

TANK TYPE	MOUNT	LOCATION
PMD	Tab Ring	Ported Dome

The tank is a carbon overwrapped titanium tank with a polar mounted propellant management device. The liner is constructed of solution treated and aged, 6Al-4V titanium machined elliptical forgings, welded to 0.032" thick 6Al-4V titanium, rolled and welded sheet stock cylinders. Mounting is provided by a 28 point tab ring. The tank contains an internal propellant management device (PMD) assembly.

Part Number 80571-1

SIZE: 45.70" DIA x 46.25" LONG
SIZE: 1160.78 mm DIA x 1174.75 mm LONG

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000837
QBS Report	56-000310
Qual Test Report (80570-1)	56-000319
Stress and Fracture Analysis	54-000432
Cleaning	CPP 4090

TANK CHARACTERISTICS

Operating Pressure, psig	285	Total Volume, in ³	55.662
Proof Pressure, psig	403.5	Max Design Wt, lbs	80.47
Cryo Proof, psig	N/A	Minimum Wall, inch	0.032
Burst Pressure, psig	487	Qual Tank Mass, lbs	168.75
Actual Burst, psig	570		

ACCEPTANCE TESTS

Examination of Product
Volumetric Capacity and Proof Pressure Test
Pressure Drop Test
External Leak Test
Weld Quality Inspection
Examination of Product
Cleanliness Operation

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	19.65	Total Volume, l	912
Proof Pressure, bar	27.8	Max Design Wt, kg	36.5
Cryo Proof, bar	N/A	Minimum Wall, mm	0.813
Burst Pressure, bar	34	Qual Tank Mass, kg	76.54
Actual Burst, bar	39		

QUALIFICATION TESTS (for 56-000319)

Examination of Product
Volumetric Capacity and Proof Pressure Test
Proof Pressure and MEOP Cycle Test
Acoustic Test
Sine Vibration Test
Pressure Drop Test
External Leak Test
Tank Assembly Bubble Point Test
Weld Quality Inspection
Examination of Product & Data Review
Burst Test

HEMISPHERE FORGINGS

HEMI P/N	QTY
80-507061-1	2

RING FORGINGS

P/N	QTY	SIZE
80-507065-1	1	46.80" OD x 44.90" ID x 4.2" LONG

TUBE TYPE AND SIZE

Ti 3AL-2.5V	QTY	SIZE
80-570007-5	1	.375" OD x .025" WALL x 2.25" LONG
Ti 3AL-2.5V		
80-570007-7	1	.250" OD x .0160" WALL x 5.00" LONG
Ti 3AL-2.5V		
80-570007-9	1	.375" OD x .025" WALL
Ti 3AL-2.5V		
80-571100-5	1	.750" OD x .049" WALL x 37.792" LONG
Ti 3AL-2.5V		
80-571110-7	1	.750" OD x .049" WALL x 28.792" LONG

