

<u>TANK TYPE</u>	<u>MOUNT</u>	<u>LOCATION</u>
DIAPHRAGM		

This Propellant Tank is a lightweight titanium tank with an AF-E-332 Rubber Diaphragm attached to the inside of the tank near the mid plane. There is an internal titanium dome to support the diaphragm in the fully loaded condition. There are two (2) ports; one for pressurization gas and one for the propellant supply.

**Part Number 80580-1**

**SIZE: 40.85" DIA x 41.70" LONG**

**SIZE: 1037.59 mm DIA x 1059.18 mm LONG**

***ISO 9001 & AS 9100 REGISTERED***

**APPLICABLE DOCUMENTS**

Acceptance Test Procedure	50-000859
Stress and Fracture Analysis	54-000473
Cleaning	CPP 3957

**TANK CHARACTERISTICS**

Operating Pressure, psig	412	Total Volume, in <sup>3</sup>	38,000
Proof Pressure, psig	650	Max Design Wt, lbs	110.0
Cryo Proof, psig	N/A	Minimum Wall, inch	
Burst Pressure, psig		Qual Tank Mass, lbs	
Actual Burst, psig			

**ACCEPTANCE TESTS**

- Examination of Product
- Pre-Proof Volumetric Capacity Test
- Proof Pressure Test
- Post-Proof Volumetric Capacity Test
- Internal Leak Test
- External Leak Test
- Radiographic Inspection
- Dye Penetrant Inspection
- Final Examination of Product
- Cleanliness
- Data Review

**TANK CHARACTERISTICS (Metrics)**

Operating Pressure, bar	28.4	Total Volume, l	622.7
Proof Pressure, bar	44.8	Max Design Wt, kg	49.9
Cryo Proof, bar	N/A	Minimum Wall, mm	
Burst Pressure, bar		Qual Tank Mass, kg	
Actual Burst, bar			

**HEMISPHERE FORGINGS**

HEMI P/N	QTY
80-260061-1	1
80-260061-3	2

**QUALIFICATION TESTS**

**RING FORGINGS**

P/N	QTY	SIZE
80-263063-1	1	42.57" OD x 39.56" ID x 3.81" LONG
80-263065-1	1	40.46" OD x 39.12" ID x 1.68" LONG

**TUBE TYPE AND SIZE**

Ti 6AL-4V	QTY	SIZE
80-263005-1	1	.250-.375" OD x .016-.035" WALL x 4.70" LONG
Ti 6AL-4V		
80-579001-1	1	.375" OD x .025-.035" WALL x 4.50" LONG

