



APQP CHECKLIST

<u>NEW PARTS / JOBS</u>		PART NUMBER:	CJ54-96611E24-A (C520 4-way >>NO TOPPER PAD; NO TRIM) CJ54-S611A08-X-B3-XXX (C344 4-way >>Complete Ass'y w/Trim)
INVITED: Mike Giroux; Beth Muse; Todd VanHal; Sal Distefano; Mike Pare; Travis Donberger; Scott Barko; Phil Fairley; Alex Vucinic; Greg Peltier; Kyle Lussier; Mark Little; James Sowell; Matt Kelly; Wendell Zhen		PPAP DATE / LEVEL :	WM to Magna >Phase 0/1: 01/16/12; Phase 2/3: 02/01/12 WMPI to Princeton:
ATTENDEES: Mark Fleming; Kyle; Todd; Mike Pare; Scott; Mark Little; Mike Giroux; Beth; Sal; Michael Vecera; Kathy Newman; Travis; Wendell; Jamie; Matt Kelley		PRODUCTION START DATE:	C520: February 1st 2012 >Ramp-up; June 2012 >Full Prod C344: April 1st 2012 >Ramp-up; July 2012 >Full Prod
DATE: January 18th, 2012		VOLUME:	C520 Only = 750,720/yr = 15,640/wk = 3128/day = 224/hr C520 + C344 = 881,280/yr = 18,360/wk = 3672/day = 264/hr
CUSTOMER:	Magna-Louisville	<u>EXISTING PARTS / JOBS</u>	
PLANT (S) RESP:	WMPI >> POSTS INDIANA >>ASS'Y & UPPER TUBE	CURRENT LOCATION(S):	
SALES REP:	Scott Barko	NEW LOCATION(S):	
PROGRAM MANAGER:	Michael Vecera		

#	PART PRINT / MATH DATA	YES	NO	N/A	COMMENTS	DATE	RESP.
1	Has math data been received from the customer?	X					
2	Have prints been generated?	X			stamping. Need final ass'y print updated with solid pin *all sub-assy drawing complete and sent to Ana. Final assy drawing is outstanding.	27-Jan	ML
3	Have prints been controlled and distributed?	X			All prints controlled. See Ana Chau for drawings		
4	Are the manufacturing tolerances feasible?	X					
5	Are SC/CC requirements applicable?	X					
6	If no customer SC/CC's have been identified have internal SC/CC's been identified as per TS requirements.	X					
7	Are engineering specifications defined? i.e. material, weld, coating, torque etc.	X					
8	Is there a potential for hydrogen embrittlement? Has it been considered in the design?		X				
9	Are the part/component designs final?	X					
10	Are supplementary drawings required?	X			See item 2		
11	Are the supplementary drawings controlled and distributed?	X			See item 2		



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12	Has the DFMEA been created and approved by the customer?		X		Document has been created and sent to Matt Kelley. Document has not been approved by customer. Need to contact Magna regarding approval process.	27-Jan	ML / MV
13	Has DV testing been completed?			X	WM is not responsible.		



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#	FIXTURES / GAUGING	YES	NO	N/A	COMMENTS	DATE	RESP.
14	Are the fixture(s) design is complete?	X					
15	Are multiple fixtures required?	X			need ring gages for posts *on-track for January 20th	20-Jan	KL
16	Are customer fixture(s) required?		X				
17	Have all fixture(s) designs been reviewed/approved?		X		need to be reviewed by product design.	20-Jan	ML
18	Has customer reviewed/approved fixture designs?			X			
19	Are fixture builds complete?				Lock Post / Slave Post complete & certified. Need template fixtures. Cannot certify upcoming fixtures or gage. CMM is down. *Need template fixture. *Proposal to build receiving inspection gages for supplied components. Plants need to forward request to Phil F.	20-Jan	MP / BM / MK
20	Are fixture(s) certified / R&R complete?				see item 19. CMM is down--running by end of week.	20-Jan	MP



