LIFE ENHANCEMENT SERVICES
STEEL
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AREA OF CONCERN
Feed legs are subjected to continuous flow of very abrasive material like Sinter, Iron Ore or DRI etc. Normal pipes wear out very fast. It is expensive affair to go for frequent shut downs and replace worn out pipes. That causes huge production losses and down time cost.

SOLUTION
Use of seamless pipes – eliminating possibility of puncture from joints – with internal hard-facing offer excellent resistance to sliding, abrasive wear. WOL for higher temperature applications are also available. The performance life is enhanced considerably.

APPLICATIONS
Feed legs, down comer pipes, Spool pipes, Feed Chutes used for Limes Stone, Clinker, Slag, DRI, Iron Ore, Sinter, Dolomite or Coal.

KEY PROCEDURE
• Procurement of seamless pipes & flanges (if involved)
• Carrying out WOL over inner surface by automatic, electronically controlled process (weld bead is longitudinal/axial)
• Flange fitting & finishing
• Inspection

SOME OF OUR END USERS
Almost all steel and cement plants across India.
AREA OF CONCERN
The body & rotor wears out due to heavy handling of material & it’s abrasiveness. The gap between rotor blades & body increases making it difficult to control feed rate and smooth operation of rotor.

SOLUTION
Refurbish the body and rotor with added features like use of ‘Hardox’ or ‘Enduraplates’ or ‘Cast-fused’ liners for enhanced resistance to severe abrasion. The performance life is enhanced considerably.

APPLICATIONS
Aerial Gas Distributor (AGD), Corex/Midrex Furnace, Quench Tower, Gas Cooling Tower (GCT), Blast Furnace Tuyers, Limes Stone, Clinker, Slag or Coal.

KEY PROCEDURE
- Material procurement, testing & inspection
- Cutting on CNC flame / plasma cutting machine
- Assembly & inspection
- Full welding
- Finishing
- Inspection

SOME OF OUR END USERS
Almost all steel and cement plants across India.
AREA OF CONCERN
All rolls are subjected to high, metal to metal, abrasion at higher temperatures. Rolls wear out and mostly scratches are generated during operation rendering these useless.

SOLUTION
It is required to have higher performance life to avoid frequent change. This can be achieved through higher metallurgical composition and hardness. Sometimes, when the wear is more, it is required to carry out rebuilding suitable to base material. All WOL is followed by PWHT.

APPLICATIONS
Plate mills, CCP, Galvanizing Line, Coke Crushing etc.

KEY PROCEDURE
- Material procurement, testing & inspection
- Undercut
- NDT of shaft & roller surface
- Weld Over lay
- PWHT
- Finished machining
- Inspection

SOME OF OUR END USERS
- JSW Steel Ltd.
- Jindal Stainless (Hisar) Ltd.
- Jindal Steel & Power Ltd.
- Jindal Stainless Ltd.
- Essar Steel India
- SAIL
**AREA OF CONCERN**
Converter Hood is a construction of number of tubes assembled together. Chilled water is circulated through these tubes to cool the hood. Tubes get thinned and then punctured due to severe abrasion at elevated temperatures caused by high velocity, airborne particles resulting into leakage in tubes and forcing a shutdown. Water if comes into contact with liquid metal, explodes and cause damage to human life as well as equipment.

**SOLUTION**
Abrasion resistant coating on inner surface of hood extends the performance life of tubes at the same time ensuring proper transfer of heat. Chances of tubes getting punctured frequently are reduced considerably. This ensures availability of equipment & safety to human & equipment – both. Old tubes (without puncture) or new tubes can be coated either on ground or ‘in-situ’.

**APPLICATIONS**
Bend, top or bottom parts of Converter Hood of LD.

**KEY PROCEDURE**
- Material procurement, testing & inspection
- Undercut
- NDT of shaft & roller surface
- Weld Overlay
- PWHT
- Finished machining
- Inspection

**SOME OF OUR END USERS**
- JSW Steel Ltd.
- Jindal Stainless (Hisar) Ltd.
- Jindal Steel & Power Ltd.
- Jindal Stainless Ltd.
- Essar Steel India
- SAIL
AREA OF CONCERN
Both Sinter Crusher Star and Grizzly Bars are subjected to severe abrasion at very high temperatures. The abrasiveness of Sinter kills these components and changing these very frequently affects the performance of crusher and warrants huge expenses on account of shut down.

SOLUTION
Manufacture of new Stars and Grizzly Bars is done by casting and rolled plates respectively. After finished machining, hard facing is carried out with FCW specially developed for such critical applications. The performance life is enhanced considerably.

KEY PROCEDURE
• Development of drawing & pattern
• Casting & Material procurement, testing & inspection
• Weld Overlay
• Finished machining
• Inspection

SOME OF OUR END USERS
• JSW Steel Ltd.
• Tata Steel Ltd.
• Bhushan Power & Steel Ltd.
**AREA OF CONCERN**
It is critical part of the Blast Furnace used to feed material and distribute it evenly into the furnace. Replacement is very time consuming and warrants shutdown of the one of the most critical unit in Steel making. Chute is subjected to impact of falling material, sliding abrasion and elevated temperature. The performance of the chute depends upon that of wear liners. Most of the time the extent of wear is such that even the mother plate gets punctured.

