

# SILVERLININGS

JULY - SEPTEMBER, 2021 | VOLUME 20

**INTRODUCING**

**NEW! TL 340H PRIME**

The next generation fuel efficient wheel loader

**YOUR BEST  
BUSINESS  
PARTNER**



**ANNUAL DEALER CONFERENCE 2021**



**TATA HITACHI CONSTRUCTION MACHINERY COMPANY PRIVATE LIMITED**



## MESSAGE FROM THE MANAGING DIRECTOR

Dear Colleagues,

I write to you at a time when we have emerged from the second wave, not unscathed, but stronger and more willing and able to meet the challenges. As we had done during and in the aftermath of the first wave, we were able to weather the challenges of the second wave together as a consolidated unit. This is a testament to our will to brave any and all challenges. I appreciate your commitment and teamwork that has made this possible.

We have had many exciting developments in the past quarter, which are encouraging signs for the future. Our digital thrust has reinforced our experience as was witnessed in the traction garnered for initiatives like the launch of Shinrai PRIME, TL340H PRIME line-off ceremony, as well as campaigns in the mini excavator and compact segment. We also conducted a successful Annual Dealer Conference after a gap of two years.

Also encouraging are the plans at the plant level in terms of products as well as processes. Going forward, we have newer launches on the anvil, that will enhance our portfolio and our capability to deliver an unparalleled customer experience.

I am also sure that the games, sports and other activities conducted at plant and office locations would have provided ample opportunity for unwinding. The Independence Day drawing contest for children was special, and we are carrying the drawings of the winners in each age category in this issue. I am especially elated at

the two awards, including second position, that we received at the Hitachi Group's Inspiration of the Year Global Award 2021.

We are also all set to celebrate our 60<sup>th</sup> anniversary in the coming months. Our success over six decades is indeed a landmark occasion, and a validation of our strong fundamentals and customer-centric philosophy. I am sure that we will all come together to make these celebrations memorable and festive to reflect our strong history and legacy, as well as our intent towards a bright future for the company and for the country.

In the pursuance of business objectives, I must also remind you not to lose sight of the safety aspect with regard to the pandemic. As we are in the thick of the festive season, I would urge everyone to ensure that you follow all COVID-related safety protocols, and that all eligible family members are vaccinated.

Take care and stay safe.

Warm Regards,

Sandeep Singh  
Managing Director



# ACCOLADES



Tata Hitachi Design Team won the 3rd prize in the Mechanism and Machinery track at the **MSC 2020 Indo-Pacific User Conference 2020**. The team comprised of Mr. Dhruva Jyoti Gogoi, Mr. Thippesh KJ, Dr. Rajendra Praharaj, Mr. Urooj Faisal, Mr. Onkar Raut and Mr. Shrikant Zunjare. This was a special award for them as it was the third consecutive award for the same event.

Tata Hitachi Kharagpur and Dharwad were selected by HCM as '**ECO Factory**' this year in the following categories for the first time:

- a. Energy efficiency
- b. Renewable energy use
- c. High-efficiency lighting
- d. Recycling of wastes and other resources
- e. Efficient water recycling

In addition to this, Admin building of both plants have been selected for '**ECO Office**' certification in all four categories:

- a. High-efficiency lighting
- b. Renewable energy use
- c. Energy savings
- d. Environmental performance of buildings



The team from the Transmission Shop at Kharagpur Plant, comprising of Mr. Ajeet Sharma and Mr. Santosh Kumar Singh, one amongst the five teams representing Tata Hitachi, was ranked 4th out of 59 teams in the **21st National Supervisory Skills Competition of CII**. The team was awarded the Jury Certificate of Merit and were felicitated by MD San.



The Dharwad plant was awarded the ‘**Innovative Environmental Award**’ at the **8<sup>th</sup>** edition of the **CII National Award for Environmental Best Practices** competition 2021. The project team comprised Mr. Raphic, Mr. Pradeep Repale, Mr. Chidambar Kulkarni, Mr. Priyadarsi Das and Mr. Shashank Meka.



