			0.125	
39	Screw Jack	Pipe Connection	0 53	0	0		0.00	1	J	A 40

Department of Roads Norms/Rate of Plant and Machinery

201 (A)						Fuel	/Electricity Dem	and	Crew, hr	Assistant,hr
SN	Equipments	Activity/ Usages	Ownership Cost (NRs/Hr)	Servicing (NRs/Hr)	Maintenance (NRs/Hr)	Fuel (L/hr)	Electricity (Units/hr)	Fuel Oil (Heating) (L/hr)	Skilled	Helper/Unskilled
40	Smooth wheeled roller/Smooth 3 wheeled steel roller	Compaction	173	13	40	5.40			0.125	
41	Stressing jack with pump	Prestressing	104	8	20		1.00			
42	Tipper	Transportation/Carry	148	23	55	6.76			0.125	0.125
43	Tractor with ripper attachment/Tractor Trolly	Ripping/Carry	83	13	33	4.50			0.125	
44	Truck flat body/Trailer	Carry	532	37	153	10.80			0.125	0.125
45	Vibratory roller	Compaction	461	66	159	7.28			0.125	
46	Water Tanker	Watering	270	38	110	4.32			0.125	
47	Wet mix plant	Base Production	433	67	100		30.00		0.125	0.125
48	Cutter(Bitumen Pavement/RCC Cutter)	Cutting	168	8	12	1.22				
			Note:	District Rate	Crew/hr =30x Da	aily Rate/(8*26)				



District Rate Assistant/hr =30x Daily Rate/(8*26)

Fuel Cost = Fuel Demand x Fuel Cost per liter at site / 1.13 Electricity Cost = Electricity Demand x Electricity Unit Cost

Crew/Assistant Cost = (Crew,hr x District Rate of Crew/hr) + (Assistant, hr x District Rate of

Assistant/hr

Rate of Plant & Machinery = Ownership Cost + Operational Cost (Servicing Cost + Maintenance Cost

+ Crew/Assistant Cost + Fuel/Electricity Cost)

सडक बिभाग

Guideline for Estimating Equipment Ownership and Operating Costs संसोधन प्रस्ताबको प्रतिबेदन

प्रतिबेदक: संयोजक स्रदस्य -सदस्य -सदस्य -सदस्य -सदस्य -

- सु.ई. प्रभात कुमार झा, संघीय सडक सुपरिवेक्षण तथा अनुगमन कार्यालय, सुर्खेत | सि.डी.ई, रमेश कुमार सिंह, श्री स.वि. योजना, अनुगमन तथा मुल्यांकन शाखा, लितपुर | सि.डी.ई. महेश कुमार पराजुली, श्री स.वि. यान्त्रिक महाशाखा, लितपुर | सि.डी.ई. शौरभ बज्राचार्य, गुणस्तर, अनुसन्धान तथा विकास केन्द्र, लितपुर | ईन्जिनियर केशव कप्रसाद ओझा, श्री स.वि. संभार महाशाखा, लितपुर | ईन्जिनियर अमित कुमार वर्मा, श्री स.वि. पुल महाशाखा, लितपुर |

- क) पृष्टभुमि
- ख) समितिको कार्य प्रक्रिया
- ग) विस्लेषण
- घ) प्रस्तिबित Norms/Rate of Plant and Machinery

अनुसूची

- १) उदाहरण Calculation
- **?) Detailed Calculation Sheets**
- 3) पुर्ब स्वीकृत दर

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क) पृष्टभुमि

मिति २०७७/१२/२४ को विभागीय निर्णय अनुसार गठित समितिले मिति २०७५/१०/०८ मा स्वीकृत Guideline for Estimating Equipment Ownership and Operating Costs अनुसारको Rate of Plant and Machinery को Norms 2075 मा बारम्बार प्रयोग हुने Truck, Crane, Generator, Asphalt Plant आदिको, जुन सुकै Item मा पनि उही Equipment Capacity रहेको तर Approved Departmental Equipment Hire rate मा बिभिन्न Capacity को बिभिन्न दर रहेकोले, कार्यालय/योजनाहरुमा Hire rate selection मा एकरुपता नरहेको, जसकारण लागत अनुमानको लागि One Equipment one Rate हुन् जरूरी रहेको, Truck/Grader/Roller/Air Compressor आदिका Departmental Equipment Hire rate निर्धारण गर्दा कायम गरिएको Ownership Charge र Operator Fee उच्च रहेकोले सोको संसोधन हुन् पर्ने तथा अन्य केहि बिषयको समय सापेक्ष संसोधनको आवश्यकता अनुरुप, सो जिम्मेबारी सहित ६ सदस्य विभागीय सिमिति गठन भएको थियो।

गठित समिति बिबरण:

संयोजक - सु.ई. प्रभात कुमार झा, संघीय सडक सुपरिवेक्षण तथा अनुगमन कार्यालय, सुर्खेत |

सदस्य - सि.डी.ई, रमेश कुमार सिंह, श्री स.वि. योजना, अनुगमन तथा मुल्यांकन शाखा, ललितपुर |

सदस्य - सि.डी.ई. महेश कुमार पराजुली, श्री स.वि. यान्त्रिक महाशाखा, ललितपुर |

सदस्य - सि.डी.ई. शौरभ बजाचार्य, गुणस्तर, अनुसन्धान तथा विकास केन्द्र, ललितपुर |

सदस्य - ईन्जिनियर केशव कप्रसाद ओझा, श्री स.वि. संभार महाशाखा, लिलतपुर | सदस्य - ईन्जिनियर अमित कुमार वर्मा, श्री स.वि. पुल महाशाखा, लिलतपुर |

ख) समितिको कार्य प्रक्रिया

समितिले Guideline for Estimating Equipment Ownership and Operating Costs अनुसारको Rate of Plant and Machinery को Calculation basis , बर्तमान Construction Industry को Capacity तथा Specification को ब्यबस्था अनुसार बिस्तृत Analytical Analysis र Professional Experience को प्रयोग गरि, संसोधन प्रस्ताब गरिएको छ |

ग) विस्लेषण

- Ownership Cost Calculation मा प्रयोग हुने
 Average Annual Cost = Purchase Cost x (Life+1) + Salvage Value x (Life-1) फोर्मुलाको संसोधन गरि
 2 x Life
 Average Annual Cost = Purchase Cost /Life कायम हुन् सिफारिस गरिएको छ
- २. Ownership Cost Calculation गर्दा Taxes and Storage/License Cost आबश्यक Item हरुमा मात्र लिइयो
- ३. Plant र Machinery को Capital Cost (Purchase Cost), औषत Construction Industry मा प्रयोग हुने Plant र Machinery को Specification को आधारमा कायम हुन् सिफारिस गरिएको छ
- ४. Maintenance र Service Cost calculation गर्न प्रयोग हुने क्रमशः Repair factor (RF) र Servicing factor (SF) को Value, Plant र Machinery को Specification को आधारमा संसोधन गरियो
- ५. Repair and Maintenance Cost = <u>RF x H x DC</u>

 h x 10000

 h = Annual Useful life Hours , DC = Depreciation Rate

प्रयोग गरिरहेको फोर्मुला अनुसार संसोधन गरि Repair and Maintenance Cost = <u>RF x Cost</u>

Н

Service Cost = SF x Cost

, H = Total Useful life Hours कायम, हुन् सिफारिस गरिएको छ

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- ६. Crew/Assistant Cost को हकमा देश भर उही प्रयोग गर्दा दुर्गमता/उपलब्धता जस्ता विषयको समाबेस नहुने भएकोले Crew/Assistant को Hr Quantity प्रस्ताब गरिएको र मुल्य Calculation गर्न 30x Daily District Rate/(8*26) को फोर्मुला प्रस्ताब गरिएको छ
- ७. Norms for Works Road and Bridges,2075 मा Crew cost समाबेश रहेका केहि Items of works मा प्रयोग हुने Equipment को हकमा Crew/Assistant Cost हटाईयो
- ८. Plant र Machinery को Specification को आधारमा Fuel Demand संसोधन गरिएको छ
- ९. Norms for Works Road and Bridges, 2075 मा उल्लेख रहेको Plant र Machinery बाहेकका Plant र Machinery लाई सुचीबाट हटायो

1.0 1.0	0'			OST ANALYSIS		
		Machine's	s Basic Info	rmation		
Equipme	nt:		Manufact	ured year:	Code No.	
Ma	ke:		Fuel Type			
Mod	de:			Diesel (SFC):		(ltr/hp-hr)
Power (h	p):	hp		Petrol (SFC:		(ltr/hp-hr)
Capacit	y:		Fuel	Load factor(FF):		A STATE OF THE STA
Purc	chase / Estimated Price (PP):		Tuei	Time factor(TF):		
	Useful Life (N):			Fuel Rate :		(Rs/Itr)
	Total Useful life Hours (H):	Total Landson		Fuel Consumtion:		(L/hr)
	Uses Hours per year (h):			Energy consumed:		(kwh)
	Tyre cost per unit (Ct):		Electric	Electric Charge:		(Rs/unit)
	Total no. of Tyres (tn):	1	Electric	Energy consumed rate		(unit/hr)
Ту	re replacement costs (TRC):					
	Tyre Average Life (hrs) (TL):			Repair factor (RF):		
Sp	ecial wear item cost (SWIC):			Servicing factor (SF):		
- 1	Interest Rate (IR):					I
perator I	M'thly Salary + Allw'nce(OS)					
		owi	NERSHIP COS	TS		
1	Purchase Price less tyre (P) (I	Rs)(Including a	ccessories ar	nd installation)		
	Estimated Salvage Value (S)					
	nnual (Rs/yr)					
	Insurance (Rs/yr)					
5	Taxes / Licence etc. (Rs/yr)					
6	Storageetc. (Rs/yr)					
	Average Annual Investment					
8	Annual Interest Cost (Rs)					
9	Annual Ownership Cost (Rs)		-p			
10	Estimated Hourly Ownership	Cost (Rs/hr)				
		OPE	RATION COS	TS		
11	Repair and Maintenance Cos	st (Rs/hr)				
	Tyre Replacement Cost (Rs/h					
	Fuel Cost (Rs/hr)					
_	Servicing (Oil, filters, grease	etc.) (Rs/hr)		774		
	Special wear items (blade, to)		
	Operator's hourly charge (Sa					
	Estimated Hourly Operating		1 (
_	Total Hourly Owning and					

Equipments	Fatinity Usages	Ownership Cost (NRs/Hr)	Fuel/Electricity	Crew Assistan t Charges	Servicing	Maintenance	Operation	Total Hire Cost
4	A CONTRACTOR OF THE PARTY OF TH	11 , 1 316 at the second	大约·1000000000000000000000000000000000000	101101905	The state of the state of	San Control of the Control	Cost	AND THE STATE OF T
r compressor /compressor with neumatic breaker	General	192	516	101	42	50	709	90
sphalt Plant (Batch mix HMP/Drum mix ant/Hot Mix Plant)	Asphalt/DBM Production	693	18,802	291	108	173	19,375	20,06
atching Plant	Concrete Production	352	853	291	44	88	1,276	1,62
entonite pump	Drilled Hole Stabilization	26	24	0	3	8	34	6
tumen boiler	Bitumen Heating	40	626	0	3	8	638	67
tumen pressure distributor/Bitumen stributor/ Bitumen Sprayer	Bitumen Spray	443	1,192	205	63	176	1,635	2,07
nip spreader	Surface Dressing/Chips Seal/Otta Seal	196	635	205	30	64	934	1,12
old mix plant	Cold Mix Asphalt/Premix	375	590	118	50	75	833	1,20
oncrete Pump	Concreting	80	275	188	5	10	478	55
ane	Lifting	820	911	205	145	338	1,599	2,41
ane (3 T)	Lifting	599	608	205	106	170	1,089	1,68
ane 15 t capacity	Lifting	1,147	1,316	205	163	431	2,115	3,26
ane with grab bucket/dredger crane	Dredging	1,000	806	205	120	200	1,331	2,33
ozer	Earthwork	1,300	1,273	118	330	550	2,271	3,57
rilling machine with bit and accessories	Earth Hole Drilling	126	117	205	24	36	381	50
ectric generator	Electricity	77	408	101	10	17	536	61
ectric hand driller (HDEP work)	Hole Drilling	105	12	0	0	10	22	12
ectric heating plate	Connection work	63	12	0	6	12	30	9
nulsion pressure distributor	Emulsion distribution	46	104	101	4	8	217	26
cavator	Excavation/Earthwork	620	1,296	118	165	275	1,854	2,47
out Injection Equipment	Crack Repair	68	12	118	12	24	166	23
outing pump with agitator	PSC Bridge construction related	147	24	118	28	56	226	37
acking Machine	Jacketing prupose	42	117	101	8	16	242	28
draulic Jack (40 tonne capacity)	Bearing Installation/Repair	105	0	0	0	4	4	10
rdraulic Jack (required capacity ormally 200 tonne)	Bearing Instal ation/Repair	256	60	0	0	4	64	32
ck hammer /Rock drill / Portable rock iller		22	146	0	18	99	263	28
pader	Material Loading	543	881	118	229	392	1,621	2,16
astic cooker	Mastic Asphalt Production	69	271	205	495	32	1,003	1,07
ixture machine/Concrete Mixturé achine	Concrete Production	31	173	0	14	16	203	23
obile slurry seal equipment	Maintenance	211	546	205	192	288	1,231	1,44
otor grader	Laying	1,016	. 780	118	257	525	1,681	2,69
aver finisher	Asphalt	775	624	205	321	783	1,933	2,70
ling rig (with all accessories)		1,600	706	205	192	272	1,374	2,97
ate compactor/power rammer	Light Compaction	54	131	118	18	25	292	34
neumatic roller/Pneumatic tired roller	Compaction		737			527		
emix Mixer	Premix Production	115			50			2,65
oad marking machine	Thermoplastic Painting							28
oad sweeper/Mechanical broom	Sweeping	297	576	. 118	191	95	980	1,27
ling rig (with a ate compactor, neumatic roller, emix Mixer oad marking m oad sweeper/N	power rammer Pneumatic tired roller	/power rammer Light Compaction /Pneumatic tired roller Compaction Premix Production achine Thermoplastic Painting lechanical broom Sweeping	/power rammer Light Compaction 54 /Pneumatic tired roller Compaction 539 Premix Production 115 achine Thermoplastic Painting 92 Jechanical broom Sweeping 297	Vpower rammer Light Compaction 54 131 /Pneumatic tired roller Compaction 539 737 Premix Production 115 2,183 achine Thermoplastic Painting 92 117 lechanical broom Sweeping 297 576	Prower rammer Light Compaction 54 131 118 Peneumatic tired roller Compaction 539 737 118 Premix Production 115 2,183 205 achine Thermoplastic Painting 92 117 0 Jechanical broom Sweeping 297 576 118	Prower rammer Light Compaction 54 131 118 18 Prenumatic tired roller Compaction 539 737 118 227 Premix Production 115 2,183 205 50 achine Thermoplastic Painting 92 117 0 55 Jechanical broom Sweeping 297 576 118 191	Prower rammer Light Compaction 54 131 118 18 25 Prenumatic tired roller Compaction 539 737 118 227 527 Premix Production 115 2,183 205 50 100 achine Thermoplastic Painting 92 117 0 55 25 lechanical broom Sweeping 297 576 118 191 95	Prower rammer Light Compaction 54 131 118 18 25 292 Prenumatic tired roller Compaction 539 737 118 227 527 1,610 Premix Production 115 2,183 205 50 100 2,538 achine Thermoplastic Painting 92 117 0 55 25 197 Jechanical broom Sweeping 297 576 118 191 95 980

Sample Calculation:

SN	Equipments	Activity/ Usages	Ownership Cost (NRs/Hr)	Fuel/Electricity	Crew/Assistan t Charges	Servicing	Maintenance	Total Operation Cost	Total Hire Cost
39	Screw Jack		53	0	0	0	0	0	53
40	Smooth wheeled roller/Smooth 3 wheeled steel roller	Compaction	173	486	118	174	143	921	1,095
41	Stressing jack with pump	Prestressing	104	12	0	40	109	161	265
42	Tipper	Transportation/Carry	148	608	205	191	95	1,099	1,247
43	Tractor with ripper attachment/Tractor Trolly	Ripping/Carry	83	405	205	125	90	825	908
44	Truck flat body/Trailer	Carry	532	972	205	586	429	2,192	2,724
45	Vibratory roller	Compaction	461	655	118	151	387	1,311	1,773
46	Water Tanker	Watering	270	389	118	191	95	793	1,063
47	Wet mix plant	Base Production	433	360	205	128	223	916	1,349

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Fuel/Electricity Demand :

Rate:

			90	12	90	
SN	Equipments	Activity/ Usages	Fuel (L/hr)	Electricity (Units/hr)	Fuel Oil (Heating) (L/hr)	Fuel/Electricity
1	Air compressor /compressor with pneumatic breaker	General	5.73	0.00	0.00	516.10
2	Asphalt Plant (Batch mix HMP/Drum mix plant/Hot Mix Plant)	Asphalt/DBM Production	6.91	15.00	200.00	18,802.08
3	Batching Plant	Concrete Production	6.14	25.00	0.00	852.96
4	Bentonite pump	Drilled Hole Stabilization	0.00	2.00	0.00	24.00
5	Bitumen boiler	Bitumen Heating	1.96	0.00	5.00	626.40
6	Bitumen pressure distributor/Bitumen Distributor/ Bitumen Sprayer	Bitumen Spray	10.24	0.00	3.00	1,191.60
7	Chip spreader	Surface Dressing/Chips Seal/Otta Seal	7.06	0.00	0.00	635.04
8	Cold mix plant	Cold Mix Asphalt/Premix	3.89	20.00	0.00	589.92
9	Concrete Pump	Concreting	3.06	0.00	0.00	275.40
10	Crane	Lifting	10.13	0.00	0.00	
11	Crane (3 T)	Lifting	6.75	0.00	0.00	607.50
12	Crane 15 t capacity	Lifting	14.63	0.00	0.00	1,316.25
13	Crane with grab bucket/dredger crane	Dredging	8.96	0.00	0.00	
14	Dozer	Earthwork	14.14	0.00	0.00	1,272.96
15	Drilling machine with bit and accessories	Earth Hole Drilling	1.30	0.00	0.00	116.64
16	Electric generator	Electricity	4.54	0.00	0.00	408.24
17	Electric hand driller (HDEP work)	Hole Drilling	0.00	1.00	0.00	12.00
18	Electric heating plate	Connection work	0.00	1.00	0.00	12.00
19	Emulsion pressure distributor	Emulsion distribution	1.15	0.00	0.00	103.68
20	Excavator	Excavation/Earthwork	14.40	0.00	0.00	1,296.00
21	Grout Injection Equipment	Crack Repair	0.00	1.00	0.00	12.00
22	Grouting pump with agitator	PSC Bridge construction related	0.00	2.00	0.00	24.00
23	Hacking Machine	Jacketing prupose	1.30	0.00	0.00	116.64
24	Hydraulic Jack (40 tonne capacity)	Bearing Installation/Repair	0.00	0.00	0.00	0.00
25	Hydraulic Jack (required capacity normally 200 tonne)	Bearing Installation/Repair	0.00	5.00	0.00	60.00
26	Jack hammer /Rock drill / Portable rock driller		1.62	0.00	0.00	145.80
27	Loader	Material Loading	9.79	0.00	0.00	
28	Mastic cooker	Mastic Asphalt Production	0.00	1.00	2.88	271.20

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Department of Roads

Fuel/Electricity Demand:

SN	Equipments	Activity/ Usages	Fuel (L/hr)	Electricity (Units/hr)	Fuel Oil (Heating) (L/hr)	Fuel/Electricity
29	Mixture machine/Concrete Mixture Machine	Concrete Production	1.92	0.00	0.00	172.80
30	Mobile slurry seal equipment	Maintenance	6.07	0.00	0.00	546.21
31	Motor grader	Laying	8.67	0.00	0.00	780.30
32	Paver finisher	Asphalt	6.94	0.00	0.00	
33	piling rig (with all accessories)	Pile Construction upto 1.2m	7.84	0.00	0.00	
34	Plate compactor/power rammer	Light Compaction	1.46	0.00	0.00	
35	Pneumatic roller/Pneumatic tired roller	Compaction	8.19	0.00	0.00	
36	Premix Mixer	Premix Production	4.25	0.00	20.00	
37	Road marking machine	Thermoplastic Painting	1.30	0.00	0.00	
38	Road sweeper/Mechanical broom	Sweeping	6.40	0.00	0.00	
39	Screw Jack		0.00	0.00	0.00	0.00
40	Smooth wheeled roller/Smooth 3 wheeled steel roller	Compaction	5.40	0.00	0.00	
41	Stressing jack with pump	Prestressing	0.00	1.00	0.00	12.00
.42	Tipper	Transportation/Carry	6.76	0.00	0.00	608.40
43	Tractor with ripper attachment/Tractor Trolly	Ripping/Carry	4.50	0.00	0.00	405.00
44	Truck flat body/Trailer	Carry	10.80	0.00	0.00	972.00
45	Vibratory roller	Compaction	7.28	0.00	0.00	655.20
46	Water Tanker	Watering	4.32	0.00	0.00	
47	Wet mix plant	Base Production	0.00	30.00	0.00	360.00

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Sample Calculation:

