QFR No - 8000827009

Defect Details

NC No.	8000827009
NC Date	22/04/2023
NC Submission Date	
Part No.	520LZ01612
Part Name	SPACER
Supplier Name & Code	100106-SHARP ENGINEERS.
ETL Plant	1116-ETL K-120 Suspension
Defect Details	M/CING SHIFT.-MACHINING SHIFT

1. Problem Description

Defect Description	Wall thickness variation observed up to 0.15mm. (Inner dia. drilling cross observed.)
Detection Stage	Receipt
Problem Severity	Fitment
NG Quantity	351
Is Defect Repeatative?	No
Defect Sketch / Photo	

Supplier Communication Details

Quality Head Email ID	quality@apw3.co.in
Plant Head/CEO Email ID	kurund.ma@sharp-engineers.com
MD Email ID	urkhandelwal@sharp-engineers.com

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	10000	0	0	4000	0	14000
Check Qty	10000	0	0	4000	0	14000
NG Qty	351	0	0	90	0	441

Action taken on NG part

Scrap	441
Rework	0
Under Deviation	0

Containment Action
Segregation done at ETL and in-house pipeline material immediately and defective part removed from OK parts.

3. Process Flow

Process Flow Description
10) RM Inward 20) Parting and Drilling 30) Reamer ID Ø20 40) Chamfering (Both side) 50) Plating (Outsource) 60) Final Inspection 70) Pre-dispatch Inspection 80) Packing & Dispatch

4. Process Details

Process / Operation	Parting and Drilling operation
Outsource	No
Machine / Cell	SE/A/07
Machine / Cell No.	Traub Machine

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Material	Incorrect RM grade	Third part inspection verified for chemical composition and hardness testing as per requirement.	O
Method	Checking method wrong	yes part checked by PPG and snap gauge which is not suitable for concentricity.	X
Tool	Tool worn out	Tool life for all the tool i.e. forming tool, drill, tap and insert are defined and recorded as per	O
Man	Un-skilled operator and inspector	Semi-skilled operator	X
Machine	Inadequate check Point in JH check sheet	Monthly JH check sheet available on machine and all the check point is being checked and recorded as	O

6. Inspection Method Analysis (Current)

Inspection Method	Sp. Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	1:1

7. Root Cause Analysis (Occurance)

Why 1	M/CING SHIFT.-MACHINING SHIFT (Concentricity not ok)
Why 2	Improper resting at reamer operation stage
Why 3	Burr/Chip placed inside the reaming fixture.
Why 4	Burr cleaning not done properly.
Why 5	Burr cleaning by wire brush (need burr cleaning by pneumatic air pressure upto 4 Bar)
Root Cause (Occurance)	Burr cleaning by wire brush (need burr cleaning by pneumatic air pressure upto 4 Bar)

Root Cause Analysis (Outflow)

Why 1	Concentricity not ok part reached at ETL
Why 2	Parts checked wrong by method
Why 3	Parts checked by PPG and snap gauge.
Why 4	Special concentricity checking gauge not available.

Why 5	Checking method design by system.
Root Cause (Outflow)	Parts checked wrong by method (Special concentricity checking gauge not available because of Checking method design by system.

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Outflow	Special concentricity checking gauge for Ø20.0 and 22.0 will be provided for 100% checking. on job training given to inspectors and check point added in OPL.	Mr. Shaikh L.N.	15/05/2023	30/05/2023	Completed
Occurance	Pneumatic gun provided along with 4 bar air pressure for reamer fixture cleaning, on job training given to operator and OPL displayed on reamer machine for awareness purpose.	Mr. Datta Pandhre	08/05/2023	25/05/2023	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	Parts will be checked by special concentricity gauge in place of PPG and snap gauge.
Inspection Method	Sp. Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	1:1

10. Evidance of Countermeasure

Occurance (Before)	Burr cleaning by wire brush (need burr cleaning by pneumatic air pressure up to 4 Bar) air pressure for burr removing/cleaning. 429_Occurance_Before.jpg
Occurance (After)	Pneumatic gun provided along with 4 bar air pressure for reamer fixture cleaning. on job training given to operator and OPL displayed on reamer machine for awareness purpose. 429_Occurance_After.jpg
Outflow (Before)	Parts checked by wrong method by PPG and snap gauge (Special concentricity checking gauge not available because of checking method design by system. 429_Outflow_Before.jpg
Outflow (After)	Special concentricity checking gauge for Ø20.0 and 22.0 will be provided for 100% checking. on job training given to inspectors and check point added in the OPL. 429_Outflow_After.jpg

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	NA

12. Document Review

Documents	ControlPlan, PFMEA, WISOP, InspCheckSheet
Specify Other Document	NA

13. Effectiveness Of Action

Reviewed Quantity	1500
Reason for submission	Control Plans found updated.