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POTENTIAL FAILURE MODE AND EFFECTS ANALYSIS

[ ] Design FMEA [X] Process FMEA [X] Delphi Confidential

Part Certification

	System	X	Subsystem		Component	Page 1	FMEA Number AUTO FLEX (e-FMEA DOC ID 5097752)
Part Number (Delphi:33386295)			Design or Process Responsibility BRIONES, DIEGO ALBERTO			Prepared by SIBAMEA, PEDRO N	Telephone # +52 844 4115500
Model Year(s)/Vehicle(s) COMPONENT			Key Date 2019-07-02 00:00:00			Original FMEA Date 2019-06-27 00:00:00	FMEA Revision Date 2019-06-27 11:20:01
Core Team CHAVARRIA, VICTOR, ME SUPERVISOR - MECHANICAL +52 844 4115500 GARZA, RAQUELINE V, SR OPERATIONS GENERAL SUPERVISOR +52 844 4115500 BRIONES, DIEGO ALBERTO, SENIOR ME ENGINEER - MECHANICAL +52 844 4389060 LOPEZ, ADRIAN G, MOLDING PRODUCTION CONTROL SUPERVISOR +52 844 4115500 RAMIREZ, FABIAN HORACIO, QUALITY ENGINNER +52 844 4115500 HERNANDEZ, LETICIA 2, SR CUSTOMER SATISFACTION ENGINEER +52 844 8663400 VIELMA, EDUARDO A, ME ENGINEER - ELECTRICAL +52 844 4389060 GARCIA, ABRIL, ASSOC CUSTOMER SATISFACTION ADMIN +52 844 4115500 DOMINGUEZ, SALOME, ASSOC CUSTOMER SATISFACTION ADMIN +52 AREVALO, VICTOR, RELIABILITY 4-11-55-00 SIBAMEA, PEDRO N, ME SUPERVISOR - ENGRG SUPPORT +52 844 4115500 MENDOZA, ERIK, INDUSTRIAL ENGINEERING TECHNICIAN null ORTIZ URIBE, DIEGO A., TECNICO DE MANTENIMIENTO 3480 MORALES, OSCAR IVAN, PROCESS TECHNICIAN PLANT 8400 CENTEC 3 +52 84 48663400 ZARTUCHE, JOSE LUIS, MATERIALS ENGINEER CENTEC II +52 844 4389060							Supervisor's Approval RUBIO, BERNARDO U

													Action Results						
Item/Process Function Requirements	Potential Failure Mode	Potential Effect(s) of Failure	Sev	Class	Potential Cause(s)/ Mechanism(s) of Failure	Occ	Current Design/Process Controls	Det	RPN	Recommended Actions	Responsibility & Target Completion Date	Actions Taken	Sev	Occ	Det	RPN
10) RECEIVING MATERIAL IN DOCKS	SUSPECT MATERIAL	ASSEMBLY PROBLEMS	6	N/A	SUPPLIER PROBLEMS	2	(D) -VISUAL INSPECTION TO VERIFY THE CONTAINER CONDITION ACCORDING WORK INSTRUCTION - MATERIALS DEPARTMENT INSPECTS AND SEGREGATE DAMAGE MATERIAL -INSPECTION BY INCOMING INSPECTION	7	84	None						
10.1)	DAMAGED COMPONENT	-RAW MATERIAL CAN NOT BE USED -ASSEMBLY PROBLEM	6	N/A	-INCORRECT HANDLING DURING TRANSPORTATION - OPEN CONTAINER	2	(P) -CLOSED CONTAINER AND BOX -DOCK OPERATOR (D)VERIFY CONTAINER OR BOX IN GOOD CONDITION - VISUAL AID DISPLAYED	7	84	None						
10.11)	DAMAGED MATERIAL	ASSEMBLY PROBLEMS	6	N/A	IMPROPER MATERIAL HANDLING	2	(D) -VISUAL INSPECTION TO VERIFY THE CONTAINER CONDITION ACCORDING WORK INSTRUCTION - MATERIALS DEPARTMENT INSPECTS AND SEGREGATE DAMAGE MATERIAL -INSPECTION BY INCOMING INSPECTION	7	84	None						
20) VISUAL INSPECTION OF MATERIAL RECEIVED TO VERIFY PHYSICAL CONTAINER CONDITION AND COMPARE AGAINST MANIFEST	MISSING LABEL	RAW MATERIAL CAN NOT BE USED	4	N/A	-INCORRECT HANDLING DURING TRANSPORTATION - MISSING LABEL FROM SUPPLIER	2	(D) VISUAL INSPECTION AGAINST MANIFEST ACCORDING TO WORK INSTRUCTION	7	56	None						
20.1)	ILLEGIBLE LABEL	RAW MATERIAL CAN NOT BE USED	4	N/A	-DAMAGE DURING TRANSPORTATION -PRINTING PROBLEMS	3	(D) VISUAL INSPECTION AGAINST MANIFEST AND MATERIAL IS SEGREGATED ACCORDING THE WORK INSTRUCTION	3	36	None						
20.11)	MISSING MANIFESTED CONTAINER	-AFFECTS INVENTORIES - INTERRUPTED MANUFACTURING FLOW	1	N/A	MISSING FROM SUPPLIER -LOST DURING TRANSPORTATION	2	(D) VISUAL INSPECTION WITH MANIFEST, DISCREPANCY IS GENERATED ACCORDING THE WORK INSTRUCTION - SCANNING	3	6	None						
20.12)	DAMAGE CONTAINER	SUSPECT MATERIAL	4	N/A	-DAMAGE DURING TRANSPORTATION -INCORRECT HANDLING DURING TRANSPORTATION -BAD STACKED	4	(D) -VISUAL INSPECTION TO VERIFY THE CONTAINER CONDITION ACCORDING WORK INSTRUCTION - MATERIALS INSPECTS AND SEGREGATE DAMAGE MATERIAL -INSPECTION BY INCOMING INSPECTION	7	112	None						
20.13)	MATERIAL UNDER QUALITY ALERT	SUSPECT MATERIAL	4	N/A	-SUPPLIER REPORTS -MATERIAL OUT OF SPECIFICATION	2	(D) VISUAL INSPECTION ACCORDING TO WORK INSTRUCTION AND MATERIAL IS SEGREGATED TO BE SORTED OR RETURNED TO THE SUPPLIER QUALITY ALERT LIST FOR SUSPECT MATERIAL	7	56	None						
20.14)	DAMAGED MATERIAL	RAW MATERIAL CAN NOT BE USED	4	N/A	IMPROPER MATERIAL HANDLING INCORRECT FROM SUPPLIER	2	(D) VISUAL INSPECTION TO VERIFY THE CONTAINER CONDITION ACCORDING WORK INSTRUCTION - MATERIALS DEPARTMENT INSPECTS AND SEGREGATE DAMAGE MATERIAL -INSPECTION BY INCOMING INSPECTION	7	56	None						
25) CHECK OF THE AMOUNT OF RAW MATERIAL IN PARTS UNIQUE BOUGHT	MISSING VERIFICATION	DISCREPANCY IN INVENTORY	4	N/A	SUPPLIER	2	(P) INSTRUCTION, WORK INTRUCTION OPERADOR CERTIFICATE	7	56	None						
30) LOAD MATERIAL IN SYSTEM (SAP/QAS)	MISSING LOAD	-DISCREPANCY IN THE INFORMATION -AFFECTS INVENTORIES	1	N/A	-IMPROPER INFORMATION HANDLING -MISSING OPERATION	2	(P) -WORK INSTRUCTION FOR MATERIALS OPERATOR - (D)SCANNING OF THE MATERIAL	4	8	None						
40) MOVE MATERIAL FROM RAMP TO SUPERMARKET AREA OR MATERIAL SUSPECT/ UNDER QUALITY ALERT TO INCOMING INSPECTION	DAMAGED MATERIAL	RAW MATERIAL CAN NOT BE USED	4	N/A	IMPROPER MATERIAL HANDLING	2	(P) -OPERATOR METHOD	7	56	None						
40.1)	MIXED MATERIAL	RAW MATERIAL CAN NOT BE USED	4	N/A	IMPROPER MATERIAL HANDLING	2	(P) -OPERATOR METHOD -CERTIFICATED OPERATOR	7	56	None						
41) MOVE MATERIAL SUSPECT OR UNDER QUALITY ALERT TO INCOMING INSPECTION AREA	MIXTED MATERIAL	RAW MATERIAL CAN NOT BE USED	4	N/A	-INCORRECT HANDLING OF THE MATERIAL	2	(P) WORK INSTRUCTION FOR MATERIALS OPERATOR	8	64	None						
41.1)	DAMAGE MATERIAL	RAW MATERIAL CAN NOT BE USED	4	N/A	IMPROPER MATERIAL HANDLING	2	(P) WORK INSTRUCTION FOR MATERIALS OPERATOR	8	64	None						
42) MATERIAL ARE INSPECTED IN INCOMING INSPECTION AREA	DAMAGE OR MISSING LABEL	PROBLEM TO SCAN THE CUSTOMER INFORMATION	4	N/A	-INCORRECT HANDLING -PROBLEMS OF SUPPLIER	2	(D) -VISUAL INSPECTION BY OPERATOR OF INCOMING INSPECTION AREA	3	24	None						
42.11)	DAMAGE CONTAINER	SUSPECT MATERIAL	4	N/A	DAMAGE DURING TRANSPORTATION - INCORRECT HANDLING - BOXES WRONG ALLOCATED	2	(D) VISUAL INSPECTION TO VERIFY THE CONTAINER CONDITION ACCORDING WORK INSTRUCTION - MATERIALS INSPECTS AND SEGREGATE DAMAGE MATERIAL -VISUAL AID DISPLAYED -INSPECTION BY INCOMING INSPECTION	7	56	None						
42.13)	DAMAGED MATERIAL	RAW MATERIAL CAN NOT BE USED	4	N/A	IMPROPER MATERIAL HANDLING -INCORRECT FROM SUPPLIER	3	(P) WORK INSTRUCTION FOR MATERIALS OPERATOR	7	84	None						