SN.	Equipments	Fuel/Electricity	Crew, day	District Rate of Crew/day	District Rate of Crew/hr =30x Daily Rate/(8*26)	Assistant,day	District Rate of Assistant/day	District Rate of Assistant/hr =30x Daily Rate/(8*26)	Crew	Servicing	Maintenance	Total Operation Cost
the wife the			Skilled	Skilled	Skilled	Helper/Unskilled	Helper/Unskilled	Helper/Unskilled		Account no a quality	a varibance at most	har or region of the Yang Day To
1	Air compressor /compressor with pneumatic breaker	516.10	1.00	700,00	100.96				100.96	41.67	50.00	708.72
2	Asphalt Plant (Batch mix HMP/Drum mix	40.000.00			440.00	0.00	000.00	173.08	291.35	108.33	173.33	19,375.09
	plant/Hot Mix Plant)	18,802.08 852.96	1.00		118.27 118.27				291.35	44.00		
3	Batching Plant	24.00	1.00	820.00	110.27	2.00	000.00	173.00	231.00	2.50		
5	Bentonite pump Bitumen boiler	626.40			of technique of the second	CO. 100 100 100 100 100 100 100 100 100 10	00000000000000000000000000000000000000			3.33		
	Bitumen pressure distributor/Bitumen	020.40			900000000000000000000000000000000000000	Bitanicas .				0.00		300,07
6	Distributor/ Bitumen Sprayer	1,191.60	1.00	820.00	118.27	1.00	600.00	86.54	204.81	62.60	176.23	1,635.24
7	Chip spreader	635.04	1.00		118.27				204.81	29.78		
8	Cold mix plant	589.92	1.00		118.27		0,00,00	00.01	118.27	50.00		
9	Concrete Pump	275.40	1.00		100.96		600.00	86.54	187.50	5.00		
10	Crane	911.25	1.00		118.27				204.81	145.00		
11	Crane (3 T)	607.50	1.00		118.27				204.81	106.33		
12	Crane 15 t capacity	1,316.25	1.00		118.27				204.81	162,67		
13	Crane with grab bucket/dredger crane	806.40	1.00						204.81	120.00		
14	Dozer	1,272.96	1.00		118.27				118.27	330.00		
15	Drilling machine with bit and accessories						600.00	86.54	204.81	24.00		
40		116.64	1.00		118.27		600.00	86,34	100.96	10.00		
16	Electric generator	408.24	1.00	700.00	100.96	200000000000000000000000000000000000000		20020000000000000000000000000000000000	100.96	0.00		
17	Electric hand driller (HDEP work)	12.00								6.00		
18	Electric heating plate	12.00	4.00	700.00	100.06		20.000	CONTRACTOR CONTRACTOR	100.96	4.00		
19	Emulsion pressure distributor	103.68	1.00						118.27	165.00		
20	Excavator	1,296.00	1.00						118.27	12.00		
21	Grout Injection Equipment	12.00	1.00						118.27	28.00		
22	Grouting pump with agitator	24.00	1.00						100.96	8.00		
24	Hacking Machine	116.64 0.00	1.00	700.00	100.96			202200000000000000000000000000000000000	100.96	6.00	4.00	
25	Hydraulic Jack (40 tonne capacity) Hydraulic Jack (required capacity	60.00									4.00	
26	normally 200 tonne) Jack hammer /Rock drill / Portable rock									40.00		
	driller	145.80					0.0000000000000000000000000000000000000		440.07	18.00		
27	Loader	881.28	1.00				000.00	00.54	118.27	229.00		
28	Mastic cooker	271.20	1.00	820.00	118.27	1.00	600.00	86.54	204.81	495.00	32.00	1,003.01
29	Mixture machine/Concrete Mixture										40.00	000.00
	Machine	172.80	Sec	820.00			000.00	00.54	004.04	14.00		
30	Mobile slurry seal equipment	546.21	1.00				600.00	86.54	204.81	192.00		
31	Motor grader	780.30	1.00					00.54	118.27	257.00		
32	Paver finisher	624.24	1.00						204.81	321.00		
33	piling rig (with all accessories)	705.60	1.00				600.00	86.54	204.81	192.00		
34	Plate compactor/power rammer	131.22	1.00						118.27	18.00		
35	Pneumatic roller/Pneumatic tired roller	737.28	1.00					20	118.27	227.00		
36	Premix Mixer	2,182.73	1.00	820.00	118.27	1.00	600.00	86.54	204.81			
37	Road marking machine	116.64		100000000000000000000000000000000000000	09/9/3/3/3/3/		ACTION CONTRACTOR		440.00	55.00		
38	Road sweeper/Mechanical broom	576.00		820.00	118.27	90.2000.0000000000000000000000000000000			118.27	191.00		
39	Screw Jack	0.00	0.0000000000000000000000000000000000000	1 (1. 10 (1.	0.0000000000000000000000000000000000000	3 2/2/2013/06/2013/09/2013/09/	(22) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	the state of the s	100 19 19 19 19 19 19 19 19 19 19 19 19 19	0,00	0.00	0.00
40	Smooth wheeled roller/Smooth 3 wheeled steel roller	486.00	1.00	820.00	118.27	7			118.27	174.00		
41	Stressing jack with pump	12.00	320000000000000000000000000000000000000	1 (10.00) (10.00)	2740 Chillian 34	March 2010	THE SALES		and the second	40.00		
42	Tipper	608.40	1.00	820.00	118.27	1.00	600.00	86.54	204.81	191.00	95.00	1,099.21

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Department of Roads

Sample Calculation:

SN	Equipments'	Fuel/Electricity	Crew, day	District Rate of Crew/day	District Rate of Crew/hr =30x Daily Rate/(8*26)	Assistant,day	District Rate of Assistant/day	District Rate of Assistant/hr =30x Daily Rate/(8*26)	Crew	Servicing	Maintenance	Total Operation Cost
			Skilled	Skilled	Skilled	Helper/Unskilled	Helper/Unskilled	Helper/Unskilled				
43	Tractor with ripper attachment/Tractor Trolly	405.00	1.00	820.00	118.27	1.00	600.00	86.54	204.81	125.00	90.00	824.81
44	Truck flat body/Trailer	972.00	1.00	820.00	118.27	1.00	600.00	86.54	204.81	586.00	429.00	2,191.81
45	Vibratory roller	655.20	1.00	820.00	118.27				118.27	151.00	387.00	1,311.47
46	Water Tanker	388.80	1.00	820.00	118.27				118.27	191.00	95.00	793.07
47	Wet mix plant	360.00	1.00	820.00	118.27	1.00	600.00	86.54	204.81	128.00	223.00	915.81

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		Machine's	Basic Infor	mation		
Equipme	nt: Batching Mixin	g Plant	Manufactu	red year:	Code No:	3
Ma	ike:		Fuel Type			
Mo	del:			Diesel (SFC):	0.16	(ltr/hp-hr)
Power (h	p): 60	hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Capacit	y: 15-20	cum	Fuel	Load factor(FF):	0.8	
Pu	rchase / Estimated Price (PP):	4400000	ruei	Time factor(TF):	0.8	
	Useful Life (N):	20		Fuel Rate :	97.34513	(Rs/ltr)
	Total Useful life Hours (H):	20000		Fuel Consumtion:	6.14	(L/hr)
	Uses Hours per year (h):	1000		Energy consumed:	25	(kwh)
	Tyre cost per unit (Ct):	0	Electric	Electric Charge:		(Rs/unit)
	Total no. of Tyres (tn):		Liectife	Energy consumed rate		(unit/hr)
	Tyre replacement costs (TRC):	0				
	Tyre Average Life (hrs) (TL):	0		Repair factor (RF):	0.4	
S	pecial wear item cost (SWIC):			Servicing factor (SF):	0.2	
	Interest Rate (IR):	10%				
Operator	M'thly Salary + Allw'nce(OS)					
		OWNE	RSHIP COST	rs		
1	Purchase Price less tyre (P) (R	s)(Including acces	sories and i	nstallation)		4400000
2	Estimated Salvage Value (S) (I	Rs)				440000
3	Annual Depreciation (Rs/yr)					198000
4	Insurance (Rs/yr)					44000
5	Taxes / Licence etc. (Rs/yr)					44000
6	Storage etc. (Rs/yr)					44000
7	Average Annual Investment					220000
8	Annual Interest Cost (Rs)					22000
9	Annual Ownership Cost (Rs)					352000
10	Estimated Hourly Ownership	Cost (Rs/hr)				352.00
		OPER/	ATION COST	S		
11	Repair and Maintenance Cost	(Rs/hr)				88.00
	Tyre Replacement Cost (Rs/hi					0.00
	Fuel Cost (Rs/hr)					598.09
	Servicing (Oil, filters, grease	etc.) (Rs/hr)				44.00
	Special wear items (blade, te		c.) (Rs/h)			0.00
	Operator's hourly charge (Sala					0.00
	Estimated Hourly Operating					730.09
	Total Hourly Owning and (Rs/hr)			1082.09

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		Machine's I	Basic Inforr	nation		
Equipme	ent: Bitumen Pressure Distrib	utor	Manufactur	ed year:	Code No:	4
Ma	ake:		Fuel Type	Fuel Oil Consumption	3.00	(L/hr)
Мо	del:			Diesel (SFC):	0.16	(ltr/hp-hr)
Power (h	np): 100	hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Capacit	ty: 1750	sqm/hr	Fuel	Load factor(FF):	0.8	
Pu	rchase / Estimated Price (PP):	6500000	ruei	Time factor(TF):	0.8	
	Useful Life (N):	20		Fuel Rate :	97.34513	(Rs/ltr)
	Total Useful life Hours (H):	20000		Fuel Consumtion:	10.24	(L/hr)
	Uses Hours per year (h):	1000		Energy consumed:		(kwh)
	Tyre cost per unit (Ct):	40000	Electric	Electric Charge:		(Rs/unit)
	Total no. of Tyres (tn):	6	Liectric	Energy consumed rate		(unit/hr)
	Tyre replacement costs (TRC):	240000				
	Tyre Average Life (hrs) (TL):	3000		Repair factor (RF):	0.4	
5	Special wear item cost (SWIC):			Servicing factor (SF):	0.2	
	Interest Rate (IR):	10%		Fuel Oil Rate	97.34513	
Operato	r M'thly Salary + Allw'nce(OS)					
		OWNE	RSHIP COST	S		
1	Purchase Price less tyre (P) (R	s)(Including acces	sories and ir	stallation)		6260000
2	Estimated Salvage Value (S) (F	Rs)				650000
3	Annual Depreciation (Rs/yr)					280500
4	Insurance (Rs/yr)					65000
5	Taxes / Licence etc. (Rs/yr)					65000
6	Storage etc. (Rs/yr)					
7	Average Annual Investment					325000
8	Annual Interest Cost (Rs)					32500
9	Annual Ownership Cost (Rs)					443000
10	Estimated Hourly Ownership	Cost (Rs/hr)				443.00
		OPER/	ATION COSTS			
11	Repair and Maintenance Cost	(Rs/hr)				125.20
12	Tyre Replacement Cost (Rs/hr)				51.03
13	Fuel Cost (Rs/hr)					996.81
14	Servicing (Oil, filters, grease	etc.) (Rs/hr)				62.60
15	Special wear items (blade, tee	eth, bucket et	c.) (Rs/h)			0.00
16	Operator's hourly charge (Sala	ary+ allowances) (Rs/hr)			0.00
17	Estimated Hourly Operating (Cost (Rs/hr)				1235.65
18	Total Hourly Owning and C	perating Cost (Rs/hr)			1678.65

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25 1500 / Estimated Price (PP): Useful Life (N): al Useful life Hours (H): Ises Hours per year (h): Tyre cost per unit (Ct): Total no. of Tyres (tn): placement costs (TRC): Average Life (hrs) (TL): wear item cost (SWIC): Interest Rate (IR): / Salary + Allw'nce(OS)	1tr 500000 20 15000 750 0	Manufactur Fuel Type Fuel Electric	Fuel Oil Consumption Diesel (SFC): Petrol (SFC): Load factor(FF): Time factor(TF): Fuel Rate: Fuel Consumtion: Energy consumed: Electric Charge: Energy consumed rate	Code No: 2.00 0.16 0.22 0.7 0.7 97.34513 1.96	5 (L/hr) (ltr/hp-hr) (ltr/hp-hr) (Rs/ltr) (L/hr) (kwh) (Rs/unit) (unit/hr)
1500 / Estimated Price (PP): Useful Life (N): al Useful life Hours (H): ses Hours per year (h): Tyre cost per unit (Ct): Total no. of Tyres (tn): placement costs (TRC): Average Life (hrs) (TL): wear item cost (SWIC): Interest Rate (IR):	1tr 500000 20 15000 750 0	Fuel —	Diesel (SFC): Petrol (SFC): Load factor(FF): Time factor(TF): Fuel Rate: Fuel Consumtion: Energy consumed: Electric Charge: Energy consumed rate	0.16 0.22 0.7 0.7 97.34513	(ltr/hp-hr, (ltr/hp-hr, (Rs/ltr) (L/hr) (kwh) (Rs/unit)
1500 / Estimated Price (PP): Useful Life (N): al Useful life Hours (H): ses Hours per year (h): Tyre cost per unit (Ct): Total no. of Tyres (tn): placement costs (TRC): Average Life (hrs) (TL): wear item cost (SWIC): Interest Rate (IR):	1tr 500000 20 15000 750 0		Petrol (SFC): Load factor(FF): Time factor(TF): Fuel Rate: Fuel Consumtion: Energy consumed: Electric Charge: Energy consumed rate	0.22 0.7 0.7 97.34513	(ltr/hp-hr (Rs/ltr) (L/hr) (kwh) (Rs/unit)
1500 / Estimated Price (PP): Useful Life (N): al Useful life Hours (H): ses Hours per year (h): Tyre cost per unit (Ct): Total no. of Tyres (tn): placement costs (TRC): Average Life (hrs) (TL): wear item cost (SWIC): Interest Rate (IR):	1tr 500000 20 15000 750 0		Load factor(FF): Time factor(TF): Fuel Rate: Fuel Consumtion: Energy consumed: Electric Charge: Energy consumed rate	0.7 0.7 97.34513	(Rs/ltr) (L/hr) (kwh) (Rs/unit)
Useful Life (N): Useful Life (N): al Useful life Hours (H): ses Hours per year (h): Tyre cost per unit (Ct): Total no. of Tyres (tn): placement costs (TRC): Average Life (hrs) (TL): wear item cost (SWIC): Interest Rate (IR):	500000 20 15000 750		Time factor(TF): Fuel Rate: Fuel Consumtion: Energy consumed: Electric Charge: Energy consumed rate	0.7 97.34513	(L/hr) (kwh) (Rs/unit)
Useful Life (N): al Useful life Hours (H): lses Hours per year (h): Tyre cost per unit (Ct): Total no. of Tyres (tn): placement costs (TRC): Average Life (hrs) (TL): wear item cost (SWIC): Interest Rate (IR):	20 15000 750 0		Fuel Rate : Fuel Consumtion: Energy consumed: Electric Charge: Energy consumed rate	97.34513	(L/hr) (kwh) (Rs/unit)
al Useful life Hours (H): lses Hours per year (h): Tyre cost per unit (Ct): Total no. of Tyres (tn): placement costs (TRC): Average Life (hrs) (TL): wear item cost (SWIC): Interest Rate (IR):	15000 750 0	Electric —	Fuel Consumtion: Energy consumed: Electric Charge: Energy consumed rate		(L/hr) (kwh) (Rs/unit,
ses Hours per year (h): Tyre cost per unit (Ct): Total no. of Tyres (tn): placement costs (TRC): Average Life (hrs) (TL): wear item cost (SWIC): Interest Rate (IR):	750	Electric —	Energy consumed: Electric Charge: Energy consumed rate	1.96	(kwh) (Rs/unit,
Tyre cost per unit (Ct): Total no. of Tyres (tn): placement costs (TRC): Average Life (hrs) (TL): wear item cost (SWIC): Interest Rate (IR):	0	Electric	Electric Charge: Energy consumed rate		(Rs/unit,
Total no. of Tyres (tn): placement costs (TRC): Average Life (hrs) (TL): wear item cost (SWIC): Interest Rate (IR):		Electric —	Energy consumed rate		
placement costs (TRC): Average Life (hrs) (TL): wear item cost (SWIC): Interest Rate (IR):		Licearie			(unit/hr
Average Life (hrs) (TL): wear item cost (SWIC): Interest Rate (IR):					
wear item cost (SWIC): Interest Rate (IR):	100/				
Interest Rate (IR):	100/		Repair factor (RF):	0.25	
	100/		Servicing factor (SF):	0.1	
/ Salary + Allw'nce(OS)	10%		Fuel Oil Rate	97.34513	
		RSHIP COSTS			
se Price less tyre (P) (R:	s)(Including acces	sories and in	istallation)		500000
ted Salvage Value (S) (F	Rs)				50000
Depreciation (Rs/yr)					22500
nce (Rs/yr)					5000
Licence etc. (Rs/yr)					
e etc. (Rs/yr)					
ge Annual Investment					25000
Interest Cost (Rs)					2500
Ownership Cost (Rs)					30000
ted Hourly Ownership	Cost (Rs/hr)				40.00
	OPERA	TION COSTS			
and Maintenance Cost	(Rs/hr)				8.33
eplacement Cost (Rs/hr)				0.00
ost (Rs/hr)					190.80
ng (Oil, filters, grease	etc.) (Rs/hr)				3.33
		c.) (Rs/h)			0.00
tor's hourly charge (Sala	ary+ allowances) (Rs/hr)			0.00
ted Hourly Operating (Cost (Rs/hr)				202.46
Hourly Owning and C	Operating Cost (Rs/hr)			242.46
1 / 5 O 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Il Depreciation (Rs/yr) nce (Rs/yr) / Licence etc. (Rs/yr) ge etc. (Rs/yr) ge Annual Investment Il Interest Cost (Rs) Il Ownership Cost (Rs) Interest Cost (Rs/hr) Interest Cost (Rs/	Il Depreciation (Rs/yr) nce (Rs/yr) / Licence etc. (Rs/yr) ge etc. (Rs/yr) ge Annual Investment Il Interest Cost (Rs) Il Ownership Cost (Rs/) ated Hourly Ownership Cost (Rs/hr) OPERA T and Maintenance Cost (Rs/hr) geplacement Cost (Rs/hr) ost (Rs/hr) ing (Oil, filters, grease etc.) (Rs/hr) Il wear items (blade, teeth, bucket etc.) tor's hourly charge (Salary+ allowances) (ated Hourly Operating Cost (Rs/hr)	Il Depreciation (Rs/yr) nce (Rs/yr) / Licence etc. (Rs/yr) ge etc. (Rs/yr) ge Annual Investment Il Interest Cost (Rs) Il Ownership Cost (Rs) ated Hourly Ownership Cost (Rs/hr) OPERATION COSTS and Maintenance Cost (Rs/hr) eplacement Cost (Rs/hr) ost (Rs/hr) ing (Oil, filters, grease etc.) (Rs/hr) il wear items (blade, teeth, bucket etc.) (Rs/h) tor's hourly charge (Salary+ allowances) (Rs/hr)	Il Depreciation (Rs/yr) nce (Rs/yr) / Licence etc. (Rs/yr) ge etc. (Rs/yr) ge Annual Investment Il Interest Cost (Rs) Il Ownership Cost (Rs) Ated Hourly Ownership Cost (Rs/hr) OPERATION COSTS T and Maintenance Cost (Rs/hr) eplacement Cost (Rs/hr) ost (Rs/hr) ing (Oil, filters, grease etc.) (Rs/hr) Il wear items (blade, teeth, bucket etc.) (Rs/h) tor's hourly charge (Salary+ allowances) (Rs/hr) ated Hourly Operating Cost (Rs/hr)	Il Depreciation (Rs/yr) Ince (Rs/yr) / Licence etc. (Rs/yr) ge etc. (Rs/yr) ge Annual Investment Il Interest Cost (Rs) Il Ownership Cost (Rs) Ated Hourly Ownership Cost (Rs/hr) OPERATION COSTS The and Maintenance Cost (Rs/hr) eplacement Cost (Rs/hr) ost (Rs/hr) ing (Oil, filters, grease etc.) (Rs/hr) Il wear items (blade, teeth, bucket etc.) (Rs/hr) ated Hourly Operating Cost (Rs/hr)

		Machine's I	Basic Infor	mation				
Equipme	ent: Concrete Pu	ımp	Manufactu	red year:	Code No.:	7		
Ma	ake:		Fuel Type					
Мо	del:			Diesel (SFC):	0.16	(ltr/hp-hr)		
Power (h	np): 25	hp		Petrol (SFC):	0.22	(ltr/hp-hr)		
Capacit	y: 30-40	cum/hr	Fuel	Load factor(FF):	0.9			
Pu	rchase / Estimated Price (PP):	400000	ruei	Time factor(TF):	0.85			
	Useful Life (N):	10		Fuel Rate :	97.34513	(Rs/ltr)		
	Total Useful life Hours (H):	8000		Fuel Consumtion:	3.06	(L/hr)		
	Uses Hours per year (h):	800		Energy consumed:		(kwh)		
	Tyre cost per unit (Ct):	0	Electric	Electric Charge:		(Rs/unit)		
	Total no. of Tyres (tn):		Liectric	Energy consumed rate		(unit/hr)		
	Tyre replacement costs (TRC):	0						
	Tyre Average Life (hrs) (TL):	0		Repair factor (RF):	0.2			
S	pecial wear item cost (SWIC):			Servicing factor (SF):	0.1			
	Interest Rate (IR):	10%						
Operator	M'thly Salary + Allw'nce(OS)							
		OWNE	RSHIP COST	rs				
1	Purchase Price less tyre (P) (R	s)(Including acces	sories and i	nstallation)		400000		
	Estimated Salvage Value (S) (F	Rs)				40000		
3	Annual Depreciation (Rs/yr)					36000		
4	Insurance (Rs/yr)					4000		
	Taxes / Licence etc. (Rs/yr)	4						
	Storage etc. (Rs/yr)							
7	Average Annual Investment					238000		
	Annual Interest Cost (Rs)					23800		
	Annual Ownership Cost (Rs)					63800		
10	Estimated Hourly Ownership	Cost (Rs/hr)				79.75		
		OPER/	TION COST	S				
11	Repair and Maintenance Cost	(Rs/hr)				10.00		
12	Tyre Replacement Cost (Rs/hr)				0.00		
13 Fuel Cost (Rs/hr)						297.88		
14 Servicing (Oil, filters, grease etc.) (Rs/hr)								
15								
16	Operator's hourly charge (Salary+ allowances) (Rs/hr)							
17	Estimated Hourly Operating (Cost (Rs/hr)				312.88		
18	Total Hourly Owning and C	perating Cost (Rs/hr)			392.63		

