| MUSASHI | INITIAL PART CONTROL RULE(CHANGE POINT) | | ISD-QA-043 | |
|---|---|---|---|---|
| RULE | Department | Quality Assurance | DATE: 9.09.2019 | |
| | Area | Overall | Issue: 02 | Revision: 00 |



**PURPOSE:-**

**The purpose of this rule is to assure/maintain the product quality in case of any change in people, manufacturing process, manufacturing methods & products (4M) at the production stage of Musashi Group.**

**SCOPE:-**

**All in-house manufactured products and process, including event products of new model at the start-up stage (including mass produced first -time products), mass produce products & service parts.**

**DEFINATION OF INITIAL PART:-**

**The very first product (lot/batch) which are produced immediately after the change point .**

**CHANGE POINT MANAGEMENT:-**

- **Categorization of IPP & Conditions**

(1) Specification change IPP:- Change of spec which is based on "**Spec change rule** " of customer.

(2) Quality improvement IPP:-Change in method of controlling as an improvement against any quality trouble.

(3) Self-controlled IPP:- Internal change in 4M for improvements/betterment.

1. Before initiating IPP the effect of Improvement should be clarified & Evaluation to be done by GM-Production division in terms of QCD at the time of proposal.
2. All evaluation documents shall be determined (as per Annex. 1 & 2) & if req. share with customer in advance.
3. Give prior information to customer (Advance IPP) before 3 months of change point /as per customer req.
4. Risks for change points shall be assessed, and appropriate measures shall be taken in advance.
5. Highly important(critical) change point to be shared with MSI Quality Assurance Division.

(4) General IPP :-Change which occurs in NPD events at start up stage, mass production stage, products or service parts or customer request.

- **Control of Initial Flow (product)**

Verification of stable production & consistent quality have to be maintained after implementing IPP by setting the standard for control period, evaluation items & conditions of release(Refer Annex-3).

- **Control & Traceability of IPP**

1.IPP format to be attached on the product based on the customer requirements regarding (1)/(2)/(3) & (4).
2.Tracebility of change point to be control as per "IPP Monitoring sheet" .
3.Record of detail to be maintained if IPP received in supplier parts or customer supplied parts .

- **Storage of IPP**

Maintain the record of IPP as specified by organization/Customer.

**SUDDEN (UNEXPECTED) CHANGE POINT MANAGEMENT:-**

- **Handling**

(1) Sudden(unexpected) change point in process(4M) should be handled based on "Abnormality handling rule" to ensure correct treatment & traceability.
(2) Immediate information to be shared with customer in case of any abnormal delivery (or possibility) of product.
(3) In case of change in Men (new employee, support personnel from other process, change for holiday or accident etc.) record should be maintained in log book & the evidence of confirmation of result should be retained.
(4) Implement the Quality check to prevent the flow of defective parts to customer before and after the change.
(5) Preventive actions shall be taken by recording the change point in the active call system and change control sheet and analyzing the cause of abnormality to be reflected in the process.
(6) In case of possibility of rework (as per customer satisfaction) ,it should be done following the "Rework procedure" , the product should be disposed if rework is not possible.

| Issue | Revision | Reason for change | Date |
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| | | | |
| | | | |
| 02 | 00 | Global change point requirement added | 9.09.2019 |
| 01 | 07 | Customer information before 3 month | 25.01.2018 |

