

TANK TYPE	MOUNT	LOCATION
DIAPHRAGM	BOSES	POLAR

The Propellant Tank is fabricated from spherical 6Al-4V Titanium forgings welded together and mounted at the polar bosses. The tank contains an ethylene propylene terpolymer (AF-E-332) rubber diaphragm retained near the girth weld of the propellant hemisphere.

Part Number 80566-1

SIZE: 28.44 x 29.70 " LONG

SIZE: 28.44mm DIA x 754.38mm LONG

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000816
Qual Test Procedure	
Qualification Test Report	
Stress and Dynamics Report	
FMECA	
Cleaning	CPP 4082

TANK CHARACTERISTICS

Operating Pressure, psig	400	Total Volume, in ³	11,350
Proof Pressure, psig	629	Max Design Wt, lbs	44
Cryo Proof, psig	N/A	Minimum Wall, inch	0.047
Burst Pressure, psig		Qual Tank Mass	
Actual Burst, psig			

ACCEPTANCE TESTS

Preliminary Examination
Pre Proof Volume Determination
Proof Test
Post Proof Volume Determination
Internal Leak Test
External Leak Test
Radiographic Inspection
Penetrant Inspection
Final Inspection
Cleanliness Verification

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	28	Total Volume, l	186
Proof Pressure, bar	43	Max Design Wt, kg	19.96
Cryo Proof, bar	N/A	Minimum Wall, MM	1.194
Burst Pressure, bar		Qual Tank Mass	
Actual Burst, bar			

QUALIFICATION TESTS

HEMISPHERE FORGINGS

HEMI P/N	QTY
80-287061-1	2

RING FORGINGS

P/N	QTY	SIZE
80-228063-1	1	26.81" ID x 28.35" OD x 1.59" LONG
		680.974mm ID x 720.09mm OD x 40.386mm LONG

TUBE TYPE AND SIZE

Transition Ti to SS	QTY	SIZE
80-466001-1	1	0.250" OD x 0.035" Wall x 4.25" LONG
		6.35 OD mm x 0.889 mm Wall x 107.95mm LONG
80-466001-3	1	0.375" OD x 0.035" Wall x 4.25" LONG
		9.525 OD mm x 0.889mm Wall x 107.95mm LONG