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			Machin	e's Basic In	formation		
Equ	ipment:	Concrete	Mixture	Manufactu	red year:	Code No.	9
	Make:			Fuel Type			
	Model:				Diesel (SFC):	0.6	(ltr/hp-hr)
Pow	/er (hp):	5	hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Ca	pacity:	0.4	cum	Fuel	Load factor(FF):	0.8	
Purchas	se / Estimated	Price (PP):	400000	ruei [Time factor(TF):	: 0.8	
	Use	ful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)
To	Total Useful life Hours (H): 150		15000		Fuel Consumtion:	1.92	(L/hr)
	Uses Hours p	er year (h):	1000		Energy consumed:		(kwh)
	Tyre cost pe	er unit (Ct):	0	Electric	Electric Charge:		(Rs/unit)
	Total no. of	Tyres (tn):		Liectric	Energy consumed rate		(unit/hr)
Tyre i	replacement o	costs (TRC):	0				
Tyr	re Average Life	e (hrs) (TL):	0		Repair factor (RF):	0.4	
Specia	al wear item c	ost (SWIC):			Servicing factor (SF):	0.1	
)	Interes	st Rate (IR):	10%				
rator M'th	nly Salary + Al	lw'nce(OS)					
			01	NNERSHIP (COSTS		
1	Purchase P	rice less tyre	e (P) (Rs)(In	cluding acce	essories and installation)		400000
2	Estimated S	Salvage Valu	ue (S) (Rs)				40000
3	Annual Dep	reciation (Rs/yr)				24000
4	Insurance (Rs/yr)					4000
5	Taxes / Lice	ence etc. (R	s/yr)				
6	Storage etc	. (Rs/yr)					
7	Average An	nual Invest	ment				26667
8	Annual Inte	erest Cost (Rs)				2667
9	Annual Ow	nership Cos	t (Rs)				30667
10	Estimated	Hourly Owr	ership Cost	t (Rs/hr)			30.67
			Ol	PERATION C	OSTS		
11	Repair and	Maintenan	ce Cost (Rs	/hr)			10.67
12	Tyre Replac	cement Cos	t (Rs/hr)				0.00
13	Fuel Cost (F	Rs/hr)					186.90
14	14 Servicing (Oil, filters, grease e						2.67
15	Special wea	ar items (bl	ade, teeth,	bucket e	etc.) (Rs/h)		0.00
16	Operator's	hourly char	ge (Salary+	allowances)	(Rs/hr)		0.00
17	Estimated	Hourly Ope	rating Cost	(Rs/hr)			200.24
18	Total Hou	rly Owning	and Oper	ating Cost	(Rs/hr)		230.90

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			Machir	ne's Basic II	nformation			
Equipr	ment:	Cra	ne	Manufactui	red year:	Code No.	13	
	Make:			Fuel Type				
	Model:				Diesel (SFC):	0.16	(ltr/hp-hr)	
Power	(hp):	75	hp		Petrol (SFC):	0.22	(ltr/hp-hr)	
Capa	city:	3	ton	Fuel	Load factor(FF):	0.75		
Purchase /	/ Estimated	Price (PP):	6500000	ruei	Time factor(TF):	0.75		
	Uset	ful Life (N):	20		Fuel Rate :	97.34513	(Rs/ltr)	
Tota			15000		Fuel Consumtion:	6.75	(L/hr)	
Us	ses Hours pe	er year (h):	750		Energy consumed:		(kwh)	
	Tyre cost pe	er unit (Ct):	30000	Electric	Electric Charge:		(Rs/unit)	
	Total no. of	Tyres (tn):	4	Licetife	Energy consumed rate		(unit/hr)	
Tyre rep	olacement c	osts (TRC):	120000					
Tyre /	Average Life	e (hrs) (TL):	3000		Repair factor (RF):	0.4		
Special v	vear item co	ost (SWIC):			Servicing factor (SF):	0.25		
		t Rate (IR):	10%					
rator M'thly	Salary + All	w'nce(OS)						
			0	WNERSHIP	COSTS			
1	Purchase Pr	rice less tyre	e (P) (Rs)(Including acc	cessories and installation)		6380000	
2	Estimated S	alvage Valu	ue (S) (Rs)				650000	
3	Annual Dep	reciation (Rs/yr)				286500	
4	Insurance (I	Rs/yr)					65000	
5	Taxes / Lice	nce etc. (Rs	s/yr)				65000	
6	Storage etc	. (Rs/yr)						
7	Average An	nual Invest	ment				325000	
	Annual Inte						32500	
9	Annual Owr	nership Cos	t <i>(Rs)</i>				449000	
10	Estimated I	Hourly Own	ership Co	st (Rs/hr)			598.67	
			0	PERATION (COSTS			
11	Repair and	Maintenan	ce Cost (F	ks/hr)			170.13	
12	Tyre Replac	ement Cos	t (Rs/hr)				42.21	
13	Fuel Cost (R	ks/hr)					657.08	
14	Servicing (O	il, filters, g	rease e	etc.) (Rs/hr)			106.33	
15	15 Special wear items (blade, teeth, bucket etc.) (Rs/h)							
16	Operator's	hourly char	ge (Salary	+ allowance	s) (Rs/hr)		0.00	
17	Estimated H	lourly Ope	rating Cos	t (Rs/hr)			975.75	
18	Total Hour	ly Owning	and Ope	erating Cos	t (Rs/hr)		1574.42	

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		Machine's	Basic Infor	mation				
Equipme	ent: Dozer Tra	ck	Manufactu	red year:	Code No.	15		
Ma	ake: Komatsu		Fuel Type					
Мо	del: D53E			Diesel (SFC):	0.16	(ltr/hp-hr)		
Power (ł	np): 130	hp		Petrol (SFC):	0.22	(ltr/hp-hr)		
Capacit	ry: 200/120/150	cum/hr	Fuel	Load factor(FF):	0.85			
Pu	rchase / Estimated Price (PP):	15000000	ruei	Time factor(TF):	0.8			
	Useful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)		
	Total Useful life Hours (H):	15000		Fuel Consumtion:	14.14	(L/hr)		
	Uses Hours per year (h):	1000		Energy consumed:		(kwh)		
	Tyre cost per unit (Ct):		Electric	Electric Charge:		(Rs/unit)		
	Total no. of Tyres (tn):		Liectric	Energy consumed rate		(unit/hr)		
	Tyre replacement costs (TRC):	0						
	Tyre Average Life (hrs) (TL):			Repair factor (RF):	0.55			
9	Special wear item cost (SWIC):	80000		Servicing factor (SF):	0.33			
	Interest Rate (IR):	10%						
Operato	r M'thly Salary + Allw'nce(OS)							
		OWNE	RSHIP COST	S				
1	Purchase Price less tyre (P) (R	s)(Including acces	sories and i	nstallation)		15000000		
2	Estimated Salvage Value (S) (F	Rs)				1500000		
3	Annual Depreciation (Rs/yr)					900000		
4	Insurance (Rs/yr)					150000		
5	Taxes / Licence etc. (Rs/yr)					150000		
6	Storage etc. (Rs/yr)							
7	Average Annual Investment					1000000		
8	Annual Interest Cost (Rs)					100000		
9	Annual Ownership Cost (Rs)					1300000		
10	Estimated Hourly Ownership	Cost (Rs/hr)				1300.00		
		OPERA	ATION COST	S				
11	Repair and Maintenance Cost	(Rs/hr)				550.00		
12	Tyre Replacement Cost (Rs/hr)				0.00		
13 Fuel Cost (Rs/hr)								
14 Servicing (Oil, filters, grease etc.) (Rs/hr)								
15								
16	Operator's hourly charge (Salary+ allowances) (Rs/hr)							
17	Estimated Hourly Operating (Cost (Rs/hr)				2336.85		
18	Total Hourly Owning and C	perating Cost (Rs/hr)			3636.85		

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			Machine	's Basic In	formation			
Equipm	ent:	Front End Load	ler, Wheeled	Manufactu	red year:	Code No.	17	
	Make:	Komatsu/E	quivalent	Fuel Type				
V	Model:	WA95/Eq	uivalent		Diesel (SFC):	0.16	(Itr/hp-hr)	
Power (hp):	90	hp		Petrol (SFC):	0.22	(ltr/hp-hr)	
Capaci	ity:	60/25	cum/hr	Fuel	Load factor(FF):	0.85		
Purchas	e / Esti	mated Price (PP):	6500000	ruei	Time factor(TF):	0.8		
		Useful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)	
То	tal Use	ful life Hours (H):	15000		Fuel Consumtion:	9.79	(L/hr)	
	Uses Ho	ours per year (h):	1000		Energy consumed:		(kwh)	
	Tyre o	cost per unit (Ct):	75000	Electric	Electric Charge:		(Rs/unit)	
	Total no. of Tyres (tn):				Energy consumed rate		(unit/hr)	
Tyre r	Tyre replacement costs (TRC): 3000							
Tyr	e Avera	ge Life (hrs) (TL):	3000		Repair factor (RF):	0.55		
Specia	ıl wear i	item cost (SWIC):	60000		Servicing factor (SF):	0.33		
	1	nterest Rate (IR):	10%					
rator M'th	ıly Salar	y + Allw'nce(OS)						
			OW	NERSHIP C	OSTS			
1	Purch	ase Price less tyre	(P) (Rs)(Includi	ng accessor	ies and installation)		6200000	
2	Estima	ated Salvage Valu	e (S) (Rs)				650000	
3	Annua	al Depreciation (F	Rs/yr)				370000	
4	Insura	nce (Rs/yr)					65000	
5	Taxes	/ Licence etc. (Rs	/yr)				65000	
6	Storag	ge etc. (Rs/yr)		rings con-				
7	Avera	ge Annual Investr	ment				433333	
8	Annua	al Interest Cost (F	Rs)				43333	
9	Annua	al Ownership Cost	(Rs)				543333	
10	Estim	ated Hourly Own	ership Cost (Rs)	/hr)			543.33	
	2000		OP	ERATION CO	OSTS			
11	Repai	r and Maintenand	e Cost (Rs/hr)				227.33	
12	Tyre F	Replacement Cost	(Rs/hr)				79.14	
13		lost (Rs/hr)					953.20	
14 Servicing (Oil, filters, grease etc.) (Rs/hr)							136.40	
15 Special wear items (blade, teeth, bucket etc.) (Rs/h)								
16 Operator's hourly charge (Salary+ allowances) (Rs/hr)								
17								
	Estimated Hourly Operating Cost (Rs/hr) Total Hourly Owning and Operating Cost (Rs/hr)							

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			Machin	e's Basic II	nformation			
Equip	ment:	Hotmi	x Plant	Manufactu	red year:	Code No.	24	
	Make:			Fuel Type	Fuel Oil Consumption	5.00	ltr/ton	
	Model:				Diesel (SFC):	0.16	(ltr/hp-hr)	
Powe	er (hp):	60	hp		Petrol (SFC):	0.22	(Itr/hp-hr)	
Capa	acity:	40	ton/hr	Fuel	Load factor(FF):	0.8		
Purchase	/ Estimated	Price (PP):	6500000	ruei	Time factor(TF):	0.9		
	Use	ful Life (N):	20		Fuel Rate :	97.3451327	(Rs/ltr)	
Tot	al Useful life	Hours (H):	15000		Fuel Consumtion:	6.912	(L/hr)	
ι	Uses Hours per year (h): 75				Energy consumed:	15	(kwh)	
	Tyre cost pe	er unit (Ct):		Electric -	Electric Charge:	12	(Rs/unit)	
	Total no. of	Tyres (tn):		Liectric	Energy consumed rate	15	(unit/hr)	
Tyre re	placement c	osts (TRC):	0					
Tyre	Average Life	e (hrs) (TL):			Repair factor (RF):			
Special	wear item c	ost (SWIC):			Servicing factor (SF):			
		t Rate (IR):	10%		Fuel Oil Rate	97.3451327	(Rs/ltr)	
tor M'thl	y Salary + All	w'nce(OS)						
			01	WNERSHIP	COSTS			
1	Purchase Pi	rice less tyre	e (P) (Rs)(In	cluding acce	essories and installation)		6500000	
2	Estimated S	Salvage Valu	ie (S) (Rs)				650000	
3	Annual Dep	reciation (Rs/yr)				292500	
4	Insurance (Rs/yr)					65000	
5	Taxes / Lice	nce etc. (Rs	s/yr)				65000	
6	Storage etc	. (Rs/yr)					65000	
7		nual Invest					325000	
8	Annual Inte	rest Cost (I	Rs)				32500	
9	Annual Ow	nership Cos	t (Rs)				520000	
10	Estimated I	Hourly Own	ership Cost	t (Rs/hr)			693.33	
			0	PERATION (COSTS			
11	Repair and	Maintenan	ce Cost (Rs,	/hr)			173.33	
12	Tyre Replac	ement Cost	t (Rs/hr)				0.00	
13 Fuel Cost (Rs/hr)							852.85	
14 Servicing (Oil, filters, grease etc.) (Rs/hr)							108.33	
15	Special wea	r items (bl	ade, teeth,	bucket e	etc.) (Rs/h)		0.00	
16	Operator's	hourly char	ge (Salary+	allowances) (Rs/hr)		0.00	
17	17 Estimated Hourly Operating Cost (Rs/hr)							
18	Total Hou	rly Owning	and Oper	ating Cost	(Rs/hr)		1827.85	

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			Machine's	Basic Info	ormation				
Equipmen	t:	Hydraulic	Excavator	Manufactu	red year:	Code No.	27		
	Make:			Fuel Type					
	Model:				Diesel (SFC):	0.16	(ltr/hp-hr)		
Power (hp):	150	hp		Petrol (SFC):	0.22	(ltr/hp-hr)		
Capacity		1	cum	Fuel	Load factor(FF):	0.75			
Purchase / E	stimated	Price (PP):	9000000	ruei	Time factor(TF):	0.8			
	Use	ful Life (N):	12		Fuel Rate :	97.34513	(Rs/ltr)		
Total t	Total Useful life Hours (H): 1800				Fuel Consumtion:	14.40	(L/hr)		
Use	s Hours p	er year (h):	1500		Energy consumed:		(kwh)		
Ту	re cost pe	er unit (Ct):		Electric	Electric Charge:		(Rs/unit)		
To	tal no. of	Tyres (tn):		Liectific	Energy consumed rate		(unit/hr)		
Tyre repla	cement o	costs (TRC):	0	1					
Tyre Av	erage Life	e (hrs) (TL):			Repair factor (RF):				
Special we	ar item c	ost (SWIC):	40000		Servicing factor (SF):	0.33			
		st Rate (IR):	10%						
ator M'thly S	alary + Al	lw'nce(OS)							
			OWN	IERSHIP CO	STS				
1 Purch	ase Price	less tyre (P) (Rs)(Includ	ding accesso	ories and installation)		9000000		
MARKET THE PARTY OF THE PARTY O	ated Salv	age Value (S	S) (Rs)				900000		
3 Annu	al Deprec	iation (Rs/y	/r)				675000		
4 insura	ance (Rs/	yr)					90000		
5 Taxes	/ Licence	etc. (Rs/yr)				90000		
6 Stora	ge etc. (F	Rs/yr)							
7 Avera	ge Annua	al Investmer	nt				750000		
8 Annu	al Interes	t Cost (Rs)					75000		
9 Annu	al Owners	ship Cost (F	Rs)				930000		
10 Estim	ated Hou	ırly Owners	hip Cost (R.	s/hr)			620.00		
		•	OPE	RATION CO	STS				
11 Repai	r and Ma	intenance C	Cost (Rs/hr)				275.00		
12 Tyre I	Replacem	ent Cust (R	s/hr)				0.00		
13 Fuel (Fuel Cost (Rs/hr)								
14 Servi	Servicing (Oil, filters, grease etc.) (Rs/hr)								
15 Speci	Special wear items (blade, teeth, bucket etc.) (Rs/h)								
16 Opera	Operator's hourly charge (Salary+ allowances) (Rs/hr)								
17 Estim	Estimated Hourly Operating Cost (Rs/hr)								
	Total Hourly Owning and Operating Cost (Rs/hr)								

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	*		Machin	e's Basic In	formation		
Equ	ipment:	Mastik	Cooker	Manufacture	ed year:	Code No.	32
	Make:			Fuel Type	Fuel Oil Consumption	5.00	ltr/ton
	Model:				Diesel (SFC):	0.4	(ltr/hp-hr)
Pow	/er (hp):	10	hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Ca	pacity:	1	ton/hr	Fuel	Load factor(FF):	0.8	
Purchas	se / Estimated	Price (PP):	800000	ruei	Time factor(TF):	0.9	
	Use	ful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)
To	Total Useful life Hours (H): 1500				Fuel Consumtion:	2.88	(L/hr)
	Uses Hours per year (h): 100				Energy consumed:	1	(kwh)
	Tyre cost pe	er unit (Ct):		Electric	Electric Charge:	12	(Rs/unit)
	Total no. of	Tyres (tn):		Licetific	Energy consumed rate	8.64	(unit/hr)
Tyre i	replacement c	osts (TRC):	0				
Tyr	e Average Life	e (hrs) (TL):			Repair factor (RF):	0.3	
Specia	al wear item c	ost (SWIC):			Servicing factor (SF):	0.1	
	Interes	t Rate (IR):	10%		Fuel Oil Rate	97.34513	(Rs/ltr)
ator M'th	nly Salary + All	w'nce(OS)					
			01	WNERSHIP C	OSTS		
1	Purchase Pi	rice less tyre	e (P) (Rs)(In	cluding acces	sories and installation)		800000
2	Estimated S	alvage Valu	ie (S) (Rs)				80000
3	Annual Dep	reciation (I	Rs/yr)		48000		
4	Insurance (Rs/yr)			8000		
5	Taxes / Lice	nce etc. (Rs	/yr)				8000
6	Storage etc	. (Rs/yr)					
7	Average An	nual Investi	ment				53333
8	Annual Inte	rest Cost (F	Rs)				5333
9	Annual Owi	nership Cos	t (Rs)				69333
10	Estimated I	lourly Own	ership Cost	t (Rs/hr)			69.33
			0	PERATION CO	OSTS		
11	Repair and	Maintenand	ce Cost (Rs,	/hr)			16.00
12	Tyre Replac	ement Cost	(Rs/hr)				0.00
13	Fuel Cost (F	Rs/hr)					292.35
14 Servicing (Oil, filters, grease e				c.) (Rs/hr)			5.33
15	15 Special wear items (blade, teeth, bucket etc.) (Rs/h)						0.00
16	Operator's	hourly charg	ge (Salary+	allowances) (Rs/hr)		0.00
17	Estimated I	lourly Oper	ating Cost	(Rs/hr)			313.69
18	Total Hour	ly Owning	and Oper	ating Cost (Rs/hr)		383.02

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			Machine's B				
Equi	pment:	Mechani	cal Broom Hydraulic	Manufactur	ed year:	Code No.	33
	Make:			Fuel Type			
	Model:				Diesel (SFC):	0.4	(Itr/hp-hr)
Pow	er (hp):	25	hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Car	pacity:	1250	sqm/hr	Fuel	Load factor(FF):	0.8	
Purchas	e / Estimated	Price (PP):	3500000	Fuel	Time factor(TF):	0.8	
	Use	ful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)
То	tal Useful life	Hours (H):	15000		Fuel Consumtion:	6.40	(L/hr)
	Uses Hours p	er year (h):	1000		Energy consumed:		(kwh)
	Tyre cost pe	er unit (Ct):	25000	Electric	Electric Charge:		(Rs/unit)
	Total no. of Tyres (tn): 4 Energy consumed rate						
Tyre r	eplacement o	costs (TRC):	100000				
Tyr	e Average Life	e (hrs) (TL):	3000		Repair factor (RF):	0.3	
Specia	l wear item c	ost (SWIC):	100000		Servicing factor (SF):	0.15	
	Interes	st Rate (IR):	10%				
rator M'th	ıly Salary + Al	lw'nce(OS)					
			OWNER	RSHIP COSTS			
1	Purchase P	rice less tyr	e (P) (Rs)(Including acc	cessories and	linstallation)		3400000
2	Estimated S	Salvage Val	ue (S) (Rs)				350000
3	Annual Dep	reciation (Rs/yr)				203333
4	Insurance (Rs/yr)					35000
5	Taxes / Lice	ence etc. (R	s/yr)				35000
6	Storage etc	. (Rs/yr)					
7	Average An	nual Invest	ment				233333
8	Annual Inte	erest Cost (Rs)				23333
9	Annual Ow	nership Cos	it (Rs)				296667
10	Estimated	Hourly Own	nership Cost (Rs/hr)				296.67
			OPERA	TION COSTS			
11	Repair and	Maintenan	ce Cost (Rs/hr)				68.00
12	Tyre Replac	cement Cos	t (Rs/hr)				26.38
13	Fuel Cost (F	Rs/hr)					623.01
14	Servicing (C	Oil, filters, g	rease etc.) (Rs/hr)				34.00
15	Special wea	ar items (bl	ade, teeth, bucket	etc.) (Rs/h)			100.00
16	Operator's	hourly char	ge (Salary+ allowance	s) (Rs/hr)			0.00
17	Estimated	Hourly Ope	rating Cost (Rs/hr)				851.39
18	Total Hou	rly Owning	and Operating Cos	t (Rs/hr)			1148.06
14 15 16	Servicing (C Special weat Operator's Estimated	Dil, filters, g ar items (bl hourly char Hourly Ope	ade, teeth, bucket ge (Salary+ allowance	s) (Rs/hr) t (Rs/hr)	what of the		34.0 100.0 0.0 851. .
			(V)				61