In the first ever case study competition held by the **Tata Ethics Office**, 78 teams participated consisting of 267 candidates across 39 Tata Companies. This included four teams from Tata Hitachi. The all-women team, **Wonder Women from Corporate Office** were adjudged as one of the **top four finalist teams**, winning a gift voucher of INR 8000/- along with certificate of achievement and trophy to be given during the upcoming **Tata Ethics Conclave** planned for January 2022. The team comprised Ms. Anita Nagashetti, Ms. Barathi Pawar, Ms. Dheepica V G and Ms. Pratibha Meena.



# INSPIRATION OF THE YEAR GLOBAL AWARD 2021 (IYGA 2021)

Tata Hitachi was the only company to garner two awards among the shortlisted fifteen at **Hitachi Group's prestigious IYGA (Inspiration of the Year Global Award)** this year.

## Congratulations to The Winners

for becoming a part of the Most Coveted Global Recognition Rewards Platform.  
**You made us Proud!**



**HITACHI**  
Inspire the Next



**GRAND PRIX**

**Mansoor Khan and Team**  
*Hitachi Systems Micro Clinic Pvt. Ltd.*

Converting Pan-India Core IP-MPLS Network of India's largest Telecom Services Operator to Super-Core with state-of-the-art SDN Technology and to bring high-speed Internet up to village levels.

**2ND PRIZE**

**Vinit Kumar and Team**  
*Tata Hitachi Construction Machinery Company Private Limited*

First of its Kind Cradle to Cradle Solution for Vehicle Recycling in India - Working Towards a Sustainable Future!

**3RD PRIZE**

**Balamurugan Rajasekaran and Team**  
*Hitachi India Pvt. Ltd. Rail System*

Implementation of Train Protection and Warning System (TPWS) for Freight operations in Western Dedicated Freight Corridor of 1330 route kms and on 200 Electric locomotives.

**REGIONAL AWARD  
PIONEERING SPIRIT**

**Sanjay K Singh and Team**  
*Tata Hitachi Construction Machinery Company Private Limited*

Reducing Carbon Footprint by generating Solar Power at Tata Hitachi, Kharagpur Plant.

**REGIONAL AWARD  
PIONEERING SPIRIT**

**Gaurav Dhawan and Team**  
*Hitachi India Pvt. Ltd., Infrastructure Systems Division*

Automation of Drinking Water Supply to 315 Villages of Chambal-Bhilwara District Under Chambal-Bhilwara Water Supply Project Phase-II Package-VIII.



**REGIONAL AWARD  
INSPIRE THE WORLD**

**KN Vishwanath and Team**  
*Hitachi ABB Power Grids*

Scada System for Paradip Port Trust—Paradip, Scada For Reliance Hazira—Gujarat, Scada for Bangalore International Airport—Bangalore, Haldia Petrochemical Complex—Haldia.

**REGIONAL AWARD  
INSPIRE THE WORLD**

**Rajesh Palliyagaram and Team**  
*Hitachi Vantara, Digital Solutions Business Unit*

Hitachi Vantara's Partnership with Mount Sinai Hospital's Digital Journey.

## IYGA Awards



Second place: Team members

I. The **second prize** went to the team implementing the first of its kind **cradle to cradle** solution for vehicle recycling in India. The team included:

- Mr. Suresh Nair (Leader & Mentor), Head - Institutional Business, Used Equipment and Rentals
- Mr. H Anand, Head – Product Development
- Mr. Pankaj Kumar, Head – Special Attachments
- Mr. Ambarish Mohanty, Production
- Mr. Ajit Kumar, Production Engineering
- Mr. Jinu Mohandas, Head – Attachments Promotions
- Mr. Gaurav Gupta, BM – Delhi
- Mr. Punit Varun, S&M
- Mr. Kumar Sawrav, Quality
- Mr. Vinit Kumar, Product Development – Attachments



Regional Award for Pioneering Spirit: Team members, clockwise from top right: Lal Mohammed Hussain, Ratan Prakash, Sanjay Kumar Singh, Jhantu Mahato

II. The **Regional Award for Pioneering Spirit** went to the initiative for reducing carbon footprint by **generating solar power at the Kharagpur Plant**. The team included:

- Mr. Sanjay Kumar Singh, DGM - Admin, Kharagpur
- Mr. Lal Mohammed Hossain, Admin, Kharagpur
- Mr. Jhantu Mahato, Maintenance Planning - Store, Kharagpur
- Mr. Ratan Prakash, CSR Management - Kharagpur

# HIGHLIGHTS OF THE QUARTER

There were two major highlights this quarter:

The first, the **line-off ceremony of the all-new CEV-IV compliant wheel loader TL340H PRIME** from our Kharagpur plant, and the second was the **Annual Dealer Conference** held in Bengaluru. The machine was later launched at our dealerships.

