
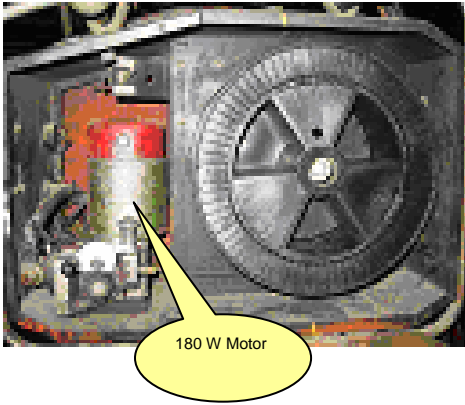
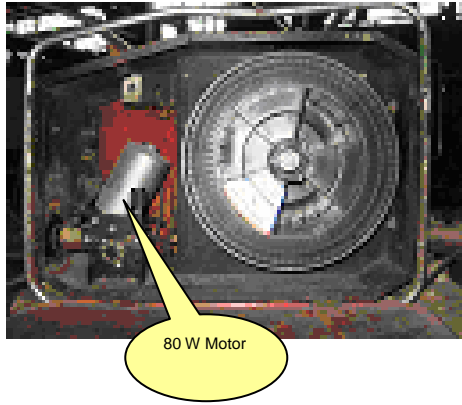




Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure		Sector : Automobile		
Year to be filled by BEE	Installation of second Medium Frequency furnace in Foundry Shop in place of old induction furnace.		Technology : Induction Melting		
<p>Description of the energy conservation measure: Changing technology for melting furnaces from normal frequency (50 Hz) to Medium Frequency (270 Hz) is known to improve energy efficiency. Reduced melting time combined with faster bogey charging system and slag removal system has been found to reduce energy consumption by 100 kWh/MT of molten Metal. Second MF Furnace of 120 MT/day was installed during 2006-07. First MF furnace of similar capacity was earlier installed in 2004-05.</p>					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
Supply Frequency Induction Furnace			 <p style="text-align: center;">MF furnace with charging system.</p>		
Agency that executed the project (with complete address and email): M/s Inductotherm India Pvt. Ltd. Ambli Topal Road, Ahmedabad – 380 058. E mail : iii@inductothermindia.com					
Total investment, Rs.: 390 lakhs			Year of implementation: 2006		
First year energy cost savings, Rs.: 103.68 Lakh					
First year other savings, Rs.: Nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	17856	Nil	Nil	Nil	Nil
Energy consumption after	14976	Nil	Nil	Nil	Nil
Energy tariff, Rs/ kWh ...	3.6	Nil	Nil	Nil	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr H S Mishra, AGM (Foundry)				Signature	
				Date	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure		Sector : Automobile.		
Year to be filled by BEE	Replaced 10 nos. wire feeder motors of 180 W by brushless motors of 80 W for gas shield welding machines.		Technology : Brushless Motor		
Description of the energy conservation measure: The old wire feed 180 W motor along with its gear feed arrangement was due for replacement. The cost of 180 W motor was Rs 22000/ . Instead a 80 W brushless motor with its gear feed arrangement and costing only Rs 13000 was tried out and found to be successful. Thus 100W connected load reduction in addition to reduce replacement cost was achieved.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): M/s Advani Oerlikon, Ador welding Ltd, 6K, Duvas Marg, Forte- Mumbai – 400 023.					
Total investment, Rs.: Nil			Year of implementation: 2006-07		
First year energy cost savings, Rs.: 8600					
First year other savings, Rs.: 90000.					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	4.32	Nil	Nil	Nil	Nil
Energy consumption after	1.92	Nil	Nil	Nil	Nil
Energy tariff, Rs/ kWh	3.6	Nil	Nil	Nil	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr S B Prasad, Sr Manager (Maint), Truck-III				Signature	
				Date	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure: Install Pusher Furnace in place of inefficient R.H furnace for 2000T Maxi press.	Sector : Automobile			
Year to be filled by BEE		Technology: Fce. Utilisation			
Description of the energy conservation measure: Rotary Hearth Furnace with high volume & large hearth size was causing higher heat losses for small forge components. A new small size Pusher furnace was fabricated in-house and installed for the purpose.					
Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification				
					
