QFR No - 8000874017

Defect Details

NC No.	8000874017
NC Date	11/05/2024
NC Submission Date	
Part No.	F800500507
Part Name	UNDER BRACKET ASSEMBLY
Supplier Name & Code	100061-BAJAJSONS LIMITED
ETL Plant	1126-ETL Pantnagar
Defect Details	THREADING MISSING-M10 THRAED MISS

1. Problem Description

Defect Description	M10 Thread Miss in Steering Shaft Bush
Detection Stage	Customer End
Problem Severity	Fitment
NG Quantity	1
Is Defect Repeatative?	Yes
Defect Sketch / Photo	

Supplier Communication Details

Quality Head Email ID	kasingh@bajajsons.com
Plant Head/CEO Email ID	crbansal@bajajsons.com
MD Email ID	sanjay.bajaj@bajajsons.com

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	440	200	0	0	100	740
Check Qty	200	0	0	0	100	300
NG Qty	1	0	0	0	0	1

Action taken on NG part

Scrap	1
Rework	0
Under Deviation	0

Containment Action
All customer end material 440 pcs. hold for re-inspection & checked 180 pcs. and found all material ok. Warehouse Qty. 200 pcs. will re-check before dispatch to ETL. No material in our End & transit

3. Process Flow

Process Flow Description
Press fitting-Mig Welding-Carbon cleaning-Fine boring-Countering at side bore-Slitting-Broaching or deburring-Counter at hole dia 10.5 & 8.8mm-Manual deburring- Phosphating & powder coating-Bore Opening-M6 tapping-M10x1.25 tapping-M6 Tapping-M10x1.25 bush tapping-Parallelism inspection- Die passout-Final inspection-PDI-Packing & dispatch

4. Process Details

Process / Operation	Bush Tapping M10x1.25
Outsource	No
Machine / Cell	Tapping machine (BDM)
Machine / Cell No.	BDM-11

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Machine	Machine spindle jam	Machine condition is ok	O
Material	Bush Material grade NG	Material is being used as defined grade	O
Method	Improper handling NC parts during inspection	During verification found that NC area was defined & followed	O
Man	Unskilled manpower	Skilled manpower deployed for tapping & inspection	O
Method	Part did not load on fixture for tapping	During verification found that single trolley used at tapping process, chances of part skipped	X
Method	PFD not followed during machining process	During verification found that material run as per sequence	O
Man	Not Follow up the SOP	During verification found that inspection is being done as per defined SOP	O
Method	More then one activities by one checker	During verification & found that more then one activity done during short manpower in Apr,24	X
Tool	Tap wear out	Tool monitoring done as defined	O

6. Inspection Method Analysis (Current)

Inspection Method	Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	5Pcs./Lot

7. Root Cause Analysis (Occurance)

Why 1	Without tapping part reached at next stage
Why 2	Tapping done & without tapping part mix up
Why 3	Mix up due to single trolley used
Why 4	Single trolley used due to less space for input & output trolley at tapping machine
Why 5	Machine lay-out constrain
Root Cause (Occurance)	Machine lay-out constrain

Root Cause Analysis (Outflow)

Why 1	Without tapping part skipped from tapping inspection stage of F.I.
Why 2	Checked & without checked parameters part mix-up
Why 3	No marking done after each parameter inspection
Why 4	Marking after inspection was not defined
Why 5	Earlier no such type activities was defined for more then one activities for one checker
Root Cause (Outflow)	No marking done after each parameter inspection , resulting without tapping inspection part skipped & reached at customer end

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Outflow	OPL made & awareness given to final inspection checker that he will do marking with green paint marker after ensure tapping presence if he will more then one parameters	Mr Irfan	13/05/2024	13/05/2024	Completed
Occurance	Shooter provision to be add at tapping machine for material movement to cover up the space constrain	Mr. Jasbir Singh	25/05/2024	29/05/2024	Completed
Occurance	OJT made & awareness given to all concern for 100% inspection before material move to next stage by machine operator	Mr. Jasbir	13/05/2024	13/05/2024	Completed
Occurance	Poke-yoke provision feasibility to be check after review the sequence change if any	Mr. Harpal Singh	25/05/2024	29/05/2024	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	Green dot marking started after ensure the tapping presence
Inspection Method	Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	05Pcs/Lot

10. Evidance of Countermeasure

Occurance (Before)	Single trolley is being used for bush tapping process, chances of tapping miss during part taking & loading at trolley from one trolley 801_Occurance_Before.jpg
Occurance (After)	Tray type provision will implemented at tapping machines for material material to next stage, At 1st tapping Input will take from trolley & after that material will move at tray as proposed. Secondly tapping sequence will review again for poke-yoke provision to detect tapping miss issue 801_Occurance_After.jpg
Outflow (Before)	There was no marking after inspection , In this case more then one parameters checked by checker , resulting part move to next stage because no marking was there after inspected parameters 801_Outflow_Before.jpg
Outflow (After)	Green dot marking started after inspection, if single parameter inspection or more then one parameters inspection.(Only one bush hole tapping is checked by checker and other checker checking two tapping left and right side as in bracket. thats why there is no load on bush tapping checker for green marking) 801_Outflow_After.pdf

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	K-19,K3,K17AB,K17E ,E101B , U101 & Avenger

12. Document Review

Documents	PFMEA, WISOP, InspCheckSheet
Specify Other Document	N/A

13. Effectiveness Of Action

Reviewed Quantity	1
Reason for submission	1. In Occurrence side in Before and After photographs, No change seen. 2. In Occurrence side the Root cause is Machine Layout Constraint, So what Action you have taken for same. 3. In Outflow side the cause seen is that the Final Inspector was overloaded, who is doing multiple activities, earlier multiple activities not carried by one person, then you have added further marking activity, which increase his load also. Then How you assure that only addition of marking will resolve the problem. 4. As this is the Customer complaint for us, But you have shared only Manual controls, Have you initiated any activity for the automated controls for generation and Inspection of these type of Defects.