

TANK TYPE	MOUNT	LOCATION
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 80604-1

SIZE: 40.85" DIA x 39.80" LONG
SIZE: 1037.6 mm DIA x 1010.9 mm LONG

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000930
QBS Report	
Qual Test Report	
Protoflight Test Procedure	
Stress and Dynamics Report	54-000519
FMECA	54-000525
Cleaning	CPP 4114

TANK CHARACTERISTICS

Operating Pressure, psig	422	Total Volume, in ³	38,000
Proof Pressure, psig	530 @ 67 °F	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
Expulsion Efficiency Test
Negative Pressure 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	29	Total Volume, l	622.7
Proof Pressure, bar	36.5 @ 19.4 °C	Max Design Wt, kg	49.9
Cryo Proof, bar	N/A	Minimum Wall, mm	
Burst Pressure, bar		Qual Tank Mass, kg	
Actual Burst, bar			

RING FORGINGS

P/N	QTY	SIZE
80-263063-1	1	39.56" ID x 42.57" OD x 3.81" LONG
80-263065-1	1	38.12" ID x 40.46" OD x 1.68" LONG

HEMISPHERE FORGINGS

HEMI P/N	QTY
80-260061-3	2

ROLLED AND SEAM WELDED CYLINDER

P/N	QTY	SIZE
80-451112	1	40.90" OD x 39.80" ID x 7.12" LONG

TUBE TYPE AND SIZE

TI 3.0AL-2.5V	QTY	SIZE
80-451003-3	1	.377" OD x .025" WALL x 8.25" LONG

Note: Customer supplied

QUALIFICATION TESTS

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