| PREPARED BY | CHECKED BY | APPROVED BY | RELEASED BY |
|---|---|---|---|

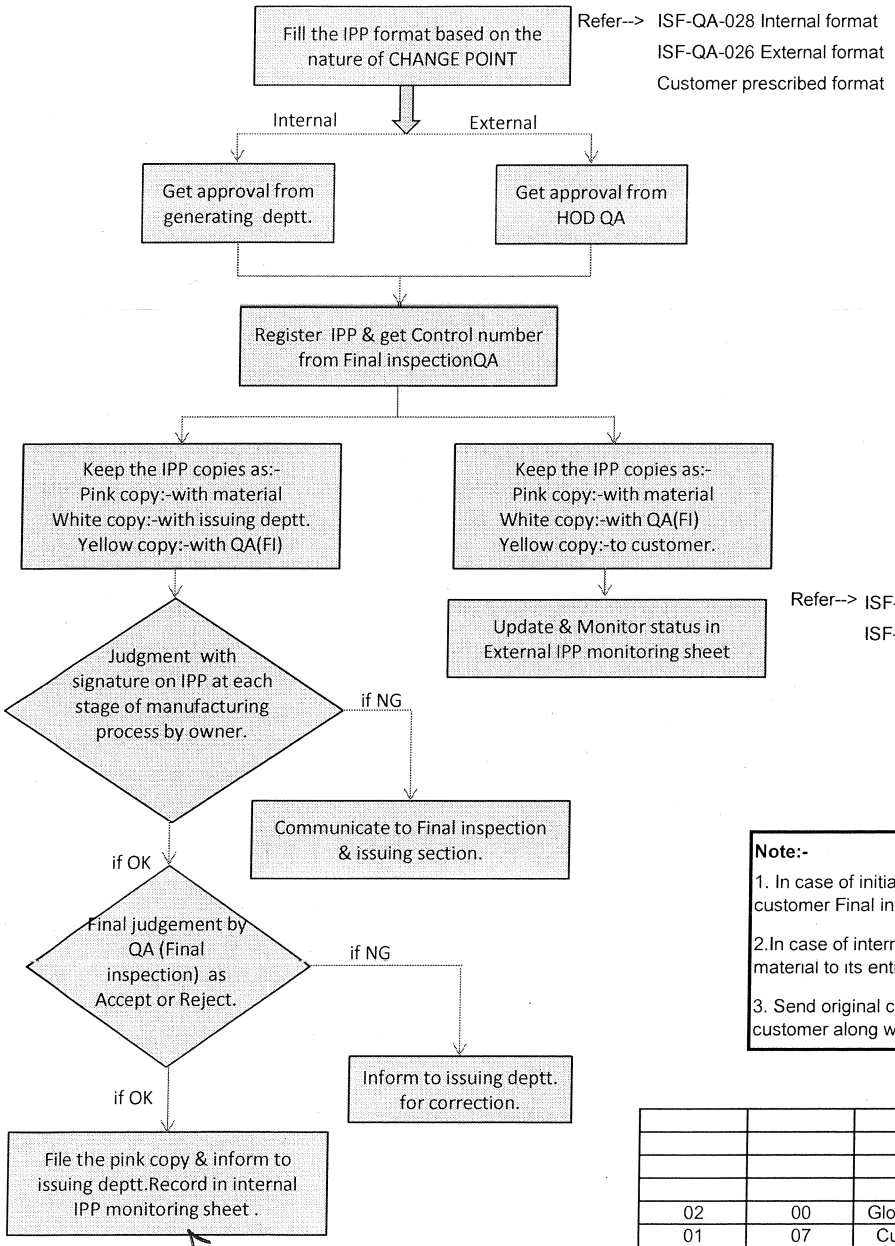
## JUDGEMENT TO SHIFT TO MASS PRODUCTION

(1) After confirmation of production preparedness & quality evaluation without any non conforming the changeover to mass production will be done.

(2) Refer the **Annex. 1 & 2** for evaluation items & IPP then contact to customer.

(3) During submission of IPP any instruction from customer to be followed.

## IPP METHODDOLOGY:-




**Note:-**

1. In case of initial parts(changeover to mass production) supplied to customer Final inspection will generate the external IPP.

2.In case of internal IPP ensure that pink copy should flow with the material to its entire route of production operation.

