QFR No - 7000939452

## Defect Details

| | |
|---|---|
| **NC No.** | 7000939452 |
| **NC Date** | 23/08/2023 |
| **NC Submission Date** | |
| **Part No.** | C3CE00201B |
| **Part Name** | CLUTCH SHAFT ASSLY |
| **Supplier Name & Code** | 100264-SAI INDUSTRIES |
| **ETL Plant** | 1132-ETL K-226/1 TRANSMISSION |
| **Defect Details** | CRACKS-flairing dia obs 4.26 & flange cracked |

## 1. Problem Description

| | |
|---|---|
| **Defect Description** | Crack observed at flaring dia -During Riveting |
| **Detection Stage** | Inprocess |
| **Problem Severity** | Function |
| **NG Quantity** | 2 |
| **Is Defect Repeatative?** | No |
| **Defect Sketch / Photo** | |

## Supplier Communication Details

| | |
|---|---|
| **Quality Head Email ID** | info@sai-industries.com |
| **Plant Head/CEO Email ID** | info@sai-industries.com |
| **MD Email ID** | umesh.honap@gmail.com |

## 2. Stock Details & action taken for NG parts

| Location | ETL End | Warehouse | Transit | Supplier FG | Supplier WIP | Total |
|---|---|---|---|---|---|---|
| **Total Qty** | 200 | 480 | 0 | 280 | 0 | 960 |
| **Check Qty** | 200 | 480 | 0 | 280 | 0 | 960 |
| **NG Qty** | 2 | 0 | 0 | 0 | 0 | 2 |

Action taken on NG part

| | |
|---|---|
| **Scrap** | 2 |
| **Rework** | 0 |
| **Under Deviation** | 0 |

| **Containment Action** |
|---|
| In ETL stock verified 200 Nos. found 2 nos cracks in Assly line. In A`Bad Warehouse stock verified 480 Nos.found no any cracks . InSai Inhouse stock verified 288 Nos.found no anycracks . All riveting parameter checked found ok except rivet height. Clutch Flange Bend/Warpage above 0.30mm. CNC Facing operation all parameters found ok. |

## 3. Process Flow

| Process Flow Description |
| --- |
| Rivetting |

## 4. Process Details

| | |
| --- | --- |
| **Process / Operation** | Rivetting |
| **Outsource** | No |
| **Machine / Cell** | Assly |
| **Machine / Cell No.** | Rivetting |

## 5. Problem Analysis

| Type | Possible Cause | Fact Verification | Jud |
| --- | --- | --- | --- |
| Material | Clutch Flange bend/warpage above 0.30mm or may be internal crack in casting. | Parallerity not ok observed. | O |

## 6. Inspection Method Analysis (Current)

| | |
| --- | --- |
| **Inspection Method** | Other |
| **Other Inspection Method** | Dial & Fixture |
| **Check Point at Final Inspection** | Yes |
| **Checking Freq.** | 100% |
| **Sampling** | No |
| **Sample Size** | 100% |

## 7. Root Cause Analysis (Occurance)

| | |
| --- | --- |
| **Why 1** | Why 1:-CRACKS-flairing dia obs 4.26 & flange cracked |
| **Why 2** | Why 2:- Rivetting operation, Rivet height uneven or excess. |
| **Why 3** | Why 3:- Clutch Flange parallerity above 0.30mm. |
| **Why 4** | Why 4:- Clutch Flange bend/warpage above 0.30mm or may be internal crack in casting. Already informed to ETL time to time refer mail and rejection returned also. |
| **Why 5** | |
| **Root Cause (Occurance)** | Clutch Flange bend/warpage above 0.30mm or may be internal crack in casting. Already informed to ETL time to time refer mail and rejection returned also. |

## Root Cause Analysis (Outflow)

| | |
| --- | --- |
| **Why 1** | Why 1:-CRACKS-flairing dia obs 4.26 & flange cracked |
| **Why 2** | Why 2:- Not proper adreesed in 100% visual inspection. |
| **Why 3** | Why 3:- Not kept crack assly in rejection bin. |
| **Why 4** | why 4:- Cracks assly may be mix up in ok assly. |
| **Why 5** | |
| **Root Cause (Outflow)** | Cracks assly may be mix up in ok assly. |

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

| Type | Countermeasure Details | Responsibility | Target Date | Actual Date | Status |
|---|---|---|---|---|---|
| Occurance | 1) ETL will ensure defect free(without bend/warpage)clutch flange supplied to Sai. 2) Received all clutch flange segrrigate for parallerity and Only Ok flange used for assly. 3) For crack free parts rivet height to be increased by 0.20mm.i.e.within 0.70mm and ETL will give approval for increase the the same. | ETL and SAI | 02/09/2023 | 02/10/2023 | Completed |
| Outflow | 2) After 100% visual inspection marked Blue dot as identification. | SAI | 01/09/2023 | 01/09/2023 | Completed |
| Outflow | 1) Display Ok and Not ok photo in final/visual inspection stage. | SAI | 01/09/2023 | | Completed |

## 9. Inspection Method After Customer Complaint

| | |
|---|---|
| **Change In Inspection System** | Yes |
| **Change Details** | Firewall inspection started. |
| **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)** | No Parameter in SOP<br>531_Occurance_Before.pdf |
| **Occurance (After)** | Add parameter in SOP<br>531_Occurance_After.pdf |
| **Outflow (Before)** | Not Display Photo<br>531_Outflow_Before.pdf |
| **Outflow (After)** | Display Photo<br>531_Outflow_After.pdf |

## 11. Horizontal Deployment

| | |
|---|---|
| **Horizontal Deployment Required** | Yes |
| **Applicable Machine / Model / Plant** | Clutch Shaft Assly BS III and BS VI PVPL |

## 12. Document Review

| | |
|---|---|
| **Documents** | WISOP |
| **Specify Other Document** | No |

## 13. Effectiveness Of Action

| | |
|---|---|
| **Reviewed Quantity** | 1000 |
| **Reason for submission** | OK |