SECTION I

INTRODUCTION TO THE ADM-SQAM

1.1 PURPOSE AND SCOPE OF ADM-SQAM

PURPOSE

1. The purpose of this Manual is to introduce the steps of the Quality Assurance activities to assure the quality of Daihatsu vehicles from Production Preparation up to Initial stage of the Mass Production. This Manual also is purposed as guidance for Suppliers to prepare documents and equipments to make parts in each Step of the Production Preparation and the Mass Production stage.

2. Following this Manual will smooth the communication routes of the quality assurance activities between ADM and Suppliers, then to achieve and to maintain Daihatsu Quality requirements from the beginning of the Production Preparation like as the Regular Process Part Sample (RPPS), (W) / (T) / (A) Parts Matching, Engineering Trial, Pilot Production (PP), Start of Production (SOP) until the regular Mass Production.

SCOPE

This Manual is a part of "Sale and Purchase Agreement "between ADM and Supplier. The Rules and Procedures in this manual must be followed by Suppliers according to the steps of the Production Preparation up to the Regular Mass Production.

DEFINITION

1. **REGULAR PROCESS PART SAMPLE (RPPS)**
   Regular Process Part Sample is first try-out part by formal mass production tooling and material. Supplier must check this part using the Checking Fixture or other tools and attach the Inspection Check sheet before delivering the part to ADM.

2. **PART MATCHING**
   Part matching is a quality activity to evaluate the accuracy of the Regular Process Part Samples related with (W) Pressed Parts, the influences of (T) Painting Process and the accuracy of the (A) Assembly Parts. Part Matching activities will give feed back to the Supplier to improve the accuracy of the Regular Process Part Samples until the accuracy of the part is approved by Parts Matching Team.

3. **ENGINEERING TRIAL**
   Before Pilot Production, PEP Division will conduct an Engineering Trial to check the function and workability of each production equipment in the Production Line. All problems found in this event must be counter-measured before shifting to the Pilot Production Stage.

4. **REQUEST for DESIGN & DEVELOPMENT of PARTS (RDDP)**
   If necessary ADM submits a Request for Design & Development of Parts sheet to a Supplier. After finishing it, Supplier can submit the drawing to ADM using Application Sheet for Approval (ASA) and Receipt of Approval Drawing (RAD).

5. **ENGINEERING CHANGE REQUEST (ECR)**
   Supplier can propose a design modification if necessary, using ECR sheet.

6. **ENGINEERING CHANGE INSTRUCTION (ECI)**
   For any purpose, sometimes a drawing can be modified using ECI sheet.

7. **PRE STUDY REQUEST (PSR)**
   Before issuing an ECI, if necessary ADM submit a Pre Study Request to a Supplier.

8. **TECHNICAL INSTRUCTION SHEET (TIS)**
   Additional Instructions as a supplementary of the Drawings.

9. **PILOT PRODUCTION**
   After fulfilling the Pilot Production Commencement Criteria, ADM will proceed to the Pilot Production. In this activity all approved parts are involved to build a complete vehicle. If necessary ADM will divides 2 steps in Pilot Production Stage: the 1st Pilot Production and the 2nd Pilot Production. All related Division must perform their own function in the production process to realize any obstacle in the process to be improved before the Mass Production.

10. **QUALITY CONFIRMATION (HINKAKU)**
    Before shifting to the Mass Production Stage, ADM will conduct the Quality Confirmation activities to confirm that all Quality Targets have been achieved by the normal production processes both in the ADM's Factory and also in the Supplier's Factory. All necessary documents and equipments must be available to assure high level of the Daihatsu Quality. All Limit Samples have been approved by ADM-IE to be used in the Mass Production.

11. **MASS PRODUCTION**
    In this stage Supplier must not deliver defected parts to ADM. Supplier must follow the approved Quality Control Process Chart (QCPC) and the Part Inspection Standard (PIS).

1.2 COORDINATION AND MANAGEMENT

ADM Quality Control Division coordinates and manages all activities regarding the distribution, explanation and implementation of this ADM-Supplier QA Manual. ADM-Quality Control Division will decide which the correct meaning is if there is any different interpretation between ADM-Divisions and Suppliers that related with this ADM – Supplier Quality Assurance Manual.

Beside the names of the related Division that are provided in the relevant documents, Purchasing Division (Pu.Div.), Quality Engineering Dept. (QE Dept.), Production Control Division (PC Div.), Quality Inspection Dept. (QI Dept.) serve as the points of contact for both the Suppliers and ADM.

1.3 DESIGNATION OF THE SUPPLIER'S REPRESENTATIVE

PURPOSE:

To build and improve a mutual understanding between ADM and Supplier in daily operation of the relevant Divisions (Purch, QE, PC, QI, etc.) from the beginning of the Production Preparation until the Regular Mass Production.

SCOPE:

ADM-Purchasing Division requests to the Supplier to submit the Supplier Representative Information consisted of: The Representative of the contact with ADM, Quality Control PIC, Production Preparation PIC, Day Shift PIC and Night Shift PIC.

The Supplier Quality Control Representative or equivalent must be assigned as the Supplier Representative. He or she has an authority to manage and control the implementation of this manual, to arrange the effective flow of quality information between the Supplier and ADM. He or She can delegates to the 1st and 2nd shift Quality Supervisor or equivalent through the Quality Control Manager to stop non conforming parts from being shipped to ADM, once they have been informed by ADM-Quality Engineering Dept. (QE Dept.).
The Quality Control Manager must coordinate the Shift Quality Supervisors to maintain the quality consistency between day and night shifts production.

SUPPLIER RESPONSIBILITY

1) The Suppliers must fulfill and submit Supplier Representative Information to ADM Purchasing Division.
2) The Suppliers must assign their Quality Control Representative as the Supplier Representative who will be in charge in all quality assurance activities internally and to whom the ADM-SQAM will be distributed.
3) The Supplier Quality Control Manager must delegates his/her authority to his/her shift supervisors (Separately for both day and night shift) to stop non conforming parts from being shipped to ADM, as well as taking counter measure in process after coordinating it with ADM.
4) The supplier must notify ADM side within 10 days if there are changes in the names of the contact persons.
5) The Supplier Representative is responsible for maintaining a current copy of the ADM-SQAM and assuring that each division of the organization are trained to follow ADM-SQAM. The supplier must use the "Supplier Representative Information" form to designate supplier contact persons or any change of the persons.
6) The Supplier Representative will attach their organization chart to the Supplier Representative Information form.

< Format no. 7 >

To : Astra Daihatsu Motor
Purchasing Department

SUPPLIER REPRESENTATIVE INFORMATION

Date	:
Supplier	:
Address	:

Function	Name	Title	Division	Phone/FAX	Hp/Phone	E-Mail
Representative of Contact with ADM						
Quality Control						
Production Preparation						
Day Shift						
Night Shift						

Note :
Within 10 days if there is changing must be informed to ADM Purchasing Dept.

SECTION II

PRODUCTION PREPARATION ACTIVITIES

2.1 OVERVIEW OF PRODUCTION PREPARATION ACTIVITY UP TO START OF MASS PRODUCTION

PURPOSE
To provide an overview of the sequence steps during the Production Preparation. Suppliers can understand easily, what must be prepared in each step to assure the quality of the parts and the components.

SCOPE
This section would like to explain what activities must be done by Suppliers within 10 months before Mass Production until 2 months after start up of Mass Production. After finishing all production tools and the equipment, Suppliers must update QCPC, PIS and other necessary documents to achieve the stability of product quality. Suppliers must also control and direct their sub-suppliers of the 2nd tier or 3rd tier regarding the implementation of ADM-SQAM.

SCHEDULE
An ADM project General Schedule is informed to the Suppliers at the beginning of a project. The Suppliers must develop Quality Control Activities based on the ADM Project General Schedule. We divide this activities into 3 basic phases as follows:

PHASE I (10 to 7 months before Start of Production (SOP) in ADM)

MAIN OBJECTIVE
To make parts refer to the Drawing specifications and Part Inspection Standard using the regular process material and tooling.

SUPPLIER RESPONSIBILITIES
1. Mass Production tooling must be finished at least by ten month before Start of Production in ADM. All Parts must be made using this mass production tooling.
2. Supplier must complete an initial draft of Quality Control Process Chart (QCPC) and Part Inspection Standard (PIS) at least 9 months before Quality Confirmation. This QCPC document together with PIS must be sent to ADM-QE Dept. to get approval from ADM-QE Dept. These two documents must be constantly updated and modified like as new items are added to control the quality during mass production.
3. Supplier must develop statistical process studies as necessary to determine the process capabilities to achieve the quality target continuously.
4. Regular Process Part Sample (RPPS) must be evaluated in ADM or and DMC or Japan mother company which must pass the Daihatsu Standard.
5. Parts Matching will be performed in ADM to check part accuracy and relationship between the part, the part checking fixture and the part to the Car body fitting condition. Parts Matching activity is arranged separately by Parts Matching Team in detail regarding the Part accuracy and the Part Inspection Standard.
6. Before Pilot Production, ADM-Production Engineering Division will conduct Engineering Trials to check the function of the line in all shops. All problems found in this Engineering Trial must be solved by the related shops or Suppliers before shifting to the Pilot Production stage. Parts that used in the Engineering Trial must be completed with the check sheet. Suppliers must improve the part accuracy based on the part checking fixture check sheet and the improvement request from the parts Matching Team.

PHASE II (6 to 2 months before Start of Production (SOP) at ADM)

MAIN OBJECTIVES

In this phase the objectives are manufacturing problems solving, process capability evaluation by the mass production simulation and the process arrangement.

SUPPLIER RESPONSIBILITY

1). After counter measuring problems in the Engineering Trial, ADM will proceed to the Pilot Production stage. Usually in the full model change ADM divide the Pilot Production Stage into 2 steps denoted 1PP and 2PP. The Parts used in 1PP and 2PP must be completed with the part Accuracy Check sheets.

2). Additional Pilot Production activities are performed in the supplier's location. These activities are denoted as 0.5 PP and 1.5 PP. The purpose is that Suppliers can simulate the Mass Production conditions as close as possible (Line speed, tooling, cycle time, workability, etc.) Suppliers must study the quality of parts; confirm the capability of the process for the supplier's benefit.

3). Supplier must evaluate all the parts on the checking fixture and make sure that the parts meet the drawing's specification and Part Inspection Standard. They must also ensure that the parts evaluation is performed according to the Parts Evaluation Plan.

4). From the early stage, Suppliers must study the process, develop and improve jigs and process equipments. The process lay- out must be finalized at least 8 months before the start of Mass Production in ADM.

5). Suppliers must take counter measure quickly to correct NG parts following the drawing's specification and Part Inspection Standard.

6). Suppliers must prepare the draft of Work Standards and Work Instruction Sheets in each process as well as Inspection Operation Standards.

7). Suppliers must update and revise QCPC & PIS showing the Current Condition. The latest revision must be sent to ADM-QE Dept. to get approval.