Agency that executed the project (with complete address and email): In-house Thermal Maintenance.					
Total investment, Rs.: 10,00,000	Year of implementation: 2006-07				
First year energy cost savings, Rs.: 21,39,000					
First year other savings, Rs.: Nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	Nil	Nil	Nil	480	Nil
Energy consumption after	Nil	Nil	Nil	342	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	Nil	Nil	Nil	16265	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr R K Bhol, AGM (Forge)				Signature	
				Date	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure		Sector : Automobile			
Year to be filled by BEE	Circuit modified to run the spindle motor with auto-cycle ON.		Technology: Auto-cycle			
Description of the energy conservation measure: Machine no. 36-4016 - cyl block line - Spindle motor (18kw) running continuously with control ON. Circuit modified to run the spindle motor with auto-cycle ON & horizontally deployed on 6 machines.						
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification			
Not Applicable			Not Applicable			
Agency that executed the project (with complete address and email): In-house Maint. (Engine)						
Total investment, Rs.: Nil			Year of implementation: 2006-07			
First year energy cost savings, Rs.: 5,40,000						
First year other savings, Rs.: Nil						
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other	
Energy consumption before	750	Nil	Nil	Nil	Nil	
Energy consumption after	600	Nil	Nil	Nil	Nil	
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil	
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination		
Contact person who could be contacted for more information: Mr M.Verma, Div. Manager (Engg. Audit)				Signature		
				Date		

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure		Sector : Automobile			
Year to be filled by BEE	Interlocking lubrication motor with main spindle of machine.		Technology :Circuit Modn.			
Description of the energy conservation measure: Lubrication motor running continuously on 5 machines were interlocked with spindle motor.						
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification			
Not Applicable			Not Applicable			
Agency that executed the project (with complete address and email):						
Total investment, Rs.: Nil			Year of implementation:			
First year energy cost savings, Rs.: 1,33,000						
First year other savings, Rs.:						
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other	
Energy consumption before	175	Nil	Nil	Nil	Nil	
Energy consumption after	138	Nil	Nil	Nil	Nil	
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil	
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination		
Contact person who could be contacted for more information: Mr Sumant Vasudeo, Manager(Maint), Engine				Signature		
				Date		

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure		Sector : Automobile			
	Eliminate idle running of Spindle motor during machining cycle.		Technology: Circuit Modn.			
Year to be filled by BEE						
Description of the energy conservation measure: Machine no. 6150- Cyl.head line - idle running of spl. Motor (15 KW) for 20 sec in each cycle during auto cycle eliminated. Such actions taken in 11 machines.						
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification			
Not Applicable			Not Applicable			
Agency that executed the project (with complete address and email): In-house Maint. (Engine)						
Total investment, Rs.: Nil			Year of implementation: 2006-07			
First year energy cost savings, Rs.: 4,50,000						
First year other savings, Rs.: Nil						
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other	
Energy consumption before	891	Nil	Nil	Nil	Nil	
Energy consumption after	766	Nil	Nil	Nil	Nil	
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil	
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination		
Contact person who could be contacted for more information: Mr Sumant Vasudeo, Manager (Maint), Engine.				Signature Date		

