QFR No - 7001034092

Defect Details

NC No.	7001034092
NC Date	16/07/2024
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	DIMETER UNDERSIZE-OD Groove Dia undersize

1. Problem Description

Defect Description	Groove OD undersize 28.2-0.2 observed 27.85 mm
Detection Stage	Inprocess
Problem Severity	Fitment
NG Quantity	53
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	1500	0	0	500	500	2500
Check Qty	1500	0	0	500	500	2500
NG Qty	53	0	0	0	0	53

Action taken on NG part

Scrap	53
Rework	0
Under Deviation	0

Containment Action
All available material at ETL end & In-house are re - inspected with Snap Gauge.

3. Process Flow

Process Flow Description
INWARD - CNC MACHINING - DRILLING - DIBURRING - FINAL INSPECTION - PACKING - DISPATCH TO ETL.

4. Process Details

Process / Operation	CNC Machining
Outsource	No
Machine / Cell	Cell No -3
Machine / Cell No.	Cell No -3

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Method	Inspection Frequency	Verified records and observed that component inspected at the time of setup & every Hour	O
Tool	Insert Broken	discussion with operator there was insert broken incidence. Operator has not checked parts produced	X
Method	Machining Parameter	Verified through Gemba observation and found all Machine Parameter as per Control Plan	O
Material	Raw tube OD U/s	Verified & found ok	O

6. Inspection Method Analysis (Current)

Inspection Method	Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	Sampling
Sampling	No
Sample Size	5 nos Hour

7. Root Cause Analysis (Occurance)

Why 1	Groove OD Dim. 28.2-0.2 mm found under size observed 27.85 mm at Customer end.
Why 2	Groove OD Dim. 28.2-0.2 mm under size during CNC Machining process due to CNC Insert Point broken before changing frequency.
Why 3	due to burr/ chips interrupted bet Insert point & material
Why 4	Insufficient coolant flow on insert point.
Why 5	Coolant pipe partially chock -up.
Root Cause (Occurance)	Coolant pipe partially chock -up.

Root Cause Analysis (Outflow)

Why 1	Groove OD Dim. 28.2-0.2 mm found under size observed 27.85 mm at Customer end.
Why 2	Escape from Inspection
Why 3	No inspection at Final Inspection for groove OD Size.
Why 4	
Why 5	
Root Cause (Outflow)	No inspection at Final Inspection for groove OD Size.

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Outflow	inspection point added at Final Inspection for groove OD Size on sampling basis with snap Gauge	Mr. Abishek Yadav	02/08/2024	22/07/2024	Completed
Occurance	Coolant pipe choke -up corrected.	Mr. Palak	02/08/2024	22/07/2024	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	inspection point added at Final Inspection for groove OD Size on sampling basis with snap Gauge
Inspection Method	Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	Sampling
Sampling	No
Sample Size	after 5 no

10. Evidance of Countermeasure

Occurance (Before)	Coolant pipe Partially Choke -up. 942_Occurance_Before.pptx
Occurance (After)	Coolant pipe Partially Choke -up cleared 942_Occurance_After.pptx
Outflow (Before)	No Inspection at Final Inspection 942_Outflow_Before.pptx
Outflow (After)	Quality alert displayed at Final Inspection for Check after every 05 Nos with snap gauge & Training provided for inspector & operator. 942_Outflow_After.pptx

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	K-86 -A

12. Document Review

Documents	WISOP
Specify Other Document	NO

13. Effectiveness Of Action

Reviewed Quantity	5
Reason for submission	Groove OD undersize 28.2-0.2 observed 27.85 mm