			Machine	's Basic Info	ormation			
Equ	ipment:	Motor (Grader	Manufactur	ed year:	Code No.	34	
	Make:	Komatsu/E	quivalent	Fuel Type				
	Model:	GD300A/ E	quivalent		Diesel (SFC):	0.1	(ltr/hp-hr)	
Pow	er (hp):	120	hp		Petrol (SFC):	0.22	(ltr/hp-hr)	
Ca	pacity:	200/200/50	cum/hr	Fuel	Load factor(FF):	0.85		
Purc	hase / Estima	ted Price (PP):	12000000	ruei	Time factor(TF):	0.85		
	ι	Jseful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)	
	Total Useful	life Hours (H):	15000		Fuel Consumtion:	8.67	(L/hr)	
		s per year (h):	1000		Energy consumed:		(kwh)	
	Tyre cos	t per unit (Ct):	60000	Electric	Electric Charge:		(Rs/unit)	
	Total no	. of Tyres (tn):	6	Licetile	Energy consumed rate		(unit/hr)	
Ту	re replaceme	nt costs (TRC):	360000					
		Life (hrs) (TL):	3000		Repair factor (RF):			
Spe	ecial wear iter	m cost (SWIC):	200000		Servicing factor (SF):	0.33		
		erest Rate (IR):	10%					
erator N	1'thly Salary +	Allw'nce(OS)						
			OW	NERSHIP CO	STS			
1	Purchase P	rice less tyre (F	P) (Rs)(Includ	ing accessori	es and installation)		11640000	
2		Salvage Value (1200000	
3	Annual Dep	reciation (Rs/	yr)				696000	
4	Insurance (120000	
5		ence etc. (Rs/y	r)				120000	
6	Storage etc							
7		nual Investme	nt				800000	
8		erest Cost (Rs)					80000	
9		nership Cost (1016000	
10	Estimated	Hourly Owners					1016.00	
			OPI	ERATION CO	STS			
11		Maintenance					256.08	
12	Tyre Replac	cement Cost (R	s/hr)				94.97	
13	Fuel Cost (F	Rs/hr)					843.98	
14								
15								
16	Operator's hourly charge (Salary+ allowances) (Rs/hr)							
17	Estimated I	Hourly Operat	ing Cost (Rs	/hr)			1651.11	
18	Total Hou	rly Owning a	nd Operatin	g Cost (Rs/	hr)		2667.11	

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			Machine's B	asic Informa	ation			
Equ	ipment:	Mobile slu	rry seal equipment	Manufactur	ed year:	Code No.	35	
	Make:			Fuel Type				
	Model:				Diesel (SFC):	0.12	(ltr/hp-hr)	
Pow	ver (hp):	70	hp		Petrol (SFC):	0.22	(ltr/hp-hr)	
Ca	pacity:	2700	sqm/hr	Fuel	Load factor(FF):	0.85		
Purc	hase / Estimat	ed Price (PP):	2500000	ruei	Time factor(TF):	0.85		
		seful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)	
	Total Useful l	ife Hours (H):	15000		Fuel Consumtion:	6.07	(L/hr)	
	Uses Hours	per year (h):	1000		Energy consumed:		(kwh)	
	Tyre cost	per unit (Ct):	20000	Electric	Electric Charge:		(Rs/unit)	
	Total no.	of Tyres (tn):	4	Liectife	Energy consumed rate		(unit/hr)	
-	re replacemen		80000					
	Tyre Average I		3000		Repair factor (RF):	0.4		
Spe	ecial wear item				Servicing factor (SF):	0.2		
		est Rate (IR):	10%					
perator N	1'thly Salary +	Allw'nce(OS)						
			OWNER	SHIP COSTS				
1	Purchase Pr	ice less tyre (P) (Rs)(Including acce	ssories and i	nstallation)		2420000	
2	Estimated S	alvage Value	(S) (Rs)				250000	
3	Annual Dep	reciation (Rs,	/yr)				144667	
4	Insurance (F						25000	
5	Taxes / Lice	nce etc. (Rs/y	r)				25000	
6	Storage etc.							
7	Average An	nual Investme	ent				166667	
8		rest Cost (Rs)					16667	
9	Annual Owr	ership Cost ((Rs)				211333	
10	Estimated H	lourly Owner	ship Cost (Rs/hr)				211.33	
				ION COSTS				
11		Maintenance					64.53	
12		ement Cost (F	Rs/hr)				21.10	
13	Fuel Cost (R						590.79	
14			ise etc.) (Rs/hr)				32.27	
15	Special wear items (blade, teeth, bucket etc.) (Rs/h)							
16			(Salary+ allowances)	(Rs/hr)			0.00	
17			ing Cost (Rs/hr)				708.69	
18	Total Hour	ly Owning a	nd Operating Cost	(Rs/hr)			920.02	

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			Machine's B	asic Inform	ation				
Equip	ment:	Paver f	inisher mechanical	Manufactu	red year:	Code No.	37		
	Make:			Fuel Type					
	Model:				Diesel (SFC):	0.06	(ltr/hp-hr)		
Powe	er (hp):	160	hp		Petrol (SFC):	0.22	(ltr/hp-hr)		
Capa	acity:	100	ton/hr	Fuel	Load factor(FF):	0.85			
Purchase	e / Estimated		9000000	ruer	Time factor(TF):	0.85			
		ful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)		
Tot	al Useful life	Hours (H):	15000		Fuel Consumtion:	6.94	(L/hr)		
l	Uses Hours per year (h): 10				Energy consumed:		(kwh)		
	Tyre cost pe	er unit (Ct):	20000	Electric	Electric Charge:		(Rs/unit)		
	Total no. of		4	Licotiic	Energy consumed rate		(unit/hr)		
	eplacement o		80000						
	Average Life		10000		Repair factor (RF):	0.4			
Special	wear item c				Servicing factor (SF):	0.2			
		t Rate (IR):	10%						
rator M'thl	y Salary + All	w'nce(OS)							
				SHIP COSTS					
1			e (P) (Rs)(Including acc	essories and	d installation)		8920000		
2	Estimated S						900000		
3	Annual Dep		Rs/yr)				534667		
4	Insurance (90000		
5	Taxes / Lice		s/yr)						
6	Storage etc						90000		
7	Average An						600000		
8	Annual Inte						60000		
9	Annual Ow						774667		
10	Estimated I	lourly Owr	ership Cost (Rs/hr)				774.67		
				TION COSTS					
11			ce Cost (Rs/hr)				237.87		
12	Tyre Replac		t (Rs/hr)				60.05		
13	Fuel Cost (R						675.19 118.93		
14									
15			ade, teeth, bucket				0.00		
16	Operator's hourly charge (Salary+ allowances) (Rs/hr)								
17			rating Cost (Rs/hr)				1092.04		
18	Total Hou	rly Owning	and Operating Cost	(Rs/hr)			1866.71		

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			Machine's	Basic Infor	mation		
Equi	ipment:	Piling Rig w	vith Bantonite pump	Manufactu	red year:	Code No.	38
	Make:			Fuel Type			
	Model:				Diesel (SFC):	0.1	(ltr/hp-hr)
Pow	er (hp):	160	hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Caj	pacity:	2	RM/hr	Fuel	Load factor(FF):	0.7	
Purchas	e / Estimated	Price (PP):	40000000	ruei	Time factor(TF):	0.7	
	Use	ful Life (N):	10		Fuel Rate :	97.34513	(Rs/ltr)
To	tal Useful life	Hours (H):	30000		Fuel Consumtion:	7.84	(L/hr)
	Uses Hours p	er year (h):	3000		Energy consumed:		(kwh)
	Tyre cost p	er unit (Ct):		Electric	Electric Charge:		(Rs/unit)
	Total no. o	f Tyres (tn):		Liectric	Energy consumed rate		(unit/hr)
Tyre r	eplacement	costs (TRC):	0				
Tyr	e Average Lif	e (hrs) (TL):			Repair factor (RF):	0.2	
Specia	l wear item o	cost (SWIC):	500000		Servicing factor (SF):	0.2	
		st Rate (IR):	10%				
rator M'th	nly Salary + Al	lw'nce(OS)					
			OWNE	RSHIP COST	rs		
1	1 Purchase Price less tyre (P) (Rs)(Including accessories and installation)						
2	Estimated S	Estimated Salvage Value (S) (Rs)					
3	Annual Dep	preciation (Rs/yr)				3600000
4	Insurance (Rs/yr)					400000
5	Taxes / Lice	ence etc. (Rs	s/yr)				400000
6	Storage etc						
7	Average Ar	inual Invest	ment				4000000
8		erest Cost (400000
9	Annual Ow	nership Cos	t (Rs)				4800000
10	Estimated	Estimated Hourly Ownership Cost (Rs/hr)					
			OPERA	ATION COST	S		
11	11 Repair and Maintenance Cost (Rs/hr)						266.67
12	Tyre Replac	Tyre Replacement Cost (Rs/hr)					
13	Fuel Cost (Rs/hr)						763.19
14	Servicing (Oil, filters, grease etc.) (Rs/hr)						266.67
15	Special wear items (blade, teeth, bucket etc.) (Rs/h)						166.67
16	Operator's hourly charge (Salary+ allowances) (Rs/hr)						
17	Estimated	Hourly Ope	rating Cost (Rs/hr)				1463.19
18	Total Hou	rly Owning	and Operating Co	st (Rs/hr)			3063.19

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			Machi	ne's Basic In	formation		
Equi	ipment:	Pneumatic	Road Roller	Manufacture	ed year:	Code No.	39
	Make:			Fuel Type			
	Model:			1	Diesel (SFC):	0.16	(Itr/hp-hr)
Pow	Power (hp): 80 hp		hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Ca	Capacity: 25 cum/hr		Fuel	Load factor(FF):	0.8		
Purchas	e / Estimated	Price (PP):	6000000	ruei	Time factor(TF):	0.8	
	Use	ful Life (N):	20		Fuel Rate :	97.34513	(Rs/Itr)
To	tal Useful life	Hours (H):	15000		Fuel Consumtion:	8.19	(L/hr)
	Uses Hours p	er year (h):	750		Energy consumed:		(kwh)
	Tyre cost p	er unit (Ct):	40000	Electric -	Electric Charge:		(Rs/unit)
	Total no. o	f Tyres (tn):	8	Liectric	Energy consumed rate		(unit/hr)
Tyre r	eplacement (costs (TRC):	320000				
Tyr	e Average Lif	e (hrs) (TL):	6000		Repair factor (RF):	0.25	
Specia	l wear item o	ost (SWIC):	0		Servicing factor (SF):	0.15	
	Interes	st Rate (IR):	10%				
rator M'th	nly Salary + Al	lw'nce(OS)					
			0	WNERSHIP (COSTS		
1	Purchase Price less tyre (P) (Rs)(Including accessories and installation)						
2	Estimated :	Salvage Valu	ue (S) (Rs)				600000
3	Annual De	oreciation (Rs/yr)				254000
4	Insurance (Rs/yr)					60000
5	Taxes / Lice	ence etc. (R	s/yr)				60000
6	Storage etc	c. (Rs/yr)					
7	Average Ar	nual Invest	ment				300000
8	Annual Inte	erest Cost (Rs)				30000
9	Annual Ow	nership Cos	t (Rs)				404000
10	Estimated	Hourly Owr	nership Cost	t (Rs/hr)			538.67
			C	PERATION C	OSTS		
11	11 Repair and Maintenance Cost (Rs/hr)						
12	Tyre Replacement Cost (Rs/hr)						201.24
13	Fuel Cost (Rs/hr)						797.45
14	Servicing (Oil, filters, grease etc.) (Rs/hr)						56.80
15	Special wear items (blade, teeth, bucket etc.) (Rs/h)						
16	Operator's hourly charge (Salary+ allowances) (Rs/hr)						
17	Estimated	Hourly Ope	rating Cost	(Rs/hr)			1150.16
18	Total Hou	rly Owning	and Oper	ating Cost (Rs/hr)		1688.83

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			Machine's	Basic Inforr	mation			
Equ	ipment:	stressing ja	ck with pump & acc	Manufacture	ed year:	Code No.	41	
	Make:			Fuel Type				
	Model:				Diesel (SFC):	0.16	(Itr/hp-hr)	
Pov	Power (hp): 10		Ehp		Petrol (SFC):	0.22	(ltr/hp-hr)	
	pacity:		RM/hr	Fuel	Load factor(FF):	0.9		
Purcha	se / Estimated	Price (PP):	400000	ruei	Time factor(TF):	0.85		
	Use	ful Life (N):	10		Fuel Rate :	97.34513	(Rs/ltr)	
To	otal Useful life	Hours (H):	5000		Fuel Consumtion:	1.10	(L/hr)	
	Uses Hours p	er year (h):	500		Energy consumed:	1	(kwh)	
	Tyre cost p	er unit (Ct):		Electric	Electric Charge:	12	(Rs/unit)	
	Total no. o	f Tyres (tn):		Liectric	Energy consumed rate	12	(unit/hr)	
Tyre	replacement	costs (TRC):	0					
Ту	re Average Lif	e (hrs) (TL):			Repair factor (RF):	0.25		
Speci	al wear item o	cost (SWIC):			Servicing factor (SF):	0.1		
	Intere	st Rate (IR):	10%					
rator M't	hly Salary + Al	lw'nce(OS)						
			OWN	ERSHIP COST	S			
1	Purchase Price less tyre (P) (Rs)(Including accessories and installation)							
2	Estimated :	Salvage Valu	ue (S) (Rs)				40000	
3	Annual De	oreciation (Rs/yr)				36000	
4	Insurance (Rs/yr)					4000	
5	Taxes / Lice	ence etc. (R	s/yr)				4000	
6	Storage etc	c. (Rs/yr)					4000	
7	Average Ar	nual Invest	ment				40000	
8	Annual Inte	erest Cost (Rs)				4000	
9	Annual Ow	nership Cos	st (Rs)				52000	
10	Estimated	Estimated Hourly Ownership Cost (Rs/hr)						
			OPER	ATION COST	S			
11	11 Repair and Maintenance Cost (Rs/hr)						20.00	
12	Tyre Repla	Tyre Replacement Cost (Rs/hr)						
13	Fuel Cost (Fuel Cost (Rs/hr)						
14	-	Servicing (Oil, filters, grease etc.) (Rs/hr)						
15	Special we	Special wear items (blade, teeth, bucket etc.) (Rs/h)						
16	Operator's	hourly char	ge (Salary+ allowan	ces) (Rs/hr)			0.00	
17	Estimated	Hourly Ope	rating Cost (Rs/hr)				40.00	
18	Total Hou	rly Owning	and Operating Co	ost (Rs/hr)			144.00	

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			Machine's	Basic Infor	mation			
Equi	pment:	Road Ma	rking Machine	Manufactur	ed year:	Code No.	44	
	Make:			Fuel Type	Fuel Oil Consumption	2.00	ltr/hr	
	Model:				Diesel (SFC):	0.16	(ltr/hp-hr)	
Pow	er (hp):	10	hp		Petrol (SFC):	0.22	(ltr/hp-hr)	
Car	pacity:	100	sqm/hr	Fuel	Load factor(FF):	0.9		
Purchas	e / Estimated	Price (PP):	500000	ruei	Time factor(TF):	0.9		
	Use	ful Life (N):	10		Fuel Rate :	97.34513	(Rs/ltr)	
To	tal Useful life	Hours (H):	6000		Fuel Consumtion:	1.296	(L/hr)	
	Uses Hours p	er year (h):	600		Energy consumed:		(kwh)	
	Tyre cost po	er unit (Ct):		Electric	Electric Charge:		(Rs/unit)	
	Total no. of	f Tyres (tn):		Licetife	Energy consumed rate	0	(unit/hr)	
	eplacement of		0					
Tyr	e Average Lif	e (hrs) (TL):			Repair factor (RF):	0.25		
Specia	l wear item c				Servicing factor (SF):			
	Interest Rate (IR):				Fuel Oil Rate	97.34513	(Rs/ltr)	
ator M'th	lly Salary + Al	lw'nce(OS)						
				ERSHIP COS			500000	
1	Purchase Price less tyre (P) (Rs)(Including accessories and installation)							
2		Salvage Val					50000	
3	Annual Dep	preciation (Rs/yr)				45000	
4	Insurance (5000	
5	Taxes / Lice	ence etc. (R	s/yr)					
6	Storage etc							
7	Average Ar	nual Invest	ment				50000	
8		erest Cost (5000	
9		nership Cos					55000	
10	Estimated	Hourly Owi	nership Cost (Rs/I				91.67	
				RATION COST	TS		20.83	
11								
12		Tyre Replacement Cost (Rs/hr)						
13		Fuel Cost (Rs/hr)						
14		Servicing (Oil, filters, grease etc.) (Rs/hr)						
15	Special wear items (blade, teeth, bucket etc.) (Rs/h)						0.00	
16		Operator's hourly charge (Salary+ allowances) (Rs/hr)						
17			rating Cost (Rs/h				155.33	
18	Total Hou	rly Owning	g and Operating	Cost (Rs/h	r)		246.99	

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			Machine's	Basic Infor	mation		
Equ	ipment:	Smooth	Wheeled Roller	Manufactur	ed year:	Code No.	45
	Make:			Fuel Type			
	Model: 8		8 ton		Diesel (SFC):	0.16	(ltr/hp-hr)
Pow	Power (hp): 60		hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Ca	pacity:	70/25	cum/hr	Fuel	Load factor(FF):		
Purchas	se / Estimated	Price (PP):	4000000	Fuel	Time factor(TF):	0.75	
	Use	ful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)
To	otal Useful life	Hours (H):	30000		Fuel Consumtion:	5.40	(L/hr)
III.	Uses Hours p	er year (h):	2000		Energy consumed:		(kwh)
	Tyre cost pe	er unit (Ct):		Floatric	Electric Charge:		(Rs/unit)
	Total no. of	Tyres (tn):		Electric -	Energy consumed rate		(unit/hr)
Tyre	replacement o	costs (TRC):	0				
Ту	re Average Life	e (hrs) (TL):			Repair factor (RF):	0.3	
Specia	al wear item c	ost (SWIC):			Servicing factor (SF):	0.1	
	Interes	st Rate (IR):	10%				
ator M'tl	nly Salary + Al	lw'nce(OS)	-				
			OWN	ERSHIP COS	TS		
1	1 Purchase Price less tyre (P) (Rs)(Including accessories and installation)						
2		Estimated Salvage Value (S) (Rs)					
3	Annual Dep	reciation (Rs/yr)				240000
4	Insurance (Rs/yr)					40000
5	Taxes / Lice	ence etc. (R.	s/yr)				40000
6	Storage etc	. (Rs/yr)					
7	Average Ar	nual Invest	ment				266667
8	Annual Inte	erest Cost (Rs)				26667
9	Annual Ow	nership Cos	st (Rs)				346667
10	Estimated	Hourly Owi	nership Cost (Rs/h	r)			173.33
			OPER	ATION COST	rs		
11							40.00
12							0.00
13		Fuel Cost (Rs/hr)					
14		Servicing (Oil, filters, grease etc.) (Rs/hr)					
15	Special wear items (blade, teeth, bucket etc.) (Rs/h)						0.00
16		Operator's hourly charge (Salary+ allowances) (Rs/hr)					
17		Estimated Hourly Operating Cost (Rs/hr)					
	Total Hourly Owning and Operating Cost (Rs/hr)						752.33

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			Machine's	Basic Infor	mation		
Equ	ipment:	Smooth	Wheeled Roller	Manufactured year: Code No			45
	Make:			Fuel Type			
	Model: 8		8 ton		Diesel (SFC):	0.16	(ltr/hp-hr
Pow	Power (hp): 60		hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Ca	pacity:	70/25	cum/hr	Fuel	Load factor(FF):	0.75	
Purchas	se / Estimated	Price (PP):	4000000	ruei	Time factor(TF):	0.75	
	Use	ful Life (N):	15		Fuel Rate:	97.34513	(Rs/ltr)
To	otal Useful life	Hours (H):	30000		Fuel Consumtion:	5.40	(L/hr)
	Uses Hours p	er year (h):	2000		Energy consumed:		(kwh)
	Tyre cost pe			Electric -	Electric Charge:		(Rs/unit)
	Total no. of	Tyres (tn):		Licetile	Energy consumed rate		(unit/hr)
	replacement o		0				
	re Average Life				Repair factor (RF):		
Specia	al wear item c				Servicing factor (SF):	0.1	
		st Rate (IR):	10%				
ator M'tl	hly Salary + Al	lw'nce(OS)					
			OWN	ERSHIP COS	rs		
1	Purchase Price less tyre (P) (Rs)(Including accessories and installation)						4000000
2	Estimated S	Salvage Val	ue (S) (Rs)				400000
3		reciation (Rs/yr)				240000
4	Insurance (40000
5	Taxes / Lice	ence etc. (R	s/yr)				40000
6	Storage etc		N 13				
7	Average An						266667
8	Annual Inte						26667
9		nership Cos					346667 173.33
10	Estimated	Estimated Hourly Ownership Cost (Rs/hr)					
				ATION COST	rs		
11	11 Repair and Maintenance Cost (Rs/hr)						40.00 0.00
12	Tyre Replac	Tyre Replacement Cost (Rs/hr)					
13	Fuel Cost (Rs/hr)						525.66
14	Servicing (Oil, filters, grease etc.) (Rs/hr)						13.33
15	Special wear items (blade, teeth, bucket etc.) (Rs/h)						0.00
16	Operator's hourly charge (Salary+ allowances) (Rs/hr)						
17	Estimated I	Hourly Ope	rating Cost (Rs/h	r) .			579.00
18	Total Hou	rly Owning	and Operating	Cost (Rs/hr)		752.33