3. Send original copy of Customer required document (eg:-PCAN ) to customer along with other document where required.

| Issue | Revision | Reason for change | Date |
|---|---|---|---|
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| | | | |
| | | | |
| 02 | 00 | Global change point requirement added | 9.09.2019 |
| 01 | 07 | Customer information before 3 month | 25.01.2018 |

| PREPARED BY | CHECKED BY | APPROVED BY | RELEASED BY |
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| MUSASHI | INITIAL PART CONTROL RULE(CHANGE POINT)-ANNEXURE-1 | | ISD-QA-043 B |
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| RULE | Department | Quality Assurance | DATE: 9.09.2019 |
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**Evaluation items of IPP**

| Evaluation item Content | Content |
|---|---|
| Process capability | ① : Cpk after changing shall be better than that of before changing. |
| | (Cpk of key quality characteristics must be inspected.) |
| Validity check | ① : Spec test (if required) |
| | ② : 9 point check at heat treatment (3-cycle evaluation) |
| | ③ : Hardness, structure, case depth, grain, decarburization and film thickness |
| | ④ : Fiber flow and crack |
| | ⑤ : Appropriateness for setting conditions |
| | ⑥ : Amount of distortion (tooth profile, inner/outer diameter, dimensions, etc.) |
| | ⑦ : Implementation of MSA (change of inspection method) |
| | ⑧ : Appropriateness for the lifespan of dies, cutting tools, and dress interval |
| | ⑨ : Roughness of sliding surface (3 cycle evaluation) |
| | ⑩ : Packaging evaluation (Dent, rust-proof, and packaging standard) |
| P-FMEA | ① : P-FMEA shall be created or reviewed. |
| Inspection of IPP | ① : Lay out or complete dimensional inspection (n=1) |
| | ② : Inspection of IPP by n=5 (n=1 for break test) |
| Document | ① : Creation or review of control plan |
| | ② : Creation or review of work standard |
| | ③ : Creation or review of operation standard |
| QAV2 | ① : QAV2 shall be conducted as specified according to IPP rank. |
| | ② : Work environment, logistics, measurement tools, 5S, etc. |
| Others | ① : Evaluation items shall be added if there are any special characteristics in IPP. |
| | ② : Additional items shall be evaluated in case of requests from the customer |

Note:- 1.Evaluation items shall be added if there are any special characteristics in IPP based on opinon of experts .

2.Additional items shall be evaluated in case of requests from the customer.

3.Nonconformities detected in QAV2 shall be closed before shifting to mass production.

| Issue | Revision | Reason for change | Date |
|---|---|---|---|
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| | | | |
| | | | |
| | | | |
| 02 | 00 | Global change point requirement added | 9.09.2019 |
| 01 | 00 | Newly made -Evaluation item list | 25.01.2018 |

| PREPARED BY | CHECKED BY | APPROVED BY | RELEASED BY |
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MUSASHI

# INITIAL PART CONTROL RULE(CHANGE POINT)-ANNEXURE-2

ISD-QA-043

Annexture-2

| RULE | Department | Quality Assurance |
|---|---|---|
| | Area | Overall |

DATE: 9.09.2019
Issue: 02 Revision: 00

【Premise to conduct QAV-2】
A : Must be conducted
B : Conducted if instructed by approver

