QFR No - 8000873533

Defect Details

NC No.	8000873533
NC Date	06/05/2024
NC Submission Date	
Part No.	550DZ04002
Part Name	FORK BOLT - 5TSF
Supplier Name & Code	100189-SANGKAJ STEEL PVT LTD.
ETL Plant	1117-ETL K-228/9 Suspension
Defect Details	NOT AS PER SPECIFICATION-THREAD MISSING

1. Problem Description

Defect Description	THREAD MISSING
Detection Stage	Inprocess
Problem Severity	Fitment
NG Quantity	4
Is Defect Repeatative?	Yes
Defect Sketch / Photo	

Supplier Communication Details

Quality Head Email ID	qualityassurance@sangkaj.com
Plant Head/CEO Email ID	steel@sangkaj.com
MD Email ID	anirudh.2007@hotmail.com

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	0	0	0	700	0	700
Check Qty	0	0	0	700	0	700
NG Qty	0	0	0	1	0	1

Action taken on NG part

Scrap	1
Rework	0
Under Deviation	0

Containment Action
Sangkaj Steel End all FG Material Segregated and no NG Qty found. No material available at customer end.

3. Process Flow

Process Flow Description
RM Inward-RM Inspection-Traub Machining-Grinding-Milling-Deburring-Tapping-Rolling-Plating-FInal Inspection-Dispatch

4. Process Details

Process / Operation	Thread Rolling
Outsource	No
Machine / Cell	Thread Rolling Machine
Machine / Cell No.	01

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Man	New operator	Thread Rolling done by Experienced Operator	O
Method	Inadequate Inspection Method	Threads are Checked Visually Only	X
Material	Input Material not OK	Input material having Pre-roll Diameter within Specification,	O
Tool	Tool Wear out	Thread Rolls life was not Over, Resharpening done Recently	O
Method	Setup Part Mix up	operator Setting method observed unsatisfactory, this may have lead to setup piece mix-up	X

6. Inspection Method Analysis (Current)

Inspection Method	Other
Other Inspection Method	Visual Inspection
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	100%

7. Root Cause Analysis (Occurance)

Why 1	Threading Washout Parts Found at Customer End
Why 2	Threads Not Completely formed during Rolling
Why 3	While Setting Full Pressure not Applied on Parts
Why 4	Setting Parts produced on Low Pressure not kept Separately and got mixed up with OK parts after Setting.
Why 5	
Root Cause (Occurance)	Setting Parts Mix-up

Root Cause Analysis (Outflow)

Why 1	Threading Washout Parts Found at Customer End
Why 2	Threads Washout parts skipped from Final Inspection
Why 3	threads are checked Visually only & in visual inspection inspector not able to arrest such parts.
Why 4	Single Inspector Need to check multiple parameters related to aesthetics` along with threading
Why 5	Inspection Method is not proper.
Root Cause (Outflow)	Inspection Method is not proper.

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Outflow	During Visual Inspection, single Inspector checks for all visual Defects Including threading, due to this by mistake defective threading Parts skips to customer End. To avoid this one more Inspector is Deputed for inspection of threading. Along with Visual Inspection 100% major Diameter Inspection with PRG will be done.	MR. Anil Chaudhari	13/05/2024	13/05/2024	Completed
Occurance	On thread Rolling Machine, Closed bins for Rejection & Rework are Provided having One way Entry. Operator will keep the Setup Parts in these bins depending on Inspection Result. As these bins are for one way entry only, reduces the chances Part Mix-up. Also Instructions given to Operator to take part for setting identified with red paint to get it recognized visually if by mistake got mixed up in ok parts.	Mr. Anil Chaudhari	15/05/2024		Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	100% threading Major Dia. Inspection with Ring gauge of 25.65mm
Inspection Method	Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	100%

10. Evidance of Countermeasure

Occurance (Before)	During Setup, Operator Directly mix Setup Pieces in regular ok material. 786_Occurance_Before.pptx
Occurance (After)	Closed Rework & Rejection bins having one way Entry are Provided on Machines. Also part taken for Setup to be identified with Red Paint to make it visually recognizable in OK parts. 786_Occurance_After.pptx
Outflow (Before)	Only Visual Inspection is done for Threading 786_Outflow_Before.pptx
Outflow (After)	Inspection Method is changed, 100% Inspection of major Diameter is Implemented 786_Outflow_After.pptx

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	All Fork Bolt having M26X1-6g threading

12. Document Review

Documents	ControlPlan, WISOP, InspCheckSheet
Specify Other Document	None

13. Effectiveness Of Action

Reviewed Quantity	150
Reason for submission	OK