

CHAPTER IV

SOLUTION AND IMPLEMENTATION

4.1 Root cause of Failure: Clearance on arm and bracket

After checking the noise defect from new seat in production line and complaint units from customer, it was found that the main problem come from the mechanism failure inside the seat. The clearance between bracket and arm could lead to the noise while the part could move and hit directly together.

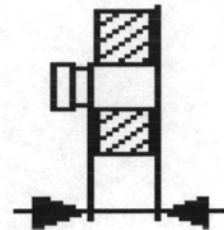
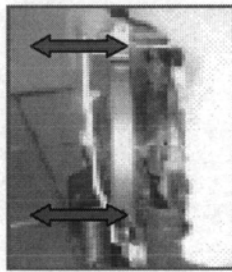


Figure 4.1: Bracket Cable Position

Once the defects has been found and complaint from customer in market. The engineer team has brainstormed to find out the countermeasure for correct and prevent the defect outflow to customer.

4.2 Elimination of Root cause of failure

This defect has been detected by customer 100%, it concerned with noise disturbance to usage condition. The problem couldn't be detected in production line process. The defect has been analyzed for the root cause of problem and affected part which was claimed from customer has taken to analyzed for countermeasure to fix, correct and prevent recurrence of problem.

The result from investigation from affected part, it was found the excessive clearance between arm and bracket which it was out of standard and uncontrollable. These lead to the moveable of part and hitting noise between arm and bracket.

Bracket Clearance	Arm and Bracket Clearance	Remark
Standard Part	3 ± 0.2 mm	Standard
Affected part from customer	3.4 mm	Out of standard

Table 4.1: Bracket Clearance Standard

Part clearance standard: 3.2 mm

Defect clearance (actual): 3.4 mm

Permanent countermeasure: Add plastic washer thickness = 0.5 mm with inner diameter = 10 mm and outer diameter = 30 mm.

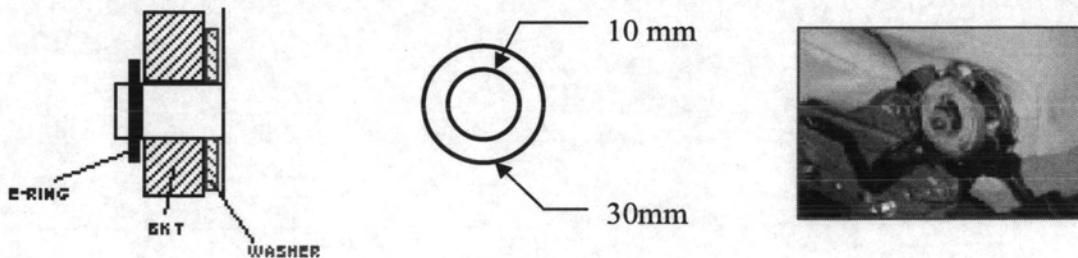


Figure 4.2: Plastic Washer Dimension

Implementation Time in Production line: Plastic washer will implement and starting in production line on January 11, 2005

Description	Year 2004				Year 2005			
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
First receive complain	▽							
Problem Analysis / identified root cause		←————→						
Implement plastic washer / distribute repair manual					▽			
Monitor Problem (3 months)						←————→		

Table 4.2: Seat Abnormal Noise Analysis Schedule

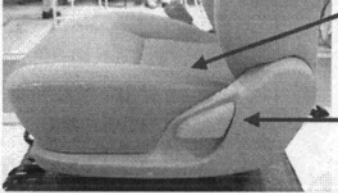
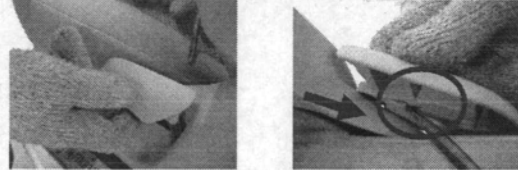

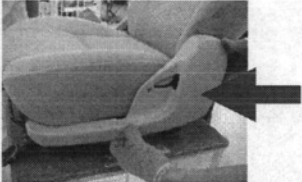
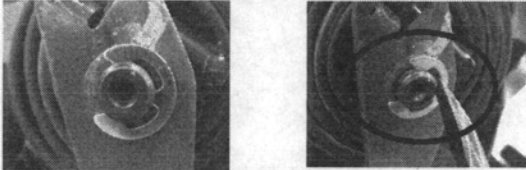