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42.14)	MATERIAL OUT SPECIFICATIONS (ATRIBUTES)	RAW MATERIAL CAN NOT BE USED	4	N/A	INCORRECT FROM SUPPLIER	3	(D) VERIFICATION ACCORDING THE DRAWING VISUAL INSPECTION	7	84	None						
43) MATERIAL INSPECTED IS MOVED RAMPS OR MNC IS SCRAPED OR RETURNED TO THE SUPPLIER	MIXED MATERIAL	-RAW MATERIAL CAN NOT BE USED -ASSEMBLY PROBLEM	1	N/A	-INCORRECT HANDLING DURING TRANSPORTATION -OPEN CONTAINER	2	(D) CLOSED CONTAINER AND BOX -DOCK OPERATOR VERIFY CONTAINER OR BOX IN GOOD CONDITION -VISUAL AID DISPLAYED	7	14	None						
43.1)	MATERIAL WITH OUT IDENTIFICATION	-RAW MATERIAL CAN NOT BE USED -ASSEMBLY PROBLEM	4	N/A	IMPROPER MATERIAL HANDLING	2	(P) WORK INSTRUCTION	8	64	None						
50) STORE MATERIAL IN SUPERMARKET / SHOP STOCK AREA	WRONG MATERIAL	RAW MATERIAL CAN NOT BE USED	4	N/A	INCORRECT ALLOCATION -SIMILAR COMPONENT	2	(P) WORK INSTRUCTION FOR MATERIALS OPERATOR	8	64	None						
50.1)	DAMAGE MATERIAL	RAW MATERIAL CAN NOT BE USED	4	N/A	IMPROPER MATERIAL HANDLING	2	(P) WORK INSTRUCTION FOR MATERIALS OPERATOR	8	64	None						
50.12)	MATERIAL MISSING ALLOCATE	RAW MATERIAL CAN NOT BE USED	4	N/A	P/N NEWS -LACK OF CAPACITY IN SUPERMARKET	2	(P) OPERATOR METHOD STORE -SAP SYSTEM -MAP OF LOCATION	3	24	None						
50.13)	MATERIAL WRONG ALLOCATE	RAW MATERIAL CAN NOT BE USED	4	N/A	IMPROPER MATERIAL HANDLING	2	(P) OPERATOR METHOD STORE -SAP SYSTEM -MAP OF LOCATION	3	24	None						
60) PRINT SHIPPING LABELS AND PROCESS CARD ACCORDING TO THE REQUERIMENTS	WRONG INFORMATION (LABEL)	WRONG DESTINY CUSTOMER INSATISFACTION	5	N/A	WRONG INFORNARTION LOADED	2	(D) -VISUAL INSPECTION BY MATERIALS OPERATOR	8	80	None						
60.1)	WRONG INFORMATION (PROCESS CARD)	WRONG DESTINY CUSTOMER INSATISFACTION	5	N/A	WRONG INFORNARTION LOADED	2	(D) -VISUAL INSPECTION BY MATERIALS OPERATOR	8	80	None						
60.11)	ILLEGIBLE LABEL	PROBLEM TO SCAN THE CUSTOMER INFORMATION	5	N/A	PRINTING PROBLEM	2	(D) VISUAL INSPECTION BY MATERIALS OPERATOR	8	80	None						
60.12)	DAMAGED LABEL	PROBLEMS TO SCAN THE SHIPPING LABEL	5	N/A	IMPROPER HANDLING	2	(D) VISUAL INSPECTION BY MATERIALS OPERATOR	8	80	None						
70) MOVE SHIPPING LABELS TO WORK STATION (WHEN APPLY)	SHIPPING LABEL MIXED	ASSEMBLY PROBLEM	4	N/A	IMPROPER HANDLING	2	(P) OPERATOR METHOD -D-VISUAL INSPECTION OF SERVICE OPERATOR	7	56	None						
70.1)	MISSING SHIPPING LABEL	ASSEMBLY CAN NOT BE BUILD	4	N/A	INCORRECT HANDLING LOOSING DURING TRANSPORTATION	2	(P) OPERATOR METHOD -D- VISUAL INSPECTION OF SERVICE OPERATOR	7	56	None						
70.11)	DAMAGE LABEL	LABEL CAN NOT BE USED	5	N/A	INCORRECT HANDLING	2	(P) OPERATOR METHOD -D- VISUAL INSPECTION OF SERVICE OPERATOR	8	80	None						
80) BUILD THE KIT ACCORDING TO THE REQUIREMENTS (WHEN APPLY)	WRONG TOOL	-ASSEMBLY PROBLEM	3	N/A	MISS OPERATION	2	(P) -OPERATOR METHOD	7	42	None						
80.1)	WRONG MATERIAL	-ASSEMBLY PROBLEM	5	N/A	MISS OPERATION	2	(P) -OPERATOR METHOD	8	80	None						
80.11)	WRONG SHIPPING LABEL	-ASSEMBLY PROBLEM	2	N/A	MISS OPERATION	2	(P) OPERATOR METHOD	7	28	None						
80.12)	WRONG IDENTIFICATION OF THE MATERIAL	-ASSEMBLY PROBLEM	3	N/A	INCORRECT HANDLING	2	(P) -OPERATOR METHOD	7	42	None						
80.13)	MIXED MATERIAL	-ASSEMBLY PROBLEM	5	N/A	MISS OPERATION	2	(P) OPERATOR METHOD	8	80	None						
80.14)	WRONG METHOD	MANUFACTURING FLOW INTERRUMPED INCORRECT ASSEMBLY	6	N/A	MISS OPERATION	2	(P) OPERATOR METHOD	8	96	None						
85) TO REQUEST SHIPPING LABEL FROM KIT PART NUMBER (WHEN APPLY)	WRONG INFORMATION	MANUFACTURING FLOW INTERRUMPED	6	N/A	MISS OPERATION	2	(P) OPERATOR METHOD	7	84	None						
90) MOVE MATERIAL, AND TOOL FROM KIT'S CENTER TO WORK STATION ACCORDING TO THE REQUIREMENTS (WHEN APPLY)	DAMAGED COMPONENT	ASSEMBLY PROBLEM	5	N/A	INCORRECT HANDLING DURING TRANSPORTATION	2	(P) USE OF CAR FOR TRANSPORTATION - OPERATOR METHOD	8	80	None						
90.1)	DAMAGED TOOL	ASSEMBLY PROBLEM	5	N/A	INCORRECT HANDLING DURING TRANSPORTATION	2	(P) USE OF CAR FOR TRANSPORTATION - OPERATOR METHOD	7	70	None						
90.11)	DAMAGED SHIPPING LABEL	SHIPPING LABEL CAN NOT BE USED	5	N/A	INCORRECT HANDLING DURING TRANSPORTATION	2	(P) USE OF CAR FOR TRANSPORTATION - OPERATOR METHOD	8	80	None						
100) MOVE MATERIAL, PACKING MATERIAL AND TOOL OF THE P/N CHANGE FROM WORK STATION TO KIT'S CENTER OR PACKING CAR (WHEN APPLY)	DAMAGED COMPONENT	ASSEMBLY PROBLEM	5	N/A	INCORRECT HANDLING DURING TRANSPORTATION	2	(P) USE OF CAR FOR TRANSPORTATION - OPERATOR METHOD	8	80	None						
100.1)	DAMAGED TOOL	ASSEMBLY PROBLEM	5	N/A	INCORRECT HANDLING DURING TRANSPORTATION	2	(P) USE OF CAR FOR TRANSPORTATION - OPERATOR METHOD	8	80	None						