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			Machin	e's Basic In	formation		
Equi	ipment:	Tipper	Truck	Manufactured year:		Code No.	47
	Make:			Fuel Type			
	Model:	(8 t	on)		Diesel (SFC):	0.16	(ltr/hp-hr)
Pow	er (hp):	100	hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Cap	Capacity: 5.5 cum/hr			Fuel	Load factor(FF):	0.65	
Purchas	Purchase / Estimated Price (PP): 3500000			ruei	Time factor(TF):	0.65	
	Use	ful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)
То	tal Useful life	Hours (H):	30000		Fuel Consumtion:	6.76	(L/hr)
	Uses Hours p		2000		Energy consumed:		(kwh)
	Tyre cost pe	er unit (Ct):	20000	Electric	Electric Charge:		(Rs/unit)
	Total no. of		6	Liectric	Energy consumed rate		(unit/hr)
Tyre r	eplacement o	osts (TRC):	120000				
Tyr	e Average Life	e (hrs) (TL):	3000		Repair factor (RF):	0.4	
Specia	l wear item c	ost (SWIC):			Servicing factor (SF):	0.2	
	Interes	t Rate (IR):	10%)
ator M'th	nly Salary + Al	w'nce(OS)					
			01	NNERSHIP C	OSTS		
1	1 Purchase Price less tyre (P) (Rs)(Including accessories and installation)						
2	Estimated S	Estimated Salvage Value (S) (Rs)					
3	Annual Dep	reciation (I	Rs/yr)				202000
4	Insurance (Rs/yr)					35000
5	Taxes / Lice	ence etc. (Rs	s/yr)				35000
6	Storage etc	. (Rs/yr)					
7	Average An	nual Investi	ment				233333
8		rest Cost (I					23333
9	Annual Ow	nership Cos	t (<i>Rs</i>)				295333
10	Estimated I	Hourly Own	ership Cos	t (Rs/hr)			147.67
			OI	PERATION C	OSTS		
11 Repair and Maintenance Cost (Rs/hr)							45.07
12	Tyre Replacement Cost (Rs/hr)						9.76
13	Fuel Cost (F	Fuel Cost (Rs/hr)					
14	Servicing (C	Servicing (Oil, filters, grease etc.) (Rs/hr)					
15	Special wear items (blade, teeth, bucket etc.) (Rs/h)						
16							
17	Estimated I	Hourly Oper	rating Cost	(Rs/hr)			735.42
18	Total Hou	rly Owning	and Oper	ating Cost	(Rs/hr)		883.08

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			Machi	ne's Basic Ir	nformation					
Equi	ipment:									
	Make:			Fuel Type						
	Model:				Diesel (SFC):	0.16	(ltr/hp-hr)			
Pow	er (hp):	50	hp		Petrol (SFC):	0.22	(ltr/hp-hr)			
Ca	pacity:	50	HP	Fuel	Load factor(FF):	0.75				
Purchas	e / Estimated	Price (PP):	2000000	ruei	Time factor(TF):	0.75				
	Use	ful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)			
To	tal Useful life	Hours (H):	30000		Fuel Consumtion:	4.50	(L/hr)			
	Uses Hours per year (h): 200				Energy consumed:		(kwh)			
	Tyre cost pe	er unit (Ct):	25000	Electric	Electric Charge:		(Rs/unit)			
	Total no. of Tyres (tn):			Licetife	Energy consumed rate		(unit/hr)			
	eplacement o		100000							
Tyr	e Average Life	e (hrs) (TL):	3000		Repair factor (RF):					
Specia	l wear item c	ost (SWIC):	10000		Servicing factor (SF):	0.2				
		t Rate (IR):	10%				gara or p			
ator M'th	nly Salary + Al	lw'nce(OS)								
				WNERSHIP (
1				cluding acces	ssories and installation)		1900000			
2	Estimated S	Salvage Valu	ue (S) (Rs)				200000			
3	Annual Dep	reciation (Rs/yr)				113333			
4	Insurance (Rs/yr)					20000			
5	Taxes / Lice	ence etc. (R	s/yr)				20000			
6	Storage etc									
7	Average An	nual Invest	ment				133333			
8		erest Cost (13333			
9	Annual Ow	nership Cos	t (Rs)				166667			
10	Estimated	Hourly Own					83.33			
			(PERATION (COSTS					
11	Repair and	Maintenan	ce Cost (Rs	/hr)			25.33			
12	Tyre Replac	cement Cos	t (Rs/hr)				8.14			
13 Fuel Cost (Rs/hr)							438.05			
14										
15										
16	Operator's hourly charge (Salary+ allowances) (Rs/hr)									
17	Estimated	Hourly Ope	rating Cost	(Rs/hr)			489.19			
18	Total Hou	rly Owning	and Oper	ating Cost (Rs/hr)		572.52			

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			Machi	ne's Basic	Information			
Equ	ipment:	Vibrato	ry Roller	Manufactu	red year:	Code No.	56	
	Make:			Fuel Type				
	Model:	10	ton		Diesel (SFC):	0.16	(ltr/hp-hr)	
Pow	er (hp):	100	hp		Petrol (SFC):	0.22	(ltr/hp-hr)	
Ca	pacity:	11	ton.km	Fuel	Load factor(FF):	0.7		
Purchas	e / Estimated	Price (PP):	5000000	ruei	Time factor(TF):	0.65		
	Use	ful Life (N):	20		Fuel Rate :	97.3451327	(Rs/ltr)	
To	tal Useful life	Hours (H):	15000		Fuel Consumtion:	7.28	(L/hr)	
	Uses Hours per year (h): 75				Energy consumed:		(kwh)	
	Tyre cost pe	er unit (Ct):	40000	Electric	Electric Charge:		(Rs/unit)	
	Total no. of Tyres (tn):		2	LIECTIC	Energy consumed rate		(unit/hr)	
Tyre r	eplacement o	costs (TRC):	80000					
Tyr	Tyre Average Life (hrs) (TL): 300				Repair factor (RF):	0.4		
Specia	l wear item c	ost (SWIC):			Servicing factor (SF):	0.2		
100	Interes	t Rate (IR):	10%					
ator M'th	nly Salary + Al	lw'nce(OS)						
			C	WNERSHIP	COSTS			
1	Purchase P	rice less tyre	e (P) (Rs)(In	cluding acce	essories and installation)		4920000	
2	Estimated S	Salvage Valu	ue (S) (Rs)				500000	
3	Annual Dep	reciation (Rs/yr)				221000	
4	Insurance (Rs/yr)					50000	
5	Taxes / Lice	ence etc. (Rs	s/yr)				50000	
6	Storage etc	. (Rs/yr)						
7	Average An	nual Invest	ment				250000	
8	Annual Inte	erest Cost (Rs)				25000	
9	Annual Ow	nership Cos	t (Rs)				346000	
10	Estimated	Hourly Owr	ership Cost	t (Rs/hr)			461.33	
			(PERATION	COSTS			
11	Repair and	Maintenan	ce Cost (Rs	/hr)			131.20	
12	Tyre Replac	cement Cost	t (Rs/hr)				28.14	
13 Fuel Cost (Rs/hr)							708.67	
14 Servicing (Oil, filters, grease etc.) (Rs/hr)							65.60	
15 Special wear items (blade, teeth, bucket etc.) (Rs/h)							0.00	
16								
17	Estimated I	Hourly Ope	rating Cost	(Rs/hr)			933.61	
18				ating Cost	(Rs/hr)		1394.94	

Ch Singer Spring /2.

Equipme	ant.	Water Tank	or	Manufactu	red year:	Code No.	57
	ake:	Water rain	(CI	Fuel Type	rea year.	coac ivo.	37
	del:			Tuel Type	Diesel (SFC):	0.12	(ltr/hp-hr
Power (h		100	hn	-	Petrol (SFC):	0.22	(ltr/hp-hr)
Capacit		6	KL	-	Load factor(FF):	0.6	(ici/iip iii)
		e / Estimated Price (PP):	3000000	Fuel	Time factor(TF):	0.6	
10	ai ci ida	Useful Life (N):	20	-	Fuel Rate :	97.34513	(Rs/ltr)
	Tot	tal Useful life Hours (H):	15000		Fuel Consumtion:	4.32	(L/hr)
		Jses Hours per year (h):	750		Energy consumed:	11.02	(kwh)
		Tyre cost per unit (Ct):	25000		Electric Charge:		(Rs/unit)
***		Total no. of Tyres (tn):	6	Electric -	Energy consumed rate		(unit/hr)
	Tyre re	eplacement costs (TRC):	150000				(,
		Average Life (hrs) (TL):	3000		Repair factor (RF):	0.3	
9		wear item cost (SWIC):			Servicing factor (SF):	0.2	
		Interest Rate (IR):	10%		,		
Operator	r M'thl	y Salary + Allw'nce(OS)					
			OWNE	RSHIP COST	rs		
1	Purch	ase Price less tyre (P) (R	s)(Including acces	sories and i	nstallation)		2850000
2		ated Salvage Value (S) (F					300000
3		al Depreciation (Rs/yr)					127500
4		nce (Rs/yr)					30000
5	_	/ Licence etc. (Rs/yr)					30000
6	-	ge etc. (Rs/yr)					
7		ge Annual Investment					150000
8	Annua	al Interest Cost (Rs)					15000
9	Annua	al Ownership Cost (Rs)					202500
10	Estima	ated Hourly Ownership	Cost (Rs/hr)				270.00
			OPER/	ATION COST	S		
11	Repair	r and Maintenance Cost	(Rs/hr)				57.00
12	-	Replacement Cost (Rs/hr					52.76
13 Fuel Cost (Rs/hr)							420.53
14 Servicing (Oil, filters, grease etc.) (Rs/hr)							38.00
15 Special wear items (blade, teeth, bucket etc.) (Rs/h)							0.00
16 Operator's hourly charge (Salary+ allowances) (Rs/hr)							0.00
17	Estimated Hourly Operating Cost (Rs/hr)						
18		Hourly Owning and O		Rs/hr)			838.29

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			Machine's	Basic Info	rmation			
Equi	Equipment: Crane Manufactured year: Code No.							
	Make:			Fuel Type				
	Model:	Rough to	errian (10 ton)		Diesel (SFC):	0.1	(ltr/hp-hr	
Pow	er (hp):	180	hp		Petrol (SFC):	0.22	(ltr/hp-hi	
Ca	pacity:	10	ton	Fuel	Load factor(FF):	0.75		
Purchas	e / Estimated	Price (PP):	9000000	ruei	Time factor(TF):	0.75		
	Use	ful Life (N):	20	4	Fuel Rate :	97.34513	(Rs/ltr)	
То	tal Useful life	Hours (H):	15000		Fuel Consumtion:	10.125	(L/hr)	
	Uses Hours per year (h): 75				Energy consumed:		(kwh)	
	Tyre cost pe	er unit (Ct):	50000	Electric	Electric Charge:		(Rs/unit	
	Total no. of	Tyres (tn):	6	LICCUIC	Energy consumed rate		(unit/hr)	
Tyre r	eplacement o	osts (TRC):	300000					
Tyr	e Average Life	e (hrs) (TL):	3000		Repair factor (RF):	0.4		
Specia	l wear item c	ost (SWIC):			Servicing factor (SF):	0.25		
	Interes	t Rate (IR):	10%					
tor M'th	ly Salary + All	w'nce(OS)						
			OWN	ERSHIP COS	STS			
1	Purchase Pi	rice less tyr	e (P) (Rs)(Includi	ng accessori	es and installation)		8700000	
2	Estimated S	alvage Val	ue (S) (Rs)				900000	
3	Annual Dep	reciation (Rs/yr)				390000	
4	Insurance (Rs/yr)					90000	
5	Taxes / Lice	nce etc. (R	s/yr)				90000	
6	Storage etc	. (Rs/yr)						
7	Average An	nual Invest	ment				450000	
8	Annual Inte	rest Cost (Rs)				45000	
9	Annual Ow	nership Cos	st (Rs)				615000	
10	Estimated I	Hourly Owi	nership Cost (Rs/	hr)			820.00	
			OPE	RATION COS	TS			
11	Repair and	Maintenan	ce Cost (Rs/hr)				232.00	
12	Tyre Replac						105.52	
13 Fuel Cost (Rs/hr)						985.62		
14 Servicing (Oil, filters, grease etc.) (Rs/hr)						145.00		
	15 Special wear items (blade, teeth, bucket etc.) (Rs/h)							
16								
17	Estimated Hourly Operating Cost (Rs/hr)							
18	Estimated Hourly Operating Cost (Rs/hr) Total Hourly Owning and Operating Cost (Rs/hr) , 2							

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			Machin	e's Basic In	formation		
Equ	ipment:	Crane (15 t	on)	Manufactur	ed year:	Code No.	63
	Make:			Fuel Type			
	Model:	Rough terri	an (15 ton)		Diesel (SFC):	0.13	(ltr/hp-hr)
Pow	er (hp):	200	hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Ca	pacity:		ton	Fuel	Load factor(FF):	0.75	
Purchas	e / Estimated	Price (PP):	12500000	l ruei	Time factor(TF):	0.75	
	Use	ful Life (N):	20		Fuel Rate :	97.34513	(Rs/ltr)
To	tal Useful life	Hours (H):	15000		Fuel Consumtion:	14.625	(L/hr)
	Uses Hours per year (h): 75				Energy consumed:		(kwh)
	Tyre cost p	er unit (Ct):	50000	Electric	Electric Charge:		(Rs/unit)
	Total no. of Tyres (tn):			Liectric	Energy consumed rate		(unit/hr)
Tyre r	eplacement (costs (TRC):	300000				
	e Average Lif		3000		Repair factor (RF):	0.4	
Specia	l wear item o	ost (SWIC):			Servicing factor (SF):	0.2	
		st Rate (IR):	10%				
rator M'th	nly Salary + Al	lw'nce(OS)					
			0'	WNERSHIP C	COSTS		
1	Purchase P	rice less tyre	e (P) (Rs)(In	cluding acce	ssories and installation)		12200000
2	Estimated :	Salvage Valu	ie (S) (Rs)				1250000
3	Annual De	oreciation (I	Rs/yr)				547500
4	Insurance (Rs/yr)					125000
5	Taxes / Lice	ence etc. (Rs	s/yr)				125000
6	Storage etc	c. (Rs/yr)					
7	Average Ar	nnual Investi	ment				625000
8	Annual Inte	erest Cost (I	Rs)				62500
9	Annual Ow	nership Cos	t (Rs)				860000
10	Estimated	Hourly Own	ership Cos	t (Rs/hr)			1146.67
			0	PERATION C	OSTS		
11	Repair and	Maintenand	ce Cost (Rs	/hr)			325.33
12	Tyre Replac	cement Cost	(Rs/hr)				105.52
13 Fuel Cost (Rs/hr)							1423.67
14 Servicing (Oil, filters, grease etc.) (Rs/hr)							162.67
15 Special wear items (blade, teeth, bucket etc.) (Rs/h)							0.00
16 Operator's hourly charge (Salary+ allowances) (Rs/hr)							
17	Estimated	Hourly Oper	rating Cost	(Rs/hr)			2017.19
18	Total Hou	rly Owning	and Oper	ating Cost ((Rs/hr)		3163.86

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			Machine's	Basic Info	rmation				
Equi	pment:	Crane with	grab 0.75 capacity	Manufactur	ed year:	Code No.	67		
	Make:			Fuel Type					
	Model:	grab	0.75 capacity		Diesel (SFC):	0.14	(ltr/hp-hr)		
Powe	er (hp):	100	hp		Petrol (SFC):	0.22	(ltr/hp-hr,		
Сар	acity:		ton	Fuel	Load factor(FF):	0.8			
Purchase	e / Estimated	Price (PP):	12000000	ruei	Time factor(TF):	0.8			
	Use	ful Life (N):	25		Fuel Rate :	97.34513274	(Rs/ltr)		
To	tal Useful life	Hours (H):	15000		Fuel Consumtion:	8.96	(L/hr)		
	Uses Hours p		600		Energy consumed:		(kwh)		
	Tyre cost per unit (Ct):			Electric	Electric Charge:		(Rs/unit)		
	Total no. of Tyres (tn):			Licetiie	Energy consumed rate		(unit/hr)		
	eplacement		0						
	e Average Lif				Repair factor (RF):	0.25			
Specia	Special wear item cost (SWIC): 40000				Servicing factor (SF):	0.15			
		st Rate (IR):	10%						
ator M'th	ly Salary + Al	lw'nce(OS)							
				IERSHIP COS					
1			e (P) (Rs)(Including a	accessories a	and installation)		12000000		
2		Salvage Valu					1200000		
3		preciation (Rs/yr)				432000		
4	Insurance (120000		
5		ence etc. (Rs	s/yr)						
6	Storage etc								
7	The same and the s	nual Investi					480000		
8		erest Cost (I					48000		
9		nership Cos					600000		
10	Estimated	Hourly Own	ership Cost (Rs/hr)				1000.00		
				RATION COS	TS				
11			ce Cost (Rs/hr)				200.00		
12		cement Cost	(Rs/hr)				0.00		
13							872.21		
14			rease etc.) (Rs/hr				120.00		
15									
16		Operator's hourly charge (Salary+ allowances) (Rs/hr)							
17			rating Cost (Rs/hr)				1858.88		
18	Total Hou	rly Owning	and Operating Co	ost (Rs/hr)			2858.88		

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		Machine's	Basic Infor	mation			
Equipmen	t: Grouting Enjection gun		Manufactu	red year:	Code No.	69	
Mak	ce:		Fuel Type				
Mod	el:			Diesel (SFC):	0.16	(ltr/hp-hr)	
Power (hp): 15	Ehp		Petrol (SFC):	0.22	(ltr/hp-hr)	
Capacity		ton	Fuel	Load factor(FF):	0.8		
Pur	chase / Estimated Price (PP):	150000	ruei	Time factor(TF):	0.8		
	Useful Life (N):	5		Fuel Rate :	97.34513	(Rs/ltr)	
	Total Useful life Hours (H):	2500		Fuel Consumtion:		(L/hr)	
	Uses Hours per year (h):	500		Energy consumed:	1	(kwh)	
	Tyre cost per unit (Ct):		Electric	Electric Charge:	12	(Rs/unit)	
	Total no. of Tyres (tn):		Liectific	Energy consumed rate	12	(unit/hr)	
Ty	re replacement costs (TRC):	0					
	Tyre Average Life (hrs) (TL):			Repair factor (RF):	0.4		
Sp	ecial wear item cost (SWIC):			Servicing factor (SF):	0.2		
	Interest Rate (IR):	10%					
Operator I	M'thly Salary + Allw'nce(OS)						
		OWNE	RSHIP COST	S			
1 P	urchase Price less tyre (P) (R	s)(Including acces	sories and i	nstallation)		150000	
2 E	stimated Salvage Value (S) (I	Rs)				15000	
3 A	nnual Depreciation (Rs/yr)					27000	
4 li	nsurance (Rs/yr)					1500	
5 T	axes / Licence etc. (Rs/yr)					1500	
6 S	torage etc. (Rs/yr)					750	
7 A	verage Annual Investment					30000	
8 A	nnual Interest Cost (Rs)					3000	
9 A	nnual Ownership Cost (Rs)					33750	
10 E	stimated Hourly Ownership	Cost (Rs/hr)				67.50	
		OPER/	ATION COST	S			
11 R	epair and Maintenance Cost	(Rs/hr)				24.00	
12 T	yre Replacement Cost (Rs/hi)				0.00	
13 Fuel Cost (Rs/hr)							
14 Servicing (Oil, filters, grease etc.) (Rs/hr)							
15 S							
16 C	Operator's hourly charge (Salary+ allowances) (Rs/hr)						
17 E	Estimated Hourly Operating Cost (Rs/hr)						
18 T	Total Hourly Owning and Operating Cost (Rs/hr)						

