

TANK PMD	MOUNT Tabs	LOCATION Girth Weld	PMD DEVICE Complex
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Intergrated tank and structure containing two propellant tanks with PMDs.

Part Number 80495-1
Internal Stack Assy (ISA)
SIZE: 42.11" OD x 83.98" Long
SIZE: 1,069.59mm x 2,133.09mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS				QUALIFICATION TESTS	
Qualification Test Procedure	50-000636	Operating Pressure, psig	315.0 *	Total Volume, ci	28,475	Preliminary Examination of Product	
Qualification Test Report	56-000229	Proof Pressure, psig	394.0 *	Prop Volume, ci		Pre-Proof Volumetric Capacity Test, MMH Tank NTO Tank	
Acceptance Test Procedure	50-000638	Cryo Proof, psig	NA	Max Design Wt, lbs	260.0 **	Proof Pressure Test, MMH Tank, NTO Tank	
Bubble Point Test Procedure	50-000639	Burst Pressure, psig	472.0 *	Minimum Wall, inch	0.0	Post-Proof Volumetric Capacity Test, MMH Tank	
Cleaning	CPP 3986	Actual Burst Pressure	589.0 *	(MMH Tank)		Proof Pressure Cycling Test	
		TANK CHARACTERISTICS (Metrics)				QUALIFICATION TESTS	
Notes:		Operating Pressure, Bar	21.718	Total Volume, l	466.63	MEOOP Pressure Cycling Test	
1: Tooling owned by Northrop Grumman		Proof Pressure, Bar	27.165	Prop Volume, l	0.00	C-scan composite bonds and overwrap	
2: PMD design is by PMD Technology		Cryo Proof, Bar	NA	Max Design Wt, Kg	117.94 **	External Leak Test	
* @ 145 degrees F		Burst Pressure, Bar	32.543	Minimum Wall, MM	0.787	Mate/ De-mate PATS;	
** Entire Unit Mass		Actual Burst Pressure	40.609			Assemble ISA and Instrument	
		FORGINGS				Static Load Test	
		FORGINGS P/N				Dis-Assemble ISA	
		SUPPLIER				C-scan composite bonds and overwrap	
		Die				Assemble ISA	
		80-457061-1	Hemi Forging	Arcturus	3903	Additional Pressure Cycling Test	
		80-457067-1	Trap Base	Arcturus		External Pressure Test	
		80-457068-1	Inner Trap Base	Arcturus	3909	External Leak Test	
		TUBE TYPE AND SIZE				NDE	
		3.0AL-2.5V Titanium Alloy				Visual Inspection/ Mass Measurement	
		SIZE				Sensor verification	
		80-472045-1 (2)		.500 OD X .020 Wall		Separate Tanks	
		80-472045-1 (2)		12.7mm OD X .508mm Wall		Burst Test MMH Tank	
						Impact Damage	
						Burst Test NTO Tank	
						ACCEPTANCE TESTS	
						Preliminary Examination of Product	
						Pre-Proof Volumetric Capacity Test, MMH and NTO Tanks	
						Proof Pressure Test, MMH Tank	
						Post-Proof Volumetric Capacity Test, MMH Tank	
						Proof Pressure Test, NTO Tank	
						Post-Proof Volumetric Capacity Test, NTO Tank	
						PMD Flow Test and Expulsion Efficiency, NTO Tank	
						PMD Flow Test and Expulsion Efficiency, MMH Tank	
						Assemble ISA	
						Static Load Test	
						De-mate/ Mate PATS	
						External Leak Test	
						Bubble Point Test, MMH Tank	
						Bubble Point Test, NTO Tank	
						NDE	
						Sensor verification	
						Final Examination of Product	
						Cleanliness Verification	