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105) TRANSFER MATERIAL FROM SUPERMARKET AND SHOP STOCK SLOCK (SLOCK 1) TO WIP SLOCK (SLOCK 2) IN SAP/QAS SYSTEM (SCANNING)	MISSING SCANNING	AFFECTED INVENTORY MANUFACTURING FLOW INTERRUPTED	4	N/A	MISS OPERATION	2	(P) -OPERATOR METHOD	7	56	None						
105.1)	MATERIAL WITH OUT IDENTIFICATION	MANUFACTURING INTERRUMPED FLOW	4	N/A	INCORRECT HANDLING OF THE MATERIAL	2	(P) -OPERATOR METHOD	7	56	None						
110) MOVE COMPONENT FROM SUPERMARKET, PARTS PURCHASED SHOP STOCK AND MOLDING SHOP STOCK AREA TO WORK STATION	DAMAGED COMPONENT	ASSEMBLY PROBLEM	4	N/A	INCORRECT HANDLING DURING TRANSPORTATION	2	(P) USE OF CAR FOR TRANSPORTATION (D)-SERVICE OPERATOR VERIFY CONTAINER GOOD CONDITION PERMITED AMOUNT OF STACK MATERIAL IS INDICATED TO SERVICE	8	64	None						
110.1)	MIXED COMPONENT	-RAW MATERIAL CAN NOT BE USED -ASSEMBLY PROBLEM	4	N/A	-INCORRECT HANDLING DURING TRANSPORTATION	3	(P) -SERVICE OPERATOR METHOD	8	96	None					8	
110.11)	WRONG COMPONENT	-RAW MATERIAL CAN NOT BE USED -ASSEMBLY PROBLEM	4	N/A	-INCORRECT HANDLING DURING TRANSPORTATION	2	(P) -SERVICE OPERATOR METHOD	8	64	None						
140) MOVE BOXES, RETURNABLE CONTAINERS FROM SUPERMARKET AREA TO WORK STATION	DAMAGE CONTAINER	CONTAINER CAN NOT BE ISED	2	N/A	INCORRECT HANDLING	2	(P) -TRANSPORTATION IN CARS -OPERATOR METHOD	8	32	None						
140.1)	DIRTY CONTAINER	CONTAINER CAN NOT BE USED	2	N/A	INCORRECT HANDLING	2	(P) CONTAINER MUST BE CLEAN BY MATERIAL S OPERATOR BEFORE BE USED ACCORDING TO THE OPERATOR METHOD	8	32	None						
140.11)	WRONG CONTAINER OR BOX	CONTAINER CAN NOT BE USED	2	N/A	MISS OPERATION	2	(P) -MATERIAL OPERATOR METHOD	8	32	None						
145) MOVE FINISHED GOOD FROM INCOMPLETE CONTAINER AREA TO WORK STATION (WHEN APPLY)	INCOMPLETE FINISH GOOD CONTAINER INVENTORY HIGH	OVER STOCK	1	N/A	MISS OPERATION	2	(P) -WORK METHOD	8	16	None						
150) VERIFICATION OF SET-UP BY MANUFACTURING	INCORRECT VERIFICATION	MANUFACTURING FLOW INTERRUMPED	2	N/A	INCORRECT INFORMATION USE	2	(D) VERIFICATION OF SET-UP ROUTINE	7	28	None						
150.1)	MISSING METHOD	INTERRUPTED MANUFACTURING FLOW	6	N/A	INCORRECT HANDLING OF METHOD	2	(D) -MANUFACTURING INSPECTION	8	96	None						
150.2)	WRONG OR BAD STATE METHOD	INTERRUPTED MANUFACTURING FLOW	6	N/A	MISS OPERATION	2	(D) -MANUFACTURING INSPECTION	8	96	None						
150.3)	NOT RELEASED METHODS	INTERRUPTED MANUFACTURING FLOW	6	N/A	MISS OPERATION	2	(D) -MANUFACTURING INSPECTION	8	96	None						
150.4)	ASSEMBLY OUT SPECIFICATIONS (ATRIBUTES)	MATERIAL CAN NOT BE USE	6	N/A	INCORRECT FROM SUPPLIER	2	(P) OPERATOR METHOD TRAINING OPERATOR	8	96	None						
150.5)	WRONG OR DAMAGE TOOL	ASSEMBLY PROBLEMS	6	N/A	MISS OPERATION INCORRECT HANDLING OF THE TOOL	2	(P) OPERATOR METHOD TRAINING OPERATOR	8	96	None						
150.51)	WRONG OR DAMAGE EQUIPMENT	ASSEMBLY PROBLEMS	6	N/A	MISS OPERATION INCORRECT HANDLING OF THE TOOL	2	(D) OPERATOR VERIFICATION OF SET-UP ROUTINE	8	96	None						
150.6)	NOT IDENTIFIED CONTAINER	MATERIAL CAN NOT BE USED	4	N/A	IMPROPER HANDLING OF THE MATERIAL MISS OPERATION	2	(P) OPERATOR METHOD	8	64	None						
160) PLACE SHIPPING LABEL ON CONTAINER/BOX	WRONG LABEL	MISS ID-CUSTOMER INSATISFACTION	4	N/A	MISS OPERATION, OPERATOR DOES NOT VERIFY THE SHIPPING LABEL AGAINTS THE METHOD -SIMILAR COMPONENT	2	(P) OPERATOR METHOD -D- -MANUFACTURING VERIFY - Q.C FINAL AUDIT	7	56	None						
160.11)	DAMAGED LABEL	SHIPPING LABEL CAN NOT BE USED -MANUFACTURING FLOW INTERRUPTED	4	N/A	-INCORRECT HANDLING -INCORRECT PRINTING	2	(D) MANUFACTIRING INSPECTION -D- Q.C FINAL VERIFY -VPS IN SHIPPING LABEL PRINTING AREA	7	56	None						
160.12)	WRONG PLACED LABEL	MANUFACTURING FLOW INTERRUPTED	3	N/A	MISS OPERATION	2	(D) Q.C FINAL INSPECTION OPERATOR METHOD	7	42	None						
162) SCANING, PROCESS CARD, TOOL MACH,COMPONENTS. ID OPERATOR AND SHIPPING LABEL.	WRONG WORK METHOD	INTERRUPTED MANUFACTURING FLOW - ASSEMBLY PROBLEM	4	N/A	MISS OPERATION	2	(P) OPERATOR METHOD -(D)SCANING WITH ELECTRONIC DETECTION	4	32	None						
162.1)	WRONG TOOL NEST	INTERRUPTED MANUFACTURING FLOW - ASSEMBLY PROBLEM	4	N/A	MISS OPERATION	2	(P) OPERATOR METHOD -(D)SCANING WITH ELECTRONIC DETECTION	4	32	None						
162.2)	WRONG COMPONENT	INTERRUPTED MANUFACTURING FLOW - ASSEMBLY PROBLEM	4	N/A	MISS OPERATION	2	(P) OPERATOR METHOD -(D)SCANING WITH ELECTRONIC DETECTION	4	32	None						