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			Machir	ne's Basic In	formation		
Equ	ipment:	Generator		Manufactur	ed year:	Code No.	70
	Make:			Fuel Type			
	Model:				Diesel (SFC):	0.12	(ltr/hp-hr)
Pow	ver (hp):	70	hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Ca	pacity:	35	KVA	Fuel	Load factor(FF):	0.6	
Purchas	e / Estimated	Price (PP):	1000000	Fuel	Time factor(TF):	0.9	
	Use	ful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)
To	Total Useful life Hours (H): 1500				Fuel Consumtion:	4.54	(L/hr)
	Uses Hours per year (h): 1000				Energy consumed:		(kwh)
	Tyre cost p	er unit (Ct):		Electric	Electric Charge:		(Rs/unit)
	Total no. of	Tyres (tn):		Electric	Energy consumed rate		(unit/hr)
Tyre	eplacement of	costs (TRC):	0				
Tyr	e Average Lif	e (hrs) (TL):			Repair factor (RF):	0.25	
Specia	l wear item o	ost (SWIC):			Servicing factor (SF):	0.15	
	Intere	st Rate (IR):	10%				
ator M'th	nly Salary + Al	lw'nce(OS)					
			0	WNERSHIP C	COSTS		
1	Purchase P	rice less tyre	e (P) (Rs)(In	cluding acces	ssories and installation)		1000000
2	Estimated :	Salvage Valu	ie (S) (Rs)				100000
3	Annual Dep	reciation (Rs/yr)				60000
4	Insurance (Rs/yr)					10000
5	Taxes / Lice	ence etc. (Rs	s/yr)				
6	Storage etc	. (Rs/yr)					
7	Average Ar	nual Invest	ment				66667
8	Annual Inte	erest Cost (I	Rs)		•		6667
9	Annual Ow	nership Cos	t (Rs)				76667
10	Estimated	Hourly Own	ership Cost	t (Rs/hr)			76.67
			0	PERATION C	OSTS		
11	Repair and	Maintenand	ce Cost (Rs	/hr)	4 7 4 4		16.67
12	Tyre Replac	cement Cost	(Rs/hr)				0.00
13	Fuel Cost (I						441.56
14 Servicing (Oil, filters, grease etc.) (Rs/hr)						10.00	
15 Special wear items (blade, teeth, bucket etc.) (Rs/h)							0.00
16							
17		Hourly Ope					468.22
18	Total Hourly Owning and Operating Cost (Rs/hr)						

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			Machine'	s Basic Inf	ormation			
Equi	pment:	lack for lifti	ng	Manufactu	ired year:	Code No.	74	
	Make:			Fuel Type				
	Model:	(40 ton c	atagory)		Diesel (SFC):	0.16	(ltr/hp-hr)	
Powe	er (hp):		hp		Petrol (SFC):	0.22	(ltr/hp-hr)	
Cap	pacity:			Fuel	Load factor(FF):	0.8		
Purchase	e / Estimated	Price (PP):	200000	ruei	Time factor(TF):	0.9		
	Usef	ul Life (N):	5		Fuel Rate :	97.34513	(Rs/ltr)	
To	tal Useful life	Hours (H):	2000		Fuel Consumtion:	0.00	(L/hr)	
	Uses Hours per year (h): 400				Energy consumed:		(kwh)	
	Tyre cost per unit (Ct):				Electric Charge:		(Rs/unit)	
	Total no. of Tyres (tn):				nergy consumed rate		(unit/hr)	
Tyre re	Tyre replacement costs (TRC):							
Tyre	Tyre Average Life (hrs) (TL):				Repair factor (RF):	0.4		
Special	l wear item co				Servicing factor (SF):	0.2		
		Rate (IR):	10%					
rator M'th	ly Salary + All	w'nce(OS)						
			owi	NERSHIP CO	OSTS			
1	Purchase Pr	ice less tyre	e (P) (Rs)(In	cluding acc	essories and installation	n)	200000	
2	Estimated Sa	alvage Valu	e (S) (Rs)				20000	
3	Annual Depi		Rs/yr)				36000	
4	Insurance (R						2000	
5	Taxes / Lice		/yr)		10 NO			
6	Storage etc.							
7	Average Ann						40000	
8	Annual Inter						4000	
9	Annual Own						42000	
10	Estimated H	lourly Own					105.00	
			OPE	RATION CO	STS			
11	Repair and N	Maintenand	e Cost (Rs,	/hr)			40.00	
12	12 Tyre Replacement Cost (Rs/hr)							
13								
14								
15	Special wear items (blade, teeth, bucket etc.) (Rs/h)							
16	Operator's h		-) (Rs/hr)		0.00	
17	Estimated H						60.00	
18	Total Hour	ly Owning	and Oper	ating Cost	(Rs/hr)		165.00	

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			Machin	e's Basic In	formation		
Equi	ipment:	Wet mix pla	ant 75TPH	Manufactur	red year:	Code No.	81
	Make:			Fuel Type			
	Model:	(~75 to	on/hr)		Diesel (SFC):	0.16	(ltr/hp-hr)
Pow	er (hp):		hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Ca	pacity:		ton	Fuel	Load factor(FF):	0.8	
Purchas	e / Estimated	Price (PP):	5000000	ruei	Time factor(TF):	0.8	
	Use	ful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)
To	Total Useful life Hours (H):				Fuel Consumtion:	0.00	(L/hr)
	Uses Hours per year (h): 1				Energy consumed:	30	(kwh)
	Tyre cost p	er unit (Ct):		Electric	Electric Charge:	12	(Rs/unit)
	Total no. of	Tyres (tn):		Licetiic	Energy consumed rate	360	(unit/hr)
	eplacement of		0				
	e Average Lif				Repair factor (RF):	0.3	
Specia	I wear item o				Servicing factor (SF):	0.2	
		st Rate (IR):	10%				
ator M'th	ly Salary + Al	lw'nce(OS)					
				WNERSHIP C			
1				cluding acce	ssories and installation)		5000000
2		Salvage Valu					500000
3		reciation (F	Rs/yr)				300000
4	Insurance (50000
5		ence etc. (Rs	/yr)				50000
6	Storage etc						
7		nual Investr					333333
8		erest Cost (F	,				33333
9		nership Cost					433333
10	Estimated	Hourly Own					433.33
			OI	PERATION C	OSTS		
11	Repair and	Maintenand	e Cost (Rs,	/hr)			100.00
12	Tyre Replac	cement Cost	(Rs/hr)				0.00
13 Fuel Cost (Rs/hr)						360.00	
14 Servicing (Oil, filters, grease etc.) (Rs/hr)							66.67
15 Special wear items (blade, teeth, bucket etc.) (Rs/h)							0.00
16	16 Operator's hourly charge (Salary+ allowances) (Rs/hr)						
17	Estimated	Hourly Oper	ating Cost	(Rs/hr)			526.67
18	Total Hou	rly Owning	and Oper	ating Cost (Rs/hr)		960.00

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			Machin	e's Basic In	formation			
Equ	ipment:	Screw Jack		Manufactu	red year:	Code No.	86	
	Make:			Fuel Type				
	Model:				Diesel (SFC):	0.16	(ltr/hp-hr)	
Pow	/er (hp):		hp		Petrol (SFC):		(ltr/hp-hr)	
Ca	pacity:			Fuel	Load factor(FF):	0.8		
Purchas	se / Estimated	Price (PP):	25000	Fuel	Time factor(TF):	0.9		
	Use	ful Life (N):	2		Fuel Rate:	97.34513	(Rs/ltr)	
To	otal Useful life	Hours (H):	500		Fuel Consumtion:	0.00	(L/hr)	
	Uses Hours per year (h): 250				Energy consumed:		(kwh)	
1	Tyre cost per unit (Ct):			Electric	Electric Charge:		(Rs/unit)	
	Total no. of Tyres (tn):			LIECTIC	Energy consumed rate		(unit/hr)	
Tyre	Tyre replacement costs (TRC):							
Tyr	Tyre Average Life (hrs) (TL):				Repair factor (RF):	0		
Specia	al wear item c	ost (SWIC):			Servicing factor (SF):	0		
	Interes	st Rate (IR):	10%					
rator M'th	nly Salary + Al	lw'nce(OS)						
			OV	VNERSHIP C	COSTS			
1	Purchase P	rice less tyre	e (P) (Rs)(In	cluding acce	essories and installation)		25000	
2	Estimated S	Salvage Valu	ie (S) (Rs)				2500	
3	Annual Dep	reciation (I	Rs/yr)				11250	
4	Insurance (Rs/yr)					250	
5	Taxes / Lice	ence etc. (Rs	s/yr)				250	
6	Storage etc	(Rs/yr)					125	
7	Average An	nual Investi	ment				12500	
8	Annual Inte	erest Cost (I	Rs)				1250	
9	Annual Ow	nership Cos	t (Rs)				13125	
10	Estimated	Hourly Own	ership Cost	(Rs/hr)			52.50	
			OF	ERATION C	OSTS			
11	Repair and	Maintenand	ce Cost (Rs,	/hr)			0.00	
12	Tyre Replac	ement Cost	(Rs/hr)				0.00	
13 Fuel Cost (Rs/hr)							0.00	
14	14 Servicing (Oil, filters, grease etc.) (Rs/hr)							
15								
16	Operator's hourly charge (Salary+ allowances) (Rs/hr)							
17	Estimated I	Hourly Oper	rating Cost	(Rs/hr)			0.00	
18	Total Hou	rly Owning	and Oper	ating Cost	(Rs/hr)		52.50	

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			Machine's	Basic Info	ormation		
Equ	ipment:	Electric Hea	ting Plate	Manufacti	ured year:	Code No.	87
	Make:			Fuel Type			
	Model:				Diesel (SFC):	0.16	(Itr/hp-hr)
Pov	ver (hp):	2	Ehp		Petrol (SFC):		(ltr/hp-hr)
Ca	pacity:			Fuel	Load factor(FF):	0.8	
Purchas	se / Estimated	Price (PP):	150000	ruei	Time factor(TF):	0.9	
	Use	ful Life (N):	5		Fuel Rate:	97.34513	(Rs/ltr)
To	otal Useful life	Hours (H):	2500		Fuel Consumtion:		(L/hr)
	Uses Hours p	er year (h):	500		Energy consumed:	1	(kwh)
	Tyre cost per unit (Ct):				Electric Charge:	12	(Rs/unit)
	Total no. of Tyres (tn):				ergy consumed rate	8.64	(unit/hr)
Tyre	replacement o	osts (TRC):	0				
Ту	re Average Life	e (hrs) (TL):			Repair factor (RF):	0.2	
Specia	al wear item c	ost (SWIC):			Servicing factor (SF):	0.1	
		t Rate (IR):	10%				
rator M't	hly Salary + All	w'nce(OS)					
			OWN	IERSHIP CO	STS		
1	Purchase Pi	rice less tyre	e (P) (Rs)(In	cluding acc	essories and installati	ion)	150000
2	Estimated S	Salvage Valu	e (S) (Rs)				15000
3	Annual Dep	reciation (F	Rs/yr)				27000
4	Insurance (Rs/yr)					1500
5	Taxes / Lice	nce etc. (Rs	/yr)				
6	Storage etc	. (Rs/yr)					
7	Average An	nual Investr	ment				30000
8		rest Cost (F					3000
9	Annual Ow	nership Cost	t (Rs)				31500
10	Estimated I	Hourly Own	-				63.00
			OPE	RATION CO	STS		
11	Repair and	Maintenand	e Cost (Rs,	/hr)			12.00
12	Tyre Replac	ement Cost	(Rs/hr)				0.00
13							
14							
15	Special wear items (blade, teeth, bucket etc.) (Rs/h)						
16	Operator's hourly charge (Salary+ allowances) (Rs/hr)						
17	Estimated I	lourly Oper	ating Cost	(Rs/hr)			30.00
18	Total Hou	rly Owning	and Oper	ating Cost	(Rs/hr)		93.00

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		Machine's I	Basic Infor	mation			
Equipmer	nt: Electric hand driller		Manufactu	red year:	Code No.	88	
Mal			Fuel Type				
Mod	lel:			Diesel (SFC):	0.16	(ltr/hp-hr)	
Power (h	o): 1	Ehp		Petrol (SFC):	0.22	(ltr/hp-hr)	
Capacity	:		Fuel	Load factor(FF):	0.8		
Pur	chase / Estimated Price (PP):	100000	ruei	Time factor(TF):	0.9		
	Useful Life (N):	5		Fuel Rate :	97.34513	(Rs/ltr)	
	Total Useful life Hours (H):	1000		Fuel Consumtion:		(L/hr)	
	Uses Hours per year (h):	200		Energy consumed:	1	(kwh)	
	Tyre cost per unit (Ct):		Electric	Electric Charge:	12	(Rs/unit)	
	Total no. of Tyres (tn):		Liectific _	Energy consumed rate	8.64	(unit/hr)	
Т	yre replacement costs (TRC):	0					
	Tyre Average Life (hrs) (TL):			Repair factor (RF):			
Sp	pecial wear item cost (SWIC):	2000		Servicing factor (SF):			
	Interest Rate (IR):	10%					
Operator	M'thly Salary + Allw'nce(OS)					l-v	
		OWNE	RSHIP COST	rs			
1 Purchase Price less tyre (P) (Rs)(Including accessories and installation)							
2 E	Estimated Salvage Value (S) (F	Rs)				10000	
3 A	Annual Depreciation (Rs/yr)					18000	
4	nsurance (Rs/yr)					1000	
5 7	Taxes / Licence etc. (Rs/yr)		•				
6 9	Storage etc. (Rs/yr)					100	
7 /	Average Annual Investment					20000	
8 /	Annual Interest Cost (Rs)	3.000				2000	
9 /	Annual Ownership Cost (Rs)					21000	
10 E	stimated Hourly Ownership	Cost (Rs/hr)				105.00	
		OPERA	ATION COST	S			
11 F	Repair and Maintenance Cost	(Rs/hr)				0.00	
	Tyre Replacement Cost (Rs/hi					0.00	
13 Fuel Cost (Rs/hr)						0.00	
14 Servicing (Oil, filters, grease etc.) (Rs/hr)						0.00	
	Special wear items (blade, te		c.) (Rs/h)			10.00	
	stimated Hourly Operating					10.00	
	Total Hourly Owning and C	The second secon	Rs/hr)			115.00	

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		Machine'	s Basic Info	ormation		
Equipme	ent: Bitumen/Emulsion Spray	er	Manufactu	ed year:	Code No.	89
Ma	ake:		Fuel Type	Fuel Oil Consumption	5.00	ltr/ton
Мо	del:			Diesel (SFC):	0.16	(ltr/hp-hr)
Power (h	np): 10	hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Capacit	y: 1000L		Fuel	Load factor(FF):	0.8	
Pu	rchase / Estimated Price (PP):	600000	ruei	Time factor(TF):	0.9	
	Useful Life (N):	15		Fuel Rate :	97.34513274	(Rs/ltr)
	Total Useful life Hours (H):	15000		Fuel Consumtion:	1.15	(L/hr)
	Uses Hours per year (h): 1000			Energy consumed:	0	(kwh)
Tyre cost per unit (Ct):		Electric	Electric Charge:	0	(Rs/unit)	
	Total no. of Tyres (tn):		LIECTIC	Energy consumed rate	0	(unit/hr)
	Tyre replacement costs (TRC):	0				
	Tyre Average Life (hrs) (TL):			Repair factor (RF):	0.2	
S	pecial wear item cost (SWIC):			Servicing factor (SF):	0.1	
	Interest Rate (IR):	10%		Fuel Oil Rate	97.34513274	(Rs/ltr)
Operator	M'thly Salary + Allw'nce(OS)					
		OWI	NERSHIP CO	STS		
1	Purchase Price less tyre (P) (R	s)(Including acce	ssories and	installation)		600000
2	Estimated Salvage Value (S) (F	(s)				60000
3	Annual Depreciation (Rs/yr)					36000
4	Insurance (Rs/yr)					6000
5	Taxes / Licence etc. (Rs/yr)		+			
6	Storage etc. (Rs/yr)					
7	Average Annual Investment					40000
8	Annual Interest Cost (Rs)					4000
9	Annual Ownership Cost (Rs)					46000
10	Estimated Hourly Ownership	Cost (Rs/hr)				46.00
		OPE	RATION CO	STS		
11	Repair and Maintenance Cost	(Rs/hr)				8.00
12	Tyre Replacement Cost (Rs/hr					0.00
13 Fuel Cost (Rs/hr)						
14 Servicing (Oil, filters, grease etc.) (Rs/hr)						
15 Special wear items (blade, teeth, bucket etc.) (Rs/h)						
16	Operator's hourly charge (Sala					0.00
17	Estimated Hourly Operating (124.14
18	Total Hourly Owning and C		Rs/hr)			170.14

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		Machine's	Basic Infor	mation			
Equipme	nt: Jack hammer/ Rock drill		Manufactu	red year:	Code No.	92	
Ma	ake:		Fuel Type				
Mod	del: (Rock drilling 3.2	cum/hr)		Diesel (SFC):	0.4	(ltr/hp-hr)	
Power (h		hp		Petrol (SFC):	0.22	(ltr/hp-hr)	
Capacit	y: 3.2	cum/hr	Fuel	Load factor(FF):	0.9		
Pu	rchase / Estimated Price (PP):	100000	ruei	Time factor(TF):	0.9		
	Useful Life (N):	10		Fuel Rate :	97.34513	(Rs/ltr)	
	Total Useful life Hours (H):	5000		Fuel Consumtion:	1.62	(L/hr)	
	Uses Hours per year (h):	500		Energy consumed:		(kwh)	
	Tyre cost per unit (Ct):			Electric Charge:		(Rs/unit)	
	Total no. of Tyres (tn):		Electric	Energy consumed rate		(unit/hr)	
	Tyre replacement costs (TRC):	0					
	Tyre Average Life (hrs) (TL):			Repair factor (RF):	0.25		
S	pecial wear item cost (SWIC):	25000		Servicing factor (SF):	0.15		
	Interest Rate (IR):	10%					
Operator	M'thly Salary + Allw'nce(OS)						
		OWNE	RSHIP COST	rs			
1 Purchase Price less tyre (P) (Rs)(Including accessories and installation)							
2	Estimated Salvage Value (S) (F	Rs)				10000	
3	Annual Depreciation (Rs/yr)					9000	
4	Insurance (Rs/yr)					1000	
5	Taxes / Licence etc. (Rs/yr)						
6	Storage etc. (Rs/yr)						
7	Average Annual Investment					10000	
8	Annual Interest Cost (Rs)					1000	
9	Annual Ownership Cost (Rs)					11000	
10	Estimated Hourly Ownership	Cost (Rs/hr)				22.00	
		OPER/	TION COST	S			
11	Repair and Maintenance Cost	(Rs/hr)				5.00	
	Tyre Replacement Cost (Rs/hr					0.00	
13 Fuel Cost (Rs/hr)						157.70	
14 Servicing (Oil, filters, grease etc.) (Rs/hr)							
15 Special wear items (blade, teeth, bucket etc.) (Rs/h)							
	Estimated Hourly Operating (215.70	

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		Machine's	Basic Infor	mation			
Equipme	nt: Rotary drill		Manufactu	red year:	Code No.	95	
Ma	ike:		Fuel Type				
Mod				Diesel (SFC):	0.16	(ltr/hp-hr	
Power (h	p): 10	hp		Petrol (SFC):	0.22	(ltr/hp-hr	
Capacity			Fuel	Load factor(FF):	0.9		
Pui	rchase / Estimated Price (PP):	300000	, uci	Time factor(TF):	0.9		
	Useful Life (N):	5		Fuel Rate :	97.34513	(Rs/ltr)	
	Total Useful life Hours (H):	2500		Fuel Consumtion:	1.30	(L/hr)	
	Uses Hours per year (h):	500		Energy consumed:		(kwh)	
	Tyre cost per unit (Ct):		Electric -	Electric Charge:		(Rs/unit)	
	Total no. of Tyres (tn):		Licotific	Energy consumed rate		(unit/hr)	
T	Tyre replacement costs (TRC):	0					
	Tyre Average Life (hrs) (TL):			Repair factor (RF):	0.3		
S	pecial wear item cost (SWIC):	50000		Servicing factor (SF):	0.2		
	Interest Rate (IR):	10%					
Operator	M'thly Salary + Allw'nce(OS)						
			RSHIP COST				
	Purchase Price less tyre (P) (Rs		sories and i	nstallation)		300000	
2	Estimated Salvage Value (S) (R	s)				30000	
	Annual Depreciation (Rs/yr)					54000	
	Insurance (Rs/yr)					3000	
	Taxes / Licence etc. (Rs/yr)						
	Storage etc. (Rs/yr)						
7	Average Annual Investment					60000	
8	Annual Interest Cost (Rs)					6000	
9 /	Annual Ownership Cost (Rs)					63000	
10	Estimated Hourly Ownership (Cost (Rs/hr)				126.00	
		OPERA	ATION COST	S			
11	Repair and Maintenance Cost	(Rs/hr)				36.00	
12	Tyre Replacement Cost (Rs/hr)					0.00	
13	Fuel Cost (Rs/hr)						
14							
15							
16 (Operator's hourly charge (Sala	ry+ allowances) (Rs/hr)			0.00	
17	Estimated Hourly Operating Co	ost (Rs/hr)				286.16	
	Total Hourly Owning and O		Dc/hr)			412.16	

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		Machine's I	Basic Infor	mation		
Equipme	ent: Bentenite Pump		Manufactu	red year:	Code No.	98
Ma	ake:		Fuel Type			
Мо	del:			Diesel (SFC):	0.16	(ltr/hp-hr)
Power (h	np):			Petrol (SFC):	0.22	(ltr/hp-hr)
Capacit	ry:		Fuel	Load factor(FF):	0.9	
Pu	rchase / Estimated Price (PP):	25000	ruei	Time factor(TF):	0.9	
	Useful Life (N):	2		Fuel Rate :		(Rs/ltr)
	Total Useful life Hours (H):	1000		Fuel Consumtion:		(L/hr)
	Uses Hours per year (h):	500		Energy consumed:	2	(kwh)
	Tyre cost per unit (Ct):		Electric -	Electric Charge:	12	(Rs/unit)
	Total no. of Tyres (tn):		Liectric	Energy consumed rate	19.44	(unit/hr)
	Tyre replacement costs (TRC):	0				
	Tyre Average Life (hrs) (TL):			Repair factor (RF):	0.3	
5	Special wear item cost (SWIC):			Servicing factor (SF):	0.1	
	Interest Rate (IR):	10%				
Operato	r M'thly Salary + Allw'nce(OS)					
		OWNE	RSHIP COST	rs		
1 Purchase Price less tyre (P) (Rs)(Including accessories and installation)						
2	Estimated Salvage Value (S) (Rs)				2500
3	Annual Depreciation (Rs/yr)					11250
4	Insurance (Rs/yr)					250
5	Taxes / Licence etc. (Rs/yr)					
6	Storage etc. (Rs/yr)					
7	Average Annual Investment					12500
8	Annual Interest Cost (Rs)					1250
9	Annual Ownership Cost (Rs)					12750
10	Estimated Hourly Ownership C	ost (Rs/hr)				25.50
		OPER/	ATION COST	S		
11	Repair and Maintenance Cost (Rs/hr)				7.50
12	Tyre Replacement Cost (Rs/hr)					0.00
13						
14 Servicing (Oil, filters, grease etc.) (Rs/hr)						2.50
15 Special wear items (blade, teeth, bucket etc.) (Rs/h)						0.00
16						
17	Estimated Hourly Operating Co					10.00
18	Total Hourly Owning and Op		Rs/hr)			35.50