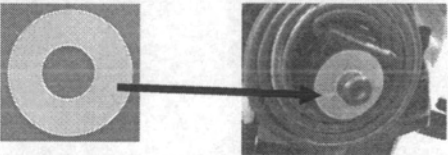
Step	Illustration	Details
1	 <p>HANDLE RECLINING ADJUSTER RELEASE LH.</p> <p>SHIELD FR SEAT CUSHION OUTER LH (WALK-IN).</p>	<p>There was 2 main component parts</p> <ol style="list-style-type: none"> 1. Shield Fr. Seat Cushion Outer LH. 2. Handle Reclining Adjuster Release LH.
2		<p>Remove "Handle Reclining Adjuster Release LH."</p>
3		<p>Remove screw from side member and back</p>
4		<p>Remove Shield Seat Cushion Outer LH.</p>
5		<p>Remove E-Ring from component part</p>
6		<p>Remove Bracket Seat Track Control Cable</p>
7		<p>Insert Washer to the component part.</p>
8	<p>For Installation repeat step 7 backwards to step 1</p>	

Figure 4.3: Correction Method for After Market Complains.

According to correct the problem in after market, repairing manual has been prepared and distribute to every dealer for solving method to customer vehicle. Repair Manual has distributed in the same date of implementation in production line (January 11, 2005)

4.3 Result from the Failure mode and Effect Analysis

The defect has been defined in process functions of sub assy component part which the root cause is from "Bracket cable looseness". The problem could be detected when the vehicle was drove on rough road condition.

After investigation the affected part from part claim, it was found "Gap between arm and bracket was out of standard".

4.3.1 Recommended Corrective Action

1. To prevent the outflow problem in market, the countermeasure has been taken by develop plastic washer with thickness of 0.5 mm and diameter of 3 mm. These can reduce the gap between arm and bracket which prevent hitting noise of its.

2. Confirm Process: Sub Assy component part

Responsibility : Quality Control (QC)

Model : 2004 / V

Sampling Unit: 30 Units

Method : Bracket clearance sampling check after implemented washer in production line (Jan 12 – Feb 30, Year 2005) by ruler gauge measurement and mark checked.

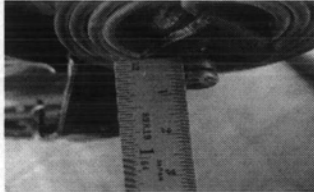
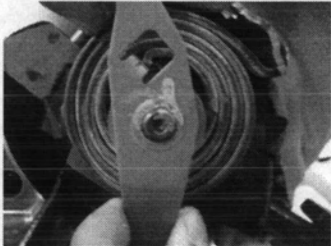
Items Check	Trial # (N) (New Seat)	L/O Date (Production Date)	Clearance Value	Result	
				O.K	N.G (Out)
 <p>Methods: 1. Use ruler gauge for measurement instrument. 2. Measurement clearance between bracket and arm. 3. Compare with the standard</p>	1	8.30: (12-01-05)	2.61	O	
	2	13.00: (12-01-05)	2.53	O	
	3	8.30: (13-01-05)	2.64	O	
	4	13.00: (13-01-05)	2.62	O	
	5	8.30: (14-01-05)	2.51	O	
	6	13.00: (14-01-05)	2.57	O	
	7	8.30: (17-01-05)	2.44	O	
	8	13.00: (17-01-05)	2.51	O	
	9	8.30: (18-01-05)	2.64	O	
	10	13.00: (18-01-05)	2.62	O	
	11	8.30: (19-01-05)	2.62	O	
	12	13.00: (19-01-05)	2.48	O	
	13	8.30: (20-01-05)	2.67	O	
	14	13.00: (20-01-04)	2.51	O	
	 <p>Methods: After checking clearance by ruler gauge and the part clearance is in standard, confirm with mark check (Colour: Green and Yellow)</p>	15	8.30: (21-01-05)	2.58	O
16		13.00: (21-01-05)	2.64	O	
17		8.30: (24-01-05)	2.44	O	
18		13.00: (24-01-05)	2.39	O	
19		8.30: (28-01-05)	2.70	O	
20		13.00: (28-01-05)	2.55	O	
21		8.30: (01-02-05)	2.64	O	
22		13.00: (01-02-05)	2.51	O	
23		8.30: (04-02-05)	2.49	O	
24		13.00: (04-02-05)	2.58	O	
25		8.30: (07-02-05)	2.51	O	
26		13.00: (07-02-05)	2.54	O	
27		8.30: (11-02-05)	2.62	O	
28		13.00: (11-02-05)	2.61	O	
29		8.30: (14-02-05)	2.49	O	
30		13.00: (14-02-05)	2.66	O	