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Item/Process Function Requirements	Potential Failure Mode	Potential Effect(s) of Failure	Sev	Class	Potential Cause(s)/ Mechanism(s) of Failure	Occ	Current Design/Process Controls	Det	RPN	Recommended Actions	Responsibility & Target Completion Date	Actions Taken	Sev	Occ	Det	RPN
162.3)	WRONG SHIPPING LABEL	INTERRUPTED MANUFACTURING FLOW - ASSEMBLY PROBLEM	4	N/A	MISS OPERATION	2	(P) OPERATOR METHOD -(D)SCANING WITH ELECTRONIC DETECTION	4	32	None						
170) PLACE RAW MATERIALS INTO THE HOPPER	DAMAGE CONNECTOR	ASSEMBLY PROBLEMS	7	N/A	DAMAGED CONVEYOR BELT -- DEFECTS FROM SUPPLIER	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. EQUIPMENT DESIGN 5. MAINTENANCE METHOD	6	84	None						
170.1)	DAMAGE TPA	ASSEMBLY PROBLEMS	8	N/A	DAMAGED CONVEYOR BELT -- DEFECTS FROM SUPPLIER	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. EQUIPMENT DESIGN 5. MAINTENANCE METHOD	6	96	None						
170.2)	WRONG COMPONENT INTO THE INCORRECT HOPPER (RAW MATERIAL MIXED)	NOT FUNCTIONAL PART	7	N/A	IMPROPER MATERIAL HANDLING. PROCESS OF PARTS REMOVES INCOMPLETE BEFORE THE PROCESS START MIXED MATERIAL FROM SUPPLIER	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. CCA SYSTEM	6	84	None						
170.3)	CONTAMINATED COMPONENTS ,FOREIGN MATERIAL (FOOD, OIL, DUST, ETC)	CONTAMINATED PRODUCT SHIPPED	6	N/A	ABSENCE OF PREVENTIVE MAINTENANCE. AIR CONTAMINANTS-OPERATOR DOESN - FOLLOW THE METHOD CORRECTLY	2	(P) (P) 1.MANUFACTURING INSPECTION 2.PREVENTIVE MAINTENANCE PLAN 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4.FINISHED GOODS CONTAINERS IN ENCLOSED AREA DURING PROCESSING	8	96	None						
175) COMPONENTS TRANSPORTATION FROM FEEDER SYSTEM TO FIELD OF VIEW	DAMAGE CONNECTOR	ASSEMBLY PROBLEMS	7	N/A	DAMAGED CONVEYOR BELT -- DEFECTS FROM SUPPLIER	2	(D) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. EQUIPMENT DESIGN 5. MAINTENANCE METHOD	7	98	None						
175.01)	WRONG CONNECTOR	NOT FUNCTIONAL PART	7	N/A	IMPROPER MATERIAL HANDLING. PROCESS OF PARTS REMOVES INCOMPLETE BEFORE THE PROCESS START MIXED MATERIAL FROM SUPPLIER	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. CCA SYSTEM 5. VISION SYSTEM	4	56	None						
175.02)	MISSING CONNECTOR	PROCESS DISRUPTION. PROCESS WILL NOT RUN	7	N/A	OPERATOR FAILURE TO FOLLOW PROPER PROCEDURE. - BAD ADJUST THE PRESENCE SENSOR	2	(P) (D) 1. ANDON SYSTEM 2.PRESENCE SENSOR 3.VISION SYSTEM	4	56	None						
175.03)	DAMAGE TPA	ASSEMBLY PROBLEMS	7	N/A	DAMAGED CONVEYOR BELT -- DEFECTS FROM SUPPLIER	2	(D) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. EQUIPMENT DESIGN 5. MAINTENANCE METHOD	7	98	None						
175.04)	WRONG TPA	NOT FUNCTIONAL PART	7	N/A	IMPROPER MATERIAL HANDLING. PROCESS OF PARTS REMOVES INCOMPLETE BEFORE THE PROCESS START MIXED MATERIAL FROM SUPPLIER	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4.CCA SYSTEM 5. VISION SYSTEM	4	56	None						
175.05)	MISSING TPA	PROCESS DISRUPTION. PROCESS WILL NOT RUN.	7	N/A	OPERATOR FAILURE TO FOLLOW PROPER PROCEDURE. - BAD ADJUST THE PRESENCE SENSOR	2	(D) (D) 1. ANDON SYSTEM 2.PRESENCE SENSOR 3.VISION SYSTEM	4	56	None						
180) PICK AND PLACE THE CONNECTOR ON THE WALKING BEAM AUTOMATICALLY IN MODULE	WRONG CONNECTOR	NOT FUNCTIONAL PART	7	N/A	IMPROPER MATERIAL HANDLING. PROCESS OF PARTS REMOVES INCOMPLETE BEFORE THE PROCESS START MIXED MATERIAL FROM SUPPLIER	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. CCA SYSTEM 6. VISION SYSTEM	4	56	None						
180.01)	CONTAMINATED CONNECTOR ,FOREIGN MATERIAL (FOOD, OIL, DUST, ETC)	CONTAMINATED PRODUCT SHIPPED	6	N/A	ABSENCE OF PREVENTIVE MAINTENANCE. AIR CONTAMINANTS-OPERATOR DOESN - FOLLOW THE METHOD CORRECTLY	2	(D) (P) 1.MANUFACTURING INSPECTION 2.PREVENTIVE MAINTENANCE PLAN 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4.FINISHED GOODS CONTAINERS IN ENCLOSED AREA DURING PROCESSING	8	96	None						
180.02)	CONNECTOR WRONG ORIENTED	ASSEMBLY PROBLEMS	7	N/A	END OF ARM TOOLING MISSADJUSTED ROBOT VISION SYSTEM MALADJUSTED	2	(P) (P) 1.MANUFACTURING INSPECTION 2. AUDIT PRODUCT OF FINAL ASSEMBLY 3. (D) END OF ARM TOOLING 4. (P) SETUP METHOD ROBOT 5. (P) PREVENTIVE MAINTENANCE PLAN. 6. VISION SYSTEM 7. TOOLING DESING	4	56	None						
180.03)	DAMAGE CONNECTOR	ASSEMBLY PROBLEMS PROCESS DISRUPTION	7	N/A	CONNECTOR WRONG SEATED INTO THE WALKING BEAM-WRONG WALKING BEAM-MAINTENANCE METHOD ABSCENSE	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. MAINTENANCE METHOD	5	70	None						
180.04)	MORE THAN 1 CONNECTOR	ASSEMBLY PROBLEMS PROCESS DISRUPTION	7	N/A	MALADJUSTED OF END OF ARM TOOLING HOPPER KNOCKDOWN BRUSH WORN VISION SYSTEM MISSADJUSTED	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. (D) END OF ARM TOOLING 5. MAINTENANCE METHOD 6. VISION SYTEM 7. TOOLING DESING	4	56	None						
185) AUTOMATIC TRANSPORTATION OF THE CONNECTOR TO THE NEXT MODULE	DAMAGE CONNECTOR	ASSEMBLY PROBLEMS	7	N/A	WRONG WALKING BEAM WRONG SPRING INTO THE PRESSURE PAD WORNOUT WALKING BEAM WALKING BEAM STUCK- CONNECTOR WRONG SEATED	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. MAINTENANCE METHOD 6.(D) BREAK AWAY COMB FEATURE DURING HIGH FORCE COLLISION	5	70	None						
185.01)	CONNECTOR WRONG ORIENTED	ASSEMBLY PROBLEMS	7	N/A	WRONG WALKING BEAM WRONG SPRING INTO THE PRESSURE PAD WORNOUT WALKING BEAM WALKING BEAM STUCK END OF ARM MALADJUSTED	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. (D) END OF ARM TOOLING 5. MAINTENANCE METHOD 6.(D) BREAK AWAY COMB FEATURE DURING HIGH FORCE COLLISION	5	70	None						

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POTENTIAL FAILURE MODE AND EFFECTS ANALYSIS

[ ] Design FMEA [X] Process FMEA [X] Delphi Confidential

Part Certification

	System	X	Subsystem		Component	Page 1	FMEA Number AUTO FLEX (e-FMEA DOC ID 5097752)
Part Number (Delphi:33386295)			Design or Process Responsibility BRIONES, DIEGO ALBERTO			Prepared by SIBAMEA, PEDRO N	Telephone # +52 844 4115500
Model Year(s)/Vehicle(s) COMPONENT			Key Date 2019-07-02 00:00:00			Original FMEA Date 2019-06-27 00:00:00	FMEA Revision Date 2019-06-27 11:20:01
Core Team CHAVARRIA, VICTOR, ME SUPERVISOR - MECHANICAL +52 844 4115500 GARZA, RAQUELINE V, SR OPERATIONS GENERAL SUPERVISOR +52 844 4115500 BRIONES, DIEGO ALBERTO, SENIOR ME ENGINEER - MECHANICAL +52 844 4389060 LOPEZ, ADRIAN G, MOLDING PRODUCTION CONTROL SUPERVISOR +52 844 4115500 RAMIREZ, FABIAN HORACIO, QUALITY ENGINNER +52 844 4115500 HERNANDEZ, LETICIA 2, SR CUSTOMER SATISFACTION ENGINEER +52 844 8663400 VIELMA, EDUARDO A, ME ENGINEER - ELECTRICAL +52 844 4389060 GARCIA, ABRIL, ASSOC CUSTOMER SATISFACTION ADMIN +52 844 4115500 DOMINGUEZ, SALOME, ASSOC CUSTOMER SATISFACTION ADMIN +52 AREVALO, VICTOR, RELIABILITY 4-11-55-00 SIBAMEA, PEDRO N, ME SUPERVISOR - ENGRG SUPPORT +52 844 4115500 MENDOZA, ERIK, INDUSTRIAL ENGINEERING TECHNICIAN null ORTIZ URIBE, DIEGO A., TECNICO DE MANTENIMIENTO 3480 MORALES, OSCAR IVAN, PROCESS TECHNICIAN PLANT 8400 CENTEC 3 +52 84 48663400 ZARTUCHE, JOSE LUIS, MATERIALS ENGINEER CENTEC II +52 844 4389060							Supervisor's Approval RUBIO, BERNARDO U