8). Suppliers must solve quickly mass production capability problems in both the tooling and the process, and convert draft work standards into standardized work. Minor tooling adjustments and preventive maintenance of tooling plan must be completed.

9). Suppliers must complete all training plans regarding production and inspection workers to prevent all possible mistake of the workmanship.

10).Supplier must instruct and follow up all sub-supplier's production preparation activities such as Quality Control Process Chart, QC Plan, Part Inspection Standard, etc.

PHASE III (1 month before and 2 or more months after Start of Production (SOP) at ADM)

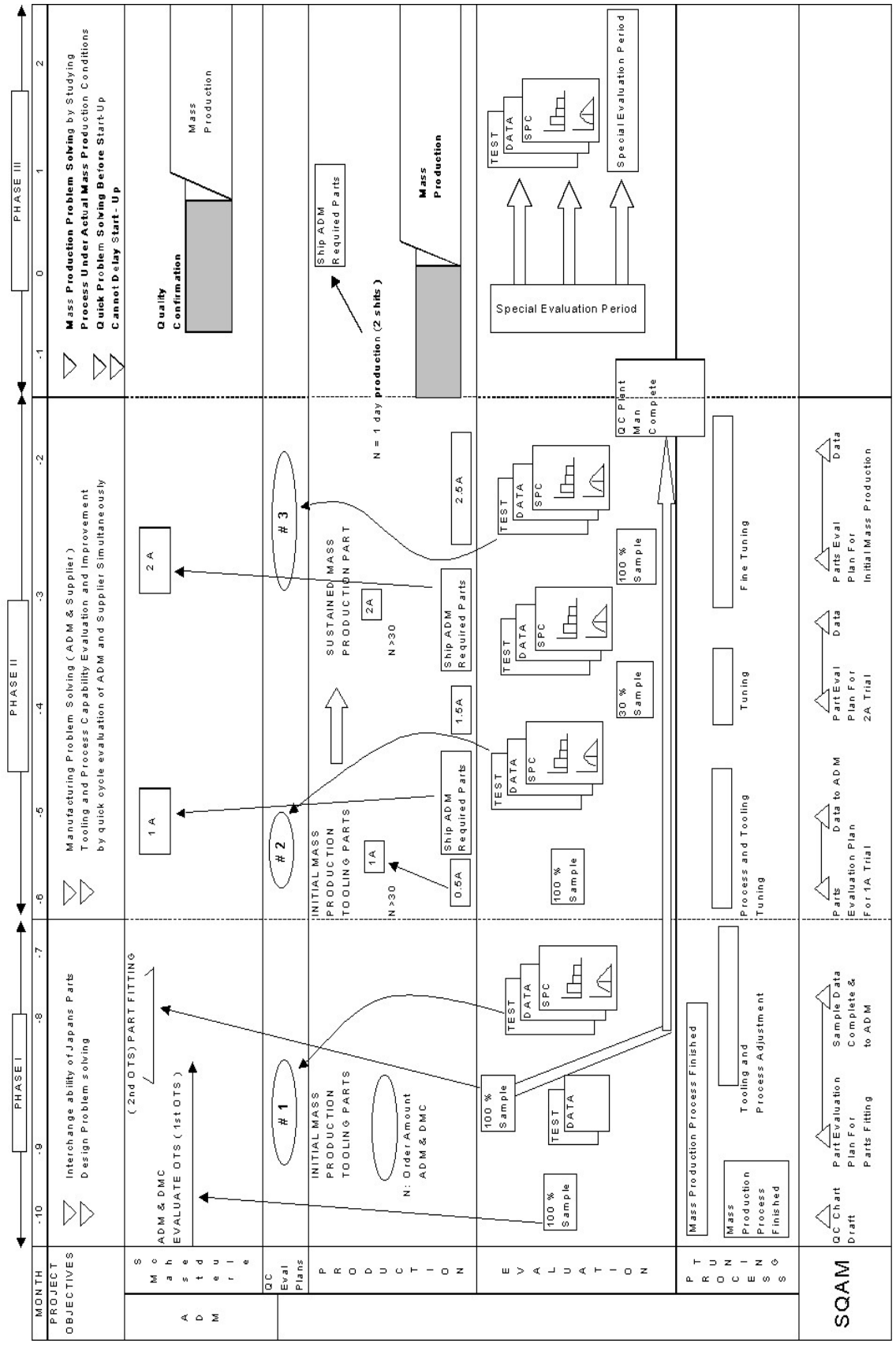
MAIN OBJECTIVES

To confirm production capability and capacity considering the remaining problems found in 1PP and 2PP. To follow up Supplier's detailed schedule to assure Mass Production start up in ADM on time. To study potential problems that can be happened in the Mass Production stage. To achieve the stability of the part quality in the Initial stage of Mass Production.

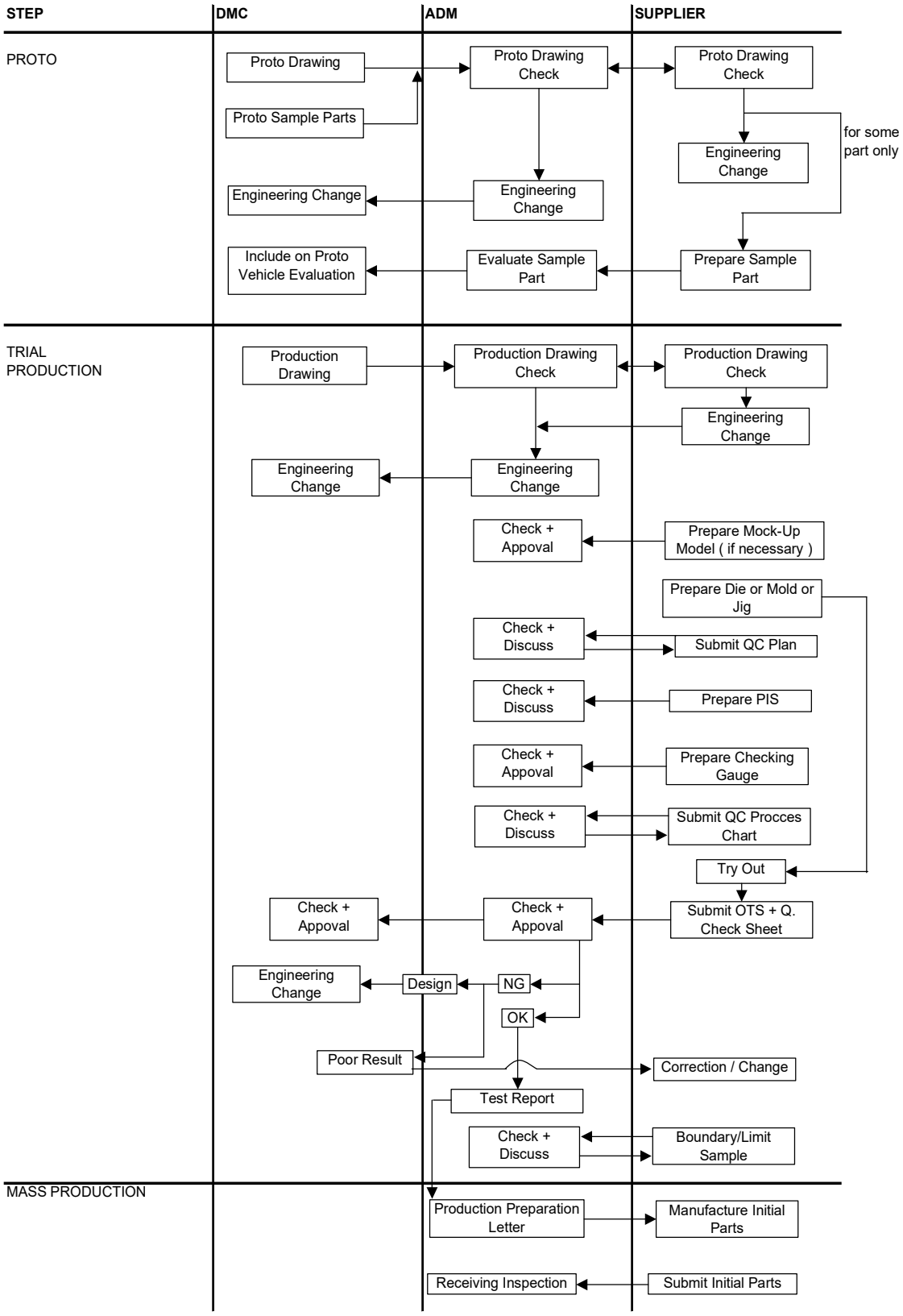
SUPPLIER RESPONSIBILITY

1). During this period, the Supplier must concentrate to detect all potential problems that can not be found during the low volume production. A special inspection plan must be performed in this period as a supplement to the Quality Control Process Chart (QCPC) in the regular mass production.
2). The special Inspection Plan includes a plan to evaluate all items that can not be checked in the pilot production preparation stage. The plan also includes the additional checks to confirm the process capability that has been proven. Basically it is a modification of the Quality Control Process chart (QCPC) by adding the higher frequency or more severe testing conditions or by adding additional test that have not controlled yet during the mass production start up.
3). The suppliers must confirm that the content of the Quality Control Process Chart (QCPC) are adequate to control the mass production quality. Then suppliers must maintain the QCPC and confirm that all changes have been approved by ADM.
4). The Suppliers must send quality data sheets to ADM together with each part shipment until the Quality Confirmation stage and then weekly at least one month after the mass production starts up in ADM.
5). If problems are found, suppliers must take counter measures quickly. NG parts must not be shipped to ADM without ADM approval. The suppliers must also not delay the production preparation stage and the mass production start-up in ADM.
6). Standardized work in the production process and standardized maintenance must be set up and enforced to assure the stability of the parts quality.
7). Suppliers must always use Quality Control Process Chart (QCPC) to maintain the parts quality consistency between the drawings and the Part Inspection Standards.
8). Suppliers must confirm the valid latest production drawings, latest ECI, latest Technical Instruction Sheet (TIS) and latest Daihatsu Technical Standards (DTS).

PART PRODUCTION PREPARATION SCHEDULE



Flow chart of production preparation ADM



2.2. PART INSPECTION STANDARD (PIS)

PURPOSE

The Part Inspection Standard defines the certain characteristics of each part including the dimensions, the appearance and performance and also the method and the frequency of checking. Therefore all of parts which will be assembled must follow the Part Inspection Standard.