## TL340H PRIME LINE-OFF CEREMONY



Our newly developed **CEV-IV compliant wheel loader, TL340H PRIME**, was flagged off on 20<sup>th</sup> July 2021 from our Kharagpur plant. The events at the launch included a **welcome address by Plant Head Mr. Anand Kumar**, ribbon cutting, product walkaround, brief on development of the machine,

key handover by Production to Sales and Marketing, unveiling of manuals, brief on sales and marketing plan and key handover to dealers. The event was also beamed live on our social media handles, and garnered significant traction on the same.



## ANNUAL DEALER CONFERENCE 2021

The Annual Dealer Conference was held in September. This is the first dealer conference after a gap of two years. A total of **150 participants** were

part of the meet. **24 awards** in several categories were **conferred to 14 dealers**. Glimpses of the event follow:





# SHINRAI NEWS



Shinrai PRIME 4x4 launch at Guwahati

We further bolstered our backhoe loader portfolio with the launch of Shinrai PRIME 4x4 variant at Guwahati.



Shinrai PRIME 4x4 launch at Guwahati



Shinrai PRIME Week at Jabalpur & Tumakuru



Shinrai PRIME Week at Hubli & Salem



Shinrai PRIME Week at Jammu, Mandi, Greater Noida, Lucknow, Kolkata, Jaipur, Nagaur, Udaipur and Shimoga

- Shinrai PRIME week was conducted across, Mandi, Jodhpur, Rajsamand, Durgapur, Jabalpur, Tumakuru, Salem, Hubli, Jammu, Mandi, Greater Noida, Lucknow, Kolkata, Jaipur, Nagaur, Udaipur and Shimoga.



# INDEPENDENCE DAY CELEBRATIONS

The **corporate office** displayed a patriotic fervour with employees dressed up in tricolour. Also, in line with the Independence Day theme, a **fireless cooking competition** was held along with patriotic karaoke songs during the Monthly get together. At the **Kharagpur Plant**, Independence Day was celebrated with festive spirit and commenced

with **flag hoisting by the Plant Head** and a **Guard of Honour by Security Team**.

This was followed by a patriotic song by lady engineers, mono acting by an EEC Member, Bangla patriotic song by employees, including an EEC member, and exhibition football match and a dog show.



Fireless Cooking Competition at Corporate Office



Fireless Cooking Competition at Corporate Office



Independence Day celebrations at Kharagpur Plant





# DEALER NEWS

Our **exclusive compact dealership M/s Venkata Sai Motors** was inaugurated by MD San at Secunderabad, bringing us one step closer to customers.



Inauguration of Venkata Sai Motors by MD San

Tata Hitachi's authorised dealership **M/s. Trishul Tread Pvt. Ltd., Jharsuguda, Odisha** was inaugurated by MD San.



Inauguration of Trishul Tread, Jharsuguda by MD San

PSN Cochin's Machine Care Facility was inaugurated by MD San and a three-day Workshop Fest was conducted to promote the facility.



PSN Cochin's new Machine Care Facility inaugurated by MD San





Three-day Workshop Fest at PSN Cochin

Tata Hitachi's authorised dealer **PSN Hubli's branch office at Chitradurga** was inaugurated. This 3S facility will ensure timely support on sales, service and spare parts to the customers of this region. The event was attended by the local MLA, our customers, finance partners, and the senior management team of Tata Hitachi and PSN.



PSN Chitradurga inauguration by Mr Rahul Shorey, National Head – Construction

## BRANCH NEWS

The **Patna Branch** participated in the **Annual state level meeting of the Bihar Brick Manufacturer Association** along with **Shankar Equipments Limited**.



Patna Branch participating in the annual meet of Bihar Brick Manufacturer Association



# FINANCIER MEETS AND LOAN MELAS

A Financier Meet was conducted in partnership with Mitra Commercial & Automobiles for officials of Citibank.



Financier Meet with Citibank officials



Sangam Financier Meet in partnership with Mitra Commercial & Automobiles

A Financier Meet titled Sangam was also conducted in partnership with Mitra Commercial & Automobiles.