◆ : Approval
□ : Report

| Category | Item | Situation | Explanation | Evaluation item: Process capability | Validity check | P-FMEA | Inspection of IPP | Document | Premise to conduct QAV2 | Advance notice to customer: Required | Advance notice to customer: Not required | Each site: QM of quality div. | Each site | Headquarter |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Specification change | Spec change | ・Spec change for customer request | Based on spec change No. | Implement if requested by customer | | | ② | ①②③ | — | — | — | ◆(Mgr.) | | |
| Quality improvement IPP | Quality improvement | ・Quality improvement is implemented based on the request of the customer | Based on corrective action | Implement if requested by customer | | | ② | ①②③ | — | — | — | ◆(Mgr.) | | |
| Self-controlled IPP | Spec change | ・Internal drawing design or spec is changed (no change in customer drawing) | Change of internal drawing | ① | ②③④⑤⑥ | ① | ①② | ①②③ | B | * | ○ | | ◆ | □ |
| | | | Change of internal spec | ① | ①②③④⑤⑥ | ① | ①② | ①②③ | B | * | ○ | | ◆ | □ |
| | New supplier | ・New supplier (including addition of manufacturing plant of current supplier) | Experienced similar products/process | ① | ①⑤⑧⑨⑩ | ① | ①② | ①②③ | B | ○ | | ◆ | | |
| | | | Important process added while having experienced similar process | ① | ①⑤⑧⑨⑩ | ① | ①② | ①②③ | A | ○ | | ◆ | | |
| | | | Never experienced similar process | ① | ①⑤⑧⑨⑩ | ① | ①② | ①②③ | A | ○ | | ◆ | □ | |
| | | | Supplier in need of new contract | ① | ①⑤⑧⑨⑩ | ① | ①② | ①②③ | A | ○ | | ◆ | ◆ | □ |
| | | ・Change of supplier (including relocation of manufacturing plant of current supplier) | Experienced similar products/process | ① | ①⑤⑧⑨⑩ | ① | ①② | ①②③ | B | ○ | | ◆ | | |
| | | | Important process added while having experienced similar process | ① | ①⑤⑧⑨⑩ | ① | ①② | ①②③ | A | ○ | | ◆ | | |
| | | | Never experienced similar process | ① | ①⑤⑧⑨⑩ | ① | ①② | ①②③ | A | ○ | | ◆ | □ | |
| | | | production relocation for the end of contract | Explained separately | | | | | A | ○ | | | ◆ | □ |
| | | | New supplier in need of new contract | ① | ①⑤⑧⑨⑩ | ① | ①② | ①②③ | A | ○ | | | ◆ | □ |
| | | ・Change of delivery destination | Delivering mass production parts to new destination (requested by customer) | | | | ②* | | — | | ○ | ◆ | | |
| | | | Delivery to supplier of customer (requested by customer) | | | | ②* | | B | ○ | | ◆ | | |
| | | ・Change from in-house process to outsourcing or vise versa | Experienced similar products/process | ① | ①⑤⑧⑨⑩ | ① | ①② | ①②③ | B | ○ | | ◆ | | |
| | | | Experienced similar products/process | ① | ①⑤⑧⑨⑩ | ① | ①② | ①②③ | A | ○ | | ◆ | | |
| | | | Change of important process | ① | ①⑤⑧⑨⑩ | ① | ①② | ①②③ | A | ○ | | ◆ | | |
| | | | Change to pass-through | ① | ①⑤⑧⑨⑩ | ① | ①② | ①②③ | A | ○ | | ◆ | | |
| | | ・Change of manufacturing plant of supplier | Will reuse current process/equipment | ① | ⑩ | | ①② | ①②③ | B | ○ | | ◆ | | |
| | | | New process/equipment | ① | ①⑤⑧⑨⑩ | ① | ①② | ①②③ | A | ○ | | ◆ | | |
| | | | Change from domestic to overseas plant or vise versa | ① | ①⑤⑧⑨⑩ | ① | ①② | ①②③ | A | ○ | | ◆ | □ | □ |
| | Material change | ・Change of material supplier | Change of domestic supplier | ① | ①③④⑩ | ① | ② | ① | B | ○ | | ◆ | | |
| | | | Import from overseas | ① | ①③④⑩ | ① | ② | ① | A | ○ | | ◆ | □ | □ |
