Defect Details

| NC No. | 7001046683 |
|-----------------------|--------------------------------------|
| NC Date | 24/08/2024 |
| NC Submission Date | |
| Part No. | 520HP00212 |
| Part Name | OIL SEAL STOPPER1 |
| Supplier Name & Code | 100179-BELLITE SPRINGS PVT.LTD. |
| ETL Plant | 1136-ETL Suspension Sanand |
| Defect Details | DIMETER UNDERSIZE-Dim 13.5 undersize |

1. Problem Description

| Defect Description | Gap observed 12.644 against specification 13.5+1.5 mm |
|------------------------|---|
| Detection Stage | Inprocess |
| Problem Severity | Fitment |
| NG Quantity | 30000 |
| Is Defect Repeatative? | No |
| Defect Sketch / Photo | |

Supplier Communication Details

| Quality Head Email ID | qc.plant2@bellitespring.com |
|-------------------------|-----------------------------------|
| Plant Head/CEO Email ID | dayanandkore@bellitesprings.com |
| MD Email ID | harsjeet.bhatt@bellitesprings.com |

2. Stock Details & action taken for NG parts

| Location | ETL End | Warehouse | Transit | Supplier FG | Supplier WIP | Total |
|-----------|---------|-----------|---------|-------------|--------------|-------|
| Total Qty | 53900 | 0 | 0 | 20000 | 0 | 73900 |
| Check Qty | 53900 | 0 | 0 | 20000 | 0 | 73900 |
| NG Qty | 30000 | 0 | 0 | 0 | 0 | 30000 |

Action taken on NG part

| Scrap | 0 |
|------------------------|-------|
| Rework | 30000 |
| Under Deviation | 0 |

Containment Action

Checked the all stock at Bellite end & Segregating the material of circlip at customer end

3. Process Flow

Process Flow Description

RM Inspection-Coiling-Stress Relieving-Checking - Packing-Dispatch

4. Process Details

| Process / Operation | Coiling |
|---------------------|---------|
| Outsource | No |
| Machine / Cell | CNC-02 |
| Machine / Cell No. | CNC-02 |

5. Problem Analysis

| Туре | Possible Cause | Fact Verification | Jud |
|---------|------------------------------------|------------------------|-----|
| Machine | Incomplete stroke of notching tool | Checked & found not ok | 0 |
| Method | Inspection frequency not adequate | Checked & found not ok | 0 |

6. Inspection Method Analysis (Current)

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

7. Root Cause Analysis (Occurance)

| Why 1 | Circlip Gap U/S |
|------------------------|-------------------------------------|
| Why 2 | The notch stroke was not completed. |
| Why 3 | the stroke stopper was loose |
| Why 4 | the bolt was loosened |
| Why 5 | the check nut was missing. |
| Root Cause (Occurance) | the check nut was missing. |

Root Cause Analysis (Outflow)

| Why 1 | Circlip Gap U/S |
|----------------------|--|
| Why 2 | To address the issue of undersized circlips not being identified during the final inspection stage |
| Why 3 | due to sampling-based checks with the digital vernier caliper. |
| Why 4 | |
| Why 5 | |
| Root Cause (Outflow) | due to sampling-based checks with the digital vernier caliper. |

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

| Type | Countermeasure Details | Responsibility | Target Date | Actual Date | Status |
|------|------------------------|----------------|-------------|-------------|--------|
| | | | | | |

| Occurance | New Check Nut is use and stopper is tightened. | Mr. Sujit | 19/08/2024 | 19/08/2024 | Completed | |
|-----------|---|-----------|------------|------------|-----------|--|
| Occurance | Tightening by two check nuts one above the other. | Mr. Sujit | 10/09/2024 | 10/09/2024 | Completed | |
| Outflow | We have started 100% inspection at the final inspection stage | Mr. Sujit | 07/09/2024 | 07/09/2024 | Completed | |
| Outflow | The PDI report has been updated to include the use of the gap gauge | Mr. Sujit | 07/09/2024 | 07/09/2024 | Completed | |

9. Inspection Method After Customer Complaint

| Change In Inspection System | Yes |
|---------------------------------|--------------------------------------|
| Change Details | Change PDIR & Set up approval report |
| Inspection Method | Gauge |
| Other Inspection Method | |
| Check Point at Final Inspection | Yes |
| Checking Freq. | 100% |
| Sampling | No |
| Sample Size | 100% |

10. Evidance of Countermeasure

| Occurance (Before) | Previously, only one bolt was used. 1038_Occurance_Before.jpg |
|--------------------|--|
| Occurance (After) | Now, Tightening by two check nuts one above the other. 1038_Occurance_After.jpg |
| Outflow (Before) | Previously, we checked the circlip using a vernier caliper during the PDI stage 1038_Outflow_Before.xlsx |
| Outflow (After) | We are now using a gap gauge for checking circlips at the PDI stage 1038_Outflow_After.jpg |

11. Horizontal Deployment

| Horizontal Deployment Required | Yes |
|---------------------------------------|-----------------------------|
| Applicable Machine / Model / Plant | Applicable for CNC machine. |

12. Document Review

| Documents | ControlPlan, PFMEA |
|------------------------|----------------------|
| Specify Other Document | Set up approval & PD |

13. Effectiveness Of Action

| Reviewed Quantity | 5 |
|-----------------------|---|
| Reason for submission | Gap observed 12.644 against specification 13.5+1.5 mm |