

Defect Details

NC No.	7000985666
NC Date	14/02/2024
NC Submission Date	
Part No.	F1FA01333M
Part Name	FORK PIPE MACHINED-K86A
Supplier Name & Code	101109-TUBE INVESTMENTS OF INDIA LIMI
ETL Plant	1136-ETL Suspension Sanand
Defect Details	LENGTH UNDERSIZE-(Short length)

1. Problem Description

Defect Description	Length undersize 287.89 mm against specification 288.3+0.2/-0.2.
Detection Stage	Receipt
Problem Severity	Fitment
NG Quantity	215
Is Defect Repeatative?	Yes
Defect Sketch / Photo	

Supplier Communication Details

Quality Head Email ID	SushantJadhav@tii.murugappa.com
Plant Head/CEO Email ID	BhatnagarS@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	2500	0	0	1500	0	4000
Check Qty	2500	0	0	1500	0	4000
NG Qty	215	0	0	12	0	227

Action taken on NG part

Scrap	227
Rework	0
Under Deviation	0

Containment Action

100% inspection done for Tube Total Length on Height Gauge.

3. Process Flow

Process Flow Description

RM - CNC MACHINING - DRILLING - Deburring - Inspection - Bin Packing - Dispatch.

4. Process Details

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

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Material	Raw tube OD U/s	Verified Records & found ok	O
Man	Tube come back due to Back Pressure	Verified through Gamba & found Tube come back due to Back Pressure. Operator has to Judge for resting	X
Man	SOP not Followed	Verified through Gemba observation and found Operator has followed the SOP.	O
Machine	Machine Parameter	Verified through Gemba observation and found all Machine Parameter as per Control Plan	O
Method	Wrong Setup	Verified Setup Repots & found OK.	O

6. Inspection Method Analysis (Current)

Inspection Method	Pokayoke
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	Sampling
Sampling	No
Sample Size	10 Nos

7. Root Cause Analysis (Occurance)

Why 1	Length under size found at customer end
Why 2	Excess Material cut during Tube facing operation in CNC Machining.
Why 3	Tube hold away from Stopper.
Why 4	Tube come back due to Back Pressure. Operator has to Judge for resting on Stopper.
Why 5	Low awareness of Operator.
Root Cause (Occurance)	Low awareness of Operator for proper Tube resting on Stopper.

Root Cause Analysis (Outflow)

Why 1	Length under size found at customer end
Why 2	Short length not detected By Sensor on Drilling M/c
Why 3	Drilling Fixture Poka -Yoke Senor Malfunction.
Why 4	
Why 5	

Root Cause (Outflow)

Drilling Fixture Poka -Yoke Sensor Malfunction.

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Outflow	In Final Inspection added for 100 % Inspection with Conventional Length Gauge for Next 3 Months	Mr. Palak Shah	28/02/2024	08/03/2024	Completed
Occurance	Training given to Operator for How to butting the Tube so Tube will not come Back from Stopper.	Mr. Abishek Yadav	27/02/2024	08/03/2024	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	In Final Inspection added for 100 % Inspection with Conventional Length Gauge for Next 3 Month.
Inspection Method	Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	100%

10. Evidence of Countermeasure

Occurance (Before)	Low awareness to the Operator regarding proper Tube resting on the Stopper. 678_Occurance_Before.pdf
Occurance (After)	awareness to the Operator regarding proper Tube resting on the Stopper. 678_Occurance_After.pdf
Outflow (Before)	Drilling Fixture Poka -Yoke Sensor Malfunction. 678_Outflow_Before.pdf
Outflow (After)	In addition to the Existing poka yoke, the Length inspection started on length Gauge & Started the 100% Length Verification with Length gauge. 678_Outflow_After.pdf

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	K86

12. Document Review

Documents	
Specify Other Document	OPL

13. Effectiveness Of Action

Reviewed Quantity

5

Reason for submission

Total length undersize problem in fork pipe K86