| | | ・Change from self-supplied material to supplied material or vise versa | Change of control method (No change in product) | — | — | — | — | — | — | | ○ | ◆ | | |
| | | | Change of process/control method for self-supplied material | — | ⑩ | ① | ② | ① | A | ○ | | ◆ | | |
| | | ・Change of material not relevant to spec (rust-proof oil, lubricant, etc.) | Change of supplementary material not affecting quality characteristics | — | ①③ | ① | ② | — | — | | ○ | ◆ | | |
| | | | Change of supplementary material affecting quality characteristics | ① | ①③⑩ | ① | ② | ① | B | | | | | |
| | Process conditions/methods change | ・Change of forging method (not affecting spec of finished products) | Change of forging die design | ① | ①③④⑤⑧ | ① | ①② | ①② | A | ○ | | ◆ | | |
| | | | Change of forging process | ① | ①③④⑤⑧ | ① | ①② | ①②③ | B | ○ | | ◆ | | |
| | | | Change of control items and values prior to forging process | ① | ①③④⑤⑧ | ① | ② | ①② | B | | ○ | ◆ | | |
| | | | Change of forging conditions | ① | ①③④⑤⑧ | — | ② | ①② | B | * | ○ | ◆ | | |
| | | ・Change of pressing method (not affecting spec of finished products) | Change of pressing die design | ① | ①④⑤⑧ | ① | ①② | ①② | A | ○ | | ◆ | | |
| | | | Change of pressing process | ① | ①④⑤⑧ | ① | ①② | ①②③ | B | ○ | | ◆ | | |
| | | | Change of control items and values prior to pressing process | ① | ①④⑤⑧ | ① | ② | ①② | B | | ○ | ◆ | | |
| | | | Change of pressing conditions | ① | ①④⑤⑧ | — | ② | ①② | B | * | ○ | ◆ | | |
| | | ・Change of casting method (not affecting spec of finished products) | Change of the number of cavities (plural cavities) | ① | ①③⑤ | ① | ①② | ①② | A | ○ | | ◆ | | |
| | | | Change of pouring gate | ① | ①③⑤ | ① | ② | ①② | B | ○ | | ◆ | | |
| | | | Change of shaking out mold | ① | ①④ | ① | ② | ①②③ | B | ○ | | ◆ | | |
| | | | Change of casting conditions | ① | ①③④⑤ | — | ② | ①② | B | * | ○ | ◆ | | |
| | | | Change of core | — | ① | — | ② | — | — | | ○ | ◆ | | |
| | | ・Change of sintering conditions (process, temperature, cycle time, etc.) | Change of design of sintering die | ① | ①③ | | ①② | ①② | B | ○ | | ◆ | | |
| | | | Change of sintering process | ① | ①③ | ① | ①② | ①②③ | B | ○ | | ◆ | | |
| | | | Change of sintering conditions | ① | ①③ | — | ② | ①② | B | * | ○ | ◆ | | |
| | | ・Change of heat treatment conditions (temperature, cycle time, heating method, cooling method, etc.) | Change of conditions for changing furnace equipment | — | ①②③⑤⑥ | ① | ② | ①② | B | * | ○ | ◆ | | |
| | | | Change of conditions for maintenance and OH | — | ①②③⑤⑥ | ① | ② | ①② | B | * | ○ | ◆ | | |
| | | | Change of conditions for changing quantity | — | ①②③⑤⑥ | ① | ② | ①②③ | B | * | ○ | ◆ | | |
| | | | Change of heat treatment conditions | — | ①②③⑤⑥ | — | ② | ①② | B | * | ○ | ◆ | | |
| | | ・Change of molding condition of gum or synthetic resin | Change of material | ① | ①③④⑤ | ① | ①② | ①② | B | ○ | | ◆ | | |
| | | | Change of conditions for changing die design | ① | ①③④⑤ | ① | ①② | ①② | B | * | | ◆ | | |
| | | | Change of conditions for changing molding method | ① | ①③④⑤ | ① | ② | ①② | B | * | ○ | ◆ | | |
| | | ・Change of welding conditions | Change of conditions for changing shape of product | ① | ①③④⑤ | ① | ② | ①② | B | * | ○ | ◆ | | |
| | | ・Change of machining conditions | Change of rough machining process by improvement | | ⑧ | ① | ② | ②③ | — | | ○ | ◆ | | |
| | | | Change of finishing process by improvement | ① | ⑤⑨ | ① | ② | ①②③ | B | ○ | | ◆ | | |