**SOLUTION**
Refurbish the body – repair punctured area, check ‘goose-neck’, manufacture new liners, new jackets & new heat shields, new fasteners.

Maintain alignment. Liners to be of ‘Hardox’ or ‘Enduraplates’ or ‘Cast-fused’ liners for enhanced resistance to severe abrasion. The performance life is enhanced considerably.

**APPLICATIONS**
All designs of Blast Furnaces.

**KEY PROCEDURE**
- Material procurement, testing & inspection
- Receipted inspection of chute
- Removal of old liners
- Repair of mother plate, goose neck
- Manufacture of new liners, struts, fasteners and cross bars
- Assembly of liners, struts & cross bars
- Finishing
- Inspection

**SOME OF OUR END USERS**
- Paul Wurth India Pvt. Ltd.
- JSW Steel Ltd.
- Bhushan Steel Ltd.
- SAIL
AREA OF CONCERN
Both, bells and hoppers act like valve allowing material entry into Blast Furnace and preventing escape of hot gas at the same time. During opening & closing of these, hot gas containing air borne particles cause abrasion on seating areas of Bell & Hopper. This wear causes gap between bell & hopper thus leakage of hot gas starts and that further detoriates the component.

SOLUTION
Refurbishment of bell & hopper includes rebuilding of worn out areas, mostly contact zone of bell & hopper and hard facing it specially developed alloy that offers very high hardness and machining – both. Burden area of hopper & bell is hard faced with an alloy that doesn't require machining. Static balancing and leakage test is carried out to ensure 100% matching of seats. The performance life is enhanced considerably.

APPLICATIONS
All blast furnaces with bell type design.

KEY PROCEDURE
• Material procurement, testing & inspection
• Undercut on seat areas of bell & hopper
• NDT of bell & hopper
• Weld Over lay over seat & burden area
• Finished machining
• Balancing
• Leakage test
• Inspection

SOME OF OUR END USERS
• SAIL
• Simplex Engineering & Foundry Works Private Ltd.
• Sunflag Iron and Steel Co. Ltd.
• Gerdau Steel India Pvt Ltd.
**AREA OF CONCERN**

It is used in Coal Washaries. When the gap becomes wider between the rotor and outer body, the efficiency goes down. Screws, tiles, and liners wear out due to the abrasiveness of coal. The gap between the rotor blades and body increases, making it difficult to control the feed rate and smooth operation of the rotor.

**SOLUTION**

Refurbish the body and rotor with added features like the use of ‘Hardox’ or ‘Enduraplates’ or ‘Cast-fused’ liners for enhanced resistance to severe abrasion. The performance life is enhanced considerably.

**APPLICATIONS**

Coal Washaries.

**KEY PROCEDURE**

- Dismantling
- Material procurement, testing & inspection
- Fabrication & welding
- Finished machining
- Fitting of wear-resistant liners
- Balancing
- NDT
- No-load trial

**SOME OF OUR END USERS**

- Tata Steel Ltd.
Throat Armour Plates are used in the throat of a Blast Furnace to protect the throat from in-flow of material which causes severe abrasion at elevated temperatures. Use of ordinary casting will not last longer and will have to be replaced very often.

**Solution**
Fabricated Throat Armour Plates with hard-faced surface will deliver excellent performance of the plate against wear. Use of added features like use of ‘Hardox’ or ‘Enduraplates’ or ‘Cast-fused’ liners for enhanced resistance to severe abrasion. The performance life is enhanced considerably.

**Applications**
All Blast Furnaces.

**Key Procedure**
- Material procurement, testing & inspection
- Cutting on CNC flame / plasma cutting machine
- Assembly & inspection
- Full welding
- Finishing
- Inspection

**Some of Our End Users**
Almost all steel and cement plants across India.
AREA OF CONCERN
Contact surface and collar of the wheel wears out vary fast to continuous, metal to metal rubbing. This makes the wheel weak which may break during operation or absence of collar make cause derailment and cause serious accident.

SOLUTION
Refurbishment of wheel is done by WOL process using suitable welding consumables and collar is also re-generated. Finished machining is done after proper PWHT. The hardness of the wheel is maintained between 40 to 42 HRC. This prevents further wear. The performance life is enhanced considerably.

APPLICATIONS
All rail wheels but mainly Ladle Car which is critical.

KEY PROCEDURE
- Material procurement, testing & inspection
- Undercut on OD & flange
- NDT
- Weld Overlay
- Finished machining

SOME OF OUR END USERS
- JSW Steel Ltd.
- SAIL
THE COMPANY
Ador Fontech Limited was incorporated on August 22, 1974 and set its course on repair welding from December 1, 1979. Initially, it started functioning as a trading unit under the banner of ‘Cosmics General Engineering’. Thereafter, a process was initiated to bring in the best of technology to India from across the globe. Through dint of application engineering, the Company enriched itself to become a manufacturing organisation and today, it is a total solution provider.

VISION
Our vision is to be considered as the partner of first choice by our customers.

MISSION
Our mission is to partner with our customers in implementing value-added reclamation, fusion, surfacing, spraying and environmental solutions.

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