


**Display Work Instruction Wizard**



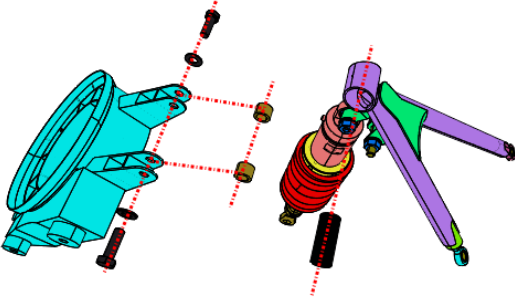
NAME	NUMBER	VERSION	TYPE	ASSOCIATED PART NAME	NUMBER	VERSION	ACTIVE
Front Wheel Assembly Process	0000000082	B.1 (Manufacturing)	Production	Front Wheel Assembly	0000002186	A.5 (Manufacturing)	Yes
STATE: In Work	STATUS: Checked in	CONTEXT: Synergy					


windchill										
OPERATION LABEL NUMBER 0010										
NAME		NUMBER	VERSION	DESCRIPTION						
INSTALL UPPER CONTROL ARM		000000089	A.3 (Manufacturing)							
WORK CENTER	MANUFACTURING CAPABILITY	QUANTITY	BASE UNIT	SETUP TIME	PROCESSING TIME	LABOR TIME	QUEUE TIME	TEARDOWN TIME	WAIT TIME	MOVE TIME
UPPER CONTROL ARM INSTALLATION STATION		1	each	60 s	200 s	120 s	0 s	0 s	0 s	0 s
OPERATION LONG DESCRIPTION										
1. Elevate the Synergy car to a comfortable working height.  2. Clean the hub assembly with a wire brush.  3. Install the Upper Control Arm on Caliper Mounting Bracket with Upper Ball Joint.										
LINE NUMBER	ALLOCATED PARTS	NUMBER	VERSION	QUANTITY	ALLOCATED OPERATED ON	NUMBER	VERSION	QUANTITY		
4934008		0000004140	A.1	1.0 each	RESOURCE NAME	NUMBER	TYPE	QUANTITY		
4934014		0000004142	A.2	1.0 each	SOCKET WRENCH	0000004336	Tooling	1each		
Spindle Knuckle Group		0000004292	A.3	1.0 each	Assembler Level 1	0000004323	Skill	1each		
4934023		0000004069	A.1	2.0 each	QC Operator	0000004327	Skill	1each		
Caliper Mounting Bracket		0000004076	A.1	1.0 each	INCH POUND TORQUE WRENCH	0000004332	Tooling	1each		
din933_m10x30		0000004075	A.1	2.0 each	WIRE BRUSH	0000004337	Tooling	1each		
4934022		0000004077	A.1	1.0 each	DOCUMENT NAME	NUMBER	DISPLAYED			
din125b_10_5		0000004078	A.1	2.0 each						
STATE	STATUS	INSPECTION INTERVAL	CREATED	UPDATED BY			LAST MODIFIED			
In Work	Checked in		2015-06-17 02:29:16 EDT	Pat Product Manager			2015-06-18 22:41:20 EDT			

 **OPERATION LABEL NUMBER 0010 (CONTINUE)**

NAME	NUMBER	VERSION	DESCRIPTION
INSTALL UPPER CONTROL ARM	0000000089	A.3 (Manufacturing)	

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STATE	STATUS	INSPECTION INTERVAL	CREATED	UPDATED BY	LAST MODIFIED
In Work	Checked in		2015-06-17 02:29:16 EDT	Pat Product Manager	2015-06-18 22:41:20 EDT


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**OPERATION LABEL NUMBER 0010 (CONTINUE)**

NAME	NUMBER	VERSION	DESCRIPTION
INSTALL UPPER CONTROL ARM	0000000089	A.3 (Manufacturing)	


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Install Upper Control Arm on Caliper Mounting Bracket.



