

From the desk of the Executive-In-Charge

Dear Stakeholders,

The year FY 12 has begun on a challenging note for TGS. Thanks to your support, TGS is buzzing with activities. With the upcoming Kalinganagar Project, we see tremendous opportunities ahead. Some orders in the offing are– The 500 tonnes heavy duty crane being done for the first time, design and development of the 350 tonnes Torpedo Ladle Cars , 80 numbers of cranes; just to name a few. Our experience in executing the Lime Calcining Plant at Tata Steel has yielded rich dividend in terms of repeat order from Tata Steel for the Kalinganagar Project.



All this is indeed exciting and at the same time a big challenge for TGS. Measures are being taken to address these. The organizational set up has been re-engineered to take care of the customers' expectations.

I am sure, with all these measures and your active support as ever, TGS will stand up to the challenge and deliver to the satisfaction of our customers.

With best wishes


Rajesh Ranjan Jha

TGS Today

Beam Manufacturing Plant

TGS commissioned a Beam Manufacturing Plant to boost its structural business for residential, commercial & industrial buildings, pipes and technological structures. Depending upon the type of structure 30 to 40% parts are made of fabricated beams. Conventionally, these beams are manufactured manually, through a process of marking, gas cutting, fitting, welding by the CO₂ process and finally thermal straightening in different workstations. The process is time-consuming and thus affects the throughput. With the commissioning of Beam Welding Machine, the fitting, welding and straightening processes are integrated, which in turn, has increased the productivity three-folds. The CNC gas cutting process, which has eliminated marking and has increased the cutting efficiency, has replaced the manual marking and gas cutting operations.



Tunnel Furnace EOT Crane Commissioned

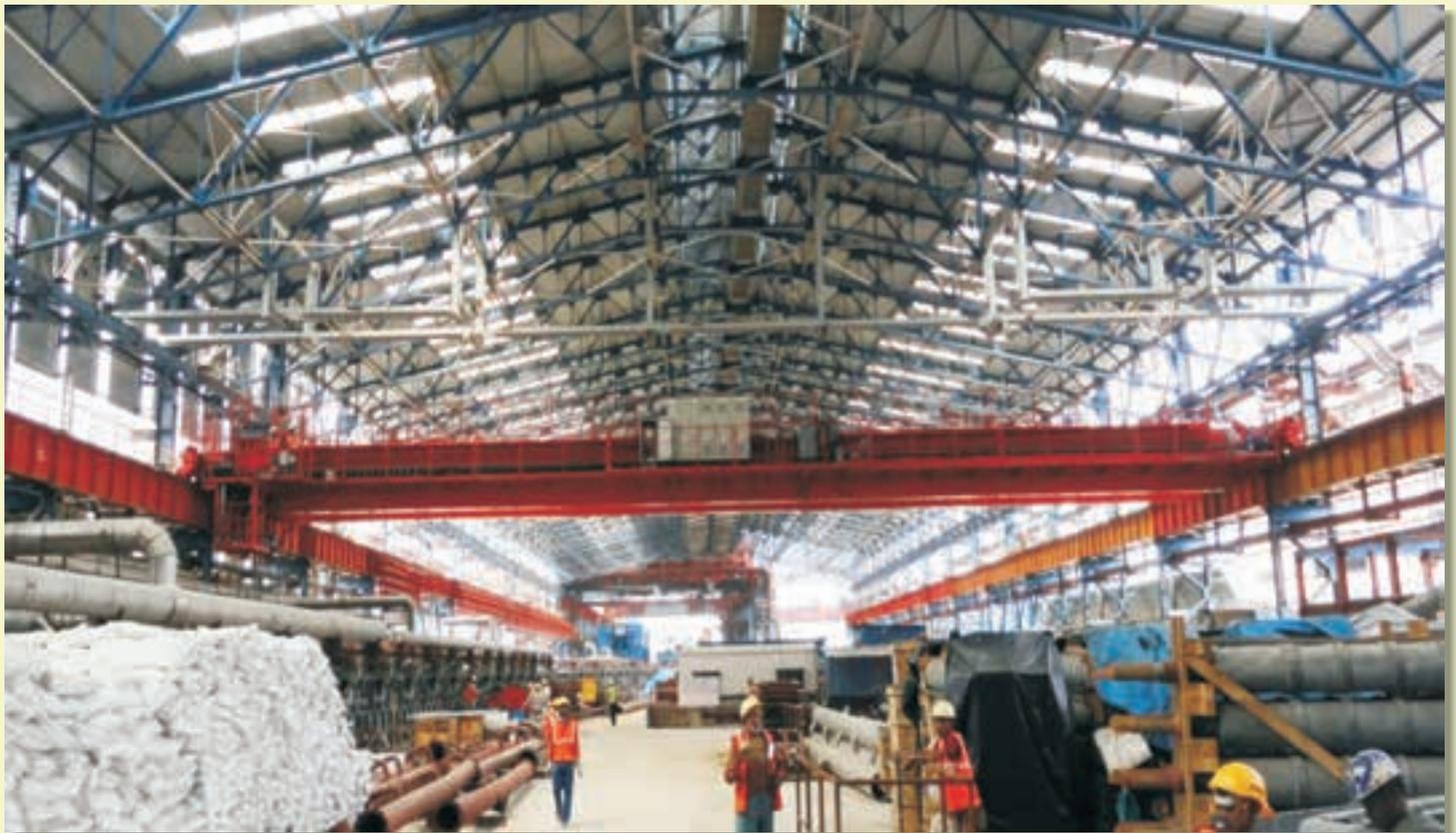
The EOT crane at the Tunnel Furnace building for LD#3 & TSCR under the 3MTPA expansion programme was recently erected and commissioned by TGS. This is one of the longest single piece girders for the EOT crane ever erected by TGS. The crane will be used to erect and maintain the equipment of the Tunnel Furnace.