SCOPE

The criteria of the Part Inspection Standard (PIS) must be established referring to the drawing specifications, TIS, DTS, JIS, etc.:

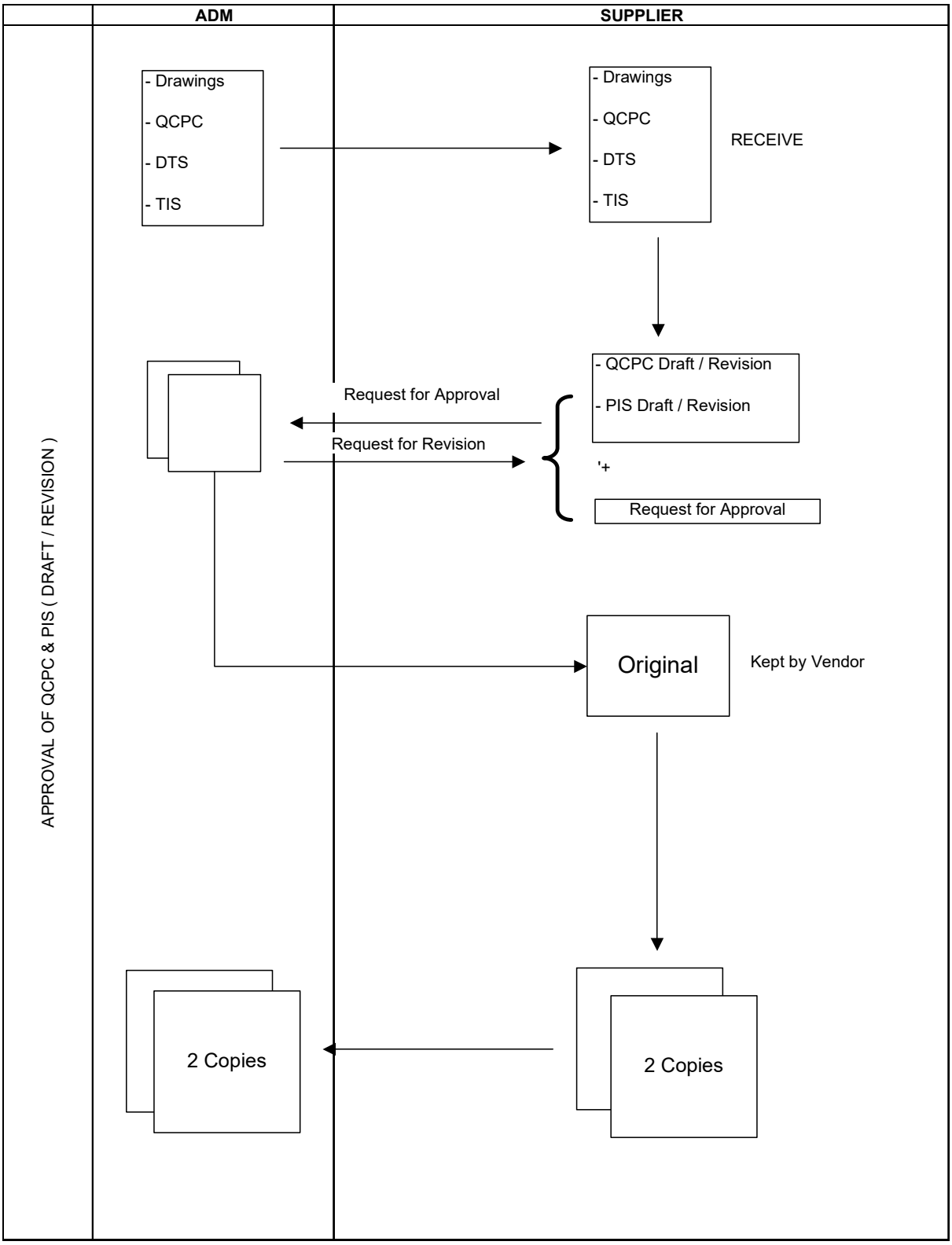
1). **Material** specifications must be clear on the Part Inspection Standard and also on the Part Inspection Check sheets.
2). Generally the **Dimensions and tolerances** follow the drawing. If the drawing does not mention the tolerances it must refer to the completely vehicle standard and general tolerances which mentioned on the Technical Instruction Sheet (TIS), Daihatsu Technical Standard (DTS), JIS, etc.
3). **Performances of the part are** usually mentioned on the drawing or in TIS and DTS. Frequency for testing during the mass production normally is defined in this Part Inspection Standard (PIS).
4). **Appearance** is specified in the Part Inspection Standard. It may be added to define a boundary / limit sample part.
5). **Datum Point, Inspection Items (Measurement, Weight, Appearance, Performance), Inspection Method and Tool, Dimension Tolerance, Sample Check Method** must clearly be indicated in the Part Inspection Standard.

SUPPLIER RESPONSIBILITY

1). Suppliers can prepare the Part Inspection Standard (PIS) Draft at least until 9 months before the Quality Confirmation in ADM. (Please see the attached PIS form). To prepare a draft of PIS, suppliers can refer to the drawings, TIS, DTS and other technical documents.
2). Suppliers can submit the original Part Inspection Standard Draft to ADM-QE Dept. to get approval.
3). Suppliers must modify Part Inspection Standard Draft based on ADM request and resubmit again after modifying it. Once the Part Inspection Standard is approved, suppliers must keep the original one.
4). Suppliers must arrange to get approval of the PIS before 1PP at the first time from ADM-QE Dept.
5). Suppliers must maintain and up date PIS as necessary, when receive new technical documents like as Engineering Change Instructions (ECI). Up dated PIS must be submitted to ADM-QE Dept. to be approved.
6). Suppliers must prepare the Part Inspection Check-sheets following the approved Part Inspection Standard.
7). Regularly Supplier must submit Part Inspection Check-sheets to ADM-QE Dept.
8). Supplier must evaluate PIS as necessary if there is any quality problem in the market and covered by Warranty Claim.

* If suppliers involved other supplier (2nd, 3rd, etc) in order to finish their part (e.g. : assy part), they must guarantee the important items doesn't written on assy drawing but shown on sub assy parts. This is can be done by making Supply Part Routing (SPR) in PIS. (see page 20-21)

Flow chart of PIS



PT. ASTRA DAIHATSU MOTOR QUALITY CONTROL DIVISION QUALITY ENGINEERING DEPT.	**WORK INSTRUCTION** **Part Inspection Standard**	PAGE : of NO. : DATE :

1. PREPARATION / REFERENCE
   - 1.1. Part drawing
   - 1.2. Technical standard :
     - Daihatsu Technical Standard
     - Technical Instruction sheet (TIS), if needed
     - J I S
     - etc

2. FILL IN METHOD :
   - 2.1. Fill in all the above column on the drawing section
   - 2.2. Check appropriation between notation and letter on drawing part column
   - 2.3. The bottom column section in Standard Form :
     - 2.3.1. INSPECTION ITEM :
       - Important dimension, if geometrical tolerance available it must be included as inspection item
       - Function
       - Performance :
         - > Material
         - > Weld strength
         - > Torque
         - > Frictionless movement
         - > etc
       - Treatment (Heat/Surface Treatment), included grease and oil using if required
       - Check " Note" as mentioned on drawing
       - Appearance
       - etc.
     - 2.3.2. STANDARD VALUE :
       - Allowance tolerance from item of inspection
       - The tolerance should be noted for all inspection items (dimension)
     - 2.3.3. INSPECTION INSTRUMENT :
       - Equipment or tooling for checking process
     - 2.3.4. RANK :
       - Level of Inspection item
         - ☐ ▽S - Safety, if drawing mention following marking ▽S
           for the following marking, ▽E ▽R ▽A Ⓙ please write on rank column too.
         - ☐ A - Very important
         - ☐ B - Important
         - ☐ C - Not so important

       All ▽and Ⓙ should be shown to Q Column as shown below (2.4)
     - 2.3.5. SAMPLING PLAN :
       - Sampling method and amount that randomly picked up from each lot (in process and delivery / final inspection)
     - 2.3.6. DAIHATSU SAMPLING PLAN
       - As needed; filled by S/I, D/I, A/M, M/S data
     - 2.3.7. REMARKS :
       - Fill with this marking ※ if inspection item is included as IQI
       - For additional information
   - 2.4. Fill the company name and signed in the available column (bottom-right)

APPROVED BY PT. ASTRA DAIHATSU MOTOR				SUPPLIER : PT.		
APPROVED	CHECKED	STAFF	▽S 10 **Q** Ⓙ 1	APPROVED	CHECKED	STAFF

Note : ▽S = Safety Item ▽R = Regulation Item ⒿJ = Marushi Item - For more detail explanation please read attachment on the last page
▽E = Emission Item ▽A = Important Process

PAGES :

DAIHATSU	MODEL :	Date of Issued : Ref No :

PART ROUTE	SUPPLIER	MATERIAL	GENERAL TOL	WEIGHT

D A I H A T S U
Part Inspection Standard
(For Purchased Part)

PART NO : .....

PART NAME : .....

SUPPLIER QC DEPARTMENT		
Gen Manager	Manager	Staff

SIGN & APPROVAL BY

ADM - QUALITY CONTROL DIVISION		
Dept Head	Sect Head	Staff

REVISION REQUEST ADM - QCD			REVISE MARK	DATE	Description	TPMI / ECI NO.	REVISION REQUEST SUPPLIER		
			Distribute to :		Division :				
DH	SH	Staff					Gen Mgr	Mgr	Staff

Draft	ADM	
Final	SUPPLIER	

Request for Approval of (New or Revised) **Part Inspection Standards**	**Company and Departmen**	APPROVED	CHECKED	CREATED
Part No :	Part Name :		PART ROUTING	MODEL

Approval request report :

- ☐ a. New design ( )
- ☐ b. Revised desigr ECI no .)
- ☐ c. Revised process (No.)
- ☐ d. Others ( )
- ☐ e Simple revision (update, Insp. Items, etc)
- ☐ f. Correction of data entry error

Approval request report :

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Description of new or revision section

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Illustration :

Comment from relevant Dept.

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Date :

APPROVED	CHECKED	STAFF

APPROVAL REQUEST RESPONSE Date :

- ☐ Approved as described in the original request
- ☐ Approved on condition of partial changes to original request
- ☐ Original form not approved for following reason

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PT. ASTRA DAIHATSU MOTOR
QUALITY CONTROL DIVISION
QUALITY ENGINEERING DEPT.

APPROVED	CHECKED	STAFF

PT ASTRA DAIHATSU MOTOR ⟷ SUPLLIER

Supplier ---> Quality Engineering PT. ADM ---> Supplier (original form)
(Approved, Revised)
└► Copy : Quality Inspection Dept.

Quality Engineering PT. ADM
Telp. 021-65310202 Ext.4312-4315
Fax. No. 6508528

	MODEL	PART INSPECTION STANDARD	FINISHED ☐ UNFINISHED ☐ CASTING-FORGING ☐	PAGE / OF /

PART ROUTING	PART No. :	PART NAME :	MATERIAL	TREATMENT	GEN.TOL.