											Action Results						
Item/Process Function Requirements	Potential Failure Mode	Potential Effect(s) of Failure	Sev	Class	Potential Cause(s)/ Mechanism(s) of Failure	Occ	Current Design/Process Controls	Det	RPN	Recommended Actions	Responsibility & Target Completion Date	Actions Taken	Sev	Occ	Det	RPN
185.02)	MORE THAN 1 CONNECTOR	ASSEMBLY PROBLEMS	7	N/A	WRONG END OF ARM TOOLING END OF ARM MALADJUSTED	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. MAINTENANCE METHOD 5. TOOLING DESING 6.(D) BREAK AWAY COMB FEATURE DURING HIGH FORCE COLLISION	5	70	None						
190) VISION SYSTEM INSPECTION OF CONNECTOR	WRONG INDEX OF CONNECTOR	NOT FUNCTIONAL PART	7	N/A	IMPROPER MATERIAL HANDLING. PROCESS OF PARTS REMOVES INCOMPLETE BEFORE THE PROCESS START MIXED MATERIAL FROM SUPPLIER	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4.MAINTENANCE METHOD 5. VISION SYTEM 6. CCA SYSTEM	4	56	None						
190.01)	INCORRECT COLOR OF CONNECTOR	NOT FUNCTIONAL PART	7	N/A	IMPROPER MATERIAL HANDLING. PROCESS OF PARTS REMOVES INCOMPLETE BEFORE THE PROCESS START MIXED MATERIAL FROM SUPPLIER	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4.MAINTENANCE METHOD 5. VISION SYTEM 6. CCA SYSTEM 7. MASTER PIECES 8. VISION SYSTEM	4	56	None						
190.03)	LESS THAN 1 CONNECTOR	ASSEMBLY PROBLEMS	7	N/A	MALADJUSTED OF END OF ARM TOOLING HOPPER KNOCKDOWN BRUSH WORN VISION SYSTEM MISSADJUSTED	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4.MAINTENANCE METHOD 5. VISION SYTEM	4	56	None						
190.04)	MORE THAN 1 CONNECTOR	ASSEMBLY PROBLEMS	7	N/A	MALADJUSTED OF END OF ARM TOOLING HOPPER KNOCKDOWN BRUSH WORN VISION SYSTEM MISSADJUSTED	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4.MAINTENANCE METHOD 5. VISION SYTEM	4	56	None						
190.05)	CONNECTOR WRONG ORIENTED	ASSEMBLY PROBLEMS	7	N/A	MALADJUSTED OF END OF ARM TOOLING HOPPER KNOCKDOWN BRUSH WORN VISION SYSTEM MISSADJUSTED	2	(P) (P) 1.MANUFACTURING INSPECTION 2. AUDIT PRODUCT OF FINAL ASSEMBLY 3. (P) SETUP METHOD ROBOT 4. (P) PREVENTIVE MAINTENANCE PLAN. 5. VISION SYSTEM 6. TOOLING DESING	4	56	None						
190.06)	DAMAGED CONNECTOR	ASSEMBLY PROBLEMS	7	N/A	MALADJUSTED OF END OF ARM TOOLING HOPPER KNOCKDOWN BRUSH WORN VISION SYSTEM MISSADJUSTED	2	(P) (P) 1.MANUFACTURING INSPECTION 2. AUDIT PRODUCT OF FINAL ASSEMBLY 3. (P) SETUP METHOD ROBOT 4. (P) PREVENTIVE MAINTENANCE PLAN. 5. VISION SYSTEM 6. TOOLING DESING 7. MASTER PIECES	4	56	None						
200) PICK AND PLACE THE TPA ON THE WALKING BEAM AUTOMATICALLY IN MODULE	WRONG TPA	NOT FUNCTIONAL PART	7	N/A	IMPROPER MATERIAL HANDLING. PROCESS OF PARTS REMOVES INCOMPLETE BEFORE THE PROCESS START MIXED MATERIAL FROM SUPPLIER	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. CCA SYSTEM 6. VISION SYSTEM	4	56	None						
200.01)	CONTAMINATED COMPONENTS,FOREIGN MATERIAL (FOOD, OIL, DUST, ETC)	CONTAMINATED PRODUCT SHIPPED	6	N/A	ABSENCE OF PREVENTIVE MAINTENANCE. AIR CONTAMINANTS-OPERATOR DOESN -FOLLOW THE METHOD CORRECTLY	2	(D) (P) 1.MANUFACTURING INSPECTION 2.PREVENTIVE MAINTENANCE PLAN 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4.FINISHED GOODS CONTAINERS IN ENCLOSED AREA DURING PROCESSING	8	96	None						
200.02)	LESS THAN 1 TPA	ASSEMBLY PROBLEMS PROCESS DISRUPTION	7	N/A	MALADJUSTED OF END OF ARM TOOLING HOPPER KNOCKDOWN BRUSH WORN VISION SYSTEM MISSADJUSTED	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4.MAINTENANCE METHOD 5.(D) END OF ARM TOOLING 6. VISION SYTEM	4	56	None						
200.03)	MORE THAN 1 TPA	ASSEMBLY PROBLEMS PROCESS DISRUPTION	7	N/A	MALADJUSTED OF END OF ARM TOOLING HOPPER KNOCKDOWN BRUSH WORN VISION SYSTEM MISSADJUSTED	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4.MAINTENANCE METHOD 5.TOOLING DESING 6.(D) END OF ARM TOOLING 7. VISION SYSTEM	4	56	None						
200.04)	TPA WRONG ORIENTED	ASSEMBLY PROBLEMS	7	N/A	END OF ARM TOOLING MISSADJUSTED ROBOT VISION SYSTEM MALADJUSTED	2	(P) (P) 1.MANUFACTURING INSPECTION 2. AUDIT PRODUCT OF FINAL ASSEMBLY 3. (P) SETUP METHOD ROBOT 4. (P) PREVENTIVE MAINTENANCE PLAN. 5. VISION SYSTEM 6. TOOLING DESING	4	56	None						
200.05)	DAMAGE TPA	ASSEMBLY PROBLEMS	8	N/A	MALADJUSTED OF END OF ARM TOOLING WRONG END OF ARM TOOLING - DEFECTS FROM SUPPLIER	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. MAINTENANCE METHOD	5	80	None						
210) AUTOMATIC TRANSPORTATION OF THE CONNECTOR-TPA TO AUTOMATIC PRESS	DAMAGE CONNECTOR-TPA SUBASSEMBLY	ASSEMBLY PROBLEMS	7	N/A	WRONG WALKING BEAM WRONG SPRING INTO THE PRESSURE PAD WORNOUT WALKING BEAM WALKING BEAM STUCK	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. MAINTENANCE METHOD 6.(D) BREAK AWAY COMB FEATURE DURING HIGH FORCE COLLISION	5	70	None						
210.01)	CONNECTOR-TPA SUBASSEMBLY WRONG ORIENTED	ASSEMBLY PROBLEMS	7	N/A	WRONG WALKING BEAM WRONG SPRING INTO THE PRESSURE PAD WORNOUT WALKING BEAM WALKING BEAM STUCK END OF ARM MALADJUSTE	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. MAINTENANCE METHOD 5.(D) BREAK AWAY COMB FEATURE DURING HIGH FORCE COLLISION	5	70	None						
220) ASSEMBLY TPA WITH AUTOMATIC PRESS	TPA FULL STAGE	ASSEMBLY PROBLEMS	7	N/A	PUSHER MALADJUSTED PRESS MALADJUSTED WRONG PUSHER	2	(P) (P) 1.MANUFACTURING INSPECTION 2. AUDIT PRODUCT OF FINAL ASSEMBLY 3. MAINTENANCE METHOD 4. SENSOR PRESS 5. TOOLING DESING	4	56	None						