The erection of the Tunnel Furnace EOT Crane was a challenge due to its single span girders, 38 meters long and the time constraint within which the crane was to be commissioned. Due to its large size, transportation of the girders was taken up with special planning of logistics and road survey.

Another big challenge was shifting of the girders from the unloading point to the erection site through a very narrow passage into the Tunnel Furnace Bay. This was accomplished by meticulous planning & execution to perfection on the part of the TGS erection team, using two mobile cranes. The entire job was accomplished without interfering with the other construction activities.



Shifting the girder into the Tunnel Furnace Bay



EOT crane in the Tunnel Furnace building in operation

Awareness Programme on IPR

An awareness programme on Intellectual Property Rights (IPR) was organized in the Design Cell conference room. Senior officers as well as fresh engineers attended the programme. Mr. Subramaniam Vutha, a well-known consultant in the area of IPR Management, conducted the session. The session dealt with the fundamentals of IPR namely, the trade secret, copyright and patents with some case studies to elaborate the point. TGS being involved in design, manufacturing and erection & commissioning has a lot of potential in obtaining IPRs. The purpose of the programme was to create awareness in the areas where TGS could have copyrights and patents.

Speed Consistency in the Horizontal Flame Hardening Machine

The old horizontal flame hardening machine had become critical for the production, productivity & quality of the ROT (Run out Table) roll manufacturing process. Consistency in the rotating speed was essential for metal spraying & the roll heating process in order to have defect free surface finish. Since this was an old model machine, variable speed was obtained by means of a PIV gearbox provided with the machine gearing arrangement with a constant rpm induction motor.

A constant speed of 30 rpm was required for the ROT roll process but there was variation in speed of 5 to 10 rpm in the old arrangement, which was affecting the deposited metal thickness and homogeneity in heating quality.

A brainstorming session among the team members led to the decision to use the Fagor AC Servo motor of 27 Nm of 1200 rpm with an AC servo drive control in place of the AC Squirrel Cage Induction Motor, and to lock the PIV Gear box at one speed.