DRAWING

APPROVED BY PT. ASTRA DAIHATSU MOTOR				SUPPLIER : PT.		
APPROVED	CHECKED	STAFF	Q	APPROVED	CHECKED	STAFF

	MODEL	PART INSPECTION STANDARD	FINISHED ☐ UNFINISHED ☐ CASTING-FORGING ☐		PAGE / OF /
PART ROUTING	PART No. :	PART NAME :	MATERIAL	TREATMENT	GEN.TOL

NO	INSPECTION ITEM	STANDARD VALUE		INSPECTION INSTRUMENT	RANK	Sampling Plan		ADM Sampling plan	REMARKS
		NOMINAL	TOLERANCE			In Process	At Delivery		

NO	REVISION RECORD	ITEM NO	D A T E	PT. A D M	SUPPLIER

APPROVED BY PT. ASTRA DAIHATSU MOTOR				SUPPLIER : PT.		
APPROVED	CHECKED	STAFF	Q	APPROVED	CHECKED	STAFF

	MODEL	PART INSPECTION STANDARD	FINISHED ☐ UNFINISHED ☐ CASTING-FORGING ☐	PAGE / OF /

PART ROUTING	PART No.	PART NAME :	MATERIAL	TREATMENT	GEN.TOL.

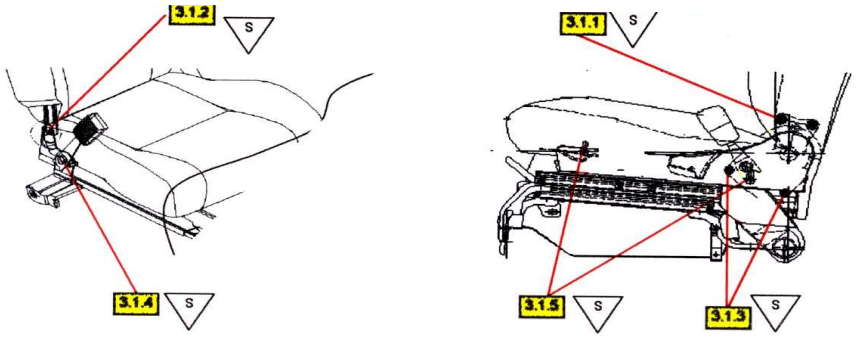
NO	INSPECTION ITEM	STANDARD VALUE		INSPECTION INSTRUMENT	RANK	Sampling Plan		ADM Sampling plan	REMARKS
		NOMINAL	TOLERANCE			In Process	At Delivery		

NO	REVISION RECORD	ITEM NO	D A T E	PT. A D M	SUPPLIER

APPROVED BY : PT. ASTRA DAIHATSU MOTOR			SUPPLIER : PT.		
APPROVED	CHECKED	STAFF		APPROVED	CHECKED	STAFF
			Q			

MODEL	PART INSPECTION STANDARD	FINISHED / UNFINISHED / CASTING-FORGING	PAGE / OF
Dxxx			/

PART ROUTING	PART No. :	PART NAME :	MATERAL	TREATMENT	GEN. TOL.
SP-PL4	71xx0-BZxxx	**Seat Assy Front RH**			



NO	INSPECTION ITEM	STANDARD VALUE NOMINAL	STANDARD VALUE TOLERANCE	INSPECTION INSTRUMENT	RANK	SAMPLING PLAN In Process	SAMPLING PLAN At Delivery	ADM Sampling plan	REMARKS
3	Safety and Strength								
3.1	Tightening torque bolt								
	Refer to Std Drawing								
3.1.1	Seat Back Recl.Adj. (2 portion)	2x.4 ~ 5x.6 N m (2xx ~ 5xx Kgf.cm)		Torque wrech	S	-	-	D/I Data 1/ 3 month	※
3.1.2	Seat Back Hingeinner.Adj. Bolt M6-4T	x.3 ~ x.8 N m (5x ~ 1xx Kgf.cm)		Torque wrech	S	-	-	D/I Data 1/ 3 month	※
3.1.3	Seat Cush. Recl. Adj. (2 portion)	2x.7 ~ x0.3 N m (2xx.3 ~ x10.9) Kgf.cm)		Torque wrech	S	-	-	D/I Data 1/ 3 month	※
3.1.4	Safety Belt	x8.7 ~ x3.3 N m (2xx ~ x43 Kgf.cm)		Torque wrech	S	-	-	D/I Data 1/ 3 month	※
3.1.5	Seat Cush. Track Assy (6 portion)	x.3 ~ x.8 N m (5x ~ xx0 Kgf.cm)		Torque wrech	S	-	-	D/I Data 1/ 3 month	※
	2nd Supplier Supply Control								
	2nd.1 Part No. : 72xxx-BZ0xx Part Name : Track Assy, Fr Seat, Outer RH					Process : Assembly/Inspection Supplier : A			
2nd.1.1	Rivet round	Ø 10.5	± 0.5 min		S	-	-	1/2 mounth	
2nd.1.2	Rivet Round	Ø 10.5	± 0.5 min		S	-	-	1/2 mounth	
	2nd.2 Part No. : 73xxx-BZ1xx Part Name : Belt Assy, Fr Seat, Inner					Process : Assembly Supplier : B			
2nd.2.1	Assembly	Meet JIS D4x04-1995			S	-	-	1/2 mounth	
2nd.2.2	Assembly	Meet ECE 16-04,2000/3/EEC and ECE 21,2000/4/EEC			R	-	-	1/2 mounth	
	2nd.3 Part No. : 72xxx-974xx (82xx-x74xx) Part Name : Handle, Seat Track Adjusting					Process : Forming / Heat Treatment Supplier : C			
2nd.2.3	Hardness	xxx ~ xxx HV			S	-	-	1/2 mounth	
	3rd Supplier Supply Control								
	3rd.1 Part No. : 50xx-xx45-S7A Part Name : Flange Bolt, 22L					Process : Forming Supplier : D			
3rd.1.1	Tightening Torque	28.7 ~ 53.3 N m			S	-	-	1/2 mounth	
4	**SOC Free**								
	- Pb	**1000 ppm**	**max**	**X-ray fluore -**	**A**	**initial and 1 / year**			**refer to**
	- Cd	**100 ppm**	**max**	**scene \ ICP**		**(need evidence)**			**DTSZ 0001G**
	- Hg	**1000 ppm**	**max**						
	- Cr $^{6+}$	**1000 ppm**	**max**						

APPROVED BY : PT. ASTRA DAIHATSU MOTOR				SUPPLIER : PT. SEAT		
APPROVED	CHECKED	STAFF	S 10 Q R 1	APPROVED	CHECKED	STAFF

	MODEL	PART INSPECTION STANDARD	Date :	PAGE / OF
	Dxxx			/

PART ROUTING	PART No. :	PART NAME :	MATERAL	TREATMENT	GEN. TOL.
SP-PL4	71xx0-BZxxx	**Seat Assy Front RH**			

SUPPLY PART ROUTING

PT ADM

1st Supplier

Part Name	Seat Assy Fr, RH
Part No.	71xx0-BZxxx
Process	Assembly/Inspection
Supplier	PT. Seat
* S 5	Tightening Torque
S 2	Inspection
S 1	Assembly
R 1	Assembly
S 1	Hardness
S 1	Tightening Torque

2nd Supplier

Part Name	Track Assy, Fr Seat, Outer RH
Part No.	72xxx-BZ0xx
Process	Assembly/Inspection
Supplier	A
* S 2	Inspection

Part Name	Belt Assy, Fr Seat, Inner
Part No.	73xx-BZ1xx
Process	Assembly
Supplier	B
S 1	Assembly
R 1	Assembly

Part Name	Handle, Seat Track Adjusting
Part No.	72xxx-974xx (82xx-x74xx)
Process	Forming/Heat Treatment
Supplier	C
S 1	Hardness

3rd Supplier

Part Name	Flange Bolt, 22L
Part No.	50xx-xx45-S7A
Process	Forming
Supplier	D
* S 1	Tightening Torque

NO	REVISION RECORD	ITEM NO	D A T E	PT. A D M	SUPPLIER

APPROVED BY : PT. ASTRA DAIHATSU MOTOR			SUPPLIER : PT.		
APPROVED	CHECKED	STAFF	S 10 Q R 1	APPROVED	CHECKED	STAFF

Note :

* : this marking mean, the inspection item is checked and assured here; the function of check point is confirmed here or this Important items included in IQI part list, because not all ▽ are IQI matter

2.3. CHECKING FIXTURES AND CHECKING GAUGE

PURPOSE

1. To provide suppliers an adequate measuring tools.
2. To measure accurately 3 dimensions parts on sub-assy parts.
3. To analyze the dimensional problems regarding part fitting condition.
4. To maintain the stability of the part quality in the regular mass production.

SCOPE

Based on Location Concept Drawing (LCD), suppliers must prepare checking fixtures and checking Gauge to achieve the accuracy level of parts. The checking Fixtures and Checking Gauge (CG) must be able to show that all dimensional items, surface location and measuring points can meet the Part Inspection Standard (PIS) requirements.

SUPPLIER RESPONSIBILITY

1. Suppliers must study the Location Concept Drawing to prepare a Checking Fixtures and Checking Gauge. Almost all of the necessary Checking Fixtures and Checking Gauges must be prepared by suppliers. This CF and CG are only used for the inspection of the complete part that will be shipped to ADM.
2. Suppliers must update the Checking Fixture and the Checking Gauge according to the latest Engineering Change Instruction.
3. Suppliers must follow the instructions from the Parts Matching Team regarding C/F specifications and C/F Check-sheets. Detail activities that related with Parts Matching will be arranged by the Parts Matching Team.
4. Maintenance and the accuracy of the Checking Fixture is Supplier’s responsibility. Suppliers must maintain the function of the Checking Fixture and the Gauge.

2.4 PRODUCTION PREPARATION PLAN

PURPOSE

1. To control the production preparation activities totally. To provide a schedule of total manufacturing plan, quality control activities to assure stability of part quality in the mass production stage.
2. To provide a periodical evaluation regarding to the production preparation items to assure the mass production start up on time.

SCOPE

Each part that is supplied to ADM must have a Production Preparation Plan, to show the relationship between the ADM General Schedule and the supplier production preparation activities. It explains:

1. The ADM Production Preparation General Schedule.
2. Supplier Production Preparation Schedule.
3. When Suppliers will receive Technical Document / Information from ADM
4. When the Supplier will make the process plan.
5. When Supplier will make the facility plan and other plans related with the Design, the Building, the Dies, the Jigs, and the Equipments.
6. When Supplier will select, evaluate their sub-supplier. When Supplier will prepare the sub-supplier's planning related with the raw material or the components.
7. When Supplier will make the Quality Assurance Plan. When suppliers will make Inspection Plan Schedule including the Supplier's in-house Inspection Standards to assure in-progress quality and the final part quality, Manufacturing Quality Chart, and Checking Fixture Inspection Schedules.
8. Supplier Production Preparation Schedule must indicate Supplier Assembly Trials and part shipping schedule to meet ADM requirement. The supplier comprehensive Assembly Trials must simulate the mass production process which involve the supplier's equipment, material, tooling and workmanship.
9. Packaging and Delivery system indicating timing for packaging development including design, samples, trial, approval and building plans.