PSN Cochin conducted 'Sangamam' Financier Meet with HDB Finance and Axis Bank.



Sangamam Financier Meet by PSN Cochin



Loan Mela at Indore in partnership with ES Infraserve

A Loan mela was held in Indore in partnership with ES Infraserve with HDFC Bank, HDB Finance, Yes Bank, Tata Capital, Axis Bank, ICICI Bank and Kotak Mahindra Bank.

A customer meet with Loan Mela was held in association with ICICI Bank at Dongargaon, MP.



Customer meet with Loan Mela in association with ICICI Bank at Dongargaon, MP



A Loan Mela was held in partnership with Kailash Infratech at Jabalpur.



Loan Mela at Kailash Infratech, Jabalpur

## SPARE PARTS MELA

Glimpses of Spare Parts Melas held during the quarter.



Parts Mela at Dhanbad, Jharkhand



Parts Mela at Latur



Parts Mela at Ranchi, Jharkhand



Parts Mela at Pakur, Jharkhand



Parts Mela at Nanded

## MACHINE HANDOVERS

Four **ZAXIS650H** machines were handed over to Northern Coalfields Limited by Lucknow mining team, to be commissioned at NCL Dudhichua and Jayant Dudhuchua projects. One **ZW310** Wheel Loader was handed over to Rashtriya Ispat Nigam Limited by the Vijayawada mining team, to be commissioned at the Vizag Steel Plant.

**Aurangabad Branch** handed over two **EX210LC** machines at Nanded, one **ZAXIS140H** and one **Shinrai PRIME** at Latur. Nellore Branch handed over three **EX215**, two each of **ZAXIS370** and **ZAXIS220** machines, apart from one each of **ZAXIS140**, **Shinrai PRIME**, **EX200** and **EX70**. **Kailash Infratech** handed over two **Shinrai PRIME** and three **EX200SP** machines to customers at Satna, and Jabalpur. Pune branch handed over four Shinrai PRIME machines, one **EX130** and one **ZAXIS33U**. **Mitra Commercial & Automobiles** handed over

three **EX210LC** machines and one **EX70**. **PSN Cochin** machine handovers include: **ZAXIS33U** - seven machines at Ernakulam, five at Thiruvananthapuram, five at Thrissur, three at Idukki, three at Malappuram, Kollam, three at Kottayam, three at Palakkad, two at Kozhikode, two at Kollam, two at Kasargod, and one machine at Wayanad; **ZAXIS140H** handovers include three at Malappuram, two at kollam, and one each at Palakkad and Pathanamthitta; One **ZAXIS220** machine each was handed over at Kozhikode, Pathanamthitta, Ernakulam, Kollam and Thiruvananthapuram; One **ZAXIS23U** machine each was handed over at Thiruvananthapuram and Kollam; One Shinrai machine each was handed over at Ernakulam and Kozhikode; One **EX70** at Ernakulam, one **EX215** at Malappuram, one **TMX20 Neo** at Ernakulam, and one **Shinrai PRIME** was handed over at Ernakulam.





2 units of EX200SP handover to AK Communication & Infrastructure Pvt Ltd at Satna, MP



4 units of Shinrai PRIME handover to Kohali Earthmovers at Goa



4 units of ZAXIS650H handed over to NCL Dudhichua



EX70 handover at Ernakulam



EX70SP handover to Ms. Sushmita Das



EX130 handover to Ghumai Construction at Satara, Maharashtra



EX200LC handed over at Dongargaon, MP



EX200LC handover to Shri Gopal Enterprises at Dhar, MP



EX200SP handover to Messers Nayyar Goods Transport at Jabalpur, MP



EX210LCSP handover to Abhishek Paswan, Durgapur



EX210LCSP handover to Gorai Brothers, Durgapur



EX210LCSP handover to Mitorma Developer, Durgapur



EX215 handover at Malappuram



Shinrai handover at Ernakulam



Shinrai handover at Kozhikode



Shinrai handover to Mr Navnath Tapkir, Pune



Shinrai PRIME handover at Ernakulam



Shinrai PRIME handover at Pune



Shinrai PRIME handover at Muvattupuzha



Shinrai PRIME handover at Tiruchirappalli



Shinrai PRIME handover to Ajit Kale, Pune



Shinrai PRIME handover to Messers Nirman Trading & Traders Company at Jabalpur, MP





