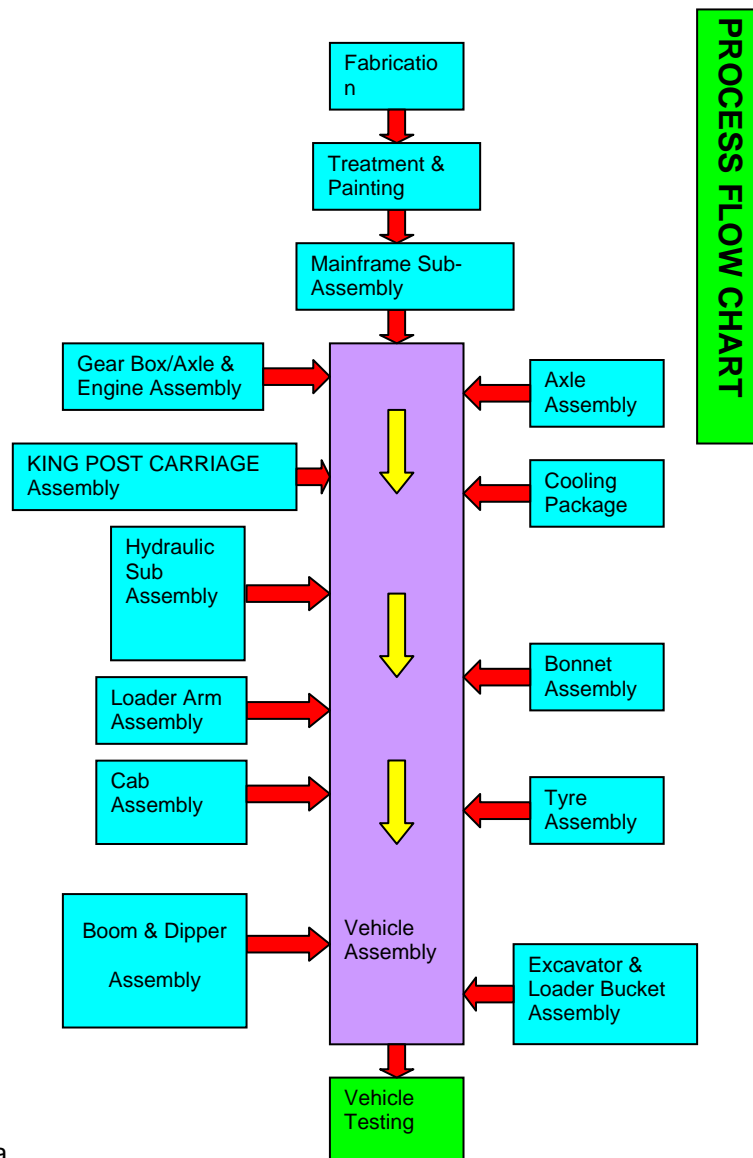


JCB INDIA LIMITED
23/7, Mathura Road, Ballabgarh-121004 (Haryana)

(i) Unit Profile

JCB India Ltd., Automotive Sector is a major player in Earth Moving Construction Equipment industry in India. It is a fully owned subsidiary of JCB Excavators Ltd, Rocester, Staffordshire, UK. JCB is one of the world's largest manufacturer of earth moving, agricultural and material handling equipment. Each machine is a product of hard work and attention to detail. This dedication, along with our world-class innovation and customer care, results in JCB being market leader in many of the 150 countries where its machines are sold. It is the World's No. 1 in the Backhoe Loader or the Excavator –Loaders market.

JCB India Ltd. has two plants in India. One plant is located at Ballabgarh, Haryana and another at Pune, Maharashtra. JCB India Ltd. manufactures Backhoe Loaders, Tracked Excavators, Wheeled Loaders and other vehicles for construction and industrial use. JCB has sustained its leadership position in the global competitive market through its focus on innovative products, customer care and energy management initiatives



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(ii) Energy Consumption

By implementing various energy conservation projects there has been a consistent decrease in the specific Electrical Energy Consumption.

DESCRIPTION	UNIT	2003-2004	2004-2005	2005-2006
Annual Eq. Vehicle production	Nos.	4198	5961	8134
Total electrical energy consumption/annum	Lakhs kWh	83.68	103.54	122.24
Specific energy consumption- Electrical	Units/Eq. Vehicle	1416.93	1234.80	1076.17

YEAR	ELECTRICITY	
	Consumption (kWh/Eq. Vehicle)	% reduction over 2003-2004
2003-2004	1416.93	--
2004-2005	1234.80	12.85
2005-2006	1076.17	14.74

(iii) Energy Conservation Commitment, Policy and Organisational Set up:

JCB India Ltd., Automobile Sector Ballabgarh plant has initiated energy conservation and its efficient use for cost reduction which is going to add directly to its profits in the bottom-line. The Utilities division of Maintenance department has taken upon itself the responsibility of Energy conservation management. It plans and executes projects relating to energy conservation and efficient use of energy. Even budgets for energy conservation are made by Utility division of Maintenance department. Plant energy profile which consists of electricity and diesel which is managed through observation, continuous monitoring and energy audits.

The plant has initiated work on energy conservation policy and organizational set up for efficient use of energy.

(iv) Energy Conservation Achievements:

During the years 2005-2006, JCB India Ltd. has implemented around 14 proposals after careful studies undertaken with a sole objective of adding value to the company's operations through efficient use of energy and its conservation. This resulted in total savings of Rs. 277.14 lakhs with an investment Rs. 174 lakhs. This has resulted in a reduction of 14.74 % of electric energy consumption.

