

TANK TYPE	MOUNT	LOCATION
DIAPHRAGM	LUGS	MID-PLANE

The propellant tank is a spherical pressure vessel constructed of 6AL-4V Titanium. Positive propellant expulsion is provided by a reversing AF-E-332 rubber diaphragm retained at the sphere mid-plane. Mounting is accomplished by lugs parallel with and adjacent to the mid-plane. Connection is made to the propellant and pressurant compartments through titanium/stainless steel interface tubes.

Part Number 80553-1

SIZE: 22.60" DIA

SIZE: 574.04 mm DIA

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000784
Qual Test Procedure	
Qualification Test Report	
Stress and Dynamics Report	
FMECA	
Cleaning	CPP 4091

TANK CHARACTERISTICS

Operating Pressure, psig	440 @ 73 °F	Total Volume, in ³	5.555
Proof Pressure, psig	651.8 @ 86 °F	Max Design Wt, lbs	21.0
Cryo Proof, psig	N/A	Minimum Wall, inch	0.033
Burst Pressure, psig		Qual Tank Mass	
Actual Burst, psig			

ACCEPTANCE TESTS

- Preliminary Examination of Product
- Pre-Proof Volume Determination
- Proof Pressure
- Post-Proof Volume Determination
- Expulsion Efficiency
- Internal Leakage
- External Leakage
- Penetrant Inspection
- Radiographic Inspection
- Determination of Weight and Final Inspection
- Cleanliness Verification
- Final Examination

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	30.3 @ 22.8 °C	Total Volume, l	91
Proof Pressure, bar	44.9 @ 30 °C	Max Design Wt, kg	9.53
Cryo Proof, bar	N/A	Minimum Wall, MM	0.838
Burst Pressure, bar		Qual Tank Mass	
Actual Burst, bar			

HEMISPHERE FORGINGS

HEMI P/N	QTY
80-203061-1	2

RING FORGINGS

P/N	QTY	SIZE
80-203009-11	1	21.00" ID x 22.40" OD x 1.28" LONG
		533.4mm ID x 568.96mm OD x 32.512mm LONG
80-298063-1	1	22.38" ID x 25.81" OD x .71" LONG
		568.452mm ID x 655.574mm OD x 18.034mm LONG

TUBE TYPE AND SIZE

Ti 3AL-2.5V	QTY	SIZE
40057-301	2	
NOTE: Customer Supplied		

QUALIFICATION TESTS

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