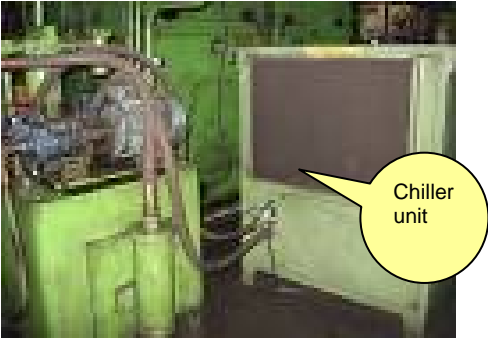
Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure				Sector : Automobile	
	Stopping of hydraulic pump-motor by timers after unattended running.				Technology: Timer, Circuit Modn.	
Year to be filled by BEE						
Description of the energy conservation measure: Stopping of hydraulic pump-motor by installing timers during non productive hours. Hydraulic motors stopped if next job after machining cycle not loaded within 10 minutes.						
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification			
Not Applicable			Not Applicable			
Agency that executed the project (with complete address and email): In-house Maint. (Engine)						
Total investment, Rs.: 2000			Year of implementation: 2006-07			
First year energy cost savings, Rs.: 1,18,000						
First year other savings, Rs.: nil						
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other	
Energy consumption before	330	Nil	Nil	Nil	Nil	
Energy consumption after	297	Nil	Nil	Nil	Nil	
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil	
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination		
Contact person who could be contacted for more information: Mr. Sumant Vasudeo, Manager (Maint), Engine.				Signature		
				Date		

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure		Sector : Automobile			
Year to be filled by BEE	Disconnection of Idle unit on multi-spindle machine.		Technology : -- --			
Description of the energy conservation measure: Machine No. 513 - cylinder block line - Unit D idle running of spindle motor (2.2kw) eliminated through circuit modification thereby disconnecting the idle unit.						
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification			
Not Applicable			Not Applicable			
Agency that executed the project (with complete address and email): In-house Maint. (Engine)						
Total investment, Rs.: Nil			Year of implementation: 2006-07			
First year energy cost savings, Rs.:1,62,000						
First year other savings, Rs.: Nil						
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other	
Energy consumption before	45	Nil	Nil	Nil	Nil	
Energy consumption after	0	Nil	Nil	Nil	Nil	
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil	
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination		
Contact person who could be contacted for more information: Mr Sumant Vasudeo, Manager(Maint),Engine				Signature		
				Date		

