



TANK TYPE DIAPHRAGM	MOUNT BOSSES	LOCATION POLAR
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This is a 9-inch spherical pressure vessel constructed of 6Al-4V titanium. Positive fuel expulsion is provided by a reversing EPT-10 rubber diaphragm retained (welded in) at the sphere mid-plane. Mounting is accomplished by polar bosses. See note 3 below.

ATK Part Number 80222-1
SIZE: 9.41-inch ID Sphere
SIZE: 239 MM

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS			
Acceptance Test Procedure	50-000181	Operating Pressure, psig	400	Total Volume, ci	415
Qualification Test Procedure	50-000182	Proof Pressure, psig	600	Prop Volume, ci	290
Qualification Test Report	56-000066	Cryo Proof, psig	NA	Max Design Wt, lbs	2.85
Quality Assurance Program Plan	60-000072	Burst Pressure, psig	800	Minimum Wall, inch	0.014
Powder Blast	65-000030	TANK CHARACTERISTICS (Metrics)			
Cleaning	CPP 3439				

ACCEPTANCE TESTS
Examination of Product, Preliminary
Volume
Proof Pressure
Internal Leak Test
External Leak Test
Weight
Final Cleaning

DIAPHRAGM INFORMATION	
Diaphragm P/N	80-156005-3
Diaphragm Mold P/N	T-1020
Diaphragm Gross Wt	
Diaphragm Matl Type	EPT-10
Diaphragm, Materi Note 2	90-000035
Diaphragm Proc Note 2	90-000081
N-Ray Inspection Procedure	1002

Operating Pressure, barg	27.58	Total Volume, l	6.80
Proof Pressure, barg	41.37	Prop Volume, l	4.75
Cryo Proof, barg	NA	Max Design Wt, Kg	1.293
Burst Pressure, barg	55.16	Minimum Wall, MM	0.356

QUALIFICATION TESTS
Vibration
Internal Helium Leak
External Helium Leak
Life Cycle and Expulsion Efficiency
Internal Leakage
Post Test Inspection

- Notes:**
- 1: Tooling owned by OA
 - 2: Proprietary Document
 - 3: Qualified with EPT-10 diaphragm. Will quote A
 - 4: Launch vehicle is Delta
 - 5: International Ultraviolet Explorer
 6. No burst test performed

FORGINGS	
FORGINGS P/N	
80082-63 (2)	
RING FORGING	RING SIZE, (Rough Machined)
80-156002-11	9.64 OD x 8.38 ID x 1.39 Lg

TUBE TYPE AND SIZE	
TITANIUM	SIZE
80-222006-3	.125 OD x .015 Wall
	3.175 x .381 mm
80-222008-1	.190 OD x .015 wall
	4.826 x .381mm