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POTENTIAL FAILURE MODE AND EFFECTS ANALYSIS

[ ] Design FMEA [X] Process FMEA [X] Delphi Confidential

Part Certification

	System	X	Subsystem		Component	Page 1	FMEA Number AUTO FLEX (e-FMEA DOC ID 5097752)
Part Number (Delphi:33386295)			Design or Process Responsibility BRIONES, DIEGO ALBERTO			Prepared by SIBAMEA, PEDRO N	Telephone # +52 844 4115500
Model Year(s)/Vehicle(s) COMPONENT			Key Date 2019-07-02 00:00:00			Original FMEA Date 2019-06-27 00:00:00	FMEA Revision Date 2019-06-27 11:20:01
Core Team CHAVARRIA, VICTOR, ME SUPERVISOR - MECHANICAL +52 844 4115500 GARZA, RAQUELINE V, SR OPERATIONS GENERAL SUPERVISOR +52 844 4115500 BRIONES, DIEGO ALBERTO, SENIOR ME ENGINEER - MECHANICAL +52 844 4389060 LOPEZ, ADRIAN G, MOLDING PRODUCTION CONTROL SUPERVISOR +52 844 4115500 RAMIREZ, FABIAN HORACIO, QUALITY ENGINNER +52 844 4115500 HERNANDEZ, LETICIA 2, SR CUSTOMER SATISFACTION ENGINEER +52 844 8663400 VIELMA, EDUARDO A, ME ENGINEER - ELECTRICAL +52 844 4389060 GARCIA, ABRIL, ASSOC CUSTOMER SATISFACTION ADMIN +52 844 4115500 DOMINGUEZ, SALOME, ASSOC CUSTOMER SATISFACTION ADMIN +52 AREVALO, VICTOR, RELIABILITY 4-11-55-00 SIBAMEA, PEDRO N, ME SUPERVISOR - ENGRG SUPPORT +52 844 4115500 MENDOZA, ERIK, INDUSTRIAL ENGINEERING TECHNICIAN null ORTIZ URIBE, DIEGO A., TECNICO DE MANTENIMIENTO 3480 MORALES, OSCAR IVAN, PROCESS TECHNICIAN PLANT 8400 CENTEC 3 +52 84 48663400 ZARTUCHE, JOSE LUIS, MATERIALS ENGINEER CENTEC II +52 844 4389060							Supervisor's Approval RUBIO, BERNARDO U

												Action Results						
Item/Process Function Requirements	Potential Failure Mode	Potential Effect(s) of Failure	Sev	Class	Potential Cause(s)/ Mechanism(s) of Failure	Occ	Current Design/Process Controls	Det	RPN	Recommended Actions	Responsibility & Target Completion Date	Actions Taken	Sev	Occ	Det	RPN
220.01)	TPA NO ENGAGE IN PRE-STAGE POSITION	ASSEMBLY PROBLEMS	7	N/A	PUSHER MALADJUSTED PRESS MALADJUSTED WRONG PUSHER SLC OUT OF SPECIFICATIONS	2	(P) (P) 1.MANUFACTURING INSPECTION 2. AUDIT PRODUCT OF FINAL ASSEMBLY 3. MAINTENANCE METHOD 4. VISION SYSTEM 5. TOOLING DESING	4	56	None						
220.03)	DAMAGE TPA	ASSEMBLY PROBLEMS	7	N/A	PUSHER MALADJUSTED PRESS MALADJUSTED WRONG PUSHER BAD HANDLING OF MATERIALS PROBLEMS FROM SUPPLIER	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. MAINTENANCE METHOD 6.VISION SYSTEM	4	56	None						
220.04)	TPA MISS-ORIENTED	ASSEMBLY PROBLEMS	7	N/A	PUSHER MALADJUSTED PRESS MALADJUSTED WRONG PUSHER BAD HANDLING OF MATERIALS	2	(P) (P) 1.MANUFACTURING INSPECTION 2. AUDIT PRODUCT OF FINAL ASSEMBLY 3. MAINTENANCE METHOD 4. VISION SYSTEM 5. TOOLING DESING 6. VISION SYSTEM	4	56	None						
220.05)	INCORRECT COLOR OF TPA	ASSEMBLY PROBLEMS	7	N/A	VISION SYSTEM MALADJUSTED -HANDLING OF MATERIALS	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4.MAINTENANCE METHOD 5. VISION SYTEM	4	56	None						
220.06)	WRONG TPA	ASSEMBLY PROBLEMS	7	N/A	VISION SYSTEM MALADJUSTED -HANDLING OF MATERIALS	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. CCA SYSTEM 6. VISION SYSTEM	4	56	None						
225) FINISH GOOD AUTOMATIC TRANSPORTATION TO VISION SYSTEM	DAMAGE FINISH GOOD ASSEMBLY	ASSEMBLY PROBLEMS	7	N/A	WRONG WALKING BEAM WRONG SPRING INTO THE PRESSURE PAD WORNOUT WALKING BEAM WALKING BEAM STUCK FINISH GOOD ASSEMBLY WRONG ORIENTED FINISH GOOD ASSEMBLY WRONG SEATED IN THE TOOLING	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. MAINTENANCE METHOD 6.BREAK AWAY COMB FEATURE DURING HIGH FORCE COLLISION	5	70	None						
230) FINISH GOOD ASSEMBLY INSPECTION WITH VISION SYSTEM	FINISH GOOD ASSEMBLY CALLED FINISH BAD ASSEMBLY	NON FUNCTIONAL PART	7	N/A	VISION SYSTEM MISSADJUSTED	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. MAINTENANCE METHOD 6. MASTER PIECES 7. AUTOVERIFICATION	4	56	None						
230.01)	FINISH BAD ASSEMBLY CALLED FINISH GOOD ASSEMBLY	NON FUNCTIONAL PART	7	N/A	VISION SYSTEM MISSADJUSTED	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. MAINTENANCE METHOD 6. MASTER PIECES 7. AUTOVERIFICATION	4	56	None						
230.02)	INCORRECT COLOR OF TPA	NON FUNCTIONAL PART	7	N/A	VISION SYSTEM MISSADJUSTED	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. MAINTENANCE METHOD 6. AUTOVERIFICATION	5	70	None						
230.03)	BAD ORIENTATION OF TPA	NON FUNCTIONAL PART	7	N/A	VISION SYSTEM MISSADJUSTED	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. MAINTENANCE METHOD 6. MASTER PIECES 7. AUTOVERIFICATION	4	56	None						
230.04)	INCORRECT CAVITIES OF TPA	NON FUNCTIONAL PART	7	N/A	VISION SYSTEM MISSADJUSTED	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. MAINTENANCE METHOD 6. AUTOVERIFICATION	4	56	None						
230.05)	TPA FULL STAGE	ASSEMBLY PROBLEMS	7	N/A	PUSHER MALADJUSTED PRESS MALADJUSTED WRONG PUSHER	2	(P) (P) 1.MANUFACTURING INSPECTION 2. AUDIT PRODUCT OF FINAL ASSEMBLY 3. MAINTENANCE METHOD 4. TOOL NEST 5. TOOLING DESING 6. AUTOVERIFICATION 7. SENSOR PRESS 8. MASTER PIECES	4	56	None						
230.06)	TPA NO ENGAGE IN PRE-STAGE POSITION	ASSEMBLY PROBLEMS	7	N/A	PUSHER MALADJUSTED PRESS MALADJUSTED WRONG PUSHER	2	(P) (P) 1.MANUFACTURING INSPECTION 2. AUDIT PRODUCT OF FINAL ASSEMBLY 3. MAINTENANCE METHOD 4. VISION SYSTEM 5. TOOLING DESING 6. MASTER PIECES	4	56	None						
230.07)	LESS THAN 1 TPA	ASSEMBLY PROBLEMS	7	N/A	PUSHER MALADJUSTED PRESS MALADJUSTED WRONG PUSHER	2	(P) (P) 1.MANUFACTURING INSPECTION 2. AUDIT PRODUCT OF FINAL ASSEMBLY 3. MAINTENANCE METHOD 4. VISION SYSTEM 5. TOOLING DESING 6. MASTER PIECES	4	56	None						
230.08)	DAMAGED TPA	ASSEMBLY PROBLEMS	7	N/A	PUSHER MALADJUSTED PRESS MALADJUSTED WRONG PUSHER	2	(P) (P) 1.MANUFACTURING INSPECTION 2. AUDIT PRODUCT OF FINAL ASSEMBLY 3. MAINTENANCE METHOD 4. VISION SYSTEM 5. TOOLING DESING 6. MASTER PIECES	4	56	None						
235) FINISH GOOD AUTOMATIC TRANSPORTATION FROM VISION SYSTEM TO PACKING	DAMAGE FINISH GOOD ASSEMBLY	ASSEMBLY PROBLEMS	7	N/A	WRONG WALKING BEAM WRONG SPRING INTO THE PRESSURE PAD WORNOUT WALKING BEAM WALKING BEAM STUCK	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. TOOLING DESIGN 5. MAINTENANCE METHOD 6.BREAK AWAY COMB FEATURE DURING HIGH FORCE COLLISION	5	70	None						