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#	PPAP REQUIREMENTS	YES	NO	N/A	COMMENTS	DATE	RESP.
21	What level PPAP is required?	X			Level 3 required. Post PPAP: 02/02. Ass'y PPAP is due 02/06 Run @ Rate Posts: 02/01; Run @ Rate Assy: 02/03	06-Feb	BM/MK
22	Does the customer have specific PPAP requirements?	X			Will follow 2nd row submission. Matt to contact Krishna to confirm	06-Jan	MK
23	Has the customer provided their supplier manual?				see item 19		
24	Has the supplier manual been reviewed to ensure that all customer specific requirements are captured?				see item 19		
25	Are part dimensionals required? How many?				Beth sent samples to Ellis. Will has submitted layouts.	1/18/12	WS
26	Has PPAP responsibilities been assigned?	X			Beth Muse (Posts); Matt Kelly (Upper Tube & Final Assy)		
27	Are there any other PPAP open issues?	X			DFMEA; Process Flow; Control Plan is in-process (ML); PFMEA (MK) **sent to Matt Kelley. Matt and Mark to review.	20-Jan	ML/MK
28	Is there Packaging / Labeling Requirements?	X			Magna requires corrugated plastic cell packs >>labor intensive (~12 labor hrs / day). Ken submitted quotes to Scott. Quoted is bulk returnables. Greg & Scott to discuss offline.**plan was to supply in bulk 48x45 returnables. Scott to negotiate customer supplied returnables. Mike Giroux needs direction from Scott before we purchase containers.	1/20/12	SB



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#	TOOLING	YES	NO	N/A	COMMENTS	DATE	RESP.
29	Are the tool designs complete?	X			Proposal to implement a vision system to verify component presence **vision system has been ordered but not allocated for Princeton.	TBD	PF/TD
30	Has the manufacturing plant reviewed the designs?	X			See cell layout. Sal has reviewed post cell-plant is ready for tooling	18-Jan	SD
31	Is additional equipment required?	X			1) Glue Machine: not scheduled to leave w/ass'y tools. Glue pattern (proto/pre-production) is not the same as production intent>>target March 5th @ Princeton.**Jamie has a spare hot melt machine. Needs \$\$ to get working. Mike Pare is going to look into sending Ellis Tool's machine. Need curing troughs >>Kyle & Jamie to discuss building quick and dirty troughs until automatic gluer is available. 2) Need welders for lock post & upper tube 3) Upper tube bender needs to be plumbed 4) Cycle tester needs cylinder **recieved and its 'comin' assy in process 5) Vision System proposal needs to be finalized, approved and kicked off 6) Dbl Riveter is required >>tooling will be ready by 01/09. **tooling complete--waiting on riveter. January 20th at the earliest.	20-Jan	MP/AV
32	Is outsourced tooling / equipment required?				see item 31		
33	Is the tooling complete?		X		Cycle tester & glue machine outstanding. Most tools on-track 01/14. Automation: 01/20; Notcher is up and running	27-Jan	MP
34	Has the tooling been developed?		X		Tooling is ready. Waiting on captial equipement (welders; riveter) and components		
35	Has the manufacturing plant reviewed and approved tooling?			X			
36	What infrastructure is required at the plant to run the required tooling?	X			1) '4' 30amp bus plugs (480 volt) need to be shipped to Princeton. Sal will coordinate >>target is 01/13/12**received @ Princeton. ready for tools 2) Work tables / transfer racks >>Kyle and James Sowell to discuss what will be required. **Kyle & Jamie to have concept final by 01/23 WMPi will be ready by 01/23. 01/21 power drops in place >>Kyle & Mike Pare to contact Sal to confirm post cell layout		SD/JS
37	What components are required for tool development? How many components are required?	X			1) Tubes (posts): WMPi has 6000 in-house. Kyle needs 3000 tubes for development 2) 4000 upper tube blanks on-track for 01/20. Kyle needs 500 tubes for development. Ship entire quantity to Ellis. Remainder will ship to Princeton with tools. 3) All fine blanks req'd. 4) Cover plate: 1700pcs on-hand 01/18		
38	When is tool development scheduled to take place? Which tools typically have the longest development time?	X			see item 37	23-Jan	MP/Kyle
39	Has the WM designed and built tooling been labeled per customer requirements? Have photos been submitted to Corporate?		X		Crystal to visit Ellis to label and take photos	19-Jan	MP/CG