Table 4.3: Bracket Clearance Item Check

3. Confirm Process: Final Inspection

Responsibility : Quality Assurance (QA)

Model : 2004 / V

Sampling Unit : 30 Units

Method : Noise sampling check after implemented washer in production line (Jan 12 – Feb 30, Year 2005)


Items Check	Trial # (N) (New Seat)	L/O Date (Production Date)	Noise	
			O.K (None)	N.G (Noise)
 <p>Methods: 1. Hold seat on bench test 2. Hand check by vibrating seat on vertical and horizontal direction 3. No noise after confirmation by manually.</p>	1	8.30: (12-01-05)	O	
	2	13.00: (12-01-05)	O	
	3	8.30: (13-01-05)	O	
	4	13.00: (13-01-05)	O	
	5	8.30: (14-01-05)	O	
	6	13.00: (14-01-05)	O	
	7	8.30: (17-01-05)	O	
	8	13.00: (17-01-05)	O	
	9	8.30: (18-01-05)	O	
	10	13.00: (18-01-05)	O	
	11	8.30: (19-01-05)	O	
	12	13.00: (19-01-05)	O	
	13	8.30: (20-01-05)	O	
	14	13.00: (20-01-04)	O	
	15	8.30: (21-01-05)	O	
	16	13.00: (21-01-05)	O	
	17	8.30: (24-01-05)	O	
	18	13.00: (24-01-05)	O	
	19	8.30: (28-01-05)	O	
	20	13.00: (28-01-05)	O	
	21	8.30: (01-02-05)	O	
	22	13.00: (01-02-05)	O	
	23	8.30: (04-02-05)	O	
	24	13.00: (04-02-05)	O	
	25	8.30: (07-02-05)	O	
	26	13.00: (07-02-05)	O	
	27	8.30: (11-02-05)	O	
	28	13.00: (11-02-05)	O	
	29	8.30: (14-02-05)	O	
	30	13.00: (14-02-05)	O	

Table 4.4: Seat Abnormal Noise Item Check

From the table above, the Sub Assy component part and final inspection process has been confirmed after implemented washer to eliminated root cause of failure. The new part has been checked in each process to ensure and guarantee that there was no recurrence of failure in production line.

4.4 Root cause of Failure: Seat Sliding Operation Failure

After confirm with claims part, the investigation for root cause of failure was found seat couldn't slide as customer complained. The problem could detect by customer while sliding the seat to adjust positioning and found product couldn't movable.

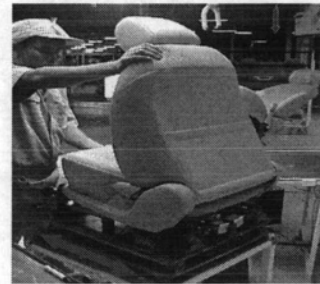


Figure 4.4: Seat Sliding Operation Failure

Once the defects has been found and complaint from customer in market. The engineer team has brainstormed to find out the countermeasure for correct and prevent the defect outflow to customer.

4.5 Elimination of Root cause of failure

To eliminate root cause of failure and prevent recurrence problem, the investigation was took and it was found sliding groove width out of specification. These lead to seat sliding operation failure.

Sliding Groove	Sliding Groove Width	Remark
Standard Part	9.7 ± 0.2 mm	Standard
Affected part from customer	9.25 mm	Out of standard

Table 4.5: Bracket Sliding Groove Width Standard

Part clearance standard: 9.5 mm

Defect clearance (actual): 9.25 mm

Permanent countermeasure: Control sliding groove width within specification 9.7 ± 0.2 mm.

