QFR No - 7000884966

## Defect Details

| | |
|---|---|
| **NC No.** | 7000884966 |
| **NC Date** | 21/12/2022 |
| **NC Submission Date** | |
| **Part No.** | 520AE05702 |
| **Part Name** | CORE PLATE - SHINE & UNICORN |
| **Supplier Name & Code** | 101145-STAR PROJECTS INDIA |
| **ETL Plant** | 1132-ETL K-226/1 TRANSMISSION |
| **Defect Details** | FLATNESS NOT OK.-Not qualify to gap gaue |

## 1. Problem Description

| | |
|---|---|
| **Defect Description** | Not qualify to gap gauge (Flatness found up to 0.2 mm against 0.1 mm) |
| **Detection Stage** | Receipt |
| **Problem Severity** | Function |
| **NG Quantity** | 1615 |
| **Is Defect Repeatative?** | Yes |
| **Defect Sketch / Photo** | |

## Supplier Communication Details

| | |
|---|---|
| **Quality Head Email ID** | qualityhead@starprojectsindia.com |
| **Plant Head/CEO Email ID** | engineering@starprojectsindia.com |
| **MD Email ID** | ishant@starprojectsindia.com |

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

| Location | ETL End | Warehouse | Transit | Supplier FG | Supplier WIP | Total |
|---|---|---|---|---|---|---|
| **Total Qty** | 8000 | 23000 | 46000 | 0 | 10000 | 87000 |
| **Check Qty** | 8000 | 5000 | 0 | 0 | 4500 | 17500 |
| **NG Qty** | 1615 | 211 | 0 | 0 | 8 | 1834 |

Action taken on NG part

| | |
|---|---|
| **Scrap** | 1615 |
| **Rework** | 0 |
| **Under Deviation** | 0 |

| Containment Action |
|---|
| All Material has been hold for 100 % Re-inspection with proper identification |

## 3. Process Flow

| Process Flow Description |
| --- |
| Receipt of Raw material+ Storage of raw material+ Hold cum melting +PDC+ First Trimming +Shot Blast+2nd Trimming+ Barreling +Shot blasting+ sound testing+ stress relieving +final inspection & packing +Storage & dispatched |

## 4. Process Details

| | |
| --- | --- |
| **Process / Operation** | PDC & Final Inspection |
| **Outsource** | No |
| **Machine / Cell** | MC-10 |
| **Machine / Cell No.** | MC-10 |

## 5. Problem Analysis

| Type | Possible Cause | Fact Verification | Jud |
| --- | --- | --- | --- |
| Man | Negligency Done by Inspector | Baijnath,Rekha,Shyamveer)Training record & Skill amtrix available for same(F13/P&A(OJT),found ok | O |
| Machine | Gap Gauge Wear Out | Gap Gauge Validation & Verification Plan Available and Adhered (F07/QAD(JFR) | O |
| Method | Improper flatness of stress relieving fixture | Fixture validation plan available and adhered(F07A/QAD(JFR) | O |
| Method | Tie bar Bolt Balancing | Tie Baar Bolt Was found Un-Balance | X |
| Method | Improper Stress relieving Parameter | Stress relieving Parameter Observed Temp. 261°C against 270±20°C ,Time obsd 30 minutes Against 25±5 | 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** | Per Lot |

## 7. Root Cause Analysis (Occurance)

| | |
| --- | --- |
| **Why 1** | Core Plate-C101 Not Qualify to gap gauge |
| **Why 2** | One face of the die was found in tapper |
| **Why 3** | Tie bar Bolt was found Un-Balance |
| **Why 4** | Tie bar Bolt Locking or fix mechanism not available |
| **Why 5** | Possibility not considered during define the daily machine check sheet |
| **Root Cause (Occurance)** | Tie bar Bolt Locking Mechanism Broken |

## Root Cause Analysis (Outflow)

| | |
| --- | --- |
| **Why 1** | Core Plate-C101 Not Qualify to gap gauge |
| **Why 2** | 100% parts was not passed from gap gauge. |
| **Why 3** | Gap gauge set on 2.12 mm but as per existing part calculation should be 2.09 mm |
| **Why 4** | Gap gauge size can be change as per part thickness |
| **Why 5** | Gap gauge setting frequency not defined |

| | |
|---|---|
| **Root Cause (Outflow)** | Due to Base Size and lug size of Receiving gauge was set at higher Point. |

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

| Type | Countermeasure Details | Responsibility | Target Date | Actual Date | Status |
|---|---|---|---|---|---|
| Occurance | Tool history to be maintained | Ajay Malik | 26/12/2022 | 26/12/2022 | Completed |
| Outflow | 200% inspection started with identification ,Identification also defined for warehouse and star end. | Ajay Malik | 22/12/2022 | 22/12/2022 | Completed |
| Outflow | Gap gauge setting & verification started on daily basis as per (15 part avg. thickness +Flatness +Passing allowance 10 microns) | Ajay Malik | 23/12/2022 | 23/12/2022 | Completed |
| Outflow | Gap gauge size varification check point added in Pre-Dispatch inspection report | Ajay Malik | 23/12/2022 | 23/12/2022 | Completed |
| Occurance | Daily Machine check sheet updated | Ajay Malik | 26/12/2022 | 26/12/2022 | Completed |
| Outflow | Quality Alert made and displayed at concerned area | Ajay Malik | 22/12/2022 | 22/12/2022 | Completed |
| Outflow | Training has been provided to Operator | Ajay Malik | 22/12/2022 | 22/12/2022 | Completed |
| Occurance | Tie Bar Bolt Locking Mechanism to be made and freezed | Ajay Malik | 30/12/2022 | 30/12/2022 | Completed |
| Occurance | Tie Bar Bolt Locking Mechanism to be made and freezed | Ajay Malik | 22/12/2022 | 22/12/2022 | Completed |
| Occurance | .PDC Tool to be rectified and thickness maintain on 1.95 to 2.00 mm instead of 1.95 ~2.05 mm | Ajay Malik | 26/12/2022 | 26/12/2022 | Completed |

## 9. Inspection Method After Customer Complaint

| | |
|---|---|
| **Change In Inspection System** | Yes |
| **Change Details** | Gap gauge setting & verification started on daily basis as per (15 part avg. thickness +Flatness +Passing allowance 10 microns |
| **Inspection Method** | Gauge |
| **Other Inspection Method** | |
| **Check Point at Final Inspection** | Yes |
| **Checking Freq.** | 100% |
| **Sampling** | No |
| **Sample Size** | Per Lot |

## 10. Evidance of Countermeasure

| | |
|---|---|
| **Occurance (Before)** | Tie bar Bolt Locking or fix mechanism not available<br>324_Occurance_Before.pdf |
| **Occurance (After)** | Tie Bar Bolt Locking Mechanism to be made and freezed<br>324_Occurance_After.pdf |
| **Outflow (Before)** | Gap gauge set on 2.12 mm but as per existing part calculation should be 2.09 mm<br>324_Outflow_Before.pdf |
| **Outflow (After)** | Gap gauge setting & verification started on daily basis as per (15 part avg. thickness +Flatness + Passing allowance 10 microns)<br>324_Outflow_After.pdf |

## 11. Horizontal Deployment

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|---|---|
| **Horizontal Deployment Required** | Yes |

| | |
|---|---|
| **Applicable Machine / Model / Plant** | All Models of Core Plate |

## 12. Document Review

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

## 13. Effectiveness Of Action

| | |
|---|---|
| **Reviewed Quantity** | 5000 |
| **Reason for submission** | OK |