

Date:		Key Date: 24-Feb-17		Item Name: GPLA-9032-AC		PLANNING DOCUMENT		<div>UNIPART POWERTRAIN APPLICATIONS</div>	
Originator:		FMEA No.: CP 00293		Release Number: UEP2E50159129000		Control Plan			
Project:		Issue Number:		Process Responsibility: UPA					
Project Ref:		Core Team: SE - PROJ MAN, KW - QUALITY, TL - MAN ENG, KH - DESIGN							
Last Revision:		24/07/17						Sheet 1 of 1	

Part/ Process No.	Process name/ Operation description	Machine, Device, Jig, Tools for Manufacturing	Op. No.	Characteristics		Special Char. Class	Methods						Reaction Plan / Corrective Action				
				Product	Process		Product/Process Specification/ Tolerance	Evaluation/ Measurement Technique	Gauge R & R	Sample		Control Method					
										Size	Frequency	Prevention	Detection	Prevention	Detection		
10	Bend 34.9mm lower pipe		10		Pipe formed to bend gauge			Program to be used L405 Lower	Visual		1	First off	SOP. Skills matrix.	1st off & 4 off checks in bend inspection gauge per shift			
							OTH		Check with gauge E16317 EGS14825		1		SOP. Skills matrix.	1st off & 4 off checks in bend inspection gauge per shift			
								Part must be bent correctly	Visual		100 %	100%	SOP. Skills matrix.	Visual check. 100% leak test on future operation			
							CC		Tooling must not be worn or damaged	Visual		1		SOP. Skills matrix.	Visual check. 100% leak test on future operation		
							OTH		No ripples greater than 2mm	Visual		100 %	100%	SOP. Skills matrix.	Double visual inspection		
							OTH		Setting to be correct to SOP	Visual		1	First off	SOP. Skills matrix.	Double visual inspection		
20	Trim pipe to length		20		Pipe cut to required length			Saw tooling must not be worn or damaged	Visual TPM		1	First off	SOP. Skills matrix.	1st off & 4 off checks in bend inspection gauge per shift			
							OTH		Pipe must be cut to correct length	Check with gauge E16317 EGS14825		1		SOP. Skills matrix.	1st off & 4 off checks in bend inspection gauge per shift		
									Saw tooling must not be worn or damaged	Visual TPM		1	First off	SOP. Skills matrix.	1st off & 4 off checks in bend inspection gauge per shift		
							OTH		Pipe must be cut to correct length	Check with gauge E16317 EGS14825		1		SOP. Skills matrix.	1st off & 4 off checks in bend inspection gauge per shift		
30	De-burr		30		Pipe de-burred to remove burrs & sharp edges		CC	Pipe must be fully/evenly deburred	Visual	100 %	100%	SOP. Skills matrix.	Double visual inspection 100%.				
							CC		Tooling must not be worn or damaged	Visual TPM		1	First off	SOP. Skills matrix.	Double visual inspection 100%.		
40	Size Pipe		40		Pipe endformed for roundness to ensure fitment of upper pipe		OTH	Pipe must be end formed	Visual	100 %	100%	SOP. Skills matrix.	Cannot assemble with upper pipe for welding				
							OTH		Pipe must be end formed to correct size	Vernier		1	First off	SOP. Skills matrix.	Cannot assemble with upper pipe for welding		
							OTH		Setting to be correct to SOP	Visual	100 %	100%	SOP. Skills matrix.	100% leak test on future operation			
50	End form pipe		50		Lower pipe sized for outlet form to specification on hose assy and anti- siphon valve		OTH	Pipe must be end formed	Visual	100 %	100%	SOP. Skills matrix.	Cannot EOL leak test system				
							CC		Pipe must be end formed to external 39.5mm+/- 1mm	Visual	100 %	100%	SOP. Skills matrix.	Cannot EOL leak test system			
							CC		Pipe must be end formed to external 33.1mm+/- 1mm	Vernier		1	First off	SOP. Skills matrix.	Cannot EOL leak test system		
							OTH		Setting to be correct to SOP	Visual	100 %	100%	SOP. Skills matrix.	1st off & 4 off per shift with Go-No go gauge on bend gauge			
							OTH		Tooling must not be worn or damaged	Visual TPM		1	First off	SOP. Skills matrix.	1st off & 4 off per shift with Go-No go gauge on bend gauge		
							CC		No scoring permitted	Visual	100 %	100%	SOP. Skills matrix.	Double visual inspection 100%.			
60	Wash pipe		60		Pipe meets cleanliness spec : Particle size not to exceed 400 Microns /0.6MG when measured in accordance with LRLTM.30.DD.103		SC	Pipe must conform to cleanliness specified on drawing AUE0176- 03	Cleanliness test	100 % 1	100% Annual	SOP. Skills matrix.	Double visual inspection 100%.				
							OTH		Detergent mixture to be correct to SOP	Visual TPM	100 % 1	100% 1st off, 4 per shift	SOP. Skills matrix.	Double visual inspection 100%.			
							OTH		Water to be kept clean	Visual TPM	100 % 1	100% 1st off, 4 per shift	SOP. Skills matrix.	Double visual inspection 100%.			