Shinrai PRIME handover to Mr Rishikesh Jagatap, Pune



Shinrai PRIME handover to Mr Sagar Dhobe, Ahmednagar



Shinrai Prime handover to Tass Technical Udaipur



TMX20 Neo handover at Ernakulam



Two ZAXIS140H machines handover at Malappuram



ZAXIS23U handover at Kollam



ZAXIS23U handover at Thiruvananthapuram



ZAXIS23U handover at Wayanad



ZAXIS33U delivered to Sushant Chougule at Kolhapur



ZAXIS33U Handover at Idukki



ZAXIS33U handover at Kasargod



ZAXIS33U handover at Kollam



ZAXIS33U handover at Kottayam



ZAXIS33U handover at Kozhikode



ZAXIS33U handover at Malappuram



ZAXIS33U handover at Palakkad



ZAXIS33U handover at Thrissur



ZAXIS140 Handover at Ernakulam



ZAXIS140 handover at Kollam





ZAXIS140 handover at Malappuram



ZAXIS140 handover at Palakkad



ZAXIS140 handover at Pathanamthitta



ZAXIS140H handover at Pithampur, MP



ZAXIS220 handover at Kollam



ZAXIS220 handover at Kozhikode



ZAXIS220 handover at Pathanamthitta



ZAXIS220 handover at Thiruvananthapuram



ZW310-5A handover to RINL at Visakhapatnam

## OPERATOR TRAININGS

Operator Trainings were held at: RML, NKPC (Kharagpur); Saurashtra Cement Limited, Porbandar, Gujarat; Western Coalfields Limited, Gondagaon, Maharashtra; Mollarber, WB; Khargone, MP; Mandasaur, MP; Dewas, MP; and Yavatmal, Maharashtra.



Operator and maintenance training at Saurashtra Cement Limited



Operator Training at Mandasaur



Operator Training at Yavatmal



Training at Mollarber, NKPC, Kharagpur





## OTHER TRAININGS

- A **Safe Operation, Schedule Maintenance and Consite training** on ZAXIS370 was held at the site of customer M/s. Ferro Scrap Nigam Ltd. (FSNL) at Vizag Steel Plant.
- **Safe operation and maintenance training** programme was held for our key account

customer M/s SEPL, at Kondapalli Blue metal site Near Vijayawada.

- **Safe Operation and Maintenance Training** Program on EX200SP and ZAXISX220 was held at Customer site M/s G R Infra at Devarapalli-Rajahamundry, AP





## DEMO

Demo of **B235 Breaker** was conducted at Katni, Madhya Pradesh by **Kailash Infratech** for **SLS Minerals**.



Demo of B235 Breaker at Katni, MP

## ROADSHOWS



EX215LC Roadshow from Jamshedpur to Sahibganj



Roadshows at Agar and Tanodiya, organised by ES Infraserve



EX215LC Roadshow from Jamshedpur to Pakur

## PRODUCT LAUNCHES AND CUSTOMER MEETS

Glimpses of our product launches and customer meets.



Shinrai PRIME launch and customer meet at Dhanbad, Jharkhand



Shinrai PRIME launch at Kailash Infratech, Jabalpur



TL340H PRIME launch and mini customer meet at Kanderbera, Jharkhand



TL340H PRIME launch and mini customer meet at Kanderbera, Jharkhand



TL340H PRIME Launch at Barbil



TL340H PRIME Launch at Durgapur





Customer Meet at Garoth, MP



Customer Meet at Indore



Customer Meet at Pithampur, MP



Mini customer meet at Barhi, Jharkhand



Mini customer meet at Daltonganj, Jharkhand



Mini customer meet at Dhanbad, Jharkhand



Mini customer meet at Hazaribagh, Jharkhand



Mini customer meet at Pakur, Jharkhand



Mini customer meet at Ranchi, Jharkhand



Mini customer meet at Sahibganj, Jharkhand



Mini Customer Meet at Panduki, Dhanbad, Organised by Vedant Earthmovers





# PLANT NEWS

## DHARWAD

Flag off ceremony was conducted on 18<sup>th</sup> September 2021 for **export order of 67 EX130 Super+ machines** to **Roads & Highways Department, Dhaka, Bangladesh.**



Flag-off ceremony for export order to Roads & Highways Department, Dhaka, Bangladesh



Group blood donation certificate handed over to Plant Head by District Hospital, Dharwad



Plant Head GB Kulkarni handing over certificate to donor

**Dharwad plant** in association with **District Hospital Dharwad** organized a **blood donation camp.**

Dr. Prabhu had taken the lead of blood donation camp. His other 7 team members and paramedical students welcomed all the donors. This voluntary event was inaugurated by our Plant Head Mr. Govindraj B. Kulkarni. A record **73 units of blood** was collected. Donors contributed by donating blood of all groups including rarest blood group.