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#	SUB-COMPONENT REQUIREMENTS	YES	NO	N/A	COMMENTS	DATE	RESP.
40	Are outsourced components required?	X					
41	Have supplier(s) been reviewed?	X					
42	Have purchase orders been issued?	X				1/06/12	AV
43	Have components been 'built' into the system?	X				1/18/12	MG
44	Has an EDI test been conducted? Has the supplier acknowledged receipt of WM releases?	X			All suppliers are EDI capable. Some receive EDI and some receive hard copies	1/18/12	MG
45	Is the supplier evaluation/development is complete?		X		Target date is based on C346 program PPAP	12-Mar	PF
46	Have supplier(s) submitted PPAP and samples?		X		Batesville (Cover plate; LS & SS stampings)--submitted interim. Dies will be running tomorrow. Final: 01/22; Theta (lower ratchet)>>???; Welded Tube (posts & upper) >>ppap submitted. Once length is developed, update the PSW and submit. BMC (shafts)>>need to confirm		AV/AC
47	What component/supplier has longest lead time?	x			1) Theta (lower ratchet)>>need to confirm ppap date. 2-3 weeks?? WM Corp to contact Kevin Milne regarding lack of response from Debra. 2) BMC (pivot shaft)>>need to contact Tony Nicks re: ppap	18-Jan	AV
48	Has a supplier capacity analysis been conducted and confirmed?	x			Need to confirm that fine blanks (Theta) can meet quoted volume of C520; CD4; C346.	18-Jan	AV
49	Have suppliers labeled customer owned tooling? Have suppliers submitted photos?		X		Tagging sheet sent with tool po's. Need to follow-up with each supplier. PPAP approval is contingent on tool tagging.	18-Jan	MV
50	Have shipping patterns been established with suppliers?	x			Short-term patterns are established. Penske logistics are reviewing	27-Jan	AV/MG
51	Has supplier packaging been reviewed and agreed upon?			X	WM is ordering based on requirements. No standard pack established.	18-Jan	MG

#	Customer Releases	YES	NO	N/A	COMMENTS	DATE	RESP.
52	Have trading partners been established?	x				18-Jan	MG/WZ
53	Has EDI been successfully received from customer?	x				18-Jan	MG/WZ
54	Have shipping patterns been established with customer?		X		Need to discuss and confirm with Magna-Louisville	2/27/12	MG/WZ
55	Has FOB point been established?	x					



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56	Have customer blanket PO's been received at the latest part levels & pricing?		X		1st row has proto pricing; 2nd row is correct	18-Jan	MV
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APQP CHECKLIST

OTHER OPEN ISSUES OR CONCERNS	
1)	LAUNCH SUPPORT Kyle (confirmed); Mark Fleming (TBD); Mark Little (TBD); Greg (TBD); Phil F (TBD).
2)	ON-SITE CUSTOMER SUPPORT Phil to assign liaison (Chuck) to support Magna.
3)	GP12 3rd Party Containment to be used during launch--this for both 1st row and 2nd row **Matt has contacted Pro-tech. Scheduled to come in ~February 3rd.
4)	Overseas Orders Orders have been received to supply 4-way assemblies to Magna-Spain & Tecknik. There are 370 pcs (Spain) & 384 pcs (Tecknik) due by 02/13/12. Packaging suitable for international export is required. **Tri-wall supplier visiting WMPI 01/18 (MG) same packaging as used for Venezuela Need packaging study completed (CF/ML)