

TANK TYPE Diaphragm	MOUNT Lugs	LOCATION Mid-plane
-------------------------------	----------------------	------------------------------

The 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 four (4) equally spaced lugs parallel with and adjacent to the mid-plane. Connection is made to the propellant and pressurant compartments through tube stubs.

Part Number 80578-1

SIZE: 23.70" DIA x 27.420" LONG
SIZE: 601.98 mm DIA x 696.468 mm LONG

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000865
Cleaning	CPP 3894

TANK CHARACTERISTICS

Operating Pressure, psig	417	Total Volume, in ³	7,261
Proof Pressure, psig	660	Max Design Wt, lbs	29.0
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
Pressure Drop & Expulsion Efficiency
Internal Leak Test
External Leak Test
Radiographic Inspection
Dye Penetrant Inspection
Final Examination of Product
Cleanliness
Data Review

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	28.8	Total Volume, l	119.0
Proof Pressure, bar	45.5	Max Design Wt, kg	13.2
Cryo Proof, bar	N/A	Minimum Wall, mm	
Burst Pressure, bar		Qual Tank Mass, kg	
Actual Burst, bar			

HEMISPHERE FORGINGS

HEMI P/N	QTY
80-323061-1	2

QUALIFICATION TESTS

RING FORGINGS

P/N	QTY	SIZE
80-323065-1	1	23.87" OD x 22.25" ID x 4.0" LONG
80-323063-1	1	23.44" OD x 22.00" ID x 1.75" LONG
80-323063-3	1	24.00" OD x 22.44" ID x 3.56" LONG

TUBE TYPE AND SIZE

Ti 3AL-2.5V	QTY	SIZE
80-578001-5	1	.250" OD x .035" WALL x 3.80" LONG
Ti 6AL-4V		
80-447001-1	2	.250" OD x .020"-.035" WALL x 3.85" LONG
Ti 3AL-2.5V		
80-578005-3	1	.250" OD x .035" WALL x 2.407" LONG