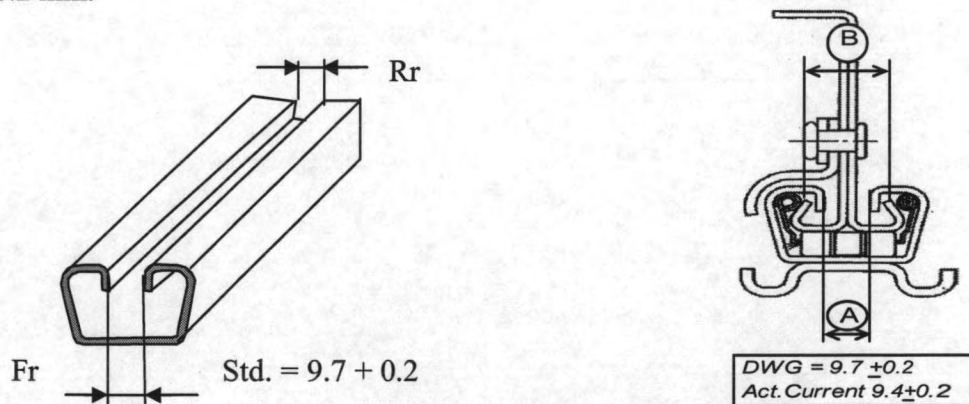


Figure 4.5: Sliding Groove Width

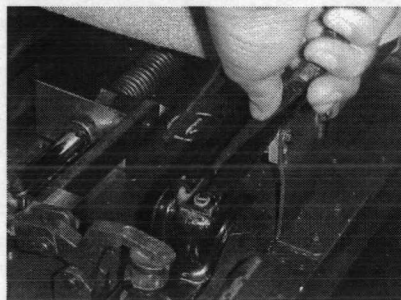


Figure 4.6: Confirm Sliding Groove Width by Using Go/No Go Gauge

Implementation Time in Production line: New seat with control product

Description	Year 2005				Year 2006			
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
First receive complain		▼						
Problem Analysis / identified root cause		←————→						
Implement new part with control sliding groove width					▼			
Using Go/No Go Gauge to confirm sliding groove width								
Monitor Problem (3 months)						←————→		

Table 4.6: Seat Sliding Operation Failure Schedule

According to correct the problem in after market, the new seat has been prepared for replacing to customer vehicle. The sliding component part by control sliding groove width has been implemented in production line (January 22, 2005)

4.6 Result from the Failure mode and Effect Analysis

The defect has been defined in process functions of sub assy component part which the root cause is from “Sliding groove Width”. The problem could be detected when sliding seat to adjust position.

After investigation the affected part from part claim, it was found “Sliding groove width out of dimension”.

4.6.1 Recommended Corrective Action

1. To prevent the outflow problem in market, the countermeasure has been taken by control sliding groove width dimension within specification 9.7 ± 0.2 mm.

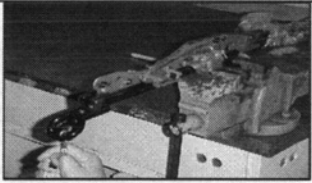
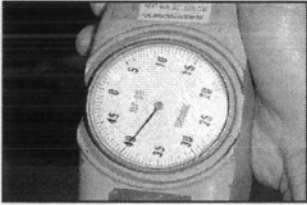
2. Confirm Process: Assy Slide & Arm

Responsibility : Quality Control (QC)

Model : 2004 / V

Sampling Unit: 50 Units

Method : Sliding component hardness sampling check after implemented new part with control groove width dimension in production line (Jan 23 – Feb 27, Year 2006) by push pull gauge measurement.