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure	Sector : Automobile			
Year to be filled by BEE	Interlock the hydraulic oil chiller units with machine spindle.	Technology: Circuit Modification			
<p>Description of the energy conservation measure: Chiller units for hydraulic oil was installed on 59 machines were running 24 hours even during partial shift running of main machine. It was found that running of chillers only during main spindle of machine running cool the hydraulic oil adequately. The chiller unit were thus interlock with control On circuit of the main spindle motor of the machines. thereby running the hydraulic oil chillers only during running of the machines and saving energy,.</p>					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): In-house Maint. (Engine)					
Total investment, Rs.: 5000			Year of implementation: 2006-07		
First year energy cost savings, Rs.:17,71,000					
First year other savings, Rs.: Nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	2685	Nil	Nil	Nil	Nil
Energy consumption after	2193	Nil	Nil	Nil	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr Anal Vijay Singh, AGM (Maint),Engine				Signature Date	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Title of the measure</td> </tr> <tr> <td>Matching thermic fluid requirement with work load.</td> </tr> </table>	Title of the measure	Matching thermic fluid requirement with work load.	Sector : Automobile	
Title of the measure					
Matching thermic fluid requirement with work load.					
Year to be filled by BEE		Technology: Improved work practice			
Description of the energy conservation measure: Stop one out of the two TP-15 Boilers after achieving thermic fluid outlet temperature everyday after startup of the boiler.					
Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification				
Not Applicable	Not Applicable				
Agency that executed the project (with complete address and email):					
Total investment, Rs.: Nil		Year of implementation:			
First year energy cost savings, Rs.: Nil					
First year other savings, Rs.:14,88,000					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	Nil	Nil	Nil	595	Nil
Energy consumption after	Nil	Nil	Nil	499	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	Nil	Nil	Nil	16265	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr Archit Kumar, Manager (Maint), Truck-I				Signature	
				Date	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure Reduction of bath Temperature by improved cleansing agent.	Sector : Automobile			
Year to be filled by BEE		Technology: Cleansing & Derusting			
Description of the energy conservation measure: Temperature Reduction of bath in stage 2 & 3 (from 65OC to 55OC) of Centralized Paint Shop by changing over from earlier cleansing agent 'Gardoclean- 444' to cleansing agent Gardoclean- 4292 A from Pyrine.					
Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification				
Not Applicable	Not Applicable				
Agency that executed the project (with complete address and email): In-house Maint. (CPS)					
Total investment, Rs.: Nil	Year of implementation: 2006				
First year energy cost savings, Rs.:77,000					
First year other savings, Rs.: Nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	Nil	Nil	Nil	60	Nil
Energy consumption after	Nil	Nil	Nil	55	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	Nil	Nil	Nil	28065	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr P K Gupta, AGM (CPS)				Signature	
				Date	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure Reducing Oven temperature by changing over to QD paint.		Sector : Automobile		
Year to be filled by BEE			Technology: Paint baking		
Description of the energy conservation measure: Temperature Reduction of Thermic fluid of TP-15 boiler from 220°C to 170°C after introduction of QD paint for small parts & Bumper painting.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
Not Applicable			Not Applicable		
Agency that executed the project (with complete address and email): In-house Maint. (Truck-I)					
Total investment, Rs.: Nil			Year of implementation: 2006		
First year energy cost savings, Rs.: 16,50,000					
First year other savings, Rs.: Nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	Nil	Nil	Nil	499	Nil
Energy consumption after	Nil	Nil	Nil	439	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	Nil	Nil	Nil	16265	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr Archit Kumar, Manager(Maint), Truck-I.				Signature	
				Date	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure		Sector : Automobile		
	Selector Switch for Heater 'ON' 'OFF'				
Year to be filled by BEE			Technology: Selector Switch		
Description of the energy conservation measure: Washing machine heater in cam shaft line running continuously, selector switch provided for heaters ON/OFF as per requirement of production.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
Not Applicable			Not Applicable		
Agency that executed the project (with complete address and email): In-house Maint. (Engine)					
Total investment, Rs.: Nil			Year of implementation:		
First year energy cost savings, Rs.: 2,08,000					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	290	Nil	Nil	Nil	Nil
Energy consumption after	232	Nil	Nil	Nil	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr Sumant Vasudeo. Manager (Maint), Engine				Signature	
				Date	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure		Sector : Automobile			
Year to be filled by BEE	Improved utilization of furnaces for reducing specific energy consumption.		Technology: Furnace. Utlzn.			
Description of the energy conservation measure: Save energy by increased output per shift for Rear Axle halves there-by reducing shifts required as per plan (based on cycle time.) It was possible to reduce the running of the Real Axle halves plant by 20 shift during 2006-07 for same output by improving hearth utilization and reducing material handling time, thereby reducing specific energy consumption.						
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification			
Not Applicable			Not Applicable			
Agency that executed the project (with complete address and email): In house, Prodn. (Truck-I)						
Total investment, Rs.: Nil			Year of implementation: 2006			
First year energy cost savings, Rs.: 4,28,000						
First year other savings, Rs.: Nil						
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other	
Energy consumption before	2252.8	Nil	Nil	Nil	Nil	
Energy consumption after	2133.8	Nil	Nil	Nil	Nil	
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil	
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination		
Contact person who could be contacted for more information: Mr M Verma, DM (Engg. Audit)				Signature		
				Date		



Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure		Sector : Automobile			
Year to be filled by BEE	Modifying feed cycle of the machine for reducing cycle time and energy consumption.		Technology: Machining Cycle Logic change			
Description of the energy conservation measure: Machine No. 7902 B - Cyl Block Line - unit B running in Feed only. Cycle time reduced by making Unit B in rapid to feed.						
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification			
Not Applicable			Not Applicable			
Agency that executed the project (with complete address and email): In-house Maint. (Engine)						
Total investment, Rs.: Nil			Year of implementation: 2006			
First year energy cost savings, Rs.: 54000						
First year other savings, Rs.: Nil						
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other	
Energy consumption before	300	Nil	Nil	Nil	Nil	
Energy consumption after	285	Nil	Nil	Nil	Nil	
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil	
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination		
Contact person who could be contacted for more information: Mr Sumant Vasudeo, Manager(Maint), Engine				Signature		
				Date		


Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure	Sector : Automobile			
Year to be filled by BEE	Rearrangement of light and fan for improved effectiveness.	Technology: Picco controller			
Description of the energy conservation measure: Saving of energy by proper arrangement of lighting & fans in all areas of Foundry and timely ON/Off by picco controller during breaks/ lean periods.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
Not Applicable			Not Applicable		
Agency that executed the project (with complete address and email): In-house Maint. (HPML)					
Total investment, Rs.: Nil			Year of implementation: 2006		
First year energy cost savings, Rs.: 1,04,000					
First year other savings, Rs.: Nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	290	Nil	Nil	Nil	Nil
Energy consumption after	261	Nil	Nil	Nil	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010 Contact person who could be contacted for more information: Mr S Mukherjee, Sr Manager (HPML)				We authorise Bureau to use this information for dissemination Signature Date	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure	Sector : Automobile			
	Reduced energy in Compressed air				
Year to be filled by BEE		Technology: Comp. Air system			
Description of the energy conservation measure: Reduce compressed air energy through (i) Audit around during lunch & lean period to reduce compressed air leakage (ii) Eliminating use of compressed air for drying of long member after washing by providing air blower instead (iii) Providing solenoid valve on identified machines for using compressed air for tool cleaning.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): In-house Maint. (Truck-I)					
Total investment, Rs.: 3,00,000			Year of implementation: 2006		
First year energy cost savings, Rs.:28,44,000					
First year other savings, Rs.: Nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	16011	Nil	Nil	Nil	Nil
Energy consumption after	15221	Nil	Nil	Nil	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr M Verma, DM (Engg.Audit)				Signature	
				Date	


Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure	Sector : Automobile			
	Reduced energy in Compressed air	Technology			
Year to be filled by BEE		Technology			
Description of the energy conservation measure: Installed 3 nos. 1000 CFM energy efficient screw compressors and switch off one Centac Compressor of 5500 CFM for 8 hrs in a day during Off peak period.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): M/S Atlas Copco, & M/s Ingersoll Rand (India) Ltd					
Total investment, Rs.: 27,00,000			Year of implementation: 2006-07		
First year energy cost savings, Rs.:10,80,000					
First year other savings, Rs.: nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	3100	Nil	Nil	Nil	Nil
Energy consumption after	2820	Nil	Nil	Nil	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr M Verma, DM (Engg.Audit)				Signature	
				Date	


Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure		Sector : Automobile			
	Reduced energy in Compressed air					
Year to be filled by BEE			Technology: Comp Air system			
<p>Description of the energy conservation measure: Modification of transmission header of compressed air line and replacement of 6" NB line with 8 " NB about 700 meters to reduce pressure drop by 6 psi. resulting in reduction in compressed air generation energy.</p>						
<p>Picture/ sketch/ drawing before modification (if available)</p>			<p>Picture/ sketch/ drawing after modification</p>			
Not Applicable			Not Applicable			
Agency that executed the project (with complete address and email): In-house Maint.(Comp. House)						
Total investment, Rs.: 4,00,000			Year of implementation: 2006-07			
First year energy cost savings, Rs.:10,08,000						
First year other savings, Rs.: Nil						
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other	
Energy consumption before	9330	Nil	Nil	Nil	Nil	
Energy consumption after	9050	Nil	Nil	Nil	Nil	
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil	
<p>Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010</p>				<p>We authorise Bureau to use this information for dissemination</p>		
<p>Contact person who could be contacted for more information: Mr M Verma, DM (Engg.Audit)</p>						
				Signature		
				Date		


Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure		Sector : Automobile		
Year to be filled by BEE	Use of VFDs on centrifugal pump and blower as flow control and energy saving strategy.		Technology: Variable Frequency Drive		
Description of the energy conservation measure: Over the years more than 80 VFD have been installed for flow control and energy saving . During 2006-07 further 13 Nos. VFD of various sizes (5 KW to 30 KW) were installed on centrifugal pump and blowers in CPS and Forge Shop resulting in energy saving fairly inline with "Affinity laws". Accordingly saving varying from 12% to 30% were achieved in different applications.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): M/s Amtech Electronics Ltd., E-6, G.I.D.C. Electronic Zone, Gandhi Nagar-382044; E-mail: info@amtechelectronics.com					
Total investment, Rs.: 9,00,000			Year of implementation: 2006-07		
First year energy cost savings, Rs.: 10,18,000					
First year other savings, Rs.: Nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	1572	Nil	Nil	Nil	Nil
Energy consumption after	1289	Nil	Nil	Nil	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr P K Gupta, AGM (CPS)				Signature	
				Date	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure Use of Renewable energy.	Sector : Automobile.			
Year to be filled by BEE		Technology :Solar water heater.			
Description of the energy conservation measure: Installed two nos.300 LPD each Solar Water heaters in Dalma & Telco Guest Houses in place of electric geysers for hot water in kitchens.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): Tata BP Solar India Ltd, kolkata.					
Total investment, Rs.: 3,60,000			Year of implementation:		
First year energy cost savings, Rs.: 34,000					
First year other savings, Rs.: Nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	11.19	Nil	Nil	Nil	Nil
Energy consumption after	1.79	Nil	Nil	Nil	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr M Verma, DM (Engg.Audit)				Signature	
				Date	


Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure Harnessing of Natural Light.	Sector : Automobile			
Year to be filled by BEE		Technology : Translucent			
Description of the energy conservation measure: In order to harness natural day light in the Cab & Cowl and Foundry shops 50 nos. translucent poly-carbonate roof sheets were installed in 2006-07. It has been established that one translucent sheet replaces the use of a 250W HPSV lamp during day light hours.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): Tarapore & Co., Jamshedpur.					
Total investment, Rs.: 1,50,000			Year of implementation: 2006-07		
First year energy cost savings, Rs.: 1,12,000					
First year other savings, Rs.: Nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	93	Nil	Nil	Nil	Nil
Energy consumption after	62	Nil	Nil	Nil	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr Amarjit Singh, AGM (Engg. Audit)				Signature	
				Date	


Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure		Sector : Automobile			
	Change over to energy efficient lamps.					
Year to be filled by BEE			Technology :Efficient lighting.			
Description of the energy conservation measure: . Earlier all 400 W HPMV lamps replaced with 250W HPSV lamps in all over the works except in the color rendering areas like inspection points and Paint shops. During 2006-07, in Paint Shops 50 nos. 400W HPMV lamps were replaced with 250 W MH lamps which have color rendering characteristics thereby saving energy.						
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification			
Not Applicable			Not Applicable			
Agency that executed the project (with complete address and email):In-house installation ,MH lamps from M/s GE / Crompton & greaves.						
Total investment, Rs.: 40,000			Year of implementation: 2006-07			
First year energy cost savings, Rs.: 2.01,600						
First year other savings, Rs.: Nil						
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other	
Energy consumption before	149.3	Nil	Nil	Nil	Nil	
Energy consumption after	93.3	Nil	Nil	Nil	Nil	
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil	
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination		
Contact person who could be contacted for more information: Mr M Verma, DM (Engg. Audit)						
				Signature		
				Date		

