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REPORT ON ENCLOSED SKIRTING SYSTEM

Report By,

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ABSTRACT

This report is to explore the effects and results after installation of FLEXCO Enclosed Skirting System in the Conveyor No: OF#06 in Sinter Plant(RMBB)to reduce down time of conveyor during belt jointing process while reducing spillage of material when the conveyor is in running condition and the subsequence activities carried out to observe the performance of the Enclosed Skirting System in coordination with Tata Steel Limited, Kalinganagar.

CHALLENGES

The conveyor number OF#06 in Sinter Plant(RMBB) was a critical conveyor and the existing skirting system was heavy ,bulky and was made from welded joints which made it difficult to dismantle as it had to be removed using gas cutter during dismantlement also the existing system was made up of Mild Steel plates which made it heavy and hence required a lot of man power and tools for the installation of it not to mention the longer time it required for the installation resulting in longer down time ,The existing system was also not able to arrest material spillage which caused loss in productivity and additional shutdowns and manpower to clean up the spillage material because of which Mr. Somanshu Vikram Singh ,Sr Manager –Mechanical maintenance .Sinter Plant(RMBB), approached FLEXCO for a solution following which FLEXCO performed thorough audit of the belt and recommended the use of Custom engineered enclosed skirting system with adjustable mounting arrangement for easy installation and Spillage reduction.

CONVEYOR DETAILS

Conveyor Number:	OF#06
Location:	PBB Building
Material Carrying:	Iron Ore Fines
Proceeding Conveyor	OF#04
Capacity (Design/Rated):	2700/1800
Belt Speed:	2 Mtr/Sec.
Belt Width:	1600
Take Up Type:	Screw Take Up
Joint Type:	Vulcanized
Total length of Skirting:	6.4 Mtr.

INSTALLATION

The Enclosed Skirting System was installed on 26/06/2019 and took around 11 Hrs for complete installation.

Installation Started At: 07:00 PM.



Installation Completed At: 06:00 AM.



DEMO INSTALLATION OF ENCLOSED SKIRTING SYSTEM

Following the installation of the Enclosed Skirting System a demo installation was conducted with an aim to verify the time taken for dismantlement and installation of the skirting system also to train the Tata technical personal on how to dismantle and install the system effectively.

Conveyor Number:	OF#06
Demo Date:	19/07/19
Date of Installation:	26/06/19
Number of people involved:	7 No's(Including Welder & Fitter)
Time taken for Dismantling & Installation:	2:30 Hrs.
Time taken for Dismantling	1:30 Hrs.
Time taken for Installation	1:00 Hrs.

Activities Details

Dismantling Started :	12:00 PM
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Dismantling Ended :

1:30 PM



Installation Started

1:40 PM



Installation Completed on:

2:40 PM



DIMSNTALMENT AND INSTALLATION DURING BELT JOINTING BY TATA PERSONAL

The skirt box was again dismantled and reinstalled during the belt jointing activities on 20/01/2020 under super vision of Mr.Bikash Dalei(702103),FMCSI. This took them 2 Hrs & 40 Minutes for the complete activity.

Date of Dismantlement & Installation:	20/01/2020 to 21/01/2020
Number of People Involved:	6 Nos. No welder or cutter wear needed
Tools Used:	Ratchet Spanner-1 Set, Hammer , Scaffolding.
Total Time Taken:	2:40 Hrs

Activity Details:

Dismantling Started at	3:00 PM on 20/01/19
Dismantling ended at	4:30 PM on 20/01/19
Time Taken:	1:30 Hrs.

Dismantling Started:



Installation Started at	3:15 PM on 21/01/19
Installation ended at	4:25 PM on 21/01/19
Time Taken:	1:10 Hrs.

Installation Started:



Installation ended:



SIGNED REPORT COPY FROM FMCSI & AREA MANAGER



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Dismantlement and Installation Report

Conveyor Number:	OF#06
Demo Date:	20/01/20 – 21/01/20
Date of Installation:	26/06/19
Number of people involved:	6 Nos. (No welder & Cutter wear required)
Total Time taken for Dismantling & Installation:	2:40 Hrs.
Time taken for Dismantling	1:30 Hrs.
Time taken for Installation	1:10 Hrs.
Tools Used	Ratchet Spanner-1 Set, Hammer, scaffolding
TSL representative FMCSI Personal	Mr. Bikash Dalei (702103)
TSL representative Area Maintenance Personal	Mr. Pratap Swain



Benifits Achived:

- Significant reduction in required time for Dismantling and installation of skirting system, The older system used to take 4 - 5 Hrs whereas FLEXCO skirting system taking 2:30 to 2:40 Hrs.
- Reduction in required manpower and required tools for the Dismantling and installation of skirting system.
- Significant reduction in Material spillage with little to no material spillage observed so far.

Bikash Dalei
For TSL, FMCSI
Dalei
702103

Pratap Swain
For TSL, Area Maintenance
701891

Remark:

- Dismantling and installation time can be reduced additional 25 – 30 % by using multiple pneumatic power wrench.
- Additional time can be saved by using the same-trained personal for the dismantling and installation of the skirting system.

Current Observation:

- No material spillage has been observed so far.
- Current running materials have been slurry and medium dry in nature, the system is under observation to look for change in performance under different type of materials if any.

CONCLUSION

The older skirting system used to take 4-5 Hours for Dismantling & Installation at best, The current FLEXCO Enclosed skirting system is taking 2 : 30 to 2:40 hours for dismantling and installation saving about 2 Hours ,Further time can be saved as Tata technical personals get more acquainted with the FLEXCO skirting system and use recommended tools for the future dismantling and installation of the skirting system.