QFR No - 8000866611

Defect Details

NC No.	8000866611
NC Date	12/03/2024
NC Submission Date	
Part No.	F2FA19033M
Part Name	K0PG FORK PIPE MACHINED
Supplier Name & Code	101109-TUBE INVESTMENTS OF INDIA LIMI
ETL Plant	1136-ETL Suspension Sanand
Defect Details	DIMN.U/SIZE.-DIM 3+0.1 MM DISTANCE NG

1. Problem Description

Defect Description	Dim 3+0.1 mm observed 2.80 mm (undersize)
Detection Stage	Inprocess
Problem Severity	Fitment
NG Quantity	300
Is Defect Repeatative?	No
Defect Sketch / Photo	

Supplier Communication Details

Quality Head Email ID	anandms@tii.murugappa.com
Plant Head/CEO Email ID	girisha@tii.murugappa.com
MD Email ID	mukeshahuja@tii.murugappa.com

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	3000	0	0	1000	500	4500
Check Qty	3000	0	0	1000	500	4500
NG Qty	300	0	0	0	0	300

Action taken on NG part

Scrap	300
Rework	0
Under Deviation	0

Containment Action
material Checked 100 % for Defective Parameter with Identification Marking

3. Process Flow

Process Flow Description
Raw Inward Inspection - CNC Machining - Drilling Operation - Deburring Operation - Oiling - Final Inspection - PDIR - Dispatch.

4. Process Details

Process / Operation	CNC Machining
Outsource	No
Machine / Cell	cell No -6
Machine / Cell No.	Cell No -6

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Material	Raw Material ID Undersize	Verified Records & No Issue with Raw tube ID issue found	O
Man	operator Skill	Verified through Gemba observation and found Operator Skill with Minimum Level as per Matrix	X
Machine	More offset limit	Checked In Machine Parameter & found ware offset limit to 0.3 mm	X
Tool	Tool Damage	Verified through Simulation and found that ID mark/scoring mark generated	O

6. Inspection Method Analysis (Current)

Inspection Method	Instrument
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	Sampling
Sampling	No
Sample Size	PDIR

7. Root Cause Analysis (Occurance)

Why 1	Dim. 3+0.1 distance u/s found at customer end
Why 2	ID Chamfer Length 1 mm observed 0.80 mm
Why 3	Total ID Depth found shift in Z –axis in CNC machining
Why 4	Excess offset of 0.2 mm given in Z-axis in CNC machining
Why 5	Manual error in offset Input against 0.02 mm given 0.2 mm.
Root Cause (Occurance)	Simen based control CNC M/c ware offset Limit is 0.3 mm.

Root Cause Analysis (Outflow)

Why 1	Dim. 3+0.1 distance u/s found at customer end
Why 2	ID Chamfer Length 1 mm observed 0.80 mm
Why 3	Total ID Depth found shift in Z –axis in CNC machining
Why 4	Not detected during final inspection
Why 5	Inspection done as per sampling plan
Root Cause (Outflow)	Inspection was done on sampling basis.

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Occurance	Point added in Hourly inspection for Inspection with Vernier for Dim 3 mm.& range Define for Vernier Inspection	MR. Abishak Yadav	12/04/2024	12/04/2024	Completed
Occurance	Discussed with Simen Controller Manufactures for reduced ware offset limit , denied to change , Training given to Supervisor & operators for offset giving & need to check part for 3 mm dim after every offset given in Z-axis.	Mr. Palak Shah	13/04/2024	12/04/2024	Completed
Outflow	Inspection Point added in Final Inspection for Visual Inspection with Master OK & NG Part Displayed at Inspection Table.	Mr. Abishek Yadav	13/04/2024	12/04/2024	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	100% Visual Inspection at final Inspection with compare with OK & NG Part.
Inspection Method	Other
Other Inspection Method	Visual Inspection
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	100 %

10. Evidance of Countermeasure

Occurance (Before)	Hourly inspection for Inspection with Vernier for Dim 3 mm.& NO range Define for Vernier Inspection 711_Occurance_Before.pptx
Occurance (After)	Hourly inspection for Inspection with Vernier for Dim 3 mm.& range Define for Vernier Inspection 711_Occurance_After.pptx
Outflow (Before)	No Inspection Point added in Final Inspection for Visual Inspection & No Defect Samples Displayed 711_Outflow_Before.pptx
Outflow (After)	Inspection Point added in Final Inspection for Visual Inspection & Defect Samples Displayed 711_Outflow_After.pptx

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	K86 -A

12. Document Review

Documents	InspCheckSheet
Specify Other Document	NO

13. Effectiveness Of Action

Reviewed Quantity	5
Reason for submission	DIMN.U/SIZE.-DIM 3+0.1 MM DISTANCE NG.