Items Check	Trial # (N) (New Seat)	L/O Date (Production Date)	Pull Scale Value	Result	
				O.K	N.G (Out)
 <p>Methods: 1. Use push pull gauge as measurement instrument. 2. Measurement sliding material 3. Compare with the standard</p> 	1	8.30: (23-1-06)	4.0	O	
	2	13.00: (23-1-06)	4.0	O	
	3	8.30: (24-1-06)	4.0	O	
	4	13.00: (25-1-06)	4.0	O	
	5	8.30: (25-1-06)	4.0	O	
	6	13.00: (26-1-06)	4.0	O	
	7	8.30: (27-1-06)	4.0	O	
	8	13.00: (27-1-06)	4.0	O	
	9	8.30: (30-1-06)	4.0	O	
	10	13.00: (30-1-06)	4.0	O	
	11	8.30: (31-1-06)	4.0	O	
	12	13.00: (31-1-06)	4.0	O	
	13	8.30: (1-2-06)	4.0	O	
	14	13.00: (1-2-06)	4.0	O	
	15	8.30: (2-2-06)	4.0	O	
	16	13.00: (2-2-06)	4.0	O	
	17	8.30: (3-2-06)	4.0	O	
	18	13.00: (3-2-06)	4.0	O	
	19	8.30: (6-2-06)	4.0	O	
	20	13.00: (6-2-06)	4.0	O	
	21	8.30: (7-2-06)	4.0	O	
	22	13.00: (7-2-06)	4.0	O	
	23	8.30: (8-2-06)	4.0	O	
	24	13.00: (8-2-06)	4.0	O	
	25	8.30: (9-2-06)	4.0	O	
	26	13.00: (9-2-06)	4.0	O	

27	8.30: (10-2-06)	4.0	O	
28	13.00: (10-2-06)	4.0	O	
29	8.30: (13-2-06)	4.0	O	
30	13.00: (13-2-06)	4.0	O	
31	8.30: (14-2-06)	4.0	O	
32	13.00: (14-2-06)	4.0	O	
33	8.30: (15-2-06)	4.0	O	
34	13.00: (15-2-06)	4.0	O	
35	8.30: (16-2-06)	4.0	O	
36	13.00: (16-2-06)	4.0	O	
37	8.30: (17-2-06)	4.0	O	
38	13.00: (17-2-06)	4.0	O	
39	8.30: (20-2-06)	4.0	O	
40	13.00: (20-2-06)	4.0	O	
41	8.30: (21-2-06)	4.0	O	
42	13.00: (21-2-06)	4.0	O	
43	8.30: (22-2-06)	4.0	O	
44	13.00: (22-2-06)	4.0	O	
45	8.30: (23-2-06)	4.0	O	
46	13.00: (23-2-06)	4.0	O	
47	8.30: (24-2-06)	4.0	O	
48	13.00: (24-2-06)	4.0	O	
49	8.30: (27-2-06)	4.0	O	
50	13.00: (27-2-06)	4.0	O	

Table 4.7: Seat Sliding Hardness Item Check


3. Confirm Process: Final Inspection

Responsibility : Quality Assurance (QA)

Model : 2004 / V

Sampling Unit: 50 Units

Method : Seat sliding groove width confirms and detect by using Go/No Go Gate

Items Check	Trial # (N) (New Seat)	L/O Date (Production Date)	Noise	
			O.K (None)	N.G (Noise)
 <p>Methods: 1. Using Go/No Go Gate to confirm groove width</p>	1	8.30: (23-1-06)	O	
	2	13.00: (23-1-06)	O	
	3	8.30: (24-1-06)	O	
	4	13.00: (25-1-06)	O	
	5	8.30: (25-1-06)	O	
	6	13.00: (26-1-06)	O	
	7	8.30: (27-1-06)	O	
	8	13.00: (27-1-06)	O	
	9	8.30: (30-1-06)	O	
	10	13.00: (30-1-06)	O	
	11	8.30: (31-1-06)	O	

	12	13.00: (31-1-06)	O	
	13	8.30: (1-2-06)	O	
	14	13.00: (1-2-06)	O	
	15	8.30: (2-2-06)	O	
	16	13.00: (2-2-06)	O	
	17	8.30: (3-2-06)	O	
	18	13.00: (3-2-06)	O	
	19	8.30: (6-2-06)	O	
	20	13.00: (6-2-06)	O	
	21	8.30: (7-2-06)	O	
	22	13.00: (7-2-06)	O	
	23	8.30: (8-2-06)	O	
	24	13.00: (8-2-06)	O	
	25	8.30: (9-2-06)	O	
	26	13.00: (9-2-06)	O	
	27	8.30: (10-2-06)	O	
	28	13.00: (10-2-06)	O	
	29	8.30: (13-2-06)	O	
	30	13.00: (13-2-06)	O	
	31	8.30: (14-2-06)	O	
	32	13.00: (14-2-06)	O	
	33	8.30: (15-2-06)	O	
	34	13.00: (15-2-06)	O	
	35	8.30: (16-2-06)	O	
	36	13.00: (16-2-06)	O	
	37	8.30: (17-2-06)	O	
	38	13.00: (17-2-06)	O	
	39	8.30: (20-2-06)	O	
	40	13.00: (20-2-06)	O	
	41	8.30: (21-2-06)	O	
	42	13.00: (21-2-06)	O	
	43	8.30: (22-2-06)	O	
	44	13.00: (22-2-06)	O	
	45	8.30: (23-2-06)	O	
	46	13.00: (23-2-06)	O	
	47	8.30: (24-2-06)	O	
	48	13.00: (24-2-06)	O	
	49	8.30: (27-2-06)	O	
	50	13.00: (27-2-06)	O	