Mega vaccination drive held at the plant

Subsequent to the **Vaccination Drive** done on 21<sup>st</sup> June 2021, a vaccination drive was arranged at the plant premises on 17<sup>th</sup> Sep 2021 in **collaboration with District Administration, Dharwad.** The vaccination drive was for conducted for employees and trainees, both permanent and contractual, as well as eligible family members. 610 vaccines were administered on the day.





Glimpses of the Khel Utsav

**Khel Utsav** was conducted for employees on August 8<sup>th</sup>, 2021 with tournaments including **badminton, chess and carrom**. The winners were:

- Badminton:** Shridar Dasari, Raghu Dasari, Amol Bhoi
- Chess:** Shrishail Ambannavar
- Carrom:** Shrishail Benni, C M Desai

**An art and craft exhibition** by employees was organized on Independence Day at the Plant. The displays included:

- Photography** by Mr. Siddhalinges Mattur, Mr. Chidambar Javoor and Mr. Prashant Hakkaraki
- Mandala art** by Ms. Neha Durgadsimi
- Wooden crafts** by Mr. Krishna Kumar Giriyaal

## KHARAGPUR



Indoor Sports at Kharagpur





Indoor Sports at Kharagpur

The **1<sup>st</sup> Indoor Games Tournament** was organised at Kharagpur plant from 10<sup>th</sup> August 2021 to 3<sup>rd</sup> September 2021. The tournament was inaugurated by our Kharagpur Plant Head, Senior officials and the Engagement committee. A total of 168 players participated in all the 4 events that included:

a. **Carrom:** Total 46 teams comprising about 92 players including women employees

b. **Chess:** Total 32 participants

c. **Table Tennis:** Total 32 participants

d. **Billiards:** Total 14 participants

The top three teams in each event were awarded with trophies and certificates. MD San congratulated the participants and organizers during his visit to Kharagpur Plant.





Presentation to Indian Naval Academy

A Team from Tata Hitachi made a virtual presentation on the manufacturing capabilities of the company to the **6th Semester cadets of the Indian Naval Academy** on 20th of September. The presenters included Monikut Sharma (HR), Ajit Kumar (PE & PPC), James N.V. (Fabrication), Vivek Singh (Transmission), Deep Thakur (PE & PPC), Ambarish Mohanty (Assembly), Satish Chaudhary (Paint) and Ankur Srivastava (Paint).