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		Machine's l	Basic Infor	mation		
Equipme	nt: Chips Spreader		Manufactu	red year:	Code No.	98
Ma	ke:		Fuel Type			
Mod	del:			Diesel (SFC):	0.14	(ltr/hp-hr
Power (h	p): 140	hp		Petrol (SFC):	0.22	(ltr/hp-hr
Capacit	y: 6	cum/hr	Fuel -	Load factor(FF):	0.6	
Pu	rchase / Estimated Price (PP):	3500000	ruei	Time factor(TF):	0.6	
	Useful Life (N):			Fuel Rate :	97.34513	(Rs/ltr)
	Total Useful life Hours (H):	22500		Fuel Consumtion:	7.06	(L/hr)
	Uses Hours per year (h):	1500		Energy consumed:		(kwh)
	Tyre cost per unit (Ct):	25000	Electric -	Electric Charge:		(Rs/unit)
	Total no. of Tyres (tn):	6	Licetife	Energy consumed rate		(unit/hr)
1	Tyre replacement costs (TRC):	150000				
	Tyre Average Life (hrs) (TL):	3000		Repair factor (RF):	0.3	
S	pecial wear item cost (SWIC):			Servicing factor (SF):	0.2	
	Interest Rate (IR):	10%				
Operator	M'thly Salary + Allw'nce(OS)					
		OWNE	RSHIP COST	rs		
1 Purchase Price less tyre (P) (Rs)(Including accessories and installation)						
2	Estimated Salvage Value (S) (F	Rs)				350000
	Annual Depreciation (Rs/yr)					200000
4	Insurance (Rs/yr)					35000
5	Taxes etc. (Rs/yr)					35000
6	Taxes / Licence etc. (Rs/yr)					
7	Storage etc. (Rs/yr)					233333
8	Annual Interest Cost (Rs)					23333
9	Annual Ownership Cost (Rs)					293333
10	Estimated Hourly Ownership	Cost (Rs/hr)				195.56
		OPER/	TION COST	S		
11	Repair and Maintenance Cost	(Rs/hr)				44.67
12	Tyre Replacement Cost (Rs/hr)				19.58
13 Fuel Cost (Rs/hr)						686.87
14 Servicing (Oil, filters, grease etc.) (Rs/hr)						
15 Special wear items (blade, teeth, bucket etc.) (Rs/h)						
16 Operator's hourly charge (Salary+ allowances) (Rs/hr)						
17 I	Estimated Hourly Operating Cost (Rs/hr)					
18	Total Hourly Owning and C	perating Cost (Rs/hr)			976.45

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		Machine's I	Basic Infor	mation			
Equipme	nt: Grouting pum with agitator	The state of	Manufactu	red year:	Code No.	98	
Ma	ike:		Fuel Type				
Mod	del:			Diesel (SFC):	0.16	(ltr/hp-hr)	
Power (h	p):			Petrol (SFC):	0.22	(ltr/hp-hr)	
Capacit	y:		Fuel	Load factor(FF):	0.9		
Pu	rchase / Estimated Price (PP):	350000	ruei	Time factor(TF):	0.9		
	Useful Life (N):	5		Fuel Rate :		(Rs/ltr)	
	Total Useful life Hours (H):	2500		Fuel Consumtion:		(L/hr)	
	Uses Hours per year (h):	500		Energy consumed:	2	(kwh)	
	Tyre cost per unit (Ct):	B210	Electric	Electric Charge:	12	(Rs/unit)	
	Total no. of Tyres (tn):		Electric	Energy consumed rate	19.44	(unit/hr)	
1	Tyre replacement costs (TRC):	0					
	Tyre Average Life (hrs) (TL):			Repair factor (RF):	0.4		
S	pecial wear item cost (SWIC):			Servicing factor (SF):	0.2		
	Interest Rate (IR):	10%					
Operator	M'thly Salary + Allw'nce(OS)						
		OWNE	RSHIP COST	rs			
1	1 Purchase Price less tyre (P) (Rs)(Including accessories and installation)						
2	Estimated Salvage Value (S) (Rs)					35000	
3	Annual Depreciation (Rs/yr)			25 ME DICHMENTAL		63000	
4	Insurance (Rs/yr)					3500	
5	Taxes / Licence etc. (Rs/yr)						
6	Storage etc. (Rs/yr)						
7	Average Annual Investment					70000	
8	Annual Interest Cost (Rs)					7000	
9	Annual Ownership Cost (Rs)					73500	
10	Estimated Hourly Ownership Cos	t (Rs/hr)				147.00	
	A STATE OF THE STA	OPER/	ATION COST	S			
11	Repair and Maintenance Cost (Rs.	/hr)				56.00	
12	Tyre Replacement Cost (Rs/hr)					0.00	
13							
14							
15							
16	Operator's hourly charge (Salary+ allowances) (Rs/hr)						
	Estimated Hourly Operating Cost					108.00	
18	Total Hourly Owning and Oper	ating Cost (Rs/hr)			255.00	

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		Machine's I	Basic Infor	mation			
Equipme	nt: Premix Mixture		Manufactu	red year:	Code No.	98	
Ma	ake:		Fuel Type				
Мо	del:			Diesel (SFC):	0.15	(ltr/hp-hr)	
Power (h	np): 35	hp		Petrol (SFC):	0.22	(ltr/hp-hr)	
Capacit	у:		Fuel	Load factor(FF):	0.9		
Pu	rchase / Estimated Price (PP):	1500000	ruei	Time factor(TF):	0.9		
	Useful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)	
	Total Useful life Hours (H):	15000		Fuel Consumtion:	4.25	(L/hr)	
	Uses Hours per year (h):	1000		Energy consumed:		(kwh)	
	Tyre cost per unit (Ct):		Electric	Electric Charge:		(Rs/unit)	
	Total no. of Tyres (tn):		Liectric	Energy consumed rate	0.00	(unit/hr)	
	Tyre replacement costs (TRC):	0					
	Tyre Average Life (hrs) (TL):			Repair factor (RF):	0.25		
S	Special wear item cost (SWIC):			Servicing factor (SF):	0.25		
	Interest Rate (IR):	10%					
Operator	M'thly Salary + Allw'nce(OS)						
		OWNE	RSHIP COST	rs			
1	Purchase Price less tyre (P) (R	s)(Including acces	sories and i	nstallation)		1500000	
2	Estimated Salvage Value (S) (I	Rs)				150000	
3	Annual Depreciation (Rs/yr)					90000	
4	Insurance (Rs/yr)					15000	
5	Taxes / Licence etc. (Rs/yr)						
6	Storage etc. (Rs/yr)						
7	Average Annual Investment					100000	
8	Annual Interest Cost (Rs)					10000	
9	Annual Ownership Cost (Rs)					115000	
10	Estimated Hourly Ownership	Cost (Rs/hr)				115.00	
		OPERA	ATION COST	S			
11	Repair and Maintenance Cost	(Rs/hr)				25.00	
12	Tyre Replacement Cost (Rs/h					0.00	
13 Fuel Cost (Rs/hr)						413.96	
14 Servicing (Oil, filters, grease etc.) (Rs/hr)							
	Special wear items (blade, te		c.) (Rs/h)			0.00	
16							
17	Estimated Hourly Operating	Cost (Rs/hr)				463.96	
	Total Hourly Owning and (Rs/hr)			578.96	

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		Machine's I	Basic Infor	mation		
Equipme	nt: Cutter(Bitumen Pavemen	t/RCC Cutter)	Manufactu	red year:	Code No.	98
Ma	ake:		Fuel Type			
Mod	del:			Diesel (SFC):	0.15	(ltr/hp-hr)
Power (h	ip): 10	hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Capacit	у:		Fuel	Load factor(FF):	0.9	
Pu	rchase / Estimated Price (PP):	200000	ruei	Time factor(TF):	0.9	
	Useful Life (N):	5		Fuel Rate :	97	(Rs/ltr)
	Total Useful life Hours (H):	5000		Fuel Consumtion:	1.22	(L/hr)
	Uses Hours per year (h):	1000		Energy consumed:		(kwh)
Tyre cost per unit (Ct):			Electric	Electric Charge:		(Rs/unit)
Total no. of Tyres (tn):			LIECTIC	Energy consumed rate	0.00	(unit/hr)
	Tyre replacement costs (TRC):	0				
	Tyre Average Life (hrs) (TL):			Repair factor (RF):		
S	pecial wear item cost (SWIC):	30000		Servicing factor (SF):	0.2	
	Interest Rate (IR):	10%				
Operator	M'thly Salary + Allw'nce(OS)					
		OWNE	RSHIP COST	rs		
1 Purchase Price less tyre (P) (Rs)(Including accessories and installation)						
2	Estimated Salvage Value (S) (F	Rs)				20000
3	Annual (Rs/yr)					36000
4	Insurance (Rs/yr)					
5	Taxes / Licence etc. (Rs/yr)					
	Storage etc. (Rs/yr)					
7	Average Annual Investment					40000
	Annual Interest Cost (Rs)					4000
9	Annual Ownership Cost (Rs)					40000
10	Estimated Hourly Ownership	Cost (Rs/hr)				40.00
		OPERA	ATION COST	S		
11	Repair and Maintenance Cost	(Rs/hr)				12.00
12	Tyre Replacement Cost (Rs/hr	.)				0.00
13						
14 Servicing (Oil, filters, grease etc.) (Rs/hr)						8.00
15						
16	Operator's hourly charge (Salary+ allowances) (Rs/hr)					
17	Estimated Hourly Operating Cost (Rs/hr)					
18	Total Hourly Owning and Operating Cost (Rs/hr)					

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Equi	ipment:	Plate Compa	ictor	Manufacti	ured year:	Code No.	
() (c) ex-	Make:			Fuel Type	1	2.1	(ltr/hp-hr
D	Model:	401		· .	Diesel (SFC):	0.1	(ltr/hp-hr
100000000000000000000000000000000000000	ver (hp):	18 h	тр		Petrol (SFC):		(107.1
COORDINATION	pacity:	Drice (DD)	700000	Fuel	Load factor(FF):	0.9	
Purchas	e / Estimated	ful Life (N):	700000		Time factor(TF):	0.9	(Rs/ltr)
To	otal Useful life		15000		Fuel Consumation	97.34513 1.46	(L/hr)
-	Uses Hours p		15000 1000		Fuel Consumtion:		(kwh)
		er year (n).	1000		Energy consumed: Electric Charge:		(Rs/unit
		Tyres (tn):		Electric	Energy consumed rate		(unit/hr)
Tyre r	eplacement of		0	,	Energy consumed rate		10.
Charles .	e Average Life				Repair factor (RF):	0.4	
No.	I wear item c				Servicing factor (SF):	0.2	
ореска		t Rate (IR):	10%		Servicing factor (Si).	0.2	
tor M'th	ly Salary + Al		1070				
	,		OW	NERSHIP C	OSTS		
1	Purchase P	rice less tyre			essories and installation	1)	700000
2		Salvage Value		cidding dec	cosonics and installation	.,	70000
3		reciation (R					42000
4	Insurance (7,7.7				7000
5		ence etc. (Rs/	vr)				
6	Storage etc						
7		nual Investm	ent	•			46667
8		rest Cost (R					4667
9	Annual Ow	nership Cost	(Rs)				53667
10	Estimated I	Hourly Owne	rship Cost	(Rs/hr)			53.67
			OPE	RATION C	OSTS		
11	Repair and	Maintenance	Cost (Rs	/hr)			18.67
12		ement Cost					0.00
13	Fuel Cost (F						141.9
14	Servicing (C	il, filters, gre	ase etc	.) (Rs/hr)			9.33
15		ritems (blad			etc.) (Rs/h)		0.00
16	Operator's	hourly charge	e (Salary+	allowances	(Rs/hr)		0.00
17	-	lourly Opera			12 2 3 3 3 5 5 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5		169.9
18 Total Hourly Owning and Operating Cost (Rs/hr)						223.6	

			Machine	's Basic In	formation		
Equ	ipment:	Truck Traile	er 25 ton	Manufactu	ired year:	Code No.	78
	Make:			Fuel Type			
	Model:	(25 ton 0	capacity)		Diesel (SFC):	0.1	(ltr/hp-hr)
Pow	er (hp):	180	hp		Petrol (SFC):	0.22	(ltr/hp-hr)
Ca	pacity:	30	ton	Fuel	Load factor(FF):	0.8	
Purchas	e / Estimated	Price (PP):	4000000	ruei	Time factor(TF):	0.75	
	Use	ful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)
To	Total Useful life Hours (H):		15000		Fuel Consumtion:	10.80	(L/hr)
	Uses Hours p	er year (h):	1000		Energy consumed:		(kwh)
	Tyre cost pe	er unit (Ct):	. 30000	Electric	Electric Charge:		(Rs/unit)
	Total no. of Tyres (tn):	10	Liectric	Energy consumed rate		(unit/hr)	
Tyre r	eplacement o	osts (TRC):	300000				
Tyr	e Average Life	e (hrs) (TL):	3000		Repair factor (RF):	0.3	
Specia	I wear item c	ost (SWIC):			Servicing factor (SF):	0.15	
		t Rate (IR):	10%				
tor M'th	ly Salary + Al	w'nce(OS)					
			ow	NERSHIP C	OSTS		
1	Purchase P	rice less tyre	e (P) (Rs)(In	cluding acc	essories and installation	1)	3700000
2	Estimated S	Salvage Valu	ie (S) (Rs)				400000
3	Annual Dep	reciation (Rs/yr)				220000
4	Insurance (Rs/yr)					40000
5	Taxes / Lice	ence etc. (Rs	s/yr)				40000
6	Storage etc	. (Rs/yr)					
7	Average An	nual Investi	ment				2320000
8	Annual Inte	rest Cost (I	Rs)				232000
9	Annual Ow	nership Cos	t (Rs)				532000
10	Estimated I	Hourly Own	ership Cos	t (Rs/hr)			532.00
			OPI	RATION C	OSTS		
11	Repair and	Maintenand	ce Cost (Rs	/hr)			74.00
12	Tyre Replac	ement Cost	(Ks/hr)				79.14
13	Fuel Cost (F		· · · · · · · · · · · · · · · · · · ·				1051.33
14 Servicing (Oil, filters, grease etc.) (Rs/hr)							37.00
15 Special wear items (blade, teeth, bucket etc.) (Rs/h)							0.00
16 Operator's hourly charge (Salary+ allowances) (Rs/hr)							0.00
17							1241.47
17 Estimated Hourly Operating Cost (Rs/hr) 18 Total Hourly Owning and Operating Cost (Rs/hr)						1773.47	

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			Machine's	Basic Infor	mation		
Iquipme	ent:	Hacking Machine		Manufactu	red year:	Code No.	98
Ma	ake:			Fuel Type			
Mo	del:				Diesel (SFC):	0.16	(ltr/hp-hr)
Power (F	hp):	10 h	ip		Petrol (SFC):	0.22	(ltr/hp-hr)
Capacit	ty:			Fuel	Load factor(FF):	0.9	
Pu	ırcha	se / Estimated Price (PP):	100000	ruei	Time factor(TF):	-	
		Useful Life (N):	. 5		Fuel Rate :	97.34513	(Rs/ltr)
	T	otal Useful life Hours (H):	2500		Fuel Consumtion:	1.30	(L/hr)
		Uses Hours per year (h):	500		Energy consumed:		(kwh)
		Tyre cost per unit (Ct):		Electric	Electric Charge:		(Rs/unit)
		Total no. of Tyres (tn):		Licotife	Energy consumed rate	0.00	(unit/hr)
		replacement costs (TRC):	0				
		re Average Life (hrs) (TL):			Repair factor (RF):	0.4	
5	Speci	al wear item cost (SWIC):			Servicing factor (SF):	0.2	
		Interest Rate (IR):	10%				
perator	r M't	hly Salary + Allw'nce(OS)					
			OWNE	RSHIP COS	TS		
1		hase Price less tyre (P) (Rs)		sories and	installation)		100000
2	Estir	nated Salvage Value (S) (Rs)				10000
3	Annı	ual Depreciation (Rs/yr)	•				18000
4	_	rance (Rs/yr)					1000
5	Taxe	es / Licence etc. (Rs/yr)					
		age etc. (Rs/yr)					
7	Aver	age Annual Investment					20000
	_	ual Interest Cost (Rs)					2000
9	Annı	ual Ownership Cost (Rs)					21000
10	Estir	nated Hourly Ownership C	ost (Rs/hr)				42.00
			OPERA	ATION COST	rs		
11	Repa	air and Maintenance Cost(Rs/hr)				16.00
12	Tyre	Replacement Cost (Rs/hr)					0.00
13	Fuel	Cost (Rs/hr)					126.16
14 Servicing (Oil, filters, grease etc.) (Rs/hr)						8.00	
15 Special wear items (blade, teeth, bucket etc.) (Rs/h)						0.00	
16 Operator's hourly charge (Salary+ allowances) (Rs/hr)						0.00	
17							150.16
18	Tota	al Hourly Owning and Op	erating Cost (Rs/hr)			192.16

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ri	and Caldadia Dist	Machine's I			Code No.	00	
	nent: Cold Mix Plant Manufactured year:					98	
	Make: Model:			Fuel Type Diesel (SFC): 0.16			
		Diesel (SFC):			(ltr/hp-hr		
Power (h		hp		Petrol (SFC):		(ltr/hp-hr	
Capacity: Load factor(FF): 0.9							
Pu	urchase / Estimated Price (PP):	5000000	_	Time factor(TF):	0.9	10 111 1	
	Useful Life (N):		-	Fuel Rate :	97.35	(Rs/ltr)	
	Total Useful life Hours (H):	20000		Fuel Consumtion:	3.89	(L/hr)	
	Uses Hours per year (h):	1000	-	Energy consumed:	20	(kwh)	
	Tyre cost per unit (Ct):		Electric -	Electric Charge:	12	(Rs/unit)	
	Total no. of Tyres (tn):			Energy consumed rate	194.40	(unit/hr)	
	Tyre replacement costs (TRC):	0					
	Tyre Average Life (hrs) (TL):			Repair factor (RF):	0.3		
5	Special wear item cost (SWIC):			Servicing factor (SF):	0.2		
	Interest Rate (IR):	10%					
Operator	r M'thly Salary + Allw'nce(OS)						
	3	· OWNE	RSHIP COST	rs			
1 Purchase Price less tyre (P) (Rs)(Including accessories and installation)							
2	Estimated Salvage Value (S) (Rs)						
3	Annual Depreciation (Rs/yr)						
4	Insurance (Rs/yr)						
5	Taxes / Licence etc. (Rs/yr)						
6	Storage etc. (Rs/yr)						
7	Average Annual Investment						
8	Annual Interest Cost (Rs)						
9	Annual Ownership Cost (Rs)						
10	0 Estimated Hourly Ownership Cost (Rs/hr)						
		OPER/	TION COST	S			
11	Repair and Maintenance Cost (Rs/hr)						
	Tyre Replacement Cost (Rs/hr)					0.00	
	Fuel Cost (Rs/hr)						
	Servicing (Oil, filters, grease etc.) (Rs/hr)						
	Special wear items (blade, teeth, bucket etc.) (Rs/h)						
15	Operator's hourly charge (Salary+ allowances) (Rs/hr)					0.00	
16	Estimated Hourly Operating (Cost (Rs/hr)				743.48	

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			Machine	e's Basic In	formation		
Equip	quipment: Hydraulic Jack 200t Manufactured year:				Code No.	74	
	Make:			Fuel Type			
Model:				Diesel (SFC):	0.16	(ltr/hp-hr	
Powe	r (hp):		hp		Petrol (SFC):	0.22	(ltr/hp-hr
Capa	acity:			Fuel	Load factor(FF):	0.8	
Purchase	/ Estimated	Price (PP):	2000000	ruei	Time factor(TF):	0.9	
	Use	ful Life (N):	15		Fuel Rate :	97.34513	(Rs/ltr)
Tota	al Useful life	Hours (H):	9000		Fuel Consumtion:	0.00	(L/hr)
U	ses Hours p	er year (h):	600	•	Energy consumed:	5	(kwh)
	Tyre cost pe	er unit (Ct):		Electric	Electric Charge:	12	(Rs/unit
	Total no. of	Tyres (tn):		Electric	Energy consumed rate	43.20	
Tyre re	placement o	costs (TRC):	0				
Tyre	Average Lif	e (hrs) (TL):			Repair factor (RF):	0.25	
Special		ost (SWIC):			Servicing factor (SF):	0.15	
	Interes	st Rate (IR):	10%				
tor M'thly	/ Salary + Al	lw'nce(OS)					
			OV	VNERSHIP C	COSTS		
1	Purchase Price less tyre (P) (Rs)(Including accessories and installation)						
2	Estimated Salvage Value (S) (Rs)						
3	Annual Depreciation (Rs/yr)						
4	Insurance (Rs/yr)						20000
5	Taxes etc. (Rs/yr)						
6	Taxes / Licence etc. (Rs/yr)						
7	0 \						133333
8 Annual Interest Cost (Rs)						13333	
9 Annual Ownership Cost (Rs)						153333	
10	Estimated Hourly Ownership Cost (Rs/hr)						255.56
			OP	ERATION C	OSTS ·		
11	Repair and Maintenance Cost (Rs/hr)					55.56	
12	Tyre Replacement Cost (Rs/hr)					0.00	
13	Fuel Cost (Rs/hr)					60.00	
14	Servicing (Oil, filters, grease etc.) (Rs/hr)					33.33	
15	Special wear items (blade, teeth, bucket etc.) (Rs/h)					0.00	
16							0.00
17	Estimated Hourly Operating Cost (Rs/hr)						148.89
18	Total Hourly Owning and Operating Cost (Rs/hr)						404.44