| | | | Change of machining program (order/condition) | ① | ⑤⑧⑨ | ① | ①② | ①②③ | B | | ○ | ◆ | | |
| | | ・Change of machining datum or setting method | Change of processed position | ① | ⑤ | ① | ② | ②③ | B | | ○ | ◆ | | |
| | | | Change of clamping method | ① | ⑤ | ① | ② | ②③ | B | * | ○ | ◆ | | |
| | | ・Change of plating, buffing, or coating conditions | Change of conditions | — | ①③⑤ | ① | ② | ①②③ | B | ○ | | ◆ | | |
| | | ・Change blasting conditions | Change of blasting material (diameter/shape/material) | — | ⑤ | — | ② | ②③ | — | | ○ | ◆ | | |
| | | | Change of blasting conditions | — | ⑤ | — | ② | ②③ | — | | ○ | ◆ | | |
| | | ・Change of blasting conditions (Shot peening) | Change of blasting material (diameter/shape/material) | — | ①③⑤ | — | ② | ②③ | B | ○ | | ◆ | | |
| | | | Change of blasting conditions | — | ①③⑤ | — | ② | ②③ | B | ○ | | ◆ | | |
| | | ・Change of assembly conditions | Change of assembly jigs | — | ⑩ | ① | ② | ①②③ | B | * | ○ | ◆ | | |
| | | | Change of press-fitting conditions (pressure/speed/load) | ① | ①⑤ | ① | ② | ①②③ | B | * | ○ | ◆ | | |
| | Process order change | ・Consolidation, abolishment, or change of process sequence | Change of product conditions (degreased surface/attachment of oil, grease, or machining fluid) | — | ①⑩ | ① | ② | ①②③ | — | * | ○ | ◆ | | |
| | | | Consolidation or split of processes for change of equipment | ① | ⑤⑧⑨ | ① | ①② | ①②③ | B | ○ | | ◆ | | |
| | | | Change of process sequence | ① | — | ① | ①② | ①②③ | B | ○ | | ◆ | | |
| | | | Abolishment of process (temporary) | — | — | ① | ② | ②③ | — | | ○ | | | |
| | | | Consolidation, abolishment, or change of process sequence (indicated in control plan) | ① | — | ① | ①② | ①② | B | ○ | | ◆ | | |
| | | ・Change of process from temporary to permanent or vise versa | Alternative machine for replacement of broken machine | ① | ⑤⑧⑨ | ① | ①② | ①② | B | ○ | | ◆ | | |
| | | | Machine recovering from alternative one | ① | ⑤⑧⑨ | ① | ①② | ①② | — | ○ | | ◆ | | |
| | | ・Change of manufacturing plant | Change from MSI to KMS or vise versa | Explained separately | | | | | A | ○ | | | ◆ | □ |
| | | | Change from overseas plant to domestic plant or vise versa | Explained separately | | | | | A | ○ | | | ◆ | □ |
| | Machine change | ・Modification or repair of machine | Modification of equipment for processing other product | ① | ⑤⑧⑨ | ① | ①② | ①② | B | ○ | | ◆ | | |
| | | | Equipment recovering from repair | ① | ⑤⑧⑨ | — | ①② | — | B | | ○ | ◆ | | |
| | | | Same kind of machining equipment (same jigs) | ① | ⑤⑧⑨ | — | ①② | ② | — | | ○ | ◆ | | |
| | | | Same kind of forging equipment | ① | ①④⑤⑧ | — | ①② | ② | B | ○ | | ◆ | | |
| | | | Same kind of casting equipment | ① | ①③④⑤ | — | ①② | ② | A | ○ | | ◆ | | |
| | | | Same kind of pressing equipment | ① | ①④⑤⑧ | — | ①② | ② | B | ○ | | ◆ | | |
| | | | Same kind of sintering equipment | ① | ①③④⑤ | — | ①② | ② | B | ○ | | ◆ | | |
| | | | Same kind of heat treatment equipment | — | ①②③⑤⑥ | — | ①② | ② | B | ○ | | ◆ | | |
| | | | Same kind of equipment molding gum or synthetic resin | ① | ①③④⑤ | — | ①② | ② | B | ○ | | ◆ | | |
| | | | Same kind of welding equipment | ① | ①③④⑤⑥ | — | ①② | ② | B | ○ | | ◆ | | |
| | | | Same kind of blasting equipment | — | ⑤ | — | ② | ② | — | | ○ | ◆ | | |
| | | | Same kind of blasting equipment (shot peening) | — | ①③⑤ | — | ② | ② | B | ○ | | ◆ | | |