SUPPLIER RESPONSIBILITY

1. The Supplier must develop and submit a draft of this Production Preparation plan with a cover letter to ADM-Purchasing Division. This draft must be submitted within two weeks after receiving the preparation drawings. This draft must show production preparation activities timing and date as complete as possible at this early stage of the production preparation. This plan must be based on the ADM's General Schedule for the production preparation. After all related departments of the Supplier approved the Production Preparation plan, then the draft is negotiated with the ADM-Proc. Div.
2. If necessary ADM Purchasing Division request to the Supplier to revise its Production Preparation Plan. The Production Preparation plan will undergo some adjustments as the production preparation stage progresses. Any revision of the content of this plan must be submitted to the ADM-Purchasing Division.
3. Once a month, by the 5th of working day, the Supplier is requested to update the plan's progress and submit it to ADM-Purchasing Division. The status of the plan must be reviewed frequently by the Supplier. This becomes a working plan document for preparing mass production. After starting mass production in ADM it is no need to send monthly progress report to ADM-Purchasing Division. (Please see attached forms)

To : PT. Astra Daihatsu Motor

D38A Parts Production Preparation Plan

<Format No. 1>

Revision record	

Date	. .
Company	
Division	
	PIC

Part Number	Part Name	Model variation

1. Reason (Circle the most appropriate one)
(1)New supplier (new item)
(2)New mechanism/function
(3)New method (4)Key function (5)Combination parts
(6)Frequent ECI (7)Same tooling for Proto/Prod
(8)Long Prod Prep Lead time (9)Others( )

2. Product Outline
(Please provide rough sketch and others)

3. Outline of Manufacturing Process

4. Production Capacity (monthly)
(1)Regular capacity
(2)Max capacity
(3)Projected demand (peak) N-12= units/M,
N-6 = units/M
(4)Planned volume /Month

5. Production Preparation Plan

No.	Item		Division	2002 May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2003 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Master Schedule/ Quantity	ADM			SPTT 1st visit				SPTT 2nd visit			SB		LPVV	SPTT 3rd visit		W-Try		1PP/1K	SPTT Mass-Pro try visit	2PP		C/P
		'Qty required																					
		Supplier																					
1)	Proc DRW, RDDP, Prod DRW ▽Plan ▼Actual																						
2)	Prod Prep Planning																						
	(1)Process planning																						
	(2)Tooling/facility design																						
	(3)Tooling procurement(until tuning)																						
	(4)Die/Jig proc(until tuning)																						
	-Witness trial before installation																						
	-Pre-check before installation																						
	-Check jig accuracy																						
	-Installation																						
	-Final tuning																						
	-Inspection/audit																						
	(5)Prepare C/F																						
3)	Prod Prep Plan																						
	(1)Production Trial																						
	(2)Worker training																						
	(3)Supplier kick-off meeting																						
4)	Standards																						
	(1)Parts Inspection Standard																						
	(2)QC Process Chart																						
	(3)Standard Operation Procedure																						
5)	Develop/submit/approve PIC																						
6)	Manufacturing quality check																						
	(1)First article inspection																						
	(2)Reliability test																						
	(3)Initial variation control																						
7)	ECI																						
	(1)Major ECI																						
	(2)Minor ECI																						
8)	Color/Grain Approval																						
9)	Limit Sample																						
10)	Countermeasures against defects																						

6. Progress in Production Tooling/Process

	Prod Tooling(finish)		Prod Process(finish)		Progress(A:prod tooling/process, B:prod tooling/ent process, C:prototype tooling				
	Planned	Actual	Planned	Actual	SB	LPVV	1PP	2PP	Mass Pro Try
Original									

Reason of provisional countermeasures	Provisional countermeasures (Description)

<Format No. 2>

TPR (Tool Progress Report)

Supplier _____ Tool Maker (Country) ( )

Part No. _____

Part Name _____

Tooling/Equipment Name _____

Initial Plan

Modified Plan ■■■■ Actual

Completed by (signature) _____

Name & Position _____

Date

Revision record		Tool modification		Process change		Material change
ECI No	Receive	Start date	Finish date	Start date	Finish date	Date available

Month										
week end date										

PT Astra Daihatsu Motor

<Format No. 5>

Part No. :
Part Name :
Supplier :

Problem Follow-up Sheet

No. Date Originator	Problems		Cause	Countermeasure			Follow-up Result				Progress
	Item	Sketch		Action	Rep. PIC	Date	Result	Date	Result	Date	

Mass-Pro Die/Process Progress Sheet

<Format No. 6>

Supplier Name	
Dept.	
PIC	
TEL	

<Mass-Pro Die/Jig>
O : By Mass-Pro Die/Jig
X : By Temporary Tooling

<Reason>
A : No DWG
B : DWG delay
C : ECI
D : Supplier's fault
E : Stop tooling
F : Others

<Mass-Pro Process>
O : By Mass-Pro process
X : By Temporary process

<Reason>
A : No DWG
B : DWG delay
C : ECI
D : Supplier's fault

							Mass-Pro Die/Jig schedule							Mass-Pro Process schedule								
Part No.	Part Name	Design	Deliver target	Process			Mass-Pro Die/Jig	Reason of Temporary process	F : Others	Temporary Die/Jig contents	Die/Jig complete date	First delivery date	Target	Mass-Pro Process	Reason of Temporary process	D : Others	Temporary process contents	Equipment		Jig Completed	Mass-Pro try start date	Mass-Pro start date
																		Equip Manuf. completed	Tuning completed			

Capacity Study Sheet (for each process)

<Format No. 8>

Supplier Name :

Plant Location :

Model / Variant: D38A /

COMPLETED BY:			
Signature			
Name(Print)			
Title			
Dept.			
Date			

Part No.	roces No.	Process Name	Next process	Shift /day	Hours /Shift	Days /Week	Cycle time (sec)	PCS /Cycle	Daily Process Capacity	% Up Time	% Up Good	Actual Process Capacity	week for this process			Daily Capacity for this part	Daily Require -ment	Judgement On Capacity?
													For this part	For other parts	Unused			
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R	S	T:NG, OK
																		? NG, ? OK
																		? NG, ? OK
																		? NG, ? OK
																		? NG, ? OK
																		? NG, ? OK
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Instructions for Completing Capacity Study of each process

A : Individual Process Number
B : Name of Process (e.g. Molding, Welding, Assembly)
C : Next Process for this part
When column B lists final process enter "Ship" in this place
D : Number of shifts worked on this process per day.
E : Total Hours available per shift
(subtract breaks and scheduled down time)
F : Standard number of Days/Weeks process is scheduled
(Do not include overtime unless process is designed to operate that way)
G : Interval between Parts coming Off Process (in seconds)
H : Number of places per cycle

I : (D x E x 3600 / G) x H
J : Percentage of production time vs. available time (D x E)
K : Percentage of good pieces
L : I x J x K
M : Hours/week of this process allocated to this part
N : Hours/week allocated to other parts
P : Hours/week process is not used. (other than regular scheduled down time)
R : L x M / (D x E x F)
S : Daily Requirement for this part to meet Daihatsu demand.
T : is this a capacity constraining process for this part?

Part No. _____

Part Name _____

Supplier _____

Process

<Format No. 9>

Mass Production Trial Status

Issue date :

Parts : Hour											
Trial No.		1	2	3	4	5	6	7	8	9	10
Date											
Actual Trial Result	Trial Time Hours										
	OK Parts										
	NG Parts										
	Total										
Parts /Hour	Target No.										
	OK Parts										
	NG Parts										
	Total										

2.5. QUALITY CONTROL PROCESS CHART (QCPC)

PURPOSE
To identify all processing steps and the method that the supplier will control the quality of within their manufacturing process to assure the quality of the final part shipped to ADM.

SCOPE
The QCPC mentions the process flow-chart, control point, inspection frequency, methods, inspector amount, and machines for production. The part inspection and audit location also must be included.

CONTENT
The QCPC must be made by the supplier according to the quality target of each process. The inspection items in the QCPC must be detailed on the quality standard sheets. Supplier must control and monitor the quality of the process based on the QCPC.

SUPPLIER RESPONSIBILITY
1. At least 9 months before the Quality Confirmation, Supplier must finish the draft of the QCPC and submit it to ADM-QE Dept.
2. Supplier must ensure that the processes are feasible according to the study of the statistical capabilities. The QCPC must be up-dated to make sure that what are written in the QCPC is the same with the actual manufacturing process.
3. Under the following conditions the QCPC and the revisions must be submitted to ADM-QE Dept. for getting approval :
   a. Prior to the production preparation or mass production process change or prior to the inspection method change.
   a. Prior to the supplier change a process or supplier's inspection item, frequency or method including the process change request.
   b. When a criterion is changed by ECI (Engineering Change Instruction) or inspection standard revision, before or after mass production starts.
4. In the mass production stage, Supplier has the responsibility to maintain the QCPC and the inspection in the process.
5. No temporary process may remain at the start of the mass production. If it is unavoidable, Supplier must inform ADM-QE Dept. the details of the process and the timing when that process will be changed.
6. To provide appropriate understanding of the process in the supplier's factory, Supplier will provide ADM-QE Dept. a process lay out which show the relationship of the Quality Assurance checking points of the QCPC to the manufacturing process, tools and gauges. This process layout must also include Receiving Inspection and Automated Inspection built into the machinery.

PT. ASTRA DAIHATSU MOTOR QUALITY CONTROL DIVISION QUALITY ENGINEERING DEPT.	**WORK INSTRUCTION** **Quality Control Process Chart**	PAGE : of NO. : DATE :

1. FLOW PROCESS COLUMN
   - Fill according to the flow process (This column can be written on separated sheet)

2 PROCESS NAME COLUMN

- Fill according to the production process sequence (raw material until delivery) :
  - o Material
  - o Production Preparation
  - o Sub Assembling Process, e.g. : rough machining to fine machining, etc
  - o Assembling Process, Tightening Process, etc
  - o Finishing Process
  - o Final Inspection
  - o Packaging
  - o Storage

3 MACHINING FACILITIES COLUMN :
- Name of the machinery/tools are used on production process

4 OPERATION STANDARD COLUMN
- Code Number of Operation Standard Process, e.g. :
  - o Guidance of Setting Machine
  - o Guidance of Process Flow

5 CONTROL POINT CONTROL
- Important control point in each process
  - o Dimension
  - o Color
  - o Appearance
  - o Performance
  - o etc.
- For items included as IQI (

) these marking must be written on this column

6 CHECK POINT COLUMN:
- Data collection of Implementation of Control Point Examination

7 IMPROVEMENT PROCESS COLUMN :
- Action should be taken if non standard process found

8 REMARKS COLUMN
- Fill with this marking ※ if inspection item is included as IQI ; for additional information

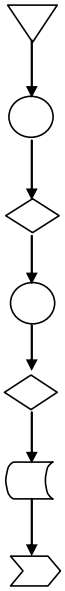
9 APPROVAL COLUMN
- Fill the company name and signed in the available column

- This QCPC form could be a reference /hint,
  suppliers allowed using their own format as long as it contain no basically different

QUALITY CONTROL PROCESS CHART

Page : …… of ……

CUSTOMER	: PT. ASTRA DAIHATSU MOTOR	No.:	PRODUCTION CODE :
PART NO.	:		PACKAGING :
PART NAME	:		MARKING :

PROCESS					CONTROL POINT			CHECK POINT				
NO	FLOW PROCESS	PROCESS NAME	FACILITY / MACHINE	OPERATION STANDARD	POINT	STANDARD	TOOLS / METHOD	FREQUENCY INITIAL	FREQUENCY REGULAR	DATA RECORD	IMPROVEMENT PROCESS	REMARKS
												

REMARKS :

▽ : MATERIAL ⊂ : STORAGE

○ : PROCESS ⇨ : DELIVERY

◇ : INSPECTION

REVISON RECORD :

No.	MARK	DATE	ITEM No.	DESCRIPTION	APPROVED

PT. ASTRA DAIHATSU MOTOR			PT. ……		
APPROVED	CHECKED	STAFF	APPROVED	CHECKED	CREATED

2.6. EVALUATION OF REGULAR PROCESS PART

PURPOSE
To evaluate the 1st product that is received by ADM from the Supplier using the regular process material, tool and machine.