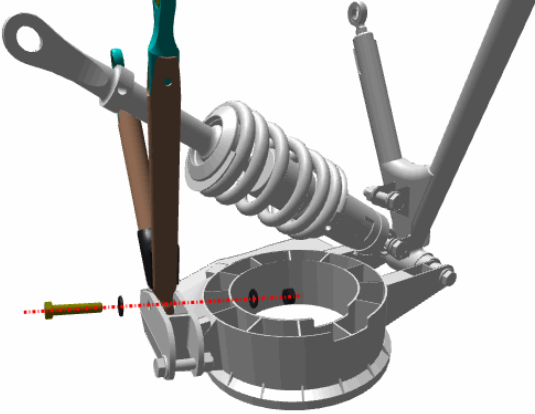
STATE: In Work    STATUS: Checked in    INSPECTION INTERVAL:     CREATED: 2015-06-17 02:29:16 EDT    UPDATED BY: Pat Product Manager    LAST MODIFIED: 2015-06-18 22:41:20 EDT


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OPERATION LABEL NUMBER 0020										
NAME		NUMBER	VERSION	DESCRIPTION						
INSTALL LOWER CONTROL ARM		000000090	A.3 (Manufacturing)							
WORK CENTER	MANUFACTURING CAPABILITY	QUANTITY	BASE UNIT	SETUP TIME	PROCESSING TIME	LABOR TIME	QUEUE TIME	TEARDOWN TIME	WAIT TIME	MOVE TIME
LOWER CONTROL ARM INSTALLATION STATION		1	each	45 s	150 s	100 s	0 s	0 s	0 s	0 s
OPERATION LONG DESCRIPTION										
1. Install the Lower Control Arm on Caliper Mounting Bracket with Lower Ball Joint. 2. The Mounting Bracket for the Caliper should be loaded with the spacer in the kit.										
LINE NUMBER	ALLOCATED PARTS	NUMBER	VERSION	QUANTITY	ALLOCATED OPERATED ON	NUMBER	VERSION	QUANTITY		
	din125b_10_5	0000004078	A.1	2.0 each	RESOURCE NAME	NUMBER	TYPE	QUANTITY		
	4934002	0000004149	A.1	1.0 each	SOCKET WRENCH	0000004336	Tooling	1each		
	din934_m10	0000004074	A.1	1.0 each	Assembler Level 1	0000004323	Skill	1each		
	4934038	0000004070	A.1	1.0 each	QC Operator	0000004327	Skill	1each		
					INCH POUND TORQUE WRENCH	0000004332	Tooling	1each		
DOCUMENT NAME						NUMBER	DISPLAYED			
STATE	STATUS	INSPECTION INTERVAL	CREATED			UPDATED BY		LAST MODIFIED		
In Work	Checked in		2015-06-17 02:29:16 EDT			Pat Product Manager		2015-06-18 22:41:20 EDT		

 **OPERATION LABEL NUMBER 0020 (CONTINUE)**

NAME	NUMBER	VERSION	DESCRIPTION
INSTALL LOWER CONTROL ARM	000000090	A.3 (Manufacturing)	


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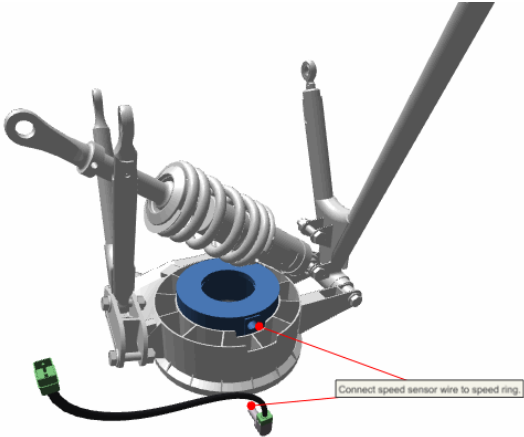
STATE	STATUS	INSPECTION INTERVAL	CREATED	UPDATED BY	LAST MODIFIED
In Work	Checked in		2015-06-17 02:29:16 EDT	Pat Product Manager	2015-06-18 22:41:20 EDT