Table 4.8: Seat Sliding Groove Width Confirm by Go/No Go Gate

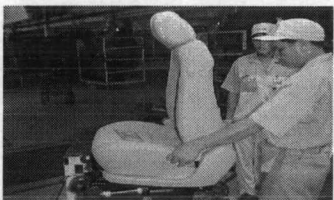
4. Confirm Process: Final Inspection

Responsibility : Quality Assurance (QA)

Model : 2004 / V

Sampling Unit : 50 Units

Method : Seat sliding operation check after control sliding groove width dimension in production line (Jan 23 – Feb 27, Year 2006)

Items Check	Trial # (N) (New Seat)	L/O Date (Production Date)	Noise	
			O.K (None)	N.G (Noise)
 <p>Methods: 1. Hold seat on bench test 2. Sliding seat to confirm operation 3. Seat can movable with no failure.</p>	1	8.30: (23-1-06)	O	
	2	13.00: (23-1-06)	O	
	3	8.30: (24-1-06)	O	
	4	13.00: (25-1-06)	O	
	5	8.30: (25-1-06)	O	
	6	13.00: (26-1-06)	O	
	7	8.30: (27-1-06)	O	
	8	13.00: (27-1-06)	O	
	9	8.30: (30-1-06)	O	
	10	13.00: (30-1-06)	O	
	11	8.30: (31-1-06)	O	
	12	13.00: (31-1-06)	O	
	13	8.30: (1-2-06)	O	
	14	13.00: (1-2-06)	O	
	15	8.30: (2-2-06)	O	
	16	13.00: (2-2-06)	O	
	17	8.30: (3-2-06)	O	
	18	13.00: (3-2-06)	O	
	19	8.30: (6-2-06)	O	
	20	13.00: (6-2-06)	O	
	21	8.30: (7-2-06)	O	
	22	13.00: (7-2-06)	O	
	23	8.30: (8-2-06)	O	
	24	13.00: (8-2-06)	O	
	25	8.30: (9-2-06)	O	
	26	13.00: (9-2-06)	O	
	27	8.30: (10-2-06)	O	
	28	13.00: (10-2-06)	O	
	29	8.30: (13-2-06)	O	
	30	13.00: (13-2-06)	O	
	31	8.30: (14-2-06)	O	
	32	13.00: (14-2-06)	O	
	33	8.30: (15-2-06)	O	
	34	13.00: (15-2-06)	O	
	35	8.30: (16-2-06)	O	
	36	13.00: (16-2-06)	O	

	37	8.30: (17-2-06)	O	
	38	13.00: (17-2-06)	O	
	39	8.30: (20-2-06)	O	
	40	13.00: (20-2-06)	O	
	41	8.30: (21-2-06)	O	
	42	13.00: (21-2-06)	O	
	43	8.30: (22-2-06)	O	
	44	13.00: (22-2-06)	O	
	45	8.30: (23-2-06)	O	
	46	13.00: (23-2-06)	O	
	47	8.30: (24-2-06)	O	
	48	13.00: (24-2-06)	O	
	49	8.30: (27-2-06)	O	
	50	13.00: (27-2-06)	O	

Table 4.9: Seat Sliding Operation Item Check

5. Confirm Process: Final Inspection

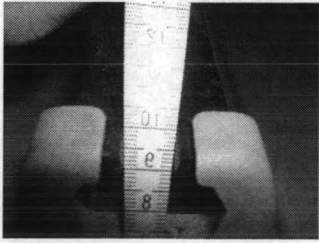
Responsibility : Quality Assurance (QA)