SCOPE
This procedure is applied to all regular process parts that are submitted to ADM.

SUPPLIER RESPONSIBILITY
1. Supplier must understand the rank of the part that will be evaluated.
   (Basically ADM will inform the rank of the parts to the Supplier)
2. Supplier makes the regular process part using the regular material and process.
3. Supplier evaluates the regular process part following the procedures of each rank of the part and test report.
4. Supplier must follow ADM's instructions regarding to the Regular Process Part to achieve the quality of the part.
5. After evaluating the quality of the part, Supplier can submit the Regular Process Part to ADM for the evaluation and the Parts Matching purpose.

EVALUATION PROCEDURE
Firstly Suppliers must evaluate the Regular Process Part following Part Inspection Standard and fulfill Part Sample Check Sheet, and then ADM will evaluate and make a judgment. If the judgment is "NG", the Supplier must take countermeasures, make next part, submit to ADM, and then ADM will re-evaluate and re-judge the improved parts.
Every time Supplier submits Regular Sample Part, Supplier must attach Part Inspection Check-sheets.

2.7. PART SAMPLE SUBMISSION TO ADM

PURPOSE
To assure sample parts submitted to ADM are identified clearly.

SCOPE
This procedure is applied to all part samples submitted to ADM at the Production Preparation Stage or the Mass Production Stage. It establishes the documents that must be submitted together with the parts to ADM.

SUPPLIER RESPONSIBILITY
1. All parts during the production preparation stages (Phase 1~ II) are completed with the Regular Process Part Sample (RPPS) tags.
2. The sample of the tags can be obtained from ADM-QE Dept.
3. Tags are placed on the same side and near to the kanban card or shipping label.
4. Supplier must identify the production date on all containers, packaging or parts.
5. Supplier must indicate the die number or the cavity number on the part if there are more than one dies to make the part.
6. ECI number must be identified on the tag.

2.8. REGULAR PROCESS PART SAMPLE

PURPOSE
To communicate the steps to evaluate the regular process part sample. It is the process that the tooling is approved, so that it can meet the quality standard for the mass production.

SCOPE
This procedure is applied to all regular process part samples in the production preparation stage and the mass production stage.

SUPPLIER RESPONSIBILITY
1. Supplier is responsible to supply the conforming parts for the evaluation during the production preparation using the regular process material and the regular process tool.
2. Supplier is responsible to maintain the quality level of the parts, demonstrate it during the approval process, and during the mass production.
3. Supplier is responsible to develop and implement the quality standards in the process standard, standardized-work, training for workers and in the quality monitoring / audit system.
4. Supplier is responsible to develop and to implement the adequate assembly fixtures, in the checking fixtures and gauges, and others to control and assure the quality of the mass production stage.
5. Supplier must follow instructions from ADM-Purchasing Div., Part Matching Team or ADM-QE Dept. regarding the Part Accuracy, Appearance and other technical matters.

2.9. LIMIT SAMPLES (LS)

PURPOSE
To establish a visual or a sensory characteristic standard as a supplement of the PIS when the quality characteristic is difficult to define and communicate by any other method.

SCOPE
The Limit samples can be used to define the acceptable limits for any quality characteristic that is difficult to define by measuring method. Usually ADM defines the acceptable levels of the part quality for the ADM Incoming Inspection references.

SUPPLIER RESPONSIBILITY
1. Limit samples must be prepared for the items stated “as per limit samples” in the PIS.
2. Part samples may also be created to define the problems that are discovered in the production preparation stage and the mass production stage.
3. Supplier must select limit samples that represent their process capability. ADM-QE Dept. or Part Matching Team will evaluate the quality of the part based on the fitting condition of the completed vehicle.
4. At least two sets of the limit samples must be submitted to ADM-QE Dept. for approval. When it is approved, one sample will be retained by ADM and the other one will be returned to the Supplier.
5. For Sub-Supplier appearance items, the Suppler must develop limit samples with their Sub-Supplier that still allow the complete part to meet the PIS.

SECTION III

MASS PRODUCTION QUALITY

3.1 MASS PRODUCTION INCOMING INSPECTION BY ADM

PURPOSE
To prevent defective parts come into the Assembly Line in ADM's Factory.

SCOPE
All parts that are delivered to ADM will be inspected by ADM-QI Dept.

SUPPLIER RESPONSIBILITY
Mass production parts that are delivered to ADM will be inspected by ADM – QI Dept. If any problem is found during incoming inspection, Quality Problem Report (QPR) or Laporan Masalah Kualitas (LMK) will be issued by ADM to the Supplier. Supplier must investigate the real cause of the problem and take necessary countermeasures soon. Also permanent countermeasure must be taken and reported to ADM-QE Dept.

According to the investigation result the supplier must make the plan schedule, when the countermeasures will be effected. Supplier must reply to ADM within 2 days a temporary countermeasure plan in writing by fax. The Supplier must not continue to deliver the parts from their inventory if they have been informed by ADM. If defective parts have been already shipped to ADM, then ADM and Supplier will discuss and decide the disposition for the defective parts.

LINE SUPPLY ORIGIN DAMAGE REPORT
The defective parts will be rejected and returned to the supplier by ADM Production Control Division. After receiving the parts with LMK or problem sheet, Supplier must analyze the cause of problem and soon replace those parts.

3.2 MASS PRODUCTION INSPECTION BY SUPPLIER

PURPOSE
To keep the quality of the parts shipped to ADM in Mass Production Stage. Supplier must perform inspection in the production process line and Final Inspection before packing.

SCOPE
All local parts that are supplied to ADM must be inspected by Supplier before shipping.

SUPPLIER RESPONSIBILITY
1. Supplier must control the process based on the QCPC and inspect the part according to the Part Inspection Standard during the production process.
2. If it is requested by ADM, Supplier must submit the sampling data of the quality inspection to ADM every month following the specified items in the Part Inspection Standard. (PIS).
3. Part must be shipped and delivered to ADM following production lot order.
   (This is defined as "First in First out "or FIFO).
4. Supplier must assure the quality of the parts or material that are supplied by their sub-supplier by performing incoming inspection in the Supplier's Factory.

3.3 ENGINEERING CHANGE REQUEST (ECR)

PURPOSE
To provide sequence steps how to proceed Engineering Change Request form for the local parts those are produced by the Supplier. To inform the Supplier how to follow up the Engineering Change Instruction (ECI)

SCOPE
All the local parts that are produced by the Supplier must follow this procedure when it needs to be modified in case of the material specifications, the dimension and appearance.

PROCEDURE
1. Supplier must fill out the Engineering Change Request form and send it to ADM-Purchasing Division. (Please see attached form on page 36 - 40)
2. ADM-Technical Division will study and make decision to reject or to accept the Supplier's request. Supplier will get the answer through ADM-Purchasing Division.
3. After receiving a new ECI, supplier must revise the QCPC, the PIS, the Limit Sample, and the Checking Fixture as necessary. The revised documents must be submitted to ADM-QE Dept. for getting approval.

3.4. REQUEST OF THE PROCESS CHANGE

PURPOSE
To identify and control changes in the Supplier's manufacturing process and assure the quality of the part in the production preparation and mass production stage.

SCOPE
The process change request covers all of the changes in the process that do not relate with the design change. Including in the process changes are as follows:
1. To change the process tooling layout.
2. Additional tooling or reduction of the tooling that have been approved for mass production manufacturing process.
3. Manufacturing location changes.
4. Sub-Supplier changes
5. Any other special case that may change the part specification.

SUPPLIER RESPONSIBILITY
1. The process change request form must be submitted to ADM-Purchasing Division at least 3 months before implementing the process change.
2. The process change request must be approved by ADM before implementing the process change.
3. ADM representative may visit the Supplier facility to review the process change.
4. Process Change Plan must be used to make a more detailed schedule. If it is requested by ADM, Process Change Plan must be attached to the change request.
5. If the process change request is approved by ADM, part samples are often requested by ADM to evaluate the effect of the process change on the complete vehicle.

Sample for ECR Proposal

FORM NO : PE-030

TO MR. MATIBA (Engine Design & Test Dept.) DAIHATSU MOTOR CO., LTD.

THROUGH : CAR MANUFACTURER (PT. ASTRA DAIHATSU MOTOR)

ENGINEERING CHANGE REQUEST SHEET

CAR MANUFACTURER 'S NO. 23AA / TA. ADM / 11.06/135

PROPOSER 'S NO. ENG-ECR-044-1

PART NO.	PART NAME	MODEL
13453-BZVTU	GEAR, FLY WHEEL RING	EJ

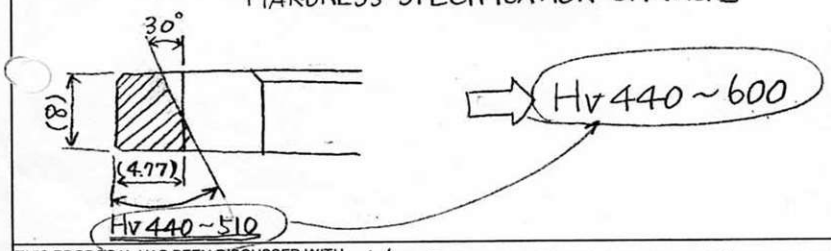
REASON FOR REQUEST
CHECK APPLICABLE REASOS (S) :
- ☑ PERFORMANCE IMPROVEMENT
- ☐ SUPPLIER PRODUCTIVITY IMPROVEMENT
- ☐ CAR MANUFACTURER'S PRODUCTIVITY IMPROVEMENT
- ☐ COST REDUCTION
- ☐ OTHER (Describe)

ESTIMATED PRICE CHANGE ± ( ) /Piece

ESTIMATED MASS CHANGE ± g / Piece

CONTENTS OF REQUEST WITH COMPARATIVE ILLUSTRATIONS OF THE PORTION CONCERNED
(Please use additional page for providing detailed drawing and / or explanation).

