- **EXAMPLE:** WHEEL LOADER WITH TIRES; 200 HP Diesel Engine

A = 200000 TL including tire cost

Diesel Fuel = 2.4 TL/kg

Operator = 2160 TL/MONTH Hence, Hourly rate = (2160/240hrs) = 9TL/hr

Helper = 4.2 TL/hr (Serves three different machines)

N = 5 years
n = 2000 hours
} From Table 8.3

COST COMPONENT			**AMOUNT TL/Hr**
Depreciation	$\frac{A}{N*n}$	$\frac{200000}{5*2000}$	20.00
Spare Parts	0.53D	0.53*20.00	10.60
Maintenance Cost	0.13D	0.13*20.00	2.60
Investment Cost	$i*\frac{A*(N+1)}{2*N*n}$	$0.08*\frac{200000*(5+1)}{2*5*2000}$	4.8
Freight Cost	$\frac{0.02A}{n}$	$\frac{0.02*200000}{2000}$	2
FIXED COST			40.00

COST COMPONENT		**Quantity**	**Unit Cost**	**AMOUNT TL/Hr**
Diesel Fuel	0.0855kg/HP*200	17.10	2.4	41.04
Lubricating Oil	0.0171 kg/HP*200	3.42	2.4	8.21
Operator	Hourly rate Adjustment factor $\frac{240*12}{2000}$	1.44	9.0	12.96
Helper	$\frac{1hr}{3machine}*hourly\ wage$	$\frac{1}{3}$	4.2	1.4
OPERATING COST				63.61
FIXED COST				40.00
TOTAL HOURLY COST				103.61
PROFIT (25% of cost)				25.90
HOURLY RATE				**129.51**

TIRES CONSIDERED SEPARATELY

C_T = Cost of a set of tires = 20000 TL N_c = 2 years ; n_t = 2000 hrs/year		
MACHINE COST without TIRES = 200000-20000 = 180000 TL Fixed Cost of machine without tires = 36 TL/hr		
TIRES		**AMOUNT TL/Hr**
DEPRECIATION	$\frac{20000}{2 * 2000}$	5.00
MAINTENANCE	15% of Depreciation = 0.15*5	0.75
INVESTMENT COST	$0.08 * \frac{20000 * 3}{2 * 2 * 2000}$	0.6
TRANSPORTATION COST	5% of Depreciation = 0.05*5	0.25
TIRES FIXED COST		6.60
MACHINE FIXED COST WITHOUT TIRES		36.00
MACHINE FIXED COST		**42.60**

COMPARE 42.60 TL/hr WITH 40.00 TL/hr : WHEN COST OF TIRES IS INCLUDED IN THE MACHINE COST, HOURLY COST IS UNDERESTIMATED**.**