

<div><div></div></div>	Equipment :	Manual assembly	Loss Type :	Startup Loss							KAIZEN IDEA SHEET														
	Department :	Press and Fab - Quality	Result :	N	P	Q	C	D	S	M															
	Cell :	Assembly cell at starways chakan	Type :																						
Unit Name : Press and Fab - Quality, Pune			Operation : Manual Spring assembly																						
Kaizen Theme: To eliminate Gear shifting Hard defect in PV			Idea : To study Assembly working condition in spring design																						
Problem / Present Status		Counter Measure		Benchmark :		Rejection Qty - 25 / month																			
Gear shifting hard defect in PV - Spring shift return lug stuck in lever D slot		Spring length increased to avoid spring stuck in D slot - Spring length increased from 39.5~41.1 to 41 +1.5 mm		Target :		Rejection Qty - 0 / month																			
<div><div><div>Spring shift return lug stuck in lever D slot</div></div><div><div>Max</div><div>Min</div></div></div>		<div><div>Assembly condition :-</div><table><tr><th>Part Name</th><th>Parameter</th><th>Specification</th></tr><tr><td>Lever Gear shift (DH101694_04)</td><td>D slot radius</td><td>40</td></tr><tr><td>Spring Gear shift (DK101722_02)</td><td>Spring length Lug height from centre</td><td>40.4 +/- 0.1</td></tr></table><div>Dig. Clearance study between LCGS and spring gear shift return (wrt lever assbly)</div><table><tr><th></th><th>Min</th><th>Max</th></tr><tr><td>Spring Location in assembly condition</td><td>39.465</td><td>41.1</td></tr></table><div>But Lever D slot Edge Dist is as below</div><table><tr><td>Lever Gear shift (DH101694_04)</td><td>D slot radius</td><td>R - 40</td></tr></table></div>		Part Name	Parameter	Specification	Lever Gear shift (DH101694_04)	D slot radius	40	Spring Gear shift (DK101722_02)	Spring length Lug height from centre	40.4 +/- 0.1		Min	Max	Spring Location in assembly condition	39.465	41.1	Lever Gear shift (DH101694_04)	D slot radius	R - 40	Start : 10/05/2017		Finished : 28/09/2017	
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Note :																									
Team Members :																									
1. Miss. Priti Sakhare		2.																							
3.		4.																							
5.		6.																							
Benefits																									
Why Why Analysis :		Result :		Kaizen Sustenance :																					
W1 : Why Spring end stuck in lever D Slot ? A1 : Spring length in assembly condition - is less than LCGS D slot distance W2 : Why Spring length in assembly condition - is less than LCGS D slot distance ? A2 : Spring length in assembly condition - min & max clearance 39.4~41.1 mm against LCGS slot length 40.4 +/-0.1 mm W3 : Why Spring length in assembly condition - min & max clearance 39.4~41.1 mm against LCGS slot length 40.4 +/-0.1 mm ? A3 : Assembly working condition not considered while spring design. W4 : Why Assembly working condition not considered while spring design. ? A4 :		Gear shifting phenomena rejection reduced to Zero <div><div><div>Gear shifting Hard</div><div><div><div>30</div><div>25</div><div>20</div><div>15</div><div>10</div><div>5</div><div>0</div></div><div><div>Before (May-17)</div><div>After (May-17)</div></div></div><div>25</div><div>0</div></div></div>		What To Do : To confirm spring length 41 +1.5 mm How To Do : 1. Spring CNC bending program modified and controlled in Program. 2. Spring length inspection in i Frequency : 1. Daily inward inspection																					
Root Cause Assembly working condition not considered while spring design.		<div><div></div></div>		Cost Incurred For Making Kaizen :																					
Date : 28/09/2017				Material Cost		Labour Cost		Total																	
Registered By : Ms Priti Sakhare				0.00		0.00		0.00																	
Manager's Sign :				Scope & Plan For Horizontal Deployment :																					
----- BAL Prass and Fab Team -----				Equipmnet		Target		Status																	