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POTENTIAL FAILURE MODE AND EFFECTS ANALYSIS

[ ] Design FMEA [X] Process FMEA [X] Delphi Confidential

Part Certification

	System	X	Subsystem		Component	Page 1	FMEA Number AUTO FLEX (e-FMEA DOC ID 5097752)
Part Number (Delphi:33386295)			Design or Process Responsibility BRIONES, DIEGO ALBERTO			Prepared by SIBAMEA, PEDRO N	Telephone # +52 844 4115500
Model Year(s)/Vehicle(s) COMPONENT			Key Date 2019-07-02 00:00:00			Original FMEA Date 2019-06-27 00:00:00	FMEA Revision Date 2019-06-27 11:20:01
Core Team CHAVARRIA, VICTOR, ME SUPERVISOR - MECHANICAL +52 844 4115500 GARZA, RAQUELINE V, SR OPERATIONS GENERAL SUPERVISOR +52 844 4115500 BRIONES, DIEGO ALBERTO, SENIOR ME ENGINEER - MECHANICAL +52 844 4389060 LOPEZ, ADRIAN G, MOLDING PRODUCTION CONTROL SUPERVISOR +52 844 4115500 RAMIREZ, FABIAN HORACIO, QUALITY ENGINNER +52 844 4115500 HERNANDEZ, LETICIA 2, SR CUSTOMER SATISFACTION ENGINEER +52 844 8663400 VIELMA, EDUARDO A, ME ENGINEER - ELECTRICAL +52 844 4389060 GARCIA, ABRIL, ASSOC CUSTOMER SATISFACTION ADMIN +52 844 4115500 DOMINGUEZ, SALOME, ASSOC CUSTOMER SATISFACTION ADMIN +52 AREVALO, VICTOR, RELIABILITY 4-11-55-00 SIBAMEA, PEDRO N, ME SUPERVISOR - ENGRG SUPPORT +52 844 4115500 MENDOZA, ERIK, INDUSTRIAL ENGINEERING TECHNICIAN null ORTIZ URIBE, DIEGO A., TECNICO DE MANTENIMIENTO 3480 MORALES, OSCAR IVAN, PROCESS TECHNICIAN PLANT 8400 CENTEC 3 +52 844 48663400 ZARTUCHE, JOSE LUIS, MATERIALS ENGINEER CENTEC II +52 844 4389060							Supervisor's Approval RUBIO, BERNARDO U

													Action Results						
Item/Process Function Requirements	Potential Failure Mode	Potential Effect(s) of Failure	Sev	Class	Potential Cause(s)/ Mechanism(s) of Failure	Occ	Current Design/Process Controls	Det	RPN	Recommended Actions	Responsibility & Target Completion Date	Actions Taken	Sev	Occ	Det	RPN
240) FINISH GOOD PART PACKING	BROKEN CONNECTOR	CUSTOMER PROBLEMS. NOT FUNCTIONAL PART	7	N/A	FALLING PIECES INTO THE PACKAGE BOX CROWDING PIECES	2	(D) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. EQUIPMENT DESIGN 5. MAINTENANCE METHOD	7	98	None						
240.01)	FINISH GOOD PART WITH TPA ON FULL STAGE	NON FUNCTIONAL PART	7	N/A	FALLING PIECES INTO THE PACKAGE BOX CROWDING PIECES	2	(D) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. EQUIPMENT DESIGN 5. MAINTENANCE METHOD	7	98	None						
240.02)	INCOMPLETE STD PACK	CUSTOMER INSATISFACTION	2	N/A	REBOUNCE OF PARTS INTO THE FG AREA	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. EQUIPMENT DESIGN 5. MAINTENANCE METHOD 6. END OF CHUTE SENSOR	4	16	None						
245) SCRAP DISPOSAL	BAD PART SEND TO FINISH GOOD CONTAINER	CUSTOMER PROBLEMS	7	N/A	FLAPPER MISSADJUSTED	2	(P) (D)1. OPERATOR METHOD 2. MANUFACTURING INSPECTION 3.AUDIT PRODUCT OF FINAL ASSEMBLY 4. EQUIPMENT DESIGN 5. MAINTENANCE METHOD 6. END OF CHUTE SENSOR	4	56	None						
290) FIRST SAMPLE RELEASED BY Q.C. PROCESS AUDIT BY Q.C.	ASSEMBLY OUT OF SPECIFICATION	ASSEMBLY PROBLEM	7	N/A	MISS OPERATION - MATERIAL OUT SPECIFICATION	2	(D) FIRST SAMPLE RELEASED WORK INSTRUCTION - INSPECTION ACCORDING TO THE DRAWING	7	98	None						
290.02)	INCORRECT AUDIT	MANUFACTURING FLOW INTERRUMPED	7	N/A	INCORRECT INFORMATION USE	2	(P) WORK INSTRUCTION OPERATOR TRAINING	7	98	None						
290.03)	MISSING AUDIT	INTERRUPTED MANUFACTURING FLOW	6	N/A	INCORRECT INFORMATION USE	2	(P) WORK INSTRUCTION OPERATOR TRAINING	7	84	None						
310) FINISH ASSEMBLY IS PACKAGED BAG IS CLOSED	DAMAGE MATERIAL	ASSEMBLY PROBLEM	7	N/A	INCORRECT MATERIAL HANDLING IMPROPER PACKING	2	(D) MANUFACTURING INSPECTION - Q.C. FINAL AUDIT	7	98	None						
310.1)	INCOMPLETE STD PACK	CUSTOMER INSATISFACTION	2	N/A	MISS OPERATION	2	(P) PACKING INFORMATION ELECTRICAL ACCOUNT IN WORK STATION	7	28	None						
310.111)	WRONG SHIPPING LABEL	INTERRUPTED MANUFACTURING FLOW	2	N/A	MISS OPERATION	2	(D) SCANING WITH ELECTRONIC DETECTION (P) - OPERATOR METHOD	5	20	None						
310.13)	WRONG CONTAINER OR BOX	ASSEMBLY PROBLEM	4	N/A	-INCORRECT HANDLING IMPROPER PACKING	2	(D) -MANUFACTURING INSPECTION -Q.C FINAL AUDIT	7	56	None						
310.15)	WRONG PACKING	CUSTOMER INSATISFACTION	4	N/A	MISS OPERATION	2	(D) -MANUFACTURING INSPECTION -Q.C FINAL AUDIT	7	56	None						
310.16)	WRONG SHIPPING LABEL	INTERRUPTED MANUFACTURING FLOW	2	N/A	MISS OPERATION	2	(D) SCANING WITH ELECTRONIC DETECTION (P) - OPERATOR METHOD	5	20	None						
316) MOVE FINISH GOOD CONTAINER FROM WORK STATION TO INCOMPLETE CONTAINER AREA (WHEN APPLY)	FINISHED GOOD IS NOT SENT TO INCOMPLETE CONTAINER AREA	CUSTOMER INSATISFACTION	1	N/A	MISS OPERATION	2	(P) WORK METHOD	8	16	None						
318) RELABELING WHEN APPLY	WRONG SHIPPING LABEL	CUSTOMERS INSATISFACTION	4	N/A	IMPROPER MATERIAL HANDLING -SYSTEM PROBLEM	4	(P) OPERATOR TRAINING (D) VISUAL INSPECTION	7	112	None						
318.1)	DAMAGE SHIPPING LABEL	ASSEMBLY PROBLEMS	4	N/A	IMPROPER MATERIAL HANDLING -SYSTEM PROBLEM	2	(P) OPERATOR TRAINING (P) VISUAL INSPECTION	7	56	None						
318.2)	INACTIVE SHIPPING LABEL	SHIPPING LABEL CAN NOT BE READ	4	N/A	IMPROPER MATERIAL HANDLING -SYSTEM PROBLEM	2	(P) OPERATOR TRAINING (P) VISUAL INSPECTION	7	56	None						
320) FINISHED GOOD CONTAINERS ARE MOVED TO MANUFACTURING INSPECTION AREA WHEN APPLY	DAMAGED MATERIAL	ASSEMBLY PROBLEMS	2	N/A	-IMPROPER MATERIAL HANDLING -THERE IS NOT METHOD	2	(D) -MANUFACTURING INSPECTION -Q.C FINAL AUDIT	7	28	None						
320.1)	DAMAGE LABEL	LABEL CAN NOT BE USED	2	N/A	INCORRECT HANDLING	2	(P) OPERATOR METHOD	8	32	None						
320.11)	MISSING SHIPPING LABEL	ASSEMBLY CAN NOT BE BUILD	2	N/A	INCORRECT HANDLING LOOSING DURING TRANSPORTATION	2	(P) OPERATOR METHOD	7	28	None						
320.13)	DAMAGE CONTAINER	SUSPECT MATERIAL	2	N/A	DAMAGE DURING TRANSPORTATION	2	(P) OPERATOR METHOD	6	24	None						
325) VERIFICATION OF SET-UP IN MANUFACTURING INSPECTION AREA	INCORRECT VERIFICATION	SUSPECT MATERIAL	2	N/A	MISS OPERATION	2	(D) VERIFICATION OF ROUTINE OF SET UP IN MANUFACTURING INSPECTION AREA	8	32	None						
330) MANUFACTURING INSPECTION (CONTAINMENT IS APPLIED WHEN APPLY)	FIRST SAMPLE MISSING	MATERIAL CAN NOT BE INSPECTED BY Q.C	1	N/A	-MISS OPERATION -FELT DOWN DURING TRANSPORTATION	2	(P) -OPERATOR METHOD (D) -VISUAL INSPECTION	7	14	None						
330.1)	ASSEMBLY OUT OF SPECIFICATION ACCORDING ATTRIBUTES	ASSEMBLY PROBLEMS	7	N/A	-INCORRECT MATERIAL HANDLING -INCORRECT USE OF VERIFIERS WHEN APPLY	2	(P) -OPERATOR METHOD (D) -VISUAL INSPECTION	7	98	None						
330.11)	WRONG CONTAINER	SUSPECT MATERIAL	5	N/A	IMPROPER INFORMATION HAND	2	(D) -OPERATOR METHOD (D) -VISUAL INSPECTION	6	60	None						
330.13)	DAMAGE SHIPPING LABEL	LABEL CAN NOT BE USED	2	N/A	INCORRECT HANDLING	2	(P) OPERATOR METHOD -D- VISUAL INSPECTION OF SERVICE OPERATOR	7	28	None						
330.14)	MISSING SHIPPING LABEL	ASSEMBLY CAN NOT BE BUILD	2	N/A	INCORRECT HANDLING LOOSING DURING TRANSPORTATION	2	(P) OPERATOR METHOD -D- VISUAL INSPECTION OF SERVICE OPERATOR	8	32	None						
330.16)	WRONG SHIPPING LABEL	-ASSEMBLY PROBLEM	6	N/A	MISS OPERATION	2	(P) -OPERATOR METHOD (D) -VISUAL INSPECTION	7	84	None						