| | | ・New machine | Installation of equipment of new processing method | ① | ⑤⑧⑨ | ① | ○ | ○ | B | ○ | | ◆ | | |
| | | | Installation of same kind of equipment | ① | ⑤⑧⑨ | — | ○ | ○ | — | | ○ | ◆ | | |
| | | ・Change of mass production machine to alternative one or vise versa | Alternative QA equipment | — | ⑦ | ① | ② | ①② | B | ○ | | ◆ | | |
| | | | QA equipment recovering from alternative one | — | — | — | ② | ①② | — | | ○ | ◆ | | |
| | | ・Relocation of machine | Change of layout within the division | ① | ⑩ | — | ①② | — | — | | ○ | ◆ | | |
| | | | Change of processing division (relocation of plants) | ① | ⑤⑧⑨⑩ | — | ①② | ②③ | B | | ○ | ◆ | | |
| | | | Change of equipment or jigs through relocation | ① | ⑤⑧⑨⑩ | ① | ①② | ②③ | B | ○ | | ◆ | | |
| | | ・Change of software (e.g. programs) | Change of software (not relevant to Musashi as of today) | — | — | — | — | — | — | — | — | | | |
| | Jig/tool change | ・Change of master | Change of master (not relevant to Musashi as of today) | — | — | — | — | — | — | — | — | | | |
| | | ・New or modification of jigs | New jigs but no change in drawing | — | — | — | ② | — | — | | ○ | ◆ | | |
| | | | Change of jig design | ① | — | ① | ② | ②③ | B | | ○ | ◆ | | |
| | | | Change of jig design of heat treatment | ① | ②③⑥ | — | ② | ②③ | B | | ○ | ◆ | | |
| | | | Change of cutting tool (supplier, type, etc.) | ① | ⑤⑧⑨ | — | ② | ②③ | — | | ○ | ◆ | | |
| | Die change | ・Modification or renewal of dies | Renewal of forging die for reaching die life | — | — | — | ② | — | — | | ○ | ◆ | | |
| | | | Renewal of die of products having gear engagement (bevel gear) | — | ① | — | ② | — | B | ○ | | ◆ | | |
| | | | Renewal of casting die for reaching die life | — | — | — | ①② | — | — | | ○ | ◆ | | |
| | | | Change of dimensions of die for improvement | ① | ④ | ① | ② | ② | — | | ○ | ◆ | | |
| | | ・Change from permanent dies to temporary one or vise versa | Change to permanent die at the start-up stage | ① | ①③④⑤⑧ | ① | ①② | ② | B | | ○ | ◆ | | |
| | | | Change to permanent die after mass production | ① | ①③④⑤⑧ | ① | ①② | ①② | B | ○ | | ◆ | | |
| | | | Change to temporary die after mass production | ① | ①③④⑤ | ① | ①② | ①② | B | ○ | | ◆ | | |
| | Inspection method change | ・New or modification of inspection jigs or tools | Change of inspection jigs specified in the control plan | — | ⑦ | — | ⑤ | ①② | — | ○ | | ◆ | | |
| | | ・Change of inspection tools or criteria | Change of inspection tools | | ⑦ | ① | ② | ①② | — | * | ○ | ◆ | | |
| | | | Change of criteria to ones different from the drawing (shall be agreed with customer) | ① | ⑤⑦ | ① | ② | ①② | B | ○ | | ◆ | | |
| | | ・Change of inspection frequency, method, criteria, area and etc. | Change of inspection method specified in the control plan | ① | ⑤ | — | ② | ①② | B | ○ | | ◆ | | |
| | Personnel change | ・Change of personnel in COMP, ASSY or welding process | Change of personnel | | | | ② | | — | | ○ | ◆ | | |
| | Deliver/packaging change | ・Change of delivery method, packaging method, or container | Change of packaging style delivered to customer | — | ⑩ | ① | — | ③ | — | ○ | | ◆ | | |
| | | | Change of packaging style between processes | — | ⑩ | ① | — | ③ | — | | ○ | ◆ | | |
| General IPP | Customer requirement | ・As for Ford products, more than 12 months have passed since the last time manufacturing products | | ① | | | ①② | | — | ○ | | ◆(Mgr.) | | |

