QFR No - 8000895939

Defect Details

NC No.	8000895939
NC Date	17/10/2024
NC Submission Date	
Part No.	F2DZ04603B
Part Name	FORK BOLT J1A & J1D
Supplier Name & Code	100189-SANGKAJ STEEL PVT LTD.
ETL Plant	1117-ETL K-228/9 Suspension
Defect Details	NOT AS PER SPECIFICATION-GROOVE WITH UNDER SIZE

1. Problem Description

Defect Description	Groove width undersize Specification: 4.5 +0.2 Observation: 2.88
Detection Stage	Inprocess
Problem Severity	Fitment
NG Quantity	1
Is Defect Repeatative?	No
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	288	0	0	550	300	1138
Check Qty	288	0	0	550	300	1138
NG Qty	0	0	0	0	0	0

Action taken on NG part

Scrap	0
Rework	0
Under Deviation	0

Containment Action
All the Material at Endurance & at sangkaj steel checked and no NG part Found

3. Process Flow

Process Flow Description
RM Inward and inward Inspection-Wire Drawing-Straightening-Bar Parting-CNC 1st- CNC2nd-Milling-Tapping-plating-Final Inspection-Packing & Dispatch

4. Process Details

Process / Operation	CNC turning 2nd
Outsource	Yes
Machine / Cell	CNC Machine
Machine / Cell No.	2

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Tool	Insert Broken	Defective piece observed with groove width undersize by1.62mm, which occures only after insert break	X
Man	New operator	Regular and Experienced operator Dployed for Production.	O
Material	Input Material Not OK	Cut Blanks found ok as all the blanks are cut through same bar.	O
Machine	Variation due to machine	Variation due to Machine not Causes dimension undersize by 1.62mm	O
Method	Less Sampling Size	Groove width is checked with width gauge on Sampling basis.	X

6. Inspection Method Analysis (Current)

Inspection Method	Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	Sampling
Sampling	No
Sample Size	10:100

7. Root Cause Analysis (Occurance)

Why 1	Groove Width Undersize Part Found at Customer End
Why 2	Incomplete Operation is done during Grooving.
Why 3	Insert Broken before the Set Tool Life.
Why 4	
Why 5	
Root Cause (Occurance)	Insert Broken before the Set Tool Life.

Root Cause Analysis (Outflow)

Why 1	Groove Width Undersize Part Found at Customer End
Why 2	Defective Parts Skipped from the Final Inspection
Why 3	Part Checked on Sampling basis with slip type width gauge.
Why 4	Less Sampling Size
Why 5	
Root Cause (Outflow)	Less Sampling Size during Final Inspection.

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Occurance	Revalidation of Insert Life is done by varying the Process Parameters. Previous set Life was 800 No`s Per Side. By Setting the Process Parameters at extreme limit of their Specification, the new Insert Life set is 700 No`s.	Mr. Santosh Raut	22/10/2024	22/10/2024	Completed
Outflow	Inspection method Changed. 100% Inspection of Groove with Slip type Width Gauge is done During the Final Inspection.	Mr. A.A. Joshi	22/10/2024	22/10/2024	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	100% inspection of Groove with Slip type WIdth Gauge.
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)	Tool Life-800 Nos 1157_Occurance_Before.pptx
Occurance (After)	Tool Life -700 Nos 1157_Occurance_After.pptx
Outflow (Before)	Inspection on Sampling Basis 1157_Outflow_Before.pptx
Outflow (After)	100% Inspection with Width gauge 1157_Outflow_After.pptx

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	Fork Bolt AABM

12. Document Review

Documents	ControlPlan, InspCheckSheet
Specify Other Document	No Other

13. Effectiveness Of Action

Reviewed Quantity	50
Reason for submission	Interlocking required for tool breakage