Modifications were done in the mounting arrangement for the AC servo motor, the AC servo drive in the panel and the wiring for the interfacing motor, drive & encoder for the motor speed feedback. The variable speed with constant torque was achieved with this new arrangement in the specified RPM range.

The achievements after the implementation are:

- Consistent thickness of deposited metal
- Homogeneity in metal structure with even heating process.
- Proper bonding with parent metal
- No cavities and porosity on the surface
- Elimination of rejection
- Increase in production from 1 roll/day to 3 rolls/day



Shot Blasting cum Painting Machine

An online Shot Blasting cum Painting Machine was installed in TGS with the purpose of carrying out shot blasting and painting operations in the raw material stage itself. The process involves loading of the plate on the input side conveyor, passing through the shot blasting chamber, shot blasting with shot and grits on both sides of the plate, conveying to the painting chamber and finally painting by a weldable quality paint on both sides of the plate. The earlier practice was to shot blast and paint after completion of fabrication, due to which, items required dressing for the removal of rust and scale in the weld zone, in order to have proper quality of weld. This also consumed manpower and time.

The online process improves the quality of the raw material, eliminates the rust and the scale at the weld location and thereby improves the weld quality.

As the process is online, it saves manpower and reduces the cycle time of shot blasting.

TGS Reward & Recognition

Star Performers

TGS has launched the "Star Performer of the Month" scheme. This is a non-monetary recognition aimed at acknowledging the outstanding contribution of the employees. A plaque signed by the EIC is awarded to the employee in front of co-workers.

For the month of April 2011, Mr. J.N. Sharma and Mr. R.K. Paul, from Machine Shop were recognized. Mr. J.N. Sharma was recognized for his contribution in bringing down defects in the roller table frame for LD#3 & TSCR, Tata Steel while Mr. R.K. Paul contributed in reducing the cycle time of inspection of geometrical accuracy of Sled for LD#3 & TSCR.

Inside-Out congratulates both the achievers!!



Mr. R.K Paul

Mr. J.N Sharma

Employee Wellness Programme

The Employee Wellness Programme was launched at TGS on 23rd April, 2011 by the EIC, TGS, Mr. Rajesh Ranjan Jha and President, Tisco Mazdoor Union, Mr. Rakeshwar Pandey in a function organized at TGS, Gamharia. Chief, Corporate Safety, Tata Steel, Mr. O B Krishna, General Secretary, Tisco Mazdoor Union, Mr. Shio Lakhani Singh and the other heads of departments were also present on the occasion. Mr. O. B. Krishna explained the importance of good health while at work and off work. As in the case of Safety, he stressed that employee good-health is the responsibility of the management.



Subsequent to the launch, a week - long health check up campaign was organized to determine the health index of all employees, which required them to undergo measurement for height, weight, blood pressure, blood sugar and cholesterol. A total of 550 employees were covered in this campaign. The results will provide department-wise data for a health analysis based on age and generate plans for corrective action.

Jagriti: The Awakening

The story so far...

The formal land breaking ceremony by Mrs. Daisy Irani in 1995 led the way for a new building which was Jagriti's operating centre and a nursery school was started by Jagriti to provide Quality Education to the children from Gamharia and the villages around it at a nominal fee structure...

Now..

National festivals like the Independence Day & Republic Day are celebrated every year, with a flag hoisting ceremony in the campus of the Jagriti School. Children's Day & Teacher's Day are also celebrated every year in the School.

Efforts are also made to create an awareness regarding health, nutrition and hygiene among not only the children but also their parents. Children are also taught simple things like washing their hands before eating, using handkerchiefs etc. Jagriti conducted a workshop last year for the parents of Jagriti School, where Dr. Sharma elaborated on healthy eating habits and general hygiene for their children.



Homage paid to Dr. Radhakrishnan on Teachers' day by the members of Jagriti and faculty of Jagriti School



The students of Jagriti School, putting up a small program on Children's Day



The importance of health & hygiene explained to students and parents

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Printed at : 3D Techno Prints, Jamshedpur, Ph. No. : 0657 - 6575952