TANK TYPE	MOUNT	LOCATION
DIAPHRAGM	Lug	Mid-Plane

NORTHROP GRUMMAN

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 spere 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 tube stubs.

Part Number 80569-1

SIZE: 22.7" DIA x 24.40" LONG

SIZE: 576.58mm DIA x 619.76mm LONG

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000826
Qual Test Procedure (80298-1)	50-000259
Qual Test Report (80298-1)	56-000099
FMECA	54-000424
Cleaning	CPP4071

TANK CHARACTERISTICS

Operating Pressure, psig	420	Total Volume, in^3	5,555
Proof Pressure, psig	630	Max Design Wt, lbs	30.0
Cryo Proof, psig	N/A	Minimum Wall, inch	0.033
Burst Pressure, psig	950	Qual Tank Mass	20.70
Actual Burst, psig	992	(80298-1)	

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	29	Total Volume, l	91
Proof Pressure, bar	43	Max Design Wt, kg	13.61
Cryo Proof, bar	N/A	Minimum Wall, MM	0.838
Burst Pressure, bar	65	Qual Tank Mass	525.8
Actual Burst, bar	68		

HEMISPHERE FORGINGS

HEMI P/N	QTY
80-203061-1	2

RING FORGINGS

P/N	QTY	SIZE
80-203009-11	1	21.0" ID x 22.4" OD x 1.28"
		533.4mm ID x 568.96mm OD x 32.512mm
80-298063-1	1	22.38" ID x 25.81" OD x .71"
		568.425mm ID x 655.574mm OD x 18.034mm

TUBE TYPE AND SIZE

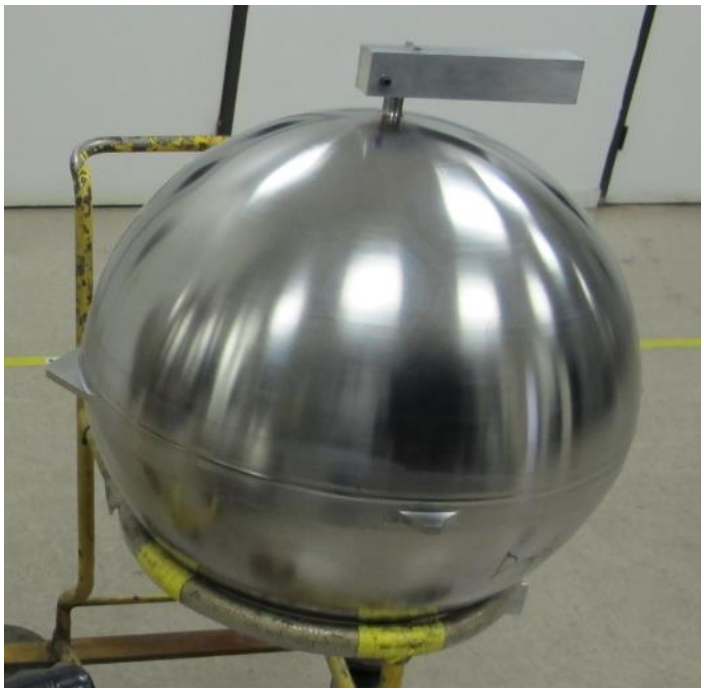
Ti 3AL-2.5V	QTY	SIZE
80-569001-3	2	0.375" OD x 0.020" Wall x 4.00"
		9.525 OD mm x 0.508mm Wall x 101.6 mm

ACCEPTANCE TESTS

- Preliminary Examination of Product
- Volumetric Capacity, Pre-Proof
- Proof Pressure Test
- Volumetric Capacity, Post-Proof
- Differential pressure, Expulsion efficiency, & Mass flow rate test
- Internal Leakage Test
- External Leak Test
- Radiographic Inspection
- Penetrant Inspection
- Determination of Weight and Final Inspection
- Cleanliness Verification
- Final Examination of Product

QUALIFICATION TESTS for 80298-1

- Acceptance Test
- Acceleration Test
- Internal Leak Test
- External Leak Test
- Vibration Test
- Internal Leak Test
- External Leak Test
- Diaphragm Integrity
- Internal Leak Test
- Pressure Life Cycle
- External Leak Test
- Expulsion Test
- Internal Leak Test
- External Leak Test
- Burst
- Post Test Disassembly & Examintaion



6033 East Bandini Boulevard
Commerce, California 90040

Telephone (323) 722-0222
Facsimile (323) 721-6002