TOS Machine Kaizen

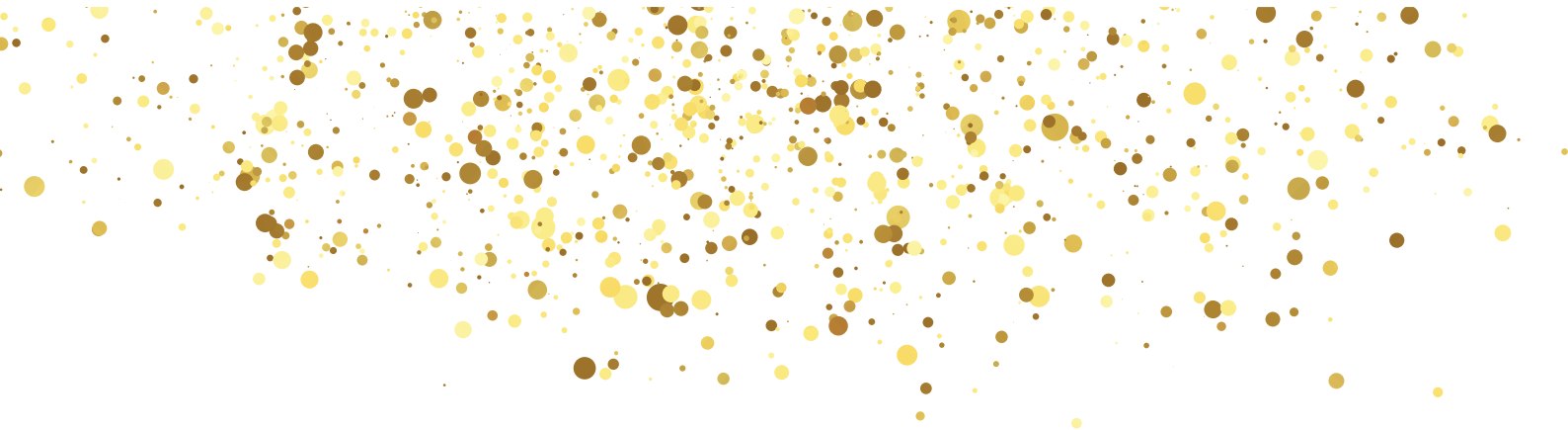
**TOS Machine Kaizen:** The Team machined an **EX1200 Hoe Boom** on the much smaller TOS machine, which was not designed for such large jobs. They did this to ensure no loss in production when the Toshiba machine broke down and repair was not close at hand. They used great ingenuity and skill in ensuring the job got done and with all quality parameters intact. The team members included Pritesh Kankariya, Pijush Kanti Chatterjee, Parmeshwar Das, Rajesh Kumar Singh, J.S. Munda, Chanchal Gope, Sandeep Kumar Ojha, Anil Kumar, Sharmishtha Nayak, Suranjay Ghosh, Sandeep Pujari, Dayanand Prasad, Angesh Kumar, Subhash Das, Amit Kumar, Daljeet Singh Lamba and Deepak Kumar Singh





Sr. No.	Tkt. No.	Name	Score
1	37547	Sunil Das	77
2	37549	Soumen Kalla	81
3	37685	Suman Mondal	77
4	37687	Ashok Dolai	77
5	37556	Tanmoy Roy	72
6	38086	Mrinal Kranti Manna	72
7	37672	Bibekananda Ganguly	77
8	37676	Nityananda Mondal	77
9	37677	Monoj Das	73
10	37675	Chinmoy Ghorai	73
11	37678	Nantu Giri	81
12	37548	Shishankar Seneta	77
13	37540	Monmay Hazra	73
14	37538	Lalit Mahato	77
15	37682	Samir Dutta	77
16	37555	Tapas Kumar Bag	77
17	37550	Samar Dolai	73

Total of 17 welders were certified at Kharagpur Plant under the Welding Certification Programme.







TATA HITACHI

Reliable solutions

Oct, 2021 | Volume 7

Dear Reader,

Hope you are fully Vaccinated !!

Thank you for your encouragement & support extended in our previous versions of the YOKOTEN newsletter. We are pleased to publish the 7<sup>th</sup> edition of the YOKOTEN NEWSLETTER. Through this newsletter, we have been sensitizing about 4Ms (Man, Machine, Material & Method) and also focusing on knowledge sharing related to improvement in all the domains of 4M. In this edition, we will discuss one of the most important 4M "MATERIAL". We will also talk about a Nano Materials and Nano Technology usage in automotive industry and a Kaizen emphasizing the importance of "MATERIAL", helping in reduction of field failures.

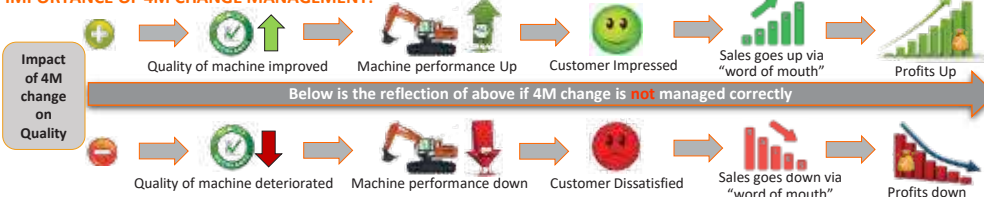
#### DID YOU KNOW ?

