QFR No - 8000873536

Defect Details

NC No.	8000873536
NC Date	06/05/2024
NC Submission Date	
Part No.	F2DZ07203B
Part Name	FORK BOLT (K-9207) Ni+Cr Plated
Supplier Name & Code	100539-N P ENTERPRISES
ETL Plant	1117-ETL K-228/9 Suspension
Defect Details	NOT AS PER SPECIFICATION-PLATING MISSING

1. Problem Description

Defect Description	PLATING MISSING
Detection Stage	Inprocess
Problem Severity	Aesthetic
NG Quantity	2
Is Defect Repeatative?	Yes
Defect Sketch / Photo	

Supplier Communication Details

Quality Head Email ID	quality@npcindustries.in
Plant Head/CEO Email ID	anand@npcindustries.in
MD Email ID	ajay@npcindustries.in

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	1500	50000	0	0	0	51500
Check Qty	1500	50000	0	0	0	51500
NG Qty	2	0	0	0	0	2

Action taken on NG part

Scrap	2
Rework	0
Under Deviation	0

Containment Action
1.Raw Material 2. Blanking 3. Hex Punching 4. Flattening 5. CNC Turning, Chamfering & threading 6. Buffing 7. Plating 8.Final Inspection.

3. Process Flow

Process Flow Description
10 - Raw Material 20 - Cutting and Forging(1st) 30-Forging(2nd) 40-Annealing 50-Phosphating 60 - Forging(3rd) I.D 70-Forging(4th) Hex 80 - CNC(1st) 90 - CNC(2nd) 100 - CNC(3rd) 110 - CNC drilling and Chamfering 120 - Final inspection 130 - Packing & Dispatch 140 - Buffing-1st 150 - Buffing 2nd 160 - Plating

4. Process Details

Process / Operation	Plating
Outsource	Yes
Machine / Cell	Plating plant
Machine / Cell No.	NA

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Material	Plating chemicals composition was not as per spec.	After verification we found OK	O
Man	Untrained Operator	After verification we found operator was aware about process and responsibilities	O
Method	Plating time duration less	After verification we observed plating time duration as per std.	O
Method	PC position holding method NG	During verification we found Jig holder was damage	X
Method	Skipped during final inspection	after verification we found part was skipped at final inspection.	X

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	The bolt was not correctly positioned during the plating process.
Why 2	The jig point, which is supposed to hold the bolt securely, was not clean.
Why 3	The jig cleaning process was either inadequate or not performed regularly.
Why 4	There was no clear protocol or schedule for cleaning the jig points.
Why 5	WI did not include guidelines for the regular cleaning of jig points.
Root Cause (Occurance)	WI did not include guidelines for the regular cleaning of jig points.

Root Cause Analysis (Outflow)

Why 1	Plating NG in fork bolt.
Why 2	Defected part could not detect
Why 3	The part was skipped at final Q-gate.
Why 4	NG and OK pc was put at the same color of bin.
Why 5	
Root Cause (Outflow)	NG and OK pc was put at the same color of bin.

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Outflow	Locked red bin implement at the Final Q gate	Nikhil Jain	11/05/2024	11/05/2024	Completed
Outflow	Q-alert to be displayed at final Q gate	Mr. Deepak	08/05/2024	07/05/2024	Completed
Occurance	Regular cleaning of jig points to be added in WI	Nikhil Jain	10/05/2024	09/05/2024	Completed
Outflow	Blue bin used for without checked material and Green bin used for Checked material.	Nikhil Jain	15/05/2024	11/05/2024	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	Same color of bin to be replaced with different color for different purpose.
Inspection Method	Other
Other Inspection Method	Visual
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	100%

10. Evidance of Countermeasure

Occurance (Before)	WI did not include guidelines for the regular cleaning of jig points. 788_Occurance_Before.jpg
Occurance (After)	updated wi to be updated 788_Occurance_After.jpg
Outflow (Before)	NG and OK pc was put at the same color of bin. 788_Outflow_Before.jpeg
Outflow (After)	NG pcs put in orange bin and OK pc was put in Blue bin and red bin implement 788_Outflow_After.pdf

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	All Similar parts

12. Document Review

Documents	PMCheckSheet, PFMEA, WISOP
Specify Other Document	Na

13. Effectiveness Of Action

Reviewed Quantity	50

Reason for submission	ok