

TANK TYPE Diaphragm	MOUNT Lugs	LOCATION Girth
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This is a 22-inch spherical pressure vessel constructed of 6Al-4V titanium. Positive fuel expulsion is provided by a reversible ethylene-propylene terpolymer (AF-E-332) rubber diaphragm retained (welded in) at the sphere mid-plane. Mounting is accomplished by three (3) lugs parallel with & adjacent to the sphere mid-plane.

Part Number 80439-1

SIZE: 22.14-inch ID Sphere
SIZE: 562.3-mm

ISO 9001 & AS 9100 REGISTERED

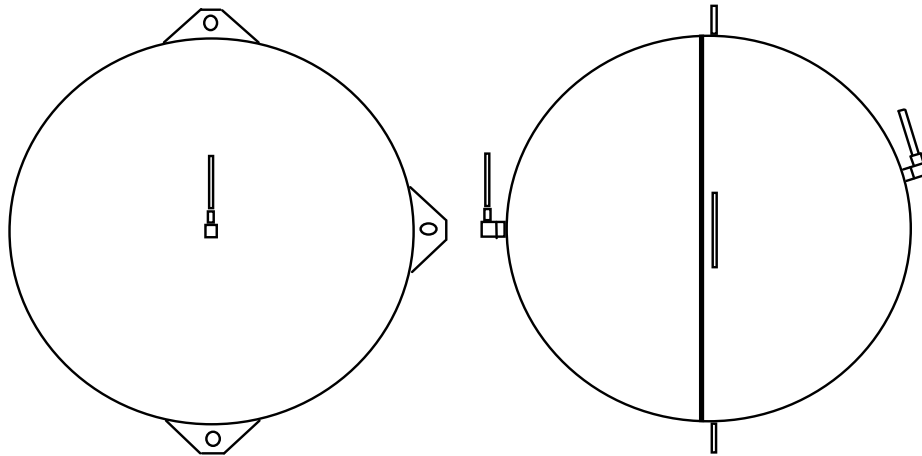
APPLICABLE DOCUMENTS		TANK CHARACTERISTICS		ACCEPTANCE TESTS	
Acceptance Test Procedure	50-000570	Operating Pressure, psig	387	Preliminary Examination of Product Pre-Proof Volume Determination Proof Pressure Post-Proof Volume Determination Radiographic Inspection Penetrant Inspection Internal Leakage External Leakage Determination of Weight and Final Inspection Cleanliness Verification Final Examination	
Cleaning	CPP 3903	Proof Pressure, psig	484		
DIAPHRAGM INFORMATION		Cryo Proof, psig	NA		
Diaphragm P/N	80-259007-1	Burst Pressure, psig	580		
Diaphragm Mold P/N	T-1261	Total Volume, ci	5.555		
Diaphragm Gross Wt	2.47 (1.12 Kg)	Prop Volume, ci	4.410		
Diaphragm Matl Type	AF-E-332	Max Design Wt, lbs	16.0		
Diaphragm, Material	Note 2 90-000075	Minimum Wall, inch	0.027		
Diaphragm Processing	Note 2 90-000087	TANK CHARACTERISTICS (Metrics)			
N-Ray Inspection Procedure	1002	Operating Pressure, Bar	26.68	Total Volume, l	91.03
		Proof Pressure, Bar	33.37	Prop Volume, l	72.27
		Cryo Proof, Bar	NA	Max Design Wt, Kg	7.26
		Burst Pressure, Bar	39.99	Minimum Wall, MM	0.686

- Notes:**
- 1: Tooling owned by Northrop Grumman
 - 2: Proprietary Document
 - 3: This tank similar to 80362-1
 - 4: Fracture Critical

FORGINGS		
FORGINGS P/N	SUPPLIER	Die No
80-346061-1 (2)	ARCTURUS	3524
RING FORGING		
RING SIZE, (Rough Machined)		
80-203009-11, Retainer	24.4 +.06 OD x 21 -.06 ID x 1.28 +.06 Lg	
80-298063-1, Lug	25.81 +.09 OD x 22.38 -.09 ID x .71 +.06 Lg	

QUALIFICATION TESTS
Qual by similarity on 80259-1.

TUBE TYPE AND SIZE	
TRANSITION	SIZE
80-385001-1 (2)	250" OD x 3.74 Long (6.35 x 94.99 MM)
	1st 2.14" is .028 Wall (54.35 x .71 MM)
	Last 1.6" has .016 Wall (40.64 x .406 MM)



SKETCH NOT TO SCALE