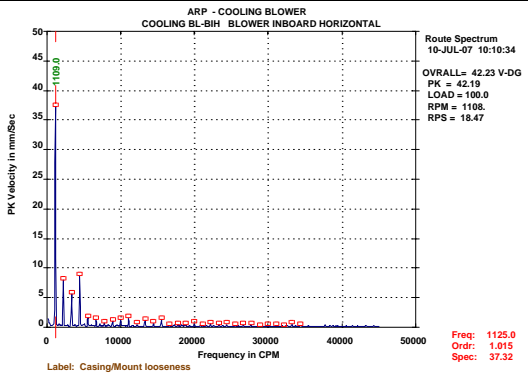
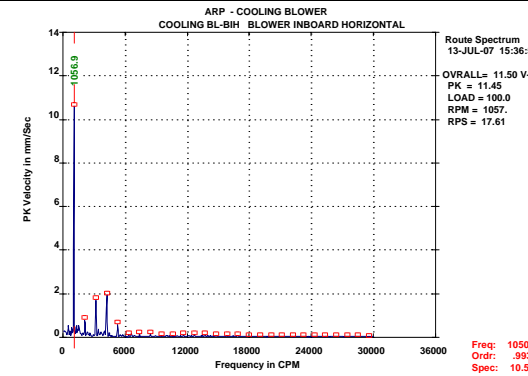
Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure		Sector : Automobile		
Year to be filled by BEE	Robotic painting in place of manual painting for Cab & Cowl.		Technology : Robotics.		
<p>Description of the energy conservation measure: In line with benchmarking with the best in the world manufacturing process Robotic painting with high speed conveyor has been installed in Paint Shop thereby improving painting quality, reducing cycle time as well as paint consumption.</p> <p>It has been possible to stop running of one of the painting line thereby substantial saving on electrical energy as well as fuel oil consumption in Ovens.</p>					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): Tikisha Engg. India Ltd, 404, Phase-IV, Udyog Vihar, Gurgaon.					
Total investment, Rs.: 8.00,00,000			Year of implementation: 2006-07		
First year energy cost savings, Rs.: 1,21,00,000					
First year other savings, Rs.: 4,00.00,000					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	4960	Nil	Nil	1040	Nil
Energy consumption after	3610	Nil	Nil	780	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	28065	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr P K Gupta, AGM (CPS)				Signature	
				Date	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure	Sector : Automobile			
Year to be filled by BEE	Micro-processor based control system for A.C Plants.	Technology : Micro-processor			
Description of the energy conservation measure: Microprocessor based Control system has been installed on 3 Nos centralized A/C Plants whereby 75 KW refrigerant compressor loading unloading is based on chilled water supply temperature. Current drawn reduces from 110A earlier to varying between 45 – 93 A, resulting saving in energy consumption.					
Picture/ sketch/ drawing before modification (if available)		Picture/ sketch/ drawing after modification			
					
Agency that executed the project (with complete address and email): M/s Voltas Limited, Dadra					
Total investment, Rs.: 9.30,000			Year of implementation: 2006		
First year energy cost savings, Rs.:10,11,000					
First year other savings, Rs.: Nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	1065	Nil	Nil	Nil	Nil
Energy consumption after	785	Nil	Nil	Nil	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr Amarjit Singh, AGM (Engg Audit)				Signature	
				Date	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure	Sector : Automobile			
Year to be filled by BEE	In situ Dynamic Balancing of Rotary Equipment	Technology: Vibration			
Description of the energy conservation measure: The Blower impeller of Air Replacement Plant was found to be unbalanced during periodic vibration measurement under predictive maintenance program. When <i>in-situ</i> dynamically balanced the 1 st harmonic vibration level was brought down from 37.32 m/s to 10.68 m/s and the power consumption was reduced from 16.5 kW to 13.8 kW. During 2006-07, 12 Nos of such equipment were <i>in-situ</i> dynamically balanced by vibration engineers in-house and saved 2.21 Lakh kWh of energy besides longer life of bearings.					
Picture/ sketch/ drawing before modification (if available)		Picture/ sketch/ drawing after modification			
 <p style="text-align: center; margin-top: 10px;">1xrpm: 37.32 mm/s Power Cons: 16.5 kW</p>		 <p style="text-align: center; margin-top: 10px;">1xrpm: 10.68 mm/s Power Cons: 13.8 kW</p>			
Agency that executed the project (with complete address and email): In-house Engg. Audit					
Total investment, Rs.: Nil		Year of implementation: 2006-07			
First year energy cost savings, Rs.: 7,95,600					
First year other savings, Rs.: 60,000					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	1350	Nil	Nil	Nil	Nil
Energy consumption after	1129	Nil	Nil	Nil	Nil
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	Nil	Nil	Nil	Nil
Company complete address: TATA MOTORS LTD, JAMSHEDPUR -831 010			We authorise Bureau to use this information for dissemination		
Contact person who could be contacted for more information: Mr Amarjit Singh, AGM (Engg. Audit)			Signature		
			Date		