

## Defect Details

<b>NC No.</b>	8000785226
<b>NC Date</b>	25/04/2022
<b>NC Submission Date</b>	
<b>Part No.</b>	F2FA15933M
<b>Part Name</b>	FORK PIPE MACHINED (K19 DRUM FF)
<b>Supplier Name &amp; Code</b>	100634-TATA STEEL LIMITED
<b>ETL Plant</b>	1126-ETL Pantnagar
<b>Defect Details</b>	CHAMFER NOT DONE-WRONG CHAMFER IDENTIFICATION -207 NOS.

## 1. Problem Description

<b>Defect Description</b>	Ring mark/step over identification marking on K-19 fork pipe
<b>Detection Stage</b>	Inprocess
<b>Problem Severity</b>	Aesthetic
<b>NG Quantity</b>	207
<b>Is Defect Repeatative?</b>	No
<b>Defect Sketch / Photo</b>	

## Supplier Communication Details

<b>Quality Head Email ID</b>	bipldholpur@gmail.com
<b>Plant Head/CEO Email ID</b>	anubhav.pandey@tatasteel.com
<b>MD Email ID</b>	Praveens@tatasteel.com

## 2. Stock Details &amp; action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
<b>Total Qty</b>	500	500	0	0	0	1000
<b>Check Qty</b>	500	500	0	0	0	1000
<b>NG Qty</b>	207	60	0	0	0	267

## Action taken on NG part

<b>Scrap</b>	267
<b>Rework</b>	0
<b>Under Deviation</b>	0

## Containment Action

Supply the next lot only after 100% inspection

## 3. Process Flow

## Process Flow Description

CNC 1st setup (Threading) - 13x1.5° Chamfer Opertaion

## 4. Process Details

<b>Process / Operation</b>	CNC Turning
<b>Outsource</b>	No
<b>Machine / Cell</b>	Macpower
<b>Machine / Cell No.</b>	3

## 5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Method	Improper chamfer or angle in dimension 13x1.5°	In dimension 13x1.5°, ring mark/step up mark may generate at the end of chamfer due to lower angle	X
Man	Untrained Operator/Inspector	Operator/Inspector not fully aware if this is visible after Grinding operation	X
Material	No probable root cause related to material	Input material is as per specification	O
Machine	No probable root cause related to machine	Machine operating as per given program	O

## 6. Inspection Method Analysis (Current)

<b>Inspection Method</b>	Other
<b>Other Inspection Method</b>	Visual
<b>Check Point at Final Inspection</b>	Yes
<b>Checking Freq.</b>	Sampling
<b>Sampling</b>	No
<b>Sample Size</b>	5

## 7. Root Cause Analysis (Occurance)

<b>Why 1</b>	Ring mark/step mark visible after grinding process
<b>Why 2</b>	Step mark generate during chamfer operation 13x1.5°
<b>Why 3</b>	Due to lower angle i.e. 1.5°
<b>Why 4</b>	
<b>Why 5</b>	
<b>Root Cause (Occurance)</b>	Due to lower angle i.e. 1.5°

## Root Cause Analysis (Outflow)

<b>Why 1</b>	Ring mark/step mark visible after grinding process
<b>Why 2</b>	Not detected during in-house inspection
<b>Why 3</b>	Not aware if this is visible after grinding process
<b>Why 4</b>	
<b>Why 5</b>	
<b>Root Cause (Outflow)</b>	Not aware if this is visible after grinding process

## 8. Countermeasure ( Occurrence , Outflow & System side Actions )

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Outflow	100 % Visual inspection for Ring/step mark	Pankaj	29/05/2022	29/04/2022	Completed
Occurance	After sample submission and further approval from ETL QA, dimension 13x1.5° changed to 13x1°55'	Pankaj	29/04/2022	29/04/2022	Completed

## 9. Inspection Method After Customer Complaint

<b>Change In Inspection System</b>	Yes
<b>Change Details</b>	100%
<b>Inspection Method</b>	Other
<b>Other Inspection Method</b>	Visual
<b>Check Point at Final Inspection</b>	Yes
<b>Checking Freq.</b>	100%
<b>Sampling</b>	No
<b>Sample Size</b>	100%

## 10. Evidence of Countermeasure

<b>Occurance (Before)</b>	Dimension 13x1.5° <a href="#">74_Occurance_Before.pdf</a>
<b>Occurance (After)</b>	Dimension 13x1°55` <a href="#">74_Occurance_After.png</a>
<b>Outflow (Before)</b>	Inspection not done for Ring/Step mark <a href="#">74_Outflow_Before.jpg</a>
<b>Outflow (After)</b>	100 % Visual inspection for Ring/Step mark <a href="#">74_Outflow_After.pdf</a>

## 11. Horizontal Deployment

<b>Horizontal Deployment Required</b>	Yes
<b>Applicable Machine / Model / Plant</b>	K19 and K1 UG

## 12. Document Review

<b>Documents</b>	Drawing
<b>Specify Other Document</b>	NA

## 13. Effectiveness Of Action

<b>Reviewed Quantity</b>	1
<b>Reason for submission</b>	OK

