

TANK TYPE	MOUNT	LOCATION
PMD	BOSES	POLAR

This tank is a spherical pressure vessel constructed of 6AL-4V Titanium. The tank contains an internally mounted propellant management device (PMD) whose function is to maintain separation of liquid propellant and gaseous pressurant and to provide predictable gas free liquid propellant at the tank outlet. Mounting of the tank is provided by two polar bosses. Fluid connection to the tank is by tubes at the polar bosses.

Part Number 80532-1

SIZE: 35.310" DIA x 37.655" LONG

SIZE: 896.874 mm DIA x 956.437 mm LONG

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000730
Qual Test Procedure	50-000729
Qual Test Report	56-000254
Cleaning	CPP 4023

TANK CHARACTERISTICS

Operating Pressure, psig	350	Total Volume, in ³	57,215
Proof Pressure, psig	438	Max Design Wt, lbs	43.3
Cryo Proof, psig	N/A	Minimum Wall, inch	
Burst Pressure, psig	525	Qual Tank Mass, lbs	
Actual Burst, psig			

ACCEPTANCE TESTS

- Preliminary Examination of Product
- Pre-Proof Volumetric Capacity Test
- Proof Pressure Test
- Post-Proof Volumetric Capacity Test
- Bubble Point Test
- Weld Quality Inspection
- External Leak Test
- Final Examination of Product
- Cleanliness Verification
- Preparation for Delivery

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	24.1	Total Volume, l	937.6
Proof Pressure, bar	30.2	Max Design Wt, kg	19.7
Cryo Proof, bar	N/A	Minimum Wall, mm	
Burst Pressure, bar	36.2	Qual Tank Mass, kg	
Actual Burst, bar			

QUALIFICATION TESTS

- Preliminary Examination of Product
- Pre-Proof Volumetric Capacity Test
- Proof Pressure Test
- Post-Proof Volumetric Capacity Test
- Bubble Point Test
- Weld Radiograph and Penetrant Inspection
- External Leak Test
- Final Examination of Product
- Exposure to Cleaning Fluids
- Proof Pressure Cycling Test
- MEOP Pressure Cycling Test
- Pressure Drop Test
- Bubble Point Test
- Weld Radiograph and Penetrant Inspection
- External Leak Test
- Vibration Test
- Centrifuge Test
- Bubble Point Test
- External Leak Test
- Weld Radiograph and Penetrant Inspection
- Final Examination of Product
- Burst Test
- Data Review

HEMISPHERE FORGINGS

HEMI P/N	QTY
80-391061-1	2

TUBE TYPE AND SIZE

	QTY	SIZE
JUNA0407500-005	1	CUSTOMER PROVIDED
JUNA0407500-007	1	CUSTOMER PROVIDED

