QFR No - 8000796864

Defect Details

NC No.	8000796864
NC Date	26/07/2022
NC Submission Date	
Part No.	F800500507
Part Name	UNDER BRACKET ASSEMBLY
Supplier Name & Code	100060-A.G.TRANSMISSIONS
ETL Plant	1117-ETL K-228/9 Suspension
Defect Details	NOT AS PER SPECIFICATION-BUSH WEDLING FAILURE

1. Problem Description

Defect Description	BUSH WELDING FAILURE IN UNDER BRACKET K1
Detection Stage	Customer End
Problem Severity	Safety
NG Quantity	1
Is Defect Repeatative?	Yes
Defect Sketch / Photo	

Supplier Communication Details

Quality Head Email ID	ymoraskar@agtransmissionsindia.com
Plant Head/CEO Email ID	agforge@rediffmail.com
MD Email ID	agtransmissions@rediffmail.com

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	745	1050	0	450	0	2245
Check Qty	745	1050	0	450	0	2245
NG Qty	745	1050	0	450	0	2245

Action taken on NG part

Scrap	2245
Rework	0
Under Deviation	0

Containment Action
We have done 100% inspection at our end, by recalling suspected lot. Then 2245 Nos. shafts are done scrap.

3. Process Flow

Process Flow Description
Forging Incoming, Bracket Machining, Shaft Machining, Insert Pressing & welding, Shaft Machining, Assembly Welding, Powder Coating, Tapping, Fine Boring, Final Inspection

4. Process Details

Process / Operation	Insert Pressing & welding
Outsource	No
Machine / Cell	Welding Machine
Machine / Cell No.	WT-03

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Method	Setting SOP not followed	SOP Followed	O
Machine	Current Voltage Setting	Current Voltage Setting found OK	O
Material	Shaft I. D.	Shaft I. D. found OK	O
Material	Shaft O. D.	Shaft O. D.	O
Machine	Poor Welding Penetration	Poor Welding Penetration found OK	O
Machine	Gas flow	Gas flow found OK	O
Machine	Gun angle	Gun angle found NOT OK	X
Machine	Gun position	Gun position found OK	O
Machine	Fixture Run out	Fixture Run out is more than spec	X
Material	Oil on welding area on shaft I.D.	No oil	O
Material	Oil on insert O.D	Found OK	O
Man	Unskilled Operator	Skilled Operator was present	O

6. Inspection Method Analysis (Current)

Inspection Method	Other
Other Inspection Method	Visual
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	100%

7. Root Cause Analysis (Occurance)

Why 1	Insert came out breaking the welding rig
Why 2	Welding was on face of insert
Why 3	Fixture runout found 0.35 mm
Why 4	The machine runout increase with regular use
Why 5	Fixture runout not checked during first piece inspection
Root Cause (Occurance)	Fixture runout not checked during first piece inspection

Root Cause Analysis (Outflow)

Why 1	Insert came out breaking the welding rig
Why 2	Welding was on face of insert
Why 3	Gun angle Out of Spec
Why 4	
Why 5	
Root Cause (Outflow)	Gun angle Out of Spec

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Occurance	Fixture is updated for having runout 0.2mm max. Fixture run out is checked in first piece and added in PM list	Production & Maintenance	12/08/2022	12/08/2022	Completed
Outflow	Welding gun holder modification for permanent setting and separate machine is allocated for Insert welding. Check point added in control plan & First piece inspection report.	Production Maintenance Quality	12/08/2022	12/08/2022	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	UTM Inspection frequency modified as First Sample, Middle Sample, Last Sample Per setting
Inspection Method	Sp. Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	Sampling
Sampling	No
Sample Size	3per setup

10. Evidance of Countermeasure

Occurance (Before)	Welding Fixture runout not monitored 208_Occurance_Before.pdf
Occurance (After)	Welding Fixture runout inspection frequency 1 per shift 208_Occurance_After.pdf
Outflow (Before)	Gun Angle Old fixture, possibility of changes in Gun Angle 208_Outflow_Before.png
Outflow (After)	Gun Angle NEW fixture lock Gun Angle 208_Outflow_After.png

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	Will prepare new Fixture for Gun angle for Assembly Welding

12. Document Review

Documents	ControlPlan, PMCheckSheet, PokayokeCheckSheet, InspCheckSheet
Specify Other Document	No

13. Effectiveness Of Action

Reviewed Quantity	100
Reason for submission	Ok