

TANK TYPE	MOUNT	LOCATION
DIAPHRAGM	BOSES	POLAR

This Propellant Tank Assembly is a 28.0" diameter, 6Al-4V Titanium Alloy Positive Expulsion Device, with two (2) polar mounting bosses. Propellant and Pressurant loading is accomplished through tubes, positioned on the tank's polar axis, at the extreme end of the mounting bosses. Positive expulsion is provided by a reversing, AF-E-332 Polymeric Rubber Diaphragm, permanently retained at the tank girth.

Part Number 80567-1

SIZE: 28.44" DIA x 29.87" LONG
SIZE: 722.376mm DIA x 758.698mm LONG

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	
Protoflight Test Procedure	50-000827
Qual Test Procedure-QBS	50-000195
Qualification Test Report	56-000070
Stress and Dynamics Report	
FMECA	
Cleaning	

TANK CHARACTERISTICS

Operating Pressure, psig	400	Total Volume, in ³	11,350
Proof Pressure, psig	900	Max Design Wt, lbs	44.0
Cryo Proof, psig	N/A	Minimum Wall, inch	0.047
Burst Pressure, psig	1,070	Qual Tank Mass	
Actual Burst, psig	1,321		

ACCEPTANCE TESTS

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	28	Total Volume, l	186
Proof Pressure, bar	62	Max Design Wt, kg	19.96
Cryo Proof, bar	N/A	Minimum Wall, MM	1.194
Burst Pressure, bar	74	Qual Tank Mass	
Actual Burst, bar	91		

HEMISPHERE FORGINGS

HEMI P/N	QTY
80-287061-1	2

RING FORNINGS

P/N	QTY	SIZE
80-228063-1	1	26.81" ID x 28.35" OD x 1.59" LONG
		680.974mm ID x 720.09mm OD x 40.386mm LONG

TUBE TYPE AND SIZE

TI 3AL-2.5V	QTY	SIZE
80-567045-3	1	0.250" OD x 0.035" Wall x 2.80" LONG
		6.35 OD mm x 0.889mm Wall x 71.12mm LONG
80-567025-5	1	0.375" OD x 0.035" Wall x 3.30" LONG
		9.525 OD mm x 0.889mm Wall x 83.82mm LONG

80228-1 QUALIFICATION TESTS

- Acceptance Test
- Pressure Hold
- Low Temperature Test
- Internal Volume
- External Leakage
- Internal Leakage
- Radiographic Inspection
- Penetrant Inspection
- Expulsion Cycle Life Test
- Internal Leakage
- Pressure Cycle Life Test
- External leakage
- Internal leakage
- Transient Vibration
- Random Vibration Test
- External Leakage
- Radiographic Inspection
- Penetrant Inspection
- Design Shock
- External Leakage
- Acceleration test
- External Leakage
- Depletion Pressure Test
- Internal Leakage
- Slosh Test
- Expulsion Efficiency
- Internal Leakage
- Radiographic Inspection
- Penetrant Inspection
- External Pressure Test
- Burst Rupture Test