windchill										
OPERATION LABEL NUMBER 0030										
NAME		NUMBER	VERSION	DESCRIPTION						
CONNECT SPEED SENSOR		000000085	A.3 (Manufacturing)							
WORK CENTER	MANUFACTURING CAPABILITY	QUANTITY	BASE UNIT	SETUP TIME	PROCESSING TIME	LABOR TIME	QUEUE TIME	TEARDOWN TIME	WAIT TIME	MOVE TIME
SPEED SENSOR COMMISSIONING STATION		1	each	50 s	450 s	360 s	0 s	0 s	0 s	0 s
OPERATION LONG DESCRIPTION										
1. Position the front wheel speed sensor to backing plate and secure with the retaining bolt. Tighten the bolt to 89 inch lbs.  2. Attach the front wheel speed sensor electrical connector.  3. Connect the negative battery cable.										
LINE NUMBER	ALLOCATED PARTS	NUMBER	VERSION	QUANTITY	ALLOCATED OPERATED ON	NUMBER	VERSION	QUANTITY		
	Speed Sensor	0000004156	A.1	1.0 each	RESOURCE NAME	NUMBER	TYPE	QUANTITY		
	connector_1	0000004157	A.1	1.0 each	SCREW DRIVER	0000004335	Tooling	1each		
	connector_1	0000004155	A.1	1.0 each	PLASTIC HAMMER	0000003113	Tooling	1each		
	sensor_support	0000004154	A.1	1.0 each	QC Operator	0000004327	Skill	1each		
	part_wire	0000004158	A.2	1.0 each	Assembler Level 1	0000004323	Skill	1each		
					Technician Level 2	0000004328	Skill	1each		
DOCUMENT NAME						NUMBER	DISPLAYED			
STATE	STATUS	INSPECTION INTERVAL	CREATED	UPDATED BY			LAST MODIFIED			
In Work	Checked in		2015-06-17 02:29:16 EDT	Pat Product Manager			2015-06-18 22:41:20 EDT			

 **OPERATION LABEL NUMBER 0030 (CONTINUE)**


NAME	NUMBER	VERSION	DESCRIPTION
CONNECT SPEED SENSOR	000000085	A.3 (Manufacturing)	

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**STATE**  
In Work

**STATUS**  
Checked in

**INSPECTION INTERVAL**  



**CREATED**  
2015-06-17 02:29:16 EDT

**UPDATED BY**  
Pat Product Manager

**LAST MODIFIED**  
2015-06-18 22:41:20 EDT

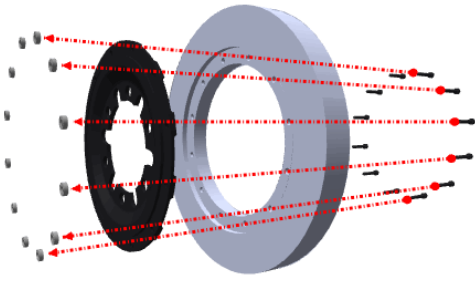



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OPERATION LABEL NUMBER 0040										
NAME		NUMBER	VERSION	DESCRIPTION						
ASSEMBLE BRAKE DISC		000000088	A.3 (Manufacturing)							
WORK CENTER	MANUFACTURING CAPABILITY	QUANTITY	BASE UNIT	SETUP TIME	PROCESSING TIME	LABOR TIME	QUEUE TIME	TEARDOWN TIME	WAIT TIME	MOVE TIME
BRAKE DISC ASSEMBLY STATION		1	each	55 s	140 s	80 s	0 s	0 s	0 s	0 s
OPERATION LONG DESCRIPTION										
1. Coat the bolts with Loctite 271.  2. Tighten the brake disc adapter with impact gun to get them snug.  3. Tighten the adapter bolts to 85 in-lbs using inch pound torque wrench.										
LINE NUMBER	ALLOCATED PARTS	NUMBER	VERSION	QUANTITY	ALLOCATED OPERATED ON	NUMBER	VERSION	QUANTITY		
4934065		000004081	A.1	12.0 each	RESOURCE NAME	NUMBER	TYPE	QUANTITY		
49130023_ch		000004083	A.1	12.0 each	IMPACT GUN	000004331	Tooling	1each		
brake_disc_swx		000004109	A.2	1.0 each	LOCTITE 271	000004321	Process Material	1each		
4934064		000004084	A.1	1.0 each	Assembler Level 1	000004323	Skill	1each		
					QC Operator	000004327	Skill	1each		
					INCH POUND TORQUE WRENCH	000004332	Tooling	1each		
DOCUMENT NAME						NUMBER	DISPLAYED			
STATE	STATUS	INSPECTION INTERVAL	CREATED	UPDATED BY			LAST MODIFIED			
In Work	Checked in		2015-06-17 02:29:16 EDT	Pat Product Manager			2015-06-18 22:41:20 EDT			