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POTENTIAL FAILURE MODE AND EFFECTS ANALYSIS

[ ] Design FMEA [X] Process FMEA [X] Delphi Confidential

Part Certification

	System	X	Subsystem		Component	Page 1	FMEA Number AUTO FLEX (e-FMEA DOC ID 5097752)
Part Number (Delphi:33386295)			Design or Process Responsibility BRIONES, DIEGO ALBERTO			Prepared by SIBAMEA, PEDRO N	Telephone # +52 844 4115500
Model Year(s)/Vehicle(s) COMPONENT			Key Date 2019-07-02 00:00:00			Original FMEA Date 2019-06-27 00:00:00	FMEA Revision Date 2019-06-27 11:20:01
Core Team CHAVARRIA, VICTOR, ME SUPERVISOR - MECHANICAL +52 844 4115500 GARZA, RAQUELINE V, SR OPERATIONS GENERAL SUPERVISOR +52 844 4115500 BRIONES, DIEGO ALBERTO, SENIOR ME ENGINEER - MECHANICAL +52 844 4389060 LOPEZ, ADRIAN G, MOLDING PRODUCTION CONTROL SUPERVISOR +52 844 4115500 RAMIREZ, FABIAN HORACIO, QUALITY ENGINNER +52 844 4115500 HERNANDEZ, LETICIA 2, SR CUSTOMER SATISFACTION ENGINEER +52 844 8663400 VIELMA, EDUARDO A, ME ENGINEER - ELECTRICAL +52 844 4389060 GARCIA, ABRIL, ASSOC CUSTOMER SATISFACTION ADMIN +52 844 4115500 DOMINGUEZ, SALOME, ASSOC CUSTOMER SATISFACTION ADMIN +52 AREVALO, VICTOR, RELIABILITY 4-11-55-00 SIBAMEA, PEDRO N, ME SUPERVISOR - ENGRG SUPPORT +52 844 4115500 MENDOZA, ERIK, INDUSTRIAL ENGINEERING TECHNICIAN null ORTIZ URIBE, DIEGO A., TECNICO DE MANTENIMIENTO 3480 MORALES, OSCAR IVAN, PROCESS TECHNICIAN PLANT 8400 CENTEC 3 +52 84 48663400 ZARTUCHE, JOSE LUIS, MATERIALS ENGINEER CENTEC II +52 844 4389060							Supervisor's Approval RUBIO, BERNARDO U

											Action Results						
Item/Process Function Requirements	Potential Failure Mode	Potential Effect(s) of Failure	Sev	Class	Potential Cause(s)/ Mechanism(s) of Failure	Occ	Current Design/Process Controls	Det	RPN	Recommended Actions	Responsibility & Target Completion Date	Actions Taken	Sev	Occ	Det	RPN
340) MOVE FINISH GOOD CONTAINER TO Q.C. INSPECTION AREA WHEN APPLY	DAMAGED MATERIAL	ASSEMBLY PROBLEMS	8	N/A	- IMPROPER MATERIAL HANDLING	2	(D) Q.C. FINAL AUDIT	8	128	None						
340.1)	DAMAGE CONTAINER	SUSPECT MATERIAL	2	N/A	DAMAGE DURING TRANSPORTATION	2	(P) OPERATOR METHOD	8	32	None						
340.11)	DAMAGE SHIPPING LABEL	LABEL CAN NOT BE USED	1	N/A	INCORRECT HANDLING	2	(P) OPERATOR METHOD -D- VISUAL INSPECTION OF SERVICE OPERATOR	8	16	None						
340.12)	MISSING SHIPPING LABEL	ASSEMBLY CAN NOT BE BUILD	1	N/A	INCORRECT HANDLING LOOSING DURING TRANSPORTATION	2	(P) OPERATOR METHOD -D- VISUAL INSPECTION OF SERVICE OPERATOR	8	16	None						
351) AUDIT PRODUCTS OF FINAL ASSEMBLY	WRONG IDENTIFICATED ASSEMBLY	ASSEMBLY PROBLEMS	7	N/A	IMPROPER MATERIAL HANDLING -ASSEMBLY IS NOT INSPECTED ACCORDING THE DRAWING	2	(P) LABELING AND PACKAGING WORK INSTRUCCTION FOR Q.C (D) -VISUAL AID OF THE COMPONENT	6	84	None						
351.1)	MISSING SHIPPING LABEL	ASSEMBLY CAN NOT BE BUILD	4	NA	INCORRECT HANDLING LOOSING DURING TRANSPORTATION	2	(P) OPERATOR METHOD -D- VISUAL INSPECTION OF SERVICE OPERATOR	6	48	None						
351.11)	ASSEMBLY OUT OFF SPECIFICATION ACCORDING ATTRIBUTES	ASSEMBLY PROBLEMS	5	NA	INCORRECT MATERIALHANDLING -INCORRECT USE OF VERIFIERS WHEN APPLY	2	(P) OPERATOR METHOD -D- VISUAL INSPECTION	7	70	None						
351.3)	WRONG SHIPPING LABEL	-ASSEMBLY PROBLEM	6	N/A	MISS OPERATION	2	(P) -OPERATOR METHOD	7	84	None						
351.4)	DAMAGE CONTAINER	SUSPECT MATERIAL	2	N/A	DAMAGE DURING TRANSPORTATION	2	(D) OPERATOR METHOD	7	28	None						
351.5)	WRONG CONTAINER	SUSPECT MATERIAL	5	N/A	IMPROPER INFORMATION HAND	2	(P) -OPERATOR METHOD (D) -VISUAL INSPECTION	7	70	None						
352) INSPECTION LAY OUT ANNUAL	DIMENSION IN TENSION OUT SPECIFICATION (WHEN APPLY)	CUSTOMER INSATISFACTION - NOT CAN USED	6	N/A	MISS OPERATION	2	(D) INSPECTO BY Q.C. SYSTEM PPAP	8	96	None						
370) CONTAINER IS CLOSED	INCORRECTLY CLOSE CONTAINERS	-DAMAGED COMPONENT -FOREING MATERIAL CAN GET INTO CONTAINER	6	N/A	-MISS OPERATION -DAMAGE BOX	2	(P) WORK METHOD TO CLOSE CONTAINERS	8	96	None						
380) MOVE FINISH GOOD CONTAINERS TO SHIPPING AREA.	DAMAGED MATERIAL	-DAMAGED COMPONENT -FOREING MATERIAL CAN GET INTO CONTAINER	6	N/A	-MISS OPERATION	2	(P) WORK METHOD TO CLOSE CONTAINERS	8	96	None						
390) FINISH GOOD CONTAINERS ARE SEGREGATED BY DESTINATION	SEGREGATION WRONG OR MISSING	CANT NOT ELABORATE MANIFIESTO	1	N/A	-MISS OPERATION	2	(P) OPERATOR METHOD	7	14	None						
400) MANIFEST (PUSH DELIVERY) IS ELABORATED	MISSING PUSH DELIVERY	CUSTOMER INSATISFACTION	1	N/A	-MISS OPERATION	2	(P) WORK METHOD	7	14	None						
410) MOVE FINISH GOOD CONTAINERS FROM SHIPPING AREA TO DISTRIBUTION CENTER	DAMAGED MATERIAL	CUSTOMER INSATISFACTION	4	N/A	-MISS OPERATION	2	(P) WORK METHOD	8	64	None						