The very first excavator to use hydraulic technology was built in 1882 by Sir W. G. Armstrong & Company in England, where it was used in construction of the Hull docks. Unlike today's excavators that use hydraulic fluid, water was used to operate the hydraulic functions. The first all-hydraulic excavator, using only four direct-acting steam cylinders and no cables or chains

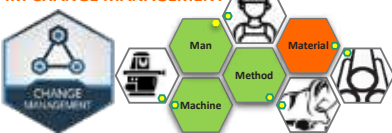
Source : Wikipedia



#### IMPORTANCE OF 4M CHANGE MANAGEMENT:



#### 4M CHANGE MANAGEMENT



#### Before changing the established 4M condition (MATERIAL) THINK ?

- Is the material used meets the required mechanical properties?
- Is the processing of material easy ?
- Is the material which is planned to use as an alternate , is it approved?
- Is the alternate material mentioned in THCM's TDC ( Technical Delivery Specification )?



#### Benkyou (To Learn) Gallery:

##### What are Nano Materials:

Nanomaterials are chemical substances or materials that are manufactured and used at a very small scale. Nanomaterials are developed to exhibit novel characteristics compared to the same material without nanoscale features, such as increased strength, chemical reactivity or conductivity.

##### Nanotechnology Applications in the Automotive Industry

Nanotechnology can be incorporated in various automobile parts such as paint, batteries, fuel cells, tires, mirrors, and windows. The main advantages of applying nanotechnology in automobiles include providing lighter and stronger body parts (to enhance safety and fuel efficiency), improving fuel consumption efficiency, and therefore achieving a better performance over a longer period.

##### Mechanical Properties

- The properties of nanomaterials increase with the decrease in size, because smaller the size, lesser is the probability of finding imperfections such as dislocations, vacancies & grain boundaries.
- Strength of material improves significantly as the particle size decrease due to perfect defect free surface.
- Hardness , yield strength, Elastic modulus and toughness of material also increases as particle size is decreased.



##### 1 KAIZEN

Let us see an example of a Kaizen focussed on "MATERIAL" which resulted in improvement of customer satisfaction and reduction in field failure issue regarding tooth point pin fall off in ZX470GI bucket during special working condition.

##### 2 Kaizen Theme:

Improvement in tooth point lock pin by Increase the pin strength by alternate material (EN19 to EN24) and its Heat Treatment.

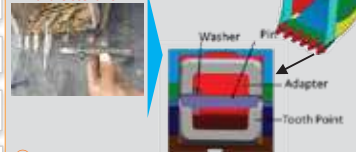
3 Problem Details: Tooth Point and Adapter Lock Pin broken issue and pin getting bend and coming out from the tooth point adapter during machine operation and was causing breakdown of crusher due to entering of metal piece.

##### 4 Why - Why analysis

- 1W: Bucket tooth point came out from adapter
- 2W: lock pin bend/broken from locking arrangement
- 3W: Lock pin unable to bear the working load acting on it during application
- 4W: Pin strength is not designed in line with special working condition (Hard starta /OB with heavy stone specific to one site).
- 5W: Design of pin is not in line with special application (tough).

##### 5 Pictorial Representation

##### Failure scenario



##### 6 Countermeasure:

1. Material Grade of tooth point mounting Pin changed from EN19 from EN24.
2. By change in the material there is an increase in mechanical strength by 15~20% , which reduced the bending of pin during machine operation

##### BENEFITS:

##### Tangible Benefit

: Failure Avg.HMR was 256 Hrs, by this improvement no failures reported till 1200 hrs

##### Intangible Benefit

: Improvement in Customer satisfaction (external).

HORIZONTAL DEPLOYMENT: Similar type of study and improvement will be carried out in other models buckets which are used in special applications .

Note : We are keen to know the interest of our readers and look forward to your feedback & comments.

Please write in to : [manpreet.marwah@tatahitachi.co.in](mailto:manpreet.marwah@tatahitachi.co.in)

With the objective of promoting the culture of sharing of knowledge and improvements across the manufacturing system including our key vendors, we released the 6th edition of the 'Yokoten' Newsletter – focusing on the importance of 4M management with brief description of a newer technology and a Kaizen based on one of the domains of 4M factors- Man, Machine, Material & Method. In this 7th edition, the focus was on 'MATERIAL'.



# TATA HITACHI

Reliable solutions

Registered Office:  
Jubilee Building, 45 Museum Road, Bangalore - 560 025

[www.tatahitachi.co.in](http://www.tatahitachi.co.in)

Compiled & Edited by the Communications Team