Model : 2004 / V

Sampling Unit: 50 Units

Method : Seat sliding operation check after control sliding groove width dimension

(Sliding Groove Width Std: 9.7 ± 0.2) in production line (Jan 23 – Feb 27, Year 2006)

Items Check	Trial # (N) (New Seat)	L/O Date (Production Date)	Sliding Groove Width Value	Result	
				O.K	N.G (Out)
 <p>Methods: 1. Use special taper gauge as measurement instrument. 2. Measurement sliding groove width. 3. Compare with the standard</p>	1	8.30: (23-1-06)	9.67	O	
	2	13.00: (23-1-06)	9.61	O	
	3	8.30: (24-1-06)	9.80	O	
	4	13.00: (25-1-06)	9.66	O	
	5	8.30: (25-1-06)	9.68	O	
	6	13.00: (26-1-06)	9.69	O	
	7	8.30: (27-1-06)	9.51	O	
	8	13.00: (27-1-06)	9.64	O	
	9	8.30: (30-1-06)	9.64	O	
	10	13.00: (30-1-06)	9.68	O	
	11	8.30: (31-1-06)	9.65	O	
	12	13.00: (31-1-06)	9.67	O	
	13	8.30: (1-2-06)	9.71	O	
	14	13.00: (1-2-06)	9.63	O	
	15	8.30: (2-2-06)	9.69	O	
	16	13.00: (2-2-06)	9.67	O	
	17	8.30: (3-2-06)	9.63	O	
	18	13.00: (3-2-06)	9.66	O	

19	8.30: (6-2-06)	9.67	O	
20	13.00: (6-2-06)	9.61	O	
21	8.30: (7-2-06)	9.56	O	
22	13.00: (7-2-06)	9.67	O	
23	8.30: (8-2-06)	9.69	O	
24	13.00: (8-2-06)	9.63	O	
25	8.30: (9-2-06)	9.68	O	
26	13.00: (9-2-06)	9.60	O	
27	8.30: (10-2-06)	9.54	O	
28	13.00: (10-2-06)	9.80	O	
29	8.30: (13-2-06)	9.51	O	
30	13.00: (13-2-06)	9.67	O	
31	8.30: (14-2-06)	9.69	O	
32	13.00: (14-2-06)	9.61	O	
33	8.30: (15-2-06)	9.67	O	
34	13.00: (15-2-06)	9.64	O	
35	8.30: (16-2-06)	9.66	O	
36	13.00: (16-2-06)	9.64	O	
37	8.30: (17-2-06)	9.69	O	
38	13.00: (17-2-06)	9.73	O	
39	8.30: (20-2-06)	9.60	O	
40	13.00: (20-2-06)	9.69	O	
41	8.30: (21-2-06)	9.64	O	
42	13.00: (21-2-06)	9.63	O	
43	8.30: (22-2-06)	9.68	O	
44	13.00: (22-2-06)	9.61	O	
45	8.30: (23-2-06)	9.60	O	
46	13.00: (23-2-06)	9.64	O	
47	8.30: (24-2-06)	9.62	O	
48	13.00: (24-2-06)	9.67	O	
49	8.30: (27-2-06)	9.66	O	
50	13.00: (27-2-06)	9.72	O	

Table 4.10: Seat Sliding Groove Width Sampling Check

From the table above, the Assy slide & Arm and final inspection process has been confirmed after implemented sliding part with control sliding groove dimension. The new part has been checked in each process to ensure and guarantee that there was no recurrence of failure in production line.

4.7 Root cause of Failure: Operator unintentional touch part in stock area

An experiment was conducted more than 3 times, in order to investigate root cause of failure. The claims part has been found seat dirty as customer complained. The problem could detect by customers while they were cleaning and washing their vehicle

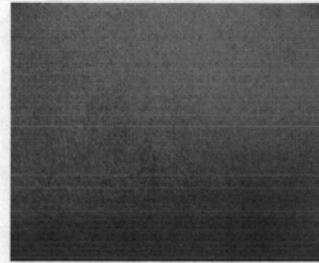
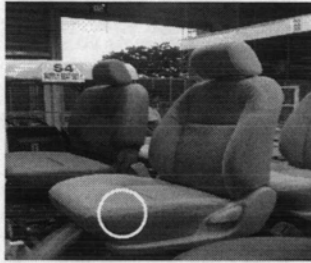