 **OPERATION LABEL NUMBER 0040 (CONTINUE)**

NAME	NUMBER	VERSION	DESCRIPTION
ASSEMBLE BRAKE DISC	0000000088	A.3 (Manufacturing)	

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STATE	STATUS	INSPECTION INTERVAL	CREATED	UPDATED BY	LAST MODIFIED
In Work	Checked in		2015-06-17 02:29:16 EDT	Pat Product Manager	2015-06-18 22:41:20 EDT

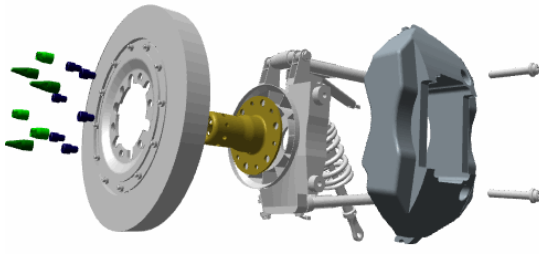
windchill										
OPERATION LABEL NUMBER 0050										
NAME	NUMBER	VERSION	DESCRIPTION							
INSTALL BRAKE DISC	000000086	A.3 (Manufacturing)								
WORK CENTER	MANUFACTURING CAPABILITY	QUANTITY	BASE UNIT	SETUP TIME	PROCESSING TIME	LABOR TIME	QUEUE TIME	TEARDOWN TIME	WAIT TIME	MOVE TIME
BRAKE DISC INSTALLATION STATION		1	each	60 s	500 s	420 s	0 s	0 s	0 s	0 s
OPERATION LONG DESCRIPTION										
1. Install the brake disc assembly on the hub assembly. 2. Tighten the brake mounting bolts. 3. Place the caliper over the stubs. 4. Check the brake disc to caliper centering. 5. Coat the caliper inlet fitting bolts with PTFE thread tape and screw the bolts into the caliper. 6. Tighten the caliper inlet fitting bolts to 35 ft-lbs using the foot-pound torque wrench. 7. Tighten the wheel studs.										
LINE NUMBER	ALLOCATED PARTS	NUMBER	VERSION	QUANTITY	ALLOCATED OPERATED ON	NUMBER	VERSION	QUANTITY		
	Brake Caliper	0000004161	A.2	1.0 each	RESOURCE NAME	NUMBER	TYPE	QUANTITY		
4904026		0000004079	A.1	3.0 each	Assembler Level 2	0000004324	Skill	1each		
M10 Bolt x 55		0000004200	A.1	2.0 each	INCH POUND TORQUE WRENCH	0000004332	Tooling	1each		
4934043		0000004080	A.1	1.0 each	IMPACT GUN	0000004331	Tooling	1each		
49130004		0000004082	A.1	6.0 each	FUEL-INJECTOR CLEANER	0000004320	Process Material	1each		
4904025		0000004086	A.1	3.0 each	Technician Level 2	0000004328	Skill	1each		
					BRAKE CLEANER	0000004319	Process Material	1each		
					FOOT-POUND TORQUE WRENCH	0000004330	Tooling	1each		
					QC Operator	0000004327	Skill	1each		
					PTFE THREAD TAPE	0000004322	Process Material	1each		
					Cleaner	0000004325	Skill	1each		
					DOCUMENT NAME	NUMBER	DISPLAYED			
					BRAKE_DISC_CONTROL_CHARACTERISTICS	0000000108	Yes			
STATE	STATUS	INSPECTION INTERVAL	CREATED	UPDATED BY			LAST MODIFIED			
In Work	Checked in		2015-06-17 02:29:16 EDT	Pat Product Manager			2015-06-18 22:41:20 EDT			