The various projects implemented for the conservation and efficient use of energy are as follows:

1. Compressed Air Management System:

Before: In the old system,
Pressure setting required = 7 kg/cm³
Total Compressor installed = 4
Total running Compressor = 4

After: In the new system,
Pressure setting required = 6.2 kg/cm³
Total Compressor installed = 4
Total running Compressor = 3

Saving in Units = 1.28 lakhs kWh/ annum

Saving in Rs. = 10 lakhs

2. Replacement of Cooling Water System by Coil Coolers:

Before: In the old system,
Total number of pumps = 7 each with rating of 5.5 kW
Total number of Fan motors = 4 each with rating of 5.5 kW
Total water(Industrial Water) consumption/annum= 175 lakh Litres

After: In the new system,
Total number of pumps = 0
Total number of Fan motors =8 each with rating of 5.5 kW
Total water (Distilled Water) consumption/annum= 2 lakh Litres

Savings in Water= 173 lakh litres / annum
Saving in Units = 3.23 lakhs kWh/ annum
Saving in Rs. = 32.37 lakhs

3. Installation of Capacitor Bank at all Inductive Load for better power factor and saving in reactive power:

Capacitor bank installed at paint shop, Phosphating Line, Shot Blasting, Welding Line.
This resulted in minimization of reactive load at Gensets.

Saving in Units = 2.19 lakhs kWh/ annum
Saving in Rs. = 8.75 lakhs

4. Installation of Light Main Control at Utility House for timely switching of shop lights:

A single point control installed at powerhouse for switching shop light and exhausts system. Timers were installed for Welding line, Assembly and Building 15 for timely switching of lights.

Saving in Units = 1.75 lakhs kWh/ annum
Saving in Rs. = 7 lakhs

5. Replacement of Electric tube lights and Shop Lights by Energy Efficient Lighting:

Electronic Tube lights were installed which have power consumption less than 15 W.

Saving in Units = 0.175 lakhs kWh/ annum
Saving in Rs. = 0.7 lakhs

6. Installation of Digital Pressure Controller at Compressor for optimum pressure use:

With the optimum pressure utilization energy savings of 10% is achieved on compressor.

Saving in Units = 1.05 lakhs kWh/ annum
Saving in Rs. = 4.2 lakhs

7. Installation of Digital Thermostatic Control for Air Conditioning for optimum energy usage:

Digital temperature control system installed at Air Conditioning loads to get optimum energy usage.

Saving in Units = 0.35 lakhs kWh/ annum
 Saving in Rs. = 1.4 lakhs

8. Installation of CFL instead of Tube fittings in non-productive areas:

Total 41 sets of Tube fittings were replaced by CFL in toilets and other non-productive areas.

Saving in Units = 0.175 lakhs kWh/ annum
 Saving in Rs. = 2.37 lakhs

9. Installation of CFL at boundary wall instead of SOX tube fitting:

Total 200 light fittings each of 40 W were replaced by CFL tubes of 20W.

Saving in Units = 0.35 lakhs kWh/ annum
 Saving in Rs. = 1.6 lakhs

Other projects implemented during 2005-2006:

- Power Factor Rebate obtained on State Electricity Board Bill for maintaining more than 0.95 Power Factor
- Enhancement of State Board Electricity Power Capacity for use of cheaper power
- Metering of all Outgoing Panel for effective control of line losses
- Installation of energy efficient motors
- Pressure Band of the Compressor reduced by 0.5 Kg/cm³

(v) Energy Conservation Plans and Targets

Energy Conservation Measures(Planned)	Anticipated savings in		Approx. investment (Rs. lakhs)	Project Commencement & Completion year
	<u>Energy Value</u> (specify units)	<u>Rs. Lakhs</u>		
1. Low capacity Compressor Installation for Boring machine and laser 2. Day- Night	57 HP	4.2	0.1	2006

sensor installation at boundary light	8750 kWh	0.35	0.15	2006
3. Synchronisation of DG set	13.3 Lakh kWh	60	67	2006
4. VAM for usage of waste heat	15.5 Lakh kWh	70	250	2007
5. Energy efficient lighting for shop floor	0.88 Lakh kWh	4	8	2007
6. Air cooling modification for elimination of fans	3.33 Lakh kWh	15	70	2007
7. Office lighting automation	1.33 Lakh kWh	6	30	2007
8. Exhaust fan replacement by wind ventilator	0.67 Lakh kWh	3	10	2007
9. Use of LPG for Oven firing instead of Diesel	1.5 Lakh Litres of Diesel	60	70	2007
10. Use of PNG for running DG sets instead of Diesel	2 Lakh Litres of Diesel	80	70	2007

All other initiatives like Kaizens, studies will continue for achieving savings to the tune of Rs. 200 lakhs by the year 2007-08.

(vi) Environment and Safety

Various initiatives on Safety Awareness including Safety Audit Risk Analysis, Health Check-ups of all employees, Monthly reviews, Safety trophy and EHS training on regular basis.

EHS (Environment, Health & Safety):

A proactive system on EHS is maintained by identifying the EHS concerns & taking remedial measures. Detailed analysis for incorporating corrective and preventive actions is taken on occurrence of any incident. The plant has adopted the ISO 14001:2004 & OHSAS 18001:1999 management systems in going for the final certification by December, 2006. EHS is the top priority commitment from the top management.