HARDNESS SPECIFICATION CHANGE



THIS PROPOSAL HAS BEEN DISCUSSED WITH CAR MANUFACTURER (Name & Dept. If yes) : Mr. DIKKY BURHAN & LOCALIZATION DEPT.

THIS PROPOSAL HAS BEEN DISCUSSED WITH DMC (Name & Dept. If yes) :

COMPANY'S NAME : fill w/ Company's name	SIGNATURE (S)		
DATE AUTHORIZED : OCT 05, 2006 .	NAME IN TYPE	SAMSUL HADI	AKMALUDIN

CAR MANUFACTURER'S COMMENTS

☑ RECOMMEND DMC TO ACCEPT
☐ CANNOT ACCEPT

Vendor can't meet standard hardness according process. so. change hardness after discussion with DMC engineer

TARGET OF REPLY / INTERIM REPLY FROM DMC :

COMPANY'S NAME : PT ADM	SIGNATURE (S)	H. Takahashi		
DATE AUTHORIZED : NOV 06, 2006	NAME /DEPT.	H. TAKAHASHI	EMBAY S.	ISNAENI

TO : _____

DMC 'S REPLY

☐ WE ACCEPT YOUR REQUEST (ECI No.
☐ WE CANNOT ACCEPT YOUR REQUEST
IMPLEMENTATION CONDITION OR REASON :

☐ INTERM REPLY
FINAL REPLY DISPATCHED BY :

APPROVED	CHECKED	PREPARED

STAFF CODE : STAFF NAME :

APPROVED	APPROVED	CHECKED	PREPARED

ROUTE : PROPOSER → CAR MANUFACTURER → DMC → CAR MANUFACTURER → PROPOSER

DAIHATSU MOTOR CO., LTD.

Sample for DMC's Approval of ECR

FORM NO : PE-030

TO Chassis Design Dept No. 2 — DAIHATSU MOTOR CO., LTD.

THROUGH : CAR MANUFACTURER (PT. ASTRA DAIHATSU MOTOR)

ENGINEERING CHANGE REQUEST SHEET

CAR MANUFACTURER'S NO.: DACD/TA.ADM/12.06/007

PROPOSER'S NO.: 003/XII/06

PART NO.	PART NAME	MODEL
31324-BZ030 & 47124-BZ010	SHAFT PEDAL & SHAFT BRAKE PEDAL	

REASON FOR REQUEST
CHECK APPLICABLE REASOS (S) :

- ☐ PERFORMANCE IMPROVEMENT
- ☐ SUPPLIER PRODUCTIVITY IMPROVEMENT
- ☐ CAR MANUFACTURER'S PRODUCTIVITY IMPROVEMENT
- ☐ COST REDUCTION
- ☐ OTHER (Describe)

ESTIMATED PRICE CHANGE: 0

ESTIMATED MASS CHANGE: -

CONTENTS OF REQUEST WITH COMPARATIVE ILLUSTRATIONS OF THE PORTION CONCERNED
(Please use additional page for providing detailed drawing and / or explanation).

DRAWING		PROPOSE
DTSB 1001G 6.8 (S25C-S48C)	⟹	SWCH 25K~48K (JIS G 3539)

Reason : Material SxC are used for MACHINE STRUCTURAL (JIS G 4051), but PT made this part with COLD FORGING process , material for COLD FORGING use JIS G 3539, and the chemical composition of material are same.

THIS PROPOSAL HAS BEEN DISCUSSED WITH
CAR MANUFACTURER (Name & Dept. If yes) :
THIS PROPOSAL HAS BEEN DISCUSSED
WITH DMC (Name & Dept. If yes) :

COMPANY'S NAME : PT	SIGNATURE (S)		
DATE AUTHORIZED : 21-Nov-06	NAME IN TYPE	SUJONO	KARI M

CAR MANUFACTURER'S COMMENTS

☑ RECOMMEND DMC TO ACCEPT
☐ CANNOT ACCEPT

Implemented on localization part

TARGET OF REPLY / INTERIM REPLY FROM DMC :

COMPANY'S NAME : PT ADM	SIGNATURE (S)	H.Takahashi		
DATE AUTHORIZED : Nov 29, 2006	NAME /DEPT.	H.TAKAHASHI	EMBAY S.	YUSUF

TO : PT.

DMC'S REPLY

☑ WE ACCEPT YOUR REQUEST (ECI No.
☐ WE CANNOT ACCEPT YOUR REQUEST
☐ INTERIM REPLY

IMPLEMENTATION CONDITION OR REASON :
We accept your request because the mechanical characteristics is equivalent.
DTS B 1001 G prescribes that SWCH 25K~48K conforms to the strength division 6.8, so we don't change the drawings.

FINAL REPLY DISPATCHED BY :

APPROVED	CHECKED	PREPARED

STAFF CODE : DHCC — STAFF NAME : CHASSIS DESIGN DEPT. No.2 CHASSIS DESIGN DIV.

APPROVED	APPROVED	CHECKED	PREPARED
	30 Nov/06	30 Nov.	29. Nov.
	T. Tsuyuki	J. Matsumoto	H. Higuchi N. Tomei

ROUTE : PROPOSER → CAR MANUFACTURER → DMC → CAR MANUFACTURER → PROPOSER

DAIHATSU MOTOR CO., LTD.

ASTRA — 05 DEC 2006

Sample of ECI (Engineering Change Instruction)

376W 設 変 切 替 依 頼 書
ENGINEERING CHANGE INSTRUCTIONS

No. 376WM0558 | PAGE (2/ 14) | NISHIYAMA

要旨 Purpose	切替に対する希望・条件 Change Condition Requested by Engineer	事前連絡 Advance Notice	R/C・F/F切替制約 Change over Timing / Restriction on Concerning Certification	ダイハツ承認設計室 DH-ED	重複先 Overlap	共用先 Common	関係先 Related
その他/OTHERS	準備出来次第（CKD 7月から）/AS SOON AS READY (FROM CKD JUL.) (001, 002, 003, 004, 005, 006, 007, 008, 009, 010) (A) 単独/Independent Change 全品番/All Part No.		無/Unrestricted				

適用範囲 Applicability

Key	Model	Group	Cmp.	Variation/Block Code	Key	Model	Group	Cmp.	Variation/Block Code	Key	Model	Group	Cmp.	Variation/Block Code
001	376W	0050			006	D28G	5871	AA	AA					
002	D620	0050			007	D620	5871	02	02					
003	376W	5871	AA	AA	008	D620	5871	02	03					
004	D28G	5871	AB	AA	009	D620	5871	03	01					
*	376W	5871	AB	AA, AD, AE	010	D620	5871	03	02					
005	376W	5871	AB	AB, AC										

工程 Routing (Process)	自改給 Pur	区分 Key	構成LvL 旧 PP	構成LvL 新 NP	Group Code	旧品番 Previous Part No.	新品番 New Part No.	選択Sl. 個数Qt.	補給 Ser. Det.	品名 Part Name	変更事項 Revision	後日出図予定日 Later Dwg. Issue	Condition RDDP No.	出図Dwg. 国内 Jpn.	出図Dwg. 海外 Eng.	互換性Int. 旧 PP	互換性Int. 新 NP	CAD 認C
AS=ASF1S AT=ATL1S		001				00586-BZ006- A-> B				INSTRUCTION DRAWING, HOLE PLUG	指示変更/INSTRUCTION CHANGE			T	T	B	X	N
YY=ASF1S, ATL1S																		
AS=ASF1S YY=ASF1S		002				00586-87Z02- L-> M				INSTRUCTION DRAWING, HOLE PLUG	指示変更/INSTRUCTION CHANGE			-	T	B	X	N
AS=ASF1S YY=ASF1S		002				00586-87Z08- K-> L				INSTRUCTION DRAWING, HOLE PLUG	指示変更/INSTRUCTION CHANGE			-	T	B	X	N
JM=JM (G-M4-72D) -AS* AT		003	1			90048-71116		24		PLUG, HOLE	使用廃止/PARTIAL DISUSE			X	X	A	-	X
AS=JM-ASF1S AT=JM-ATL1S																		
YY=JM (G-M4-72D) - ASF1S*ATL1S																		
AK=AS-AKS3D-AT AS=AS (G-N5-F1S), AS (G		003		1			9004A-95048	24		PLUG, HOLE	新設/NEW ADOPTION 21=N			T	T	-	X	N
-N5-A2) -AK AT=AK-ATL1S																		
YY=AS (G-N5-F1S), AS (G -N5-A2) -AKS3D-																		
ATL1S																		
JM=JM (G-M4-72D) -AS* AT		004	1			90048-74013		4		COVER, HOLE	使用廃止/PARTIAL DISUSE			X	X	A	-	X

承認 (CE) Approved		Date	担当室 Eng. Design	BODY DESIGN DEPT. NO. 2	DHB20	承認 Approved		Date	調査 Checked		Date	作成 Prepared		Date	Tel:4525 Fax:

設変切替依頼書／ECI No. 1

生産管理部 HI5001

Reference ECI No.

Printed Time 2006/05/18 15:17:57

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ENGINEERING CHANGE INSTRUCTIONS | ECI No. 376WM0558 | Page (4/5)

Change portion / Remarks (和英併記)

PLUG, HOLE

PARTIAL DISUSE

90048-71116・・・使用廃止

↓ NEW ADOPTION

9004A-95048・・・新設

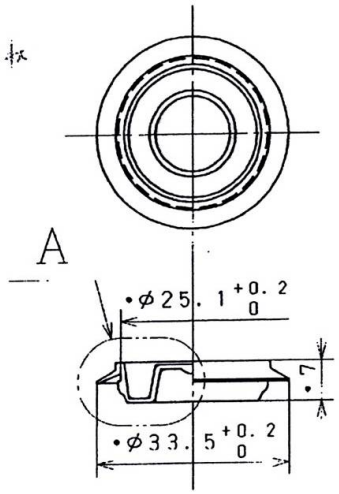
MATERIAL

材質：DTSM5518G-1

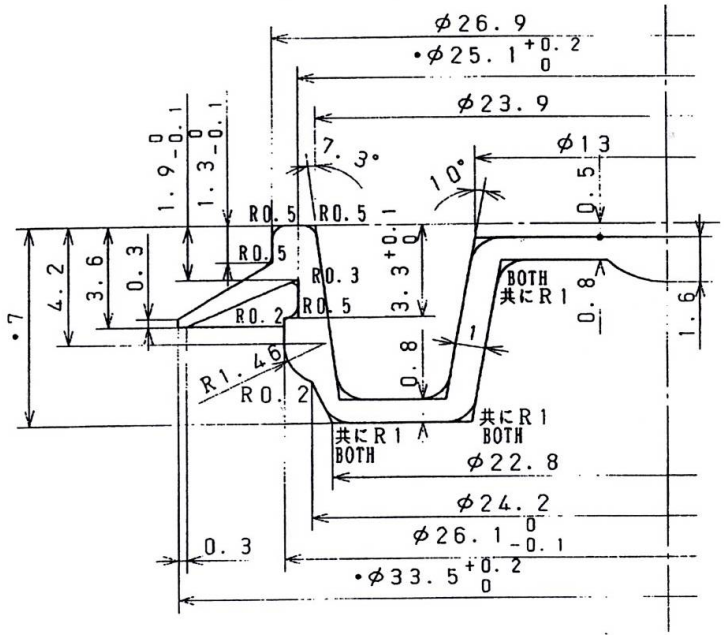
本品番は 90048-71116 と同寸法

THE SHAPE OF THIS PART IS

SAME AS 90048-71116.