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**OPERATION LABEL NUMBER 0050 (CONTINUE)**

NAME	NUMBER	VERSION	DESCRIPTION
INSTALL BRAKE DISC	0000000086	A.3 (Manufacturing)	

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A 3D CAD assembly view of a brake disc and caliper assembly. The brake disc is on the left, and the caliper is on the right. The assembly includes a yellow hub, a spring, and various pins and bolts. The disc has several green and blue pins protruding from its outer edge.



STATE	STATUS	INSPECTION INTERVAL	CREATED	UPDATED BY	LAST MODIFIED
In Work	Checked in		2015-06-17 02:29:16 EDT	Pat Product Manager	2015-06-18 22:41:20 EDT

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**OPERATION LABEL NUMBER 0050 (CONTINUE)**

NAME	NUMBER	VERSION	DESCRIPTION
INSTALL BRAKE DISC	0000000086	A.3 (Manufacturing)	

$\varnothing 13.972^{+.002}_{-.000}$

$1.457 \pm .002$

Face runout in each brake disk side is less than 0.025 in.

The gap between brake disk side and friction block is within 0.002 - 0.006 in.

$\varnothing 8.110^{+.002}_{-.000}$

STATE	STATUS	INSPECTION INTERVAL	CREATED	UPDATED BY	LAST MODIFIED
In Work	Checked in		2015-06-17 02:29:16 EDT	Pat Product Manager	2015-06-18 22:41:20 EDT



**OPERATION LABEL NUMBER 0060**

NAME	NUMBER	VERSION	DESCRIPTION
INSTALL TYRE	000000087	A.4 (Manufacturing)	

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WORK CENTER	MANUFACTURING CAPABILITY	QUANTITY	BASE UNIT	SETUP TIME	PROCESSING TIME	LABOR TIME	QUEUE TIME	TEARDOWN TIME	WAIT TIME	MOVE TIME
TYRE INSTALLATION STATION		1	each	30 s	90 s	60 s	0 s	0 s	0 s	0 s

**OPERATION LONG DESCRIPTION**

1. Install the tyres to hub assembly.
2. Tighten the nut.

LINE NUMBER	ALLOCATED PARTS	NUMBER	VERSION	QUANTITY	ALLOCATED OPERATED ON	NUMBER	VERSION	QUANTITY
4934085_nut		0000004088	A.1	1.0 each	<b>RESOURCE NAME</b>			
					<b>NUMBER</b>			<b>QUANTITY</b>
	Tyre Assembly	0000004291	A.4	Unresolved	QC Operator	0000004327		1each
	Tire Mich Front	0000002185	A.2	1.0 each	INCH POUND TORQUE WRENCH	0000004332		1each
	New Rim Front	0000002187	A.2	1.0 each	IMPACT GUN	0000004331		1each
					Assembler Level 1	0000004323		1each

STATE	STATUS	INSPECTION INTERVAL	CREATED	UPDATED BY	LAST MODIFIED
In Work	Checked in		2015-06-17 02:29:16 EDT	Pat Product Manager	2016-12-20 01:18:27 EST

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**OPERATION LABEL NUMBER 0060 (CONTINUE)**

NAME	NUMBER	VERSION	DESCRIPTION
INSTALL TYRE	000000087	A.4 (Manufacturing)	



STATE	STATUS	INSPECTION INTERVAL	CREATED	UPDATED BY	LAST MODIFIED
In Work	Checked in		2015-06-17 02:29:16 EDT	Pat Product Manager	2016-12-20 01:18:27 EST