

| POTENTIAL<br>FAILURE MODE AND EFFECTS ANALYSIS<br>(PROCESS FMEA) |   |   |     |                         |  |                        |   |   |   |                                       |             |                |                |   |   |   |    |
|--|---|---|-----|-------------------------|--|------------------------|---|---|---|---------------------------------------|-------------|----------------|----------------|---|---|---|----|
| Part No.   | 520CJ00102  | Rev.  | Gx2 |                         |  |                        |   |   |   | FMEA Number: GPS / PFMEA / 520CJ00102 |             |                |                |   |   |   |    |
| Part Name .  | WASHER  |   |     | Process Responsibility: |  |                        |   | Cross Functional Team                       |   | Prepared by: Cross Functional Team    |             |                |                |   |   |   |    |
| Model Year(s)/Vehicle(s)   | -   |   |     | Key Date                |  |                        |   |   |   | Date (Orig.) 18.10.2018               |             |                |                |   |   |   |    |
| Team:  | Cross Functional Team                                 |   |     |                         |  |                        |   |   |   | Date (Rev.) -                         |             |                |                |   |   |   |    |
| Process  | Potential   | Potential   | S   | C                       | Potential                                      | O                      | Current   |   | D | R.                                    | Recommended | Responsibility | Action Results |   |   |   |    |
| Function/  | Failure   | Effect(s) of  | e   | a                       | Cause(s)/                                      | c                      | Process   |   | t | P.                                    | Actions     | & Target       | Actions        | S | O | D | R. |
| Require-<br>ments  | Mode  | Failure   | v   | s                       | Mechanism(s)                                   | u                      | Prevention  | Detection                                   | e | N.                                    | Date        | Taken          | e              | v | c | t | P. |
|  |   |   |     |                         | of Failure                                     | r                      |   |   | c |                                       |             |                |                |   |   |   | N. |
| 10 . RAW MATERIAL INSPECTION                                     | Mtl. Supplied by supplier is not as per specification | Rejection of product as Raw Mtl.is not as per spec. | 5   |                         | Supplier Problem                               | 2                      | -   | Incoming Raw Mat'l Insp.                    | 2 | 20                                    |             |                |                |   |   |   |    |
| 20. Punching.  | Tool Damage / Wear                                    | Dimension variation in cutting profile              | 6   | ⊕                       | Improper Alignment                             | 3                      | Resharpning of tool & realignment of die            | Inprocess Inspection by 1 hr.               | 3 | 54                                    |             |                |                |   |   |   |    |
|  | Increase in Clearance                                 | Blanking Burr                                       | 6   |                         | Improper Alignment / tool damage               | 3                      |   | Inprocess Inspection by 1 hr.               | 3 | 54                                    |             |                |                |   |   |   |    |
| 30. Anneling   | Excess Anneling                                       | Fittment Problem                                    | 6   |                         | Hardness below lower tolerance, dimn.variation | 2                      | Timer provided to check start / end time.           | Incoming Material Insp.                     | 3 | 36                                    |             |                |                |   |   |   |    |
|  | Less anneling   | Fittment Problem                                    | 6   |                         | Not Achieve specified hardness                 | 2                      | Timer provided to check start / end time.           | Incoming Material Insp.                     | 3 | 36                                    |             |                |                |   |   |   |    |
| 40 FINAL INSPECTION & 100% VISUAL INSPECTION.                    | Dimensions problem                                    | Functional problem & visual dissatisfation          | 4   |                         | Improper Patrol & First Off Inspection,        | 2                      | Operator & Inspector trained periodically           | Final Inspection check sheet & Skill Matrix | 4 | 32                                    |             |                |                |   |   |   |    |
| 50 DISPATCH OR STOCK   | Handling Damages                                      | visual dissatisfation                               | 5   |                         | Improper loading,                              | 2                      | Packing Standard, Loading instruction to transport. | Final Inspection                            | 4 | 40                                    |             |                |                |   |   |   |    |
| Prepared By :Vikas   |   |   |     |                         |  | Approved By: Nandkumar |   |   |   |                                       |             |                |                |   |   |   |    |