Figure 4.6: Seat Cushion Dirty

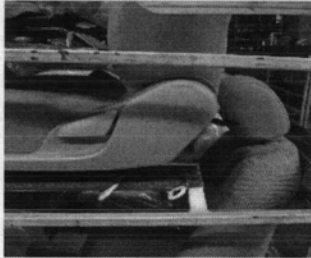


Figure 4.7: Part seat arrangement on pallet

From the experiment for investigate root cause of failure; it has been found cause which comes from stocking process, operators need to arrange part on pallet by using their hand to touch part seat directly. The possibility of seat dirty was very high due to unclean of their hand.

Once the defects has been found and complaint from customer in market. The engineer team has brainstormed to find out the countermeasure for correct and prevent the defect outflow to customer.

4.8 Elimination of Root cause of failure

To eliminate root cause of failure and prevent recurrence problem, the investigation was took more than 3 times to identify exact cause and found seat dirty before seat assembly in vehicle. The root cause was come from “Operator unintentionally touching seat part” in stocking area.

Permanent countermeasure: Design new plastic cover on seat.

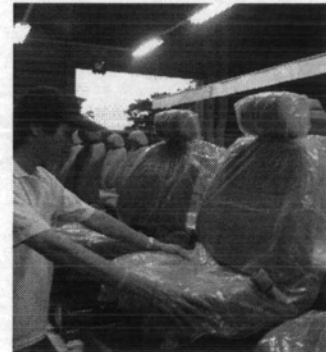


Figure 4.8: New cover plastic

Implementation Time in Production line: Cover plastic on seat

Description	Year 2005				Year 2006					
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
First receive complain	▽									
Problem Analysis / identified root cause		←————→								
Design new plastic cover					▽	←————→		▽		
Implement plastic cover to part seat production								▽		
Monitor Problem (3 months)									←————→	

Table 4.11: Seat Dirty Analysis Schedule

According to correct the problem in after market, the new seat has been prepared for replacing to customer vehicle. The part seat with cover plastic has been implemented in production line (April 17, 2005)

4.9 Result from the Failure mode and Effect Analysis

The defect has been defined in stocking area which the root cause is from "Operator unintentionally touches seat part". The problem could be detected when sliding seat to adjust position.

After investigation the affected part from part claim, it was found "Part seat dirt".

4.9.1 Recommended Corrective Action

1. To prevent the outflow problem in market, the countermeasure has been taken by implemented new plastic cover on seat.

2. Confirm Process: Vehicle seat assembly

Responsibility : Quality Control (QC)

Model : 2004 / V

Sampling Unit: 50 Units

Method : Part seat dirty check after implemented new part with plastic cover in production line (April 17 – June 30, Year 2006).

Items Check	Trial # (N) (New Seat)	Stocking Pallet		Vehicle Seat Assembly		Remark
		O.K	NG (Dirt)	O.K	NG (Dirt)	
Methods: 1. Visual inspection part on pallet in stocking area before assembly to Vehicle. 2. Record data and compare result.	1	O		O		
	2	O		O		
	3	O		O		
	4	O		O		
	5	O		O		
	6	O		O		
	7	O		O		
	8	O		O		
	9	O		O		
	10	O		O		
	11	O		O		
	12	O		O		
	13	O		O		
	14	O		O		
	15	O		O		
	16	O		O		
	17	O		O		

	18	O		O		
	19	O		O		
	20	O		O		
	21	O		O		
	22	O		O		
	23	O		O		
	24	O		O		
	25	O		O		
	26	O		O		
	27	O		O		
	28	O		O		
	29	O		O		
	30	O		O		
	31	O		O		
	32	O		O		
	33	O		O		
	34	O		O		
	35	O		O		
	36	O		O		
	37	O		O		
	38	O		O		
	39	O		O		
	40	O		O		
	41	O		O		
	42	O		O		
	43	O		O		
	44	O		O		
	45	O		O		
	46	O		O		
	47	O		O		
	48	O		O		
	49	O		O		
	50	O		O		

Table 4.12: Part Seat Dirty Item Check

From the table above, by visual inspection has been confirmed after implemented new plastic cover on seat. The new part has been checked in each process to ensure and guarantee that there was no recurrence of failure in production line.