

TANK TYPE PMD PROPELLANT	MOUNT SIDEMOUNT STRUT SUPPORTS	LOCATION INLET/OUTLET BOSSES
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This Tank is identical to the qualified design except the Northrop Grumman furnished PMD has been replaced with a customer furnished PMD. The PMD serves to maintain a volume of predictable liquid propellant expulsion from the tank under low or zero gravity conditions. The tank is constructed from titanium 6Al-4V with a nominal membrane thickness of 0.017"-0.023". Mounting is provided by one welded sidemount and four strut supports located on the tank inlet and outlet bosses. The propellant and Pressurant ports are 3/8" titanium tubes.

Part Number 80561-1

SIZE: 21.5" DIA x 65.0" LONG

SIZE: 546.1 mm DIA x 1651 mm LONG

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000799
Qual Test Procedure	
Qualification Test Report	
Stress and Dynamics Report	
FMECA	
Cleaning	CPP 4061

TANK CHARACTERISTICS

Operating Pressure, psig	285	Total Volume, in ³	19,000
Proof Pressure, psig	406.7 @ 67 °F	Max Design Wt, lbs	35.0
Cryo Proof, psig	N/A	Minimum Wall, inch	0.016
Burst Pressure, psig		Qual Tank Mass	
Actual Burst, psig			

ACCEPTANCE TESTS

Examination of Product
Vol. Determination and Proof Pressure Test
Pressure Drop and Expulsion Efficiency
Bubble Point Test
External Leakage Test
Radiographic & Penetrant Inspection
Examination of Product
Cleanliness
Data Review

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	20	Total Volume, l	311
Proof Pressure, bar	28 @ 19.4 °C	Max Design Wt, kg	15.88
Cryo Proof, bar	N/A	Minimum Wall, MM	0.406
Burst Pressure, bar		Qual Tank Mass	
Actual Burst, bar			

QUALIFICATION TESTS

HEMISPHERE FORGINGS

HEMI P/N	QTY
80-390061	2

RING FORGINGS

P/N	QTY	SIZE
80-390063-3	1	20.93" ID x 22.38" OD x 22.00" LONG
		531.622mm ID x 568.452mm OD x 558.8mm LONG
80-390063-1	1	20.93" ID x 21.87" OD x 22.00" LONG
		531.622mm ID x 555.498mm OD x 558.8mm LONG

TUBE TYPE AND SIZE

Ti 3AL-2.5V	QTY	SIZE
80-390040-5	1	0.375" OD x 0.0250" Wall x 3.12" LONG
		9.525mm OD x 0.635mm Wall x 79.248mm LONG