・Regarding change points having * mark, the organization shall report to the customer in advance in case of changing items specified in the control plan.
・If the organization has difficulty in determining whether they need advance notice to the customer or not, they shall discuss with their quality assurance division and determine it.
・In order to appropriately control environmental hazardous substances, if there are changes in components or attached materials on the product, the organization shall proceed the necessary procedure during IPP application following the customer requirement and environmental regulations.

| Issue | Revision | Reason for change | Date |
|---|---|---|---|
| 02 | 00 | Global change point requirement added | 9.09.2019 |
| 01 | 07 | Newly made -Evaluation item list | 25.01.2018 |

| PREPARED BY | CHECKED BY | APPROVED BY | RELEASED BY |
|---|---|---|---|

**1) Initial Flow Control**

Initial flow control is a concept of exrecising special and additional controls after the start of mass production for determining whether mass production can be continued in the current process or not.

**1) Designation of Initial Flow Control**

Referring the below table, QA head shall judge the necessity of initial flow control, and specify the subjected part/model & period of IFC before start of mass production. If customer specified IFC requirement is available, same shall be followed.

| Category of Initial Parts | Critical Control | Control Period of Initial Flow | Assigned Div; | Personnel |
|---|---|---|---|---|
| New Model parts | ..... | 3 months | QA | Div manager QA |
| Spec Change Parts | Available | one month | QA | Div manager QA |
| | Not Available | -- | | |
| New Supplier's Parts | Available | one month | QA | Div manager QA |
| | Not Available | -- | | |
| Process Flow Change Parts | Available | one month | QA | Div manager QA |
| | Not Available | -- | | |
| Machine Change Parts | Available | one month | QA | Div manager QA |
| | Not Available | -- | | |

Assigned Div. Manager shall create "Notification of Initial Flow Control" (ISF-QA-065 A-1) by every part that is subject to initial flow control, and notify it of relevant divisions (refer to Article 6-2) at the start of mass production.

**2) Implementation and Release/termination of Initial Flow Control**

QA dept (NPD QA for new model parts / In-process QA for change in mass production parts) shall raise "Notification of Initial Flow Control" for parts/model subjected to initial flow control, and notify it of relevant divisions (refer to Article 6-2) at the start of mass production.

QA department shall determine the control items & control method "IFM Acitivity Plan" "ISF-QA-065" and inform concern dept (Prod, PE, Maint, etc) about the Initial Flow Model in advance of mass production, and shall direct the implementation of Initial Flow Control

QA department shall regulary monitor the IFC activities, and at the end of designated period, if all the requirement of releasing IFC are satisfied, and corrective action for all the issues are taken, then QA head shall release/terminate the initial flow control by signing off "Initial Flow Control" "ISF-QA-065".

If the IFC cancellation requirement are not satisfied, the IFC shall be keep extended by 1 month, till it satisfy the termination requirement.

| Item of Initial Flow Control | Method/Frequency of Confirmatio | Requirements of Releasing |
|---|---|---|
| Critical Control Item | | |
| ・Appearance Control Item | 100% Visual Inspection | Carrying-in defect has not been found. |
| ・Priority Control Item | Frequency: Two times of general ins | Carrying-in defect has not been found. |
| Number of Carrying-in Defect | Customer's Complaints | The target has been achieved. |
| Process Capability | Once a Month | Cpk ≧ 1.33 |
| Customer's Direction | — | The requirements has been fulfilled. |
| Issues at Prod. Preparation Stage | — | Measures and effectiveness confirmed, and judged OK |
| Issues during Initial Flow | — | Measures and effectiveness confirmed, and judged OK |

Note: Abnormalities observed during initial flow control shall be treated as per CAPA rule. And the measures shall be completed and effectiveness shall be confirmed during initial flow period.

If process capability is insufficient, measures shall be taken to prevent outflow of NG parts and ensure quality assurance.

| Issue | Revision | Reason for change | Date |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| 02 | 00 | Global change point requirement added | 9.09.2019 |
| 01 | 07 | Newly made -Evaluation item list | 25.01.2018 |

| PREPARED BY | CHECKED BY | APPROVED BY | RELEASED BY |
|---|---|---|---|
| | | | |