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Capacity:			Machine's I	Basic Infor	mation			
Model: Diesel (SFC): 0.15 (Itr/hp-hr. Power (hp): 35 hp Petrol (SFC): 0.22 (Itr/hp-hr. Power (hp): 0.9 Purchase / Estimated Price (PP): 1500000 Time factor(FF): 0.9 Time factor(FF): 0.9 (Rs/ltr) Purchase / Estimated Price (PP): 1500000 Time factor(FF): 0.9 (Rs/ltr) Purchase / Estimated Price (PP): 150000 Time factor(FF): 0.9 (Rs/ltr) Purchase / Estimated Price (PP): 150000 Fuel Rate: 97.34513 (Rs/ltr) (L/hr) Fuel Consumtion: 4.25 (Rs/ltr) (L/hr) (Rs/ltr) (I/hr) Purchase Perice Interest Rate (Rs): 1000 Purchase Price Interest Rate (Rs): 10% Purchase Price Iess tyre (P) (Rs)(Including accessories and installation) 1500000 1500000 1500000 15000000 150000000000	quipmer	nt: Premix Mixture		Manufactu	red year:	Code No.	98	
Prover (hp) 35 hp	Mal	ke:		Fuel Type				
Capacity: Purchase / Estimated Price (PP): 1500000	Mod							
Purchase / Estimated Price (PP):	ower (hp						(ltr/hp-hr)	
Purchase / Estimated Price (PP): 1500000 Time factor(TF): 0.9	Capacity	:		Fuel	Load factor(FF):	0.9	*	
Total Useful life Hours (H):	Pur	chase / Estimated Price (PP)	1500000	ruei	Time factor(TF):	. 0.9		
Uses Hours per year (h):		Useful Life (N)	. 15		Fuel Rate :	97.34513	(Rs/ltr)	
Tyre cost per unit (Ct): Total no. of Tyres (tn): Tyre replacement costs (TRC): Tyre Average Life (hrs) (TL): Special wear item cost (SWIC): Interest Rate (IR): Operator M'thly Salary + Allw'nce(OS) Tyre Average Price less tyre (P) (Rs)(Including accessories and installation) Storage etc. (Rs/yr) Taxes / Licence etc. (Rs/yr) Average Annual Investment Annual Interest Cost (Rs) Storage etc. (Rs/yr) Rappar and Maintenance Cost (Rs/hr) Servicing (Oi, filters, grease etc.) (Rs/hr) Special wear items (blade, teeth, bucket etc.) (Rs/hr) Electric Electric Charge: Energy consumed rate 0.00 (unit/hr) Energy consumed rate 0.00 Electric Energy consumed rate 0.00 Electric Energy consumed rate 0.00 Energy consumed rate 0.00 Electric Energy consumed rate 0.00 Electric Energy consumed rate 0.00 Energy consumed rate 0.00 (unit/hr) Energy consumed rate 0.00 Electric 1.00 Elect		Total Useful life Hours (H)	15000		Fuel Consumtion:	4.25	(L/hr)	
Tyre cost per unit (Ct): Total no. of Tyres (tn): Tyre replacement costs (TRC): Tyre Average Life (hrs) (TL): Special wear item cost (SWIC): Interest Rate (IR): OPERATION COSTS 1 Purchase Price less tyre (P) (Rs)(Including accessories and installation) Storage etc. (Rs/yr) Taxes / Licence etc. (Rs/yr) Average Annual Investment Storage annual Investment Annual Demership Cost (Rs) Storage annual Investment Storage Annual Ownership Cost (Rs) Storage Annual Ownership Cost (Rs) Storage and Maintenance Cost (Rs/hr) Storage and Maintenance Cost (Rs/hr) Servicing (Qi, filters, grease etc.) (Rs/hr) Servicing (Qi, filters, grease etc.) (Rs/hr) Special wear items (blade, teeth, bucket etc.) (Rs/hr) Special wear items (blade, teeth, bucket etc.) (Rs/hr) Storage (Salary+ allowances) (Rs/hr) Special wear items (blade, teeth, bucket etc.) (Rs/hr) Special wear items (Blade, teeth, buck		Uses Hours per year (h)	1000		Energy consumed:		(kwh)	
Total no. of Tyres (th): Tyre replacement costs (TRC): O Tyre Average Life (hrs) (TL): Special wear item cost (SWIC): Interest Rate (IR): OPERATION COSTS 1 Purchase Price less tyre (P) (Rs)(Including accessories and installation) Estimated Salvage Value (S) (Rs) Annual Depreciation (Rs/yr) Storage etc. (Rs/yr) Average Annual Investment Annual Interest Cost (Rs) Annual Ownership Cost (Rs) Depart of Maintenance Cost (Rs/hr) Estimated Hourly Ownership Cost (Rs/hr) Special wear items (blade, teeth, bucket etc.) (Rs/hr) Special wear items (blade, teeth, bucket etc.) (Rs/hr) Energy consumed rate Double (unit/hr) Energy consumed rate Double (Rs): Repair factor (RF): O.25 Servicing factor (SF): O.25 O.25 Servicing factor (SF): O.25 Servicing factor (SF): O.25 Servicing factor (SF): O.25 Servicing factor (SF): O.25 O.25 O.25 O.25 O.25 Servicing factor (SF): O.25 O.25 O.25 O.25 O.25 O.25 O.	-						(Rs/unit)	
Tyre replacement costs (TRC): 0 Tyre Average Life (hrs) (TL): Repair factor (RF): 0.25 Special wear item cost (SWIC): Servicing factor (SF): 0.25 Interest Rate (IR): 10% Operator M'thly Salary + Allw'nce(OS) OWNERSHIP COSTS 1 Purchase Price less tyre (P) (Rs)(including accessories and installation) 1500000 2 Estimated Salvage Value (S) (Rs) 1500000 3 Annual Depreciation (Rs/yr) 90000 4 Insurance (Rs/yr) 150000 5 Taxes / Licence etc. (Rs/yr) 6 Storage etc. (Rs/yr) 7 Average Annual Investment 1000000 8 Annual Interest Cost (Rs) 100000 9 Annual Ownership Cost (Rs) 115000 10 Estimated Hourly Ownership Cost (Rs/hr) 115.00 OPERATION COSTS 11 Repair and Maintenance Cost (Rs/hr) 25.00 13 Fuel Cost (Rs/hr) 25.00 15 Special wear items (blade, teeth, bucket etc.) (Rs/hr) 25.00 16 Operator's hourly charge (Salary+ allowances) (Rs/hr) 0.00 17 Estimated Hourly Operating Cost (Rs/hr)				Electric		0.00		
Tyre Average Life (hrs) (TL): Special wear item cost (SWIC): Interest Rate (IR): Inter	Tv							
Special wear item cost (SWIC): Interest Rate (IR): Interest Rate (IR): Operator M'thly Salary + Allw'nce(OS) OWNERSHIP COSTS 1 Purchase Price less tyre (P) (Rs)(Including accessories and installation) 2 Estimated Salvage Value (S) (Rs) 3 Annual Depreciation (Rs/yr) 4 Insurance (Rs/yr) 5 Taxes / Licence etc. (Rs/yr) 6 Storage etc. (Rs/yr) 7 Average Annual Investment 8 Annual Interest Cost (Rs) 9 Annual Ownership Cost (Rs) 100000 8 Annual Ownership Cost (Rs) 1150000 10 Estimated Hourly Ownership Cost (Rs/hr) 11 Repair and Maintenance Cost (Rs/hr) 12 Tyre Replacement Cost (Rs/hr) 13 Fuel Cost (Rs/hr) 14 Servicing (Oil, filters, grease etc.) (Rs/hr) 25 Special wear items (blade, teeth, bucket etc.) (Rs/hr) 10 Operator's hourly charge (Salary+ allowances) (Rs/hr) 10 Estimated Hourly Operating Cost (Rs/hr) 10 Operator's hourly charge (Salary+ allowances) (Rs/hr) 10 Operator's hourly charge (Salary+ allowances) (Rs/hr) 10 Estimated Hourly Operating Cost (Rs/hr) 10 Operator's hourly charge (Salary+ allowances) (Rs/hr) 25 Operator's hourly charge (Salary+ allowances) (Rs/hr) 3 Estimated Hourly Operating Cost (Rs/hr) 463.96					Repair factor (RF):	0.25		
Interest Rate (IR):	Sn							
Ownership Costs 1								
OWNERSHIP COSTS 1 Purchase Price less tyre (P) (Rs)(Including accessories and installation) 150000 2 Estimated Salvage Value (S) (Rs) 150000 3 Annual Depreciation (Rs/yr) 90000 4 Insurance (Rs/yr) 15000 5 Taxes / Licence etc. (Rs/yr) 15000 6 Storage etc. (Rs/yr) 10000 7 Average Annual Investment 10000 8 Annual Interest Cost (Rs) 115000 9 Annual Ownership Cost (Rs) 115000 10 Estimated Hourly Ownership Cost (Rs/hr) 115.00 OPERATION COSTS 11 Repair and Maintenance Cost (Rs/hr) 25.00 12 Tyre Replacement Cost (Rs/hr) 0.00 13 Fuel Cost (Rs/hr) 413.96 14 Servicing (Oil, filters, grease etc.) (Rs/hr) 25.00 15 Special wear items (blade, teeth, bucket etc.) (Rs/hr) 0.00 16 Operator's hourly charge (Salary+ allowances) (Rs/hr) 0.00 17 Estimated Hourly Operating Cost (Rs/hr)	nerator l							
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2 Estimated Salvage Value (S) (Rs) 150000 3 Annual Depreciation (Rs/yr) 90000 4 Insurance (Rs/yr) 15000 5 Taxes / Licence etc. (Rs/yr)	1 D	Purchase Price less tyre (P) (F					1500000	
3 Annual Depreciation (Rs/yr) 90000 4 Insurance (Rs/yr) 15000 5 Taxes / Licence etc. (Rs/yr) 15000 6 Storage etc. (Rs/yr) 100000 7 Average Annual Investment 100000 8 Annual Interest Cost (Rs) 100000 9 Annual Ownership Cost (Rs) 115000 10 Estimated Hourly Ownership Cost (Rs/hr) 115.00 OPERATION COSTS 11 Repair and Maintenance Cost (Rs/hr) 25.00 12 Tyre Replacement Cost (Rs/hr) 0.00 13 Fuel Cost (Rs/hr) 413.96 14 Servicing (Oil, filters, grease etc.) (Rs/hr) 25.00 15 Special wear items (blade, teeth, bucket etc.) (Rs/hr) 0.00 16 Operator's hourly charge (Salary+ allowances) (Rs/hr) 0.00 17 Estimated Hourly Operating Cost (Rs/hr) 463.96				sories and i	installation)			
4 Insurance (Rs/yr) 15000 5 Taxes / Licence etc. (Rs/yr) 10000 6 Storage etc. (Rs/yr) 100000 7 Average Annual Investment 100000 8 Annual Interest Cost (Rs) 10000 9 Annual Ownership Cost (Rs) 115000 10 Estimated Hourly Ownership Cost (Rs/hr) 115.00 OPERATION COSTS 11 Repair and Maintenance Cost (Rs/hr) 25.00 12 Tyre Replacement Cost (Rs/hr) 0.00 13 Fuel Cost (Rs/hr) 413.96 14 Servicing (Oil, filters, grease etc.) (Rs/hr) 25.00 15 Special wear items (blade, teeth, bucket etc.) (Rs/h) 0.00 15 Special wear items (blade, teeth, bucket etc.) (Rs/hr) 0.00 16 Operator's hourly charge (Salary+ allowances) (Rs/hr) 0.00 17 Estimated Hourly Operating Cost (Rs/hr) 463.96			NS)					
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11 Repair and Maintenance Cost (Rs/hr) 25.00 12 Tyre Replacement Cost (Rs/hr) 0.00 13 Fuel Cost (Rs/hr) 413.96 14 Servicing (Oil, filters, grease etc.) (Rs/hr) 25.00 15 Special wear items (blade, teeth, bucket etc.) (Rs/h) 0.00 16 Operator's hourly charge (Salary+ allowances) (Rs/hr) 0.00 17 Estimated Hourly Operating Cost (Rs/hr) 463.96	10 E	stimated Hourly Ownership					115.00	
12Tyre Replacement Cost (Rs/hr)0.0013Fuel Cost (Rs/hr)413.9614Servicing (Oil, filters, grease etc.) (Rs/hr)25.0015Special wear items (blade, teeth, bucket etc.) (Rs/h)0.0016Operator's hourly charge (Salary+ allowances) (Rs/hr)0.0017Estimated Hourly Operating Cost (Rs/hr)463.96				ATION COST	S		NOW IT DON'T SUPPORT THE	
13 Fuel Cost (Rs/hr) 413.96 14 Servicing (Oil, filters, grease etc.) (Rs/hr) 25.00 15 Special wear items (blade, teeth, bucket etc.) (Rs/h) 0.00 16 Operator's hourly charge (Salary+ allowances) (Rs/hr) 0.00 17 Estimated Hourly Operating Cost (Rs/hr) 463.96							AND AND DESCRIPTION OF THE PARTY OF THE PART	
14Servicing (Oil, filters, grease etc.) (Rs/hr)25.0015Special wear items (blade, teeth, bucket etc.) (Rs/h)0.0016Operator's hourly charge (Salary+ allowances) (Rs/hr)0.0017Estimated Hourly Operating Cost (Rs/hr)463.96								
15Special wear items (blade, teeth, bucket etc.) (Rs/h)0.0016Operator's hourly charge (Salary+ allowances) (Rs/hr)0.0017Estimated Hourly Operating Cost (Rs/hr)463.96		Fuel Cost (Rs/hr)						
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17 Estimated Hourly Operating Cost (Rs/hr) 463.96	15 S							
	16 C	perator's hourly charge (Sa	ary+ allowances)	(Rs/hr)			0.00	
18 Total Hourly Owning and Operating Cost (Rs/hr) 578.96	17 E	stimated Hourly Operating	Cost (Rs/hr)				463.96	
Di no grand A.	18 T	otal Hourly Owning and	Operating Cost ((Rs/hr)			578.96	
and a second		g, "	ej d	man 1	J.			

	OWN	ING AND OP	ERATING CO	ST ANALYSIS			
		Machine's I	Basic Inform	mation			
Equipme	ent: Cutter(Bitumen Pavement/RCC Cutter) Manufactured year:						
Ma	ke:	Fuel Type					
Mod	lel:			Diesel (SFC):	0.15	Historia.	
Power (h	p): 10 hp	Petrol (SFC):	0.22	Him a bit			
Capacity	<i>/</i> :		Fuel	Load factor(FF):	0.0	7	
Pui	chase / Estimated Price (PP):	200000	ruei	Time factor(TF):	0.9	3, 201	
	Useful Life (N):	5		Fuel Rate :	97	(RAMA)	
	Total Useful life Hours (H):	5000		Fuel Consumtion:	1.22	UNIT	
	Uses Hours per year (h):	1000		Energy consumed:		(kwh)	
	Tyre cost per unit (Ct):		Electric	Electric Charge:		(Re/unit)	
	Total no. of Tyres (tn):		Electric	Energy consumed rate	0.00	(unit/h)	
T	yre replacement costs (TRC):	0					
	Tyre Average Life (hrs) (TL):			Repair factor (RF):	0.3		
S	pecial wear item cost (SWIC):	30000		Servicing factor (SF):	0.2		
	Interest Rate (IR):	10%					
perator	M'thly Salary + Allw'nce(OS)						
		OWNE	RSHIP COST	S			
1 Purchase Price less tyre (P) (Rs)(Including accessories and installation)							
	Estimated Salvage Value (S) (Rs)						
3 /	Annual (Rs/yr)					36000	
4	Insurance (Rs/yr)						
-	Taxes / Licence etc. (Rs/yr)						
	Storage etc. (Rs/yr)						
	Average Annual Investment						
8 /	Annual Interest Cost (Rs)						
9 /	Annual Ownership Cost (Rs)						
10	Estimated Hourly Ownership Cost (Rs/hr)						
	to the second transfer and the second transfer and the second		TION COST	S		40.00	
11 Repair and Maintenance Cost (Rs/hr)					12.00		
	Tyre Replacement Cost (Rs/hr)					0.00	
	Fuel Cost (Rs/hr)					118.27	
	Servicing (Oil, filters, grease etc.) (Rs/hr)						
	Special wear items (blade, teeth, bucket etc.) (Rs/h)						
	Operator's hourly charge (Salary+ allowances) (Rs/hr)					30.00	
	Estimated Hourly Operating Cost (Rs/hr)					168.27	
	Total Hourly Owning and Operating Cost (Rs/hr)					208.27	

In your find the





ई-मेल:mechb@dor.gov.np फ्याक्स: (९७७)५००५५३४ फोन: (९७७)५००५५३४ हाल चाकुपाट, ललितपुर)।

पत्र संख्या :- ४।०७७/७८

मिति:-२०७७/१२/३१

चलानी नम्बर :- 🗸 🗘 🗸

विषयः Norms/Rate of Plant and Machinery for Estimating Guideline

श्री योजना तथा अनुगमन/पुल/संभार/यान्त्रिक/विकास सहायता कार्यान्वयन महाशाखा ।

श्री संघीय सडक सुपरिबेक्षण तथा अनुगमन कार्यालय दमक/काठमाडौं/पोखरा/सुर्खेत ।

श्री उत्तरदक्षिण व्यापारिक मार्ग विस्तार आयोजना निर्देशनालय, ललितपुर ।

श्री आयोजना निर्देशनालय, (ए.डि.वि.) काठमाडौं ।

श्री हुलाकी राजमार्ग आयोजना निर्देशनालय, काठमाडौं ।

श्री मदनभण्डारी राजमार्ग आयोजना निर्देशनालय, काठमाडौं ।

श्री संडक सुधार विकास आयोजना, काठमाडौँ ।

श्री हेभी ईक्विपमेन्ट डिभिजन/यान्त्रिक कार्यालयहरु सबै ।

श्री सडक डिभिजनहरू सबै ।

श्री योजना कार्यालयहरु सबै ।

सडक विभाग वा अन्तर्गत मातहत हुने विभिन्न निर्माण कार्यहरूको लागत अनुमान तयार गर्ने प्रयोजनको लागि मिति २०७७/१२/३१ को विभागिय निर्णयानुसार संसोधित Guideline For Estimating Equipment Ownership and Operating Costs यसैसाथ संलग्न गरि पठाईएको व्यहोरा निर्देशानुसार अनुरोध छ।

महेश कुमार पराजुली

श्रीमान महानिर्देशक ज्यू, सडक बिभाग

बिषय : संसोधित Guideline for Estimating Equipment Ownership and Operating Costs स्वीकृतिको लागि पेश गरिएको बारे।

उपरोक्त बिषयमा, मिति २०७७/१२/२४ को विभागीय निर्णय अनुसार गठित समितिले मिति २०७५/१०/०८ मा स्वीकृत Guideline for Estimating Equipment Ownership and Operating Costs को निम्न Issues विस्लेषण गरि, समय सापेक्ष संसोधनको प्रस्ताब यसै पत्र साथ संग्लन गरि स्वीकृति हुन् सिफारिश गर्दछौ।

निम्र:

- १. Ownership Cost Calculation
- २. Ownership Cost Calculation गर्दा Taxes and Storage/License Cost
- ३. Plant र Machinery को Capital Cost (Purchase Cost)
- ४. Maintenance र Service Cost calculation गर्न प्रयोग हुने क्रमशः Repair factor (RF) र Servicing factor (SF) को
- 4. Repair and Maintenance Cost ₹ Service Cost
- ६. Crew/Assistant Cost
- ७. Plant र Machinery को Specification को आधारमा Fuel Demand

सु.ई. प्रभात कुमार झा, संघीय सडक सुपरिवेक्षण तथा अनुगमन कार्यालय, सुर्खेत। सि.डी.ई, रमेश कुमार सिंह, श्री स.वि. योजना, अनुगमन तथा मुल्यांकन शाखा, ललितपुर। सि.डी.ई. महेश कुमार पराजुली, श्री स.वि. यान्त्रिक महाशाखा, ललितपुर | सि.डी.ई. शौरभ बज्राचार्य, गुणस्तर, अनुसन्धान तथा विकास केन्द्र, ललितपुर। ईन्जिनियर केशव कप्रसाद ओझा, श्री स.वि. संभार महाशाखा, ललितपुर। ईन्जिनियर अमित कुमार वर्मा, श्री स.वि. पुल महाशाखा, ललितपुर।

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