A 5 : 1



ECI No. 3

DAIHATSU MOTOR CO., LTD.

SMS PARTS LIST 部品表本紙

REVISION RECORD 変更事項	ECI NO. 設変NO.	NAME 名称	CODE
	376WM0558	PLUG HOLE	5871
		FLOOR	AA
STAFF 設計室	ENGINEER 担当者	ALL	AA
DHB20	NISHIYAMA	PRINT OUT DATE 出力年月日 2006/05/18	PAGE ページ 1/1

MODEL 車種: 376W

Interpretation of Parts Lists 記号説明 — #A 品番構成変更あり MARK ON COMOSITION CHANGE #B 工程変更あり MARK ON ROUTING CHANGE

N 図無し NO DWG. / T 社内図 TMC DWG. / S 承認図 APPROVAL DWG. / C 参考図 REFERENTIAL DWG.
N 新設 NEW ADOPTION / F 復活使用 REVIVAL / T 正式採用 FORMAL ADOPTION / 11 重複(主組立番号) DUPLICATION(REGULAR)
12 取付関係 INSTALLATION / 13 Ⓟ・Ⓚ・Ⓗ / 14 使用個数範囲 RANGE OF QUANTITY / 15 重複(依組立番号) DUPLICATION (DEPENDENT)
16 重複(主組立番号) DUPLICATION(REGULAR) / 18 カラー部位符号 COLOR PART CODE / 19 フリーコメント(機成) REMARKS ON COMMENT / 21 試作品番 PROTOTYPE PART NUMBER
23 部品塗装技術指示書No. TIS FOR PAINTING / 24 メーカー名 SUPPLIER NAME / 28 フリーコメント(品番) REMARKS ON PART No. / 40 取付部品基本番号 INSTALLED PARTS BASIC NUMBER

MARK SK LVL	GC	PART NO. 品番	PART NAME 品名	SEL 選択 QTY 個数	MATERIAL 材質/板厚 DWG/CAD DWG 2D 3D M S/P	ROUTING 工程 / REMARKS コメント	PUR
1		58136-BZ010	COVER, FR FL OOR HOLE	7	DTSM1500G-N606 T N N H	AK = AS-AKS3D-AT AS = AS(G-N5-F1S), AS(G-N5-A2)-AK(C) AT = AK-ATL1S YY = AS(G-N5-F1S), AS(G-N5-A2)-AKS3D-ATL1S	
*A 1		9004A-95048	PLUG, HOLE	24	DTSM5518G-1 T N N	21= N AK = AS-AKS3D-AT AS = AS(G-N5-F1S), AS(G-N5-A2)-AK(C) AT = AK-ATL1S YY = AS(G-N5-F1S), AS(G-N5-A2)-AKS3D-ATL1S	
1		90048-71200	PLUG, HOLE	4	DTSM1500G-N606 T N N H	AS = JM-ASF1S AT = JM-ATL1S JM = JM(G-M4-72D)-AS*AT YY = JM(G-M4-72D)-ASF1S*ATL1S	
1		90048-74004	COVER, HOLE	2	DTSM7505G-1 T=0.1 T N N H	24= TSUTIYA 29= BLACK AS = JM-ASF1S AT = JM-ATL1S JM = JM(G-M4-72D)-AS*AT YY = JM(G-M4-72D)-ASF1S*ATL1S	
1		91651-60820	BOLT, W/WASHER	4	T N N H	24= AOYAMA 29= T=156-234KG-CM AS = JM-ASF1S AT = JM-ATL1S JM = JM(G-M4-72D)-AS*AT YY = JM(G-M4-72D)-ASF1S*ATL1S	

DAIHATSU MOTOR CO., LTD.

生産管理部
H15011

3.5. IDENTIFICATION OF PRODUCTION DATE

PURPOSE
To know the manufacturing date of every local part and to smooth the checking and the traceability, if there is any problem on the part.

SCOPE
Safety, function parts, big size parts etc.

SUPPLIER RESPONSIBILITY
1. Supplier must confirm which part must be identified by production code during the tooling making period.
2. Supplier must put a special production mark on the part, boxes, or pallets.
3. Production mark must meet standard and it must use the different code or mark following the agreement with ADM.

NOTE: The agreement result is distributed to related divisions for mutual checking.

3.6. QUALITY PROBLEM REPORT / LAPORAN MASALAH KUALITAS (LMK)

PURPOSE
To inform the supplier that there is a quality problem so that countermeasures can be taken to prevent reoccurrence of the problem at ADM, Customer and Supplier.

SCOPE
Non–conformance of the parts in production trials and mass production are communicated formally using Problem Sheet, QPR or LMK.
Before mass production ADM uses problem sheet or "MONREN" sheet to inform a quality problem to the supplier.
After Starting of mass production, ADM uses Quality Problem Report Form or "Laporan Masalah Kualitas (LMK)"

SUPPLIER RESPONSIBILITY
1. If problems are found in the production preparation, the Part Matching or in the Mass Production ADM will issue the problem sheet to the supplier describing the problem. ADM and the supplier will work together and take appropriate counter measures quickly to prevent reoccurrence of the problem before the next trial or the next delivery.
2. As soon as the Supplier has been notified by ADM about non-conforming parts, the supplier must take immediately temporary corrective action for the parts. The supplier must take immediately temporary corrective action for parts in the Supplier's process, those in the transit to ADM and the parts in ADM-PCD.
3. The supplier must respond by the "Due Date" even if a permanent countermeasure has not yet been determined. The investigation result and temporary C/M must be communicated to ADM in writing (within 1-2 days).
4. The Supplier must reply within 10 days after receiving the problem sheet.
5. Once the permanent countermeasure has been established, the Supplier must complete the bottom part of the problem sheet form detailing the implementation schedule for the countermeasure and return it to ADM as quickly possible.
6. The Supplier must assist in sorting the inventory at ADM area when it is requested.

To :

PT. ASTRA DAIHATSU MOTOR
Quality Assurance Division

LAPORAN MASALAH KUALITAS

No Registration : 03/QAD/QA8/II/02		Unit involve : 9 Units	
Type / Model :	Detect date :		
Classification	S	S = ■XX A = □XX B = ■X C = □X	
Problem Status	N	N = New R = Repeat	
Prevention	Y	Y = Necessary N = Not Necessary I = Just Information	

Problem :

Detail Problem :

No. Part	
Part Name	
No Ch / Eg	

Issued date :

Department which detected problem		
Approved	Checked	Prepared
Gen Manager	Manager	Staff

Department in Charge : | Answer Request |

C /M [Y] Y = Yes N = No U = Under investigation | Answer Date

Detail Answer :

Prevention Measure :

Note : Detail explanation is subsached with LM K Answer

No Ch / Eg	Prod Code	Prod Date	Status	Department in charge: Approved	Checked	Prepared
				Date :	Date :	Date :

Confirmation Result [ ] O = OK X = NG

			Approved	Checked	Checked	Status
	No Ch / Eg /Prod Code :	Date :				
	No Ch / Eg /Prod Code :	Date :	Gen Manager	Manager	Staff	

3.7. SUPPLIER PRODUCTION PROCESS SURVEY

PURPOSE
To survey the Supplier's facilities and production process and to control the supplier's quality assurance system and activities. To assist the supplier in the process development.

SCOPE
These activities are performed to all ADM's suppliers.

SUPPLIER RESPONSIBILITY
1. Supplier must facilitate ADM to conduct the process survey assisting the supplier to improve the production line, to check the probable causes if ADM find out defected parts and to check the production line if there is any modification in the process.
2. The Supplier must co-operate with that process survey, so that the process survey can be conducted smoothly and effectively.
3. The Supplier must comply with the items pointed out in the process survey quickly.
4. The Supplier must also notify their sub-supplier that ADM may accompany the supplier on the survey of the sub-supplier related with parts that are supplied to ADM.
5. During process survey, ADM will review the Supplier compliance to the standard quality requirements (PIS, checking gauge, QCPC). If the Supplier is not confirming the certain state in the quality standard, ADM will request the Supplier to confirm some specific items from the quality standard.

3.8. QUALITY ASSURANCE FOR SUB-SUPPLIER

PURPOSE
To establish ADM's requirements that it is Supplier's responsibility to maintain and control quality assurance activities in their Sub – supplier.

SCOPE
All Sub-Suppliers related with the raw materials and the components that are used by the supplier must be controlled by the supplier.

SUPPLIER RESPONSIBILITY
1. The Supplier must assure that the quality of the part and/or material that are supplied to the supplier must be inspected by the sub-supplier.
2. Suppliers must develop each sub-supplier to implement ADM-SQAM, to keep the quality control process chart implementation. Supplier must set up the documentation, built in quality (BIQ) in process and related facilities and practices in the sub-supplier.
3. Supplier must ensure that the sub-supplier implements the same activities following this manual to assure quality at each stage by using this ADM-SQAM.

3.9. MASTER SAMPLE FILLING

PURPOSE
To make clear the product situation and the way of maintaining the part produced by the supplier. To maintain the traceability of the quality of the part and the tooling process.

SCOPE
All parts are involved in this practice.

SUPPLIER RESPONSIBILITY
The Supplier prepares and maintains the filling system of all parts produced in order to make clear the part history. It notes the information of the date of order received, the changes in the design, problems occurred from the production trial through the mass production until the disuse of the parts. The Supplier will maintain these files beyond three years after disusing the parts.

NOTE
If ADM requests the Supplier to confirm the master sample, Supplier must submit this part sample to ADM.

3.10. WARRANTY INFORMATION / ANALYSIS

PURPOSE
To communicate the relevant information field to the Suppliers.

SCOPE
ADM may get the field information from the workshop. This information may be passed on to the Supplier in the form of the Technical Report.

SUPPLIER RESPONSIBILITY
1. When the Supplier receives the technical report, the Supplier must analyze the problem, confirm the process and production parts, and take countermeasures immediately.
2. The Supplier must respond within 10 days after receiving the technical report.
3. The Supplier must follow the procedures in the Warranty Claim Agreement.

ASTRA DAIHATSU MOTOR
SUPPLIER QUALITY ASSURANCE MANUAL
(ADM-SQAM)

Published by
Quality Control Division
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