

TANK TYPE Diaphragm	MOUNT Flange	LOCATION Girth
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This is a 40-inch oblate spheroid pressure vessel constructed of 6Al-4V titanium. Positive fuel expulsion is provided by a fully reversible ethylene-propylene terpolymer (AF-E-332) rubber diaphragm retained (welded) a the mid-plane. Mounting is accomplished on a continuous flange parallel with and adjacent to the mid-plane.

Part Number 80463-1

SIZE: 40.2" ID x 31.8" LONG Oblate Spheroid
SIZE: 1021 mm ID x 808 mm LONG

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS		QUALIFICATION TESTS
Acceptance Test Procedure	50-000619	Operating Pressure, psig	400	Qual performed on 80263-1 Preliminary Examination of Product Pre-Proof Volumetric Capacity Test Proof Pressure test Post-Proof Volumetric Capacity Test Internal Leakage Test External Leakage Test Penetrant Inspection Radiographic Inspection Weight Test Final Examination of Product Cleanliness Test Acceleration Test Internal Leakage Test Negative Pressure Test External Leakage Test Diaphragm Integrity Test Internal Leakage Test Pressure Cycle Test Blow Down Pressure Test Expulsion Test Internal Leakage Test Proof Pressure test Final Examination of Product Weight Test Cleanliness Test
Qualification Test Procedure	see 80263-1	Proof Pressure, psig	600	
Qualification Test Report	see 80263-1	Cryo Proof, psig	N/A	
Fracture Analysis	54-000217	Design Burst, psig	800	
Cleaning	3960	Actual Burst, psig		
		Total Volume, ci	28,144	
		Prop Mass, lbm	Various	
		Max Design Wt, lbm	76.0	
		Minimum Wall, inch	0.050	

DIAPHRAGM INFORMATION	
Diaphragm P/N	80-263027-1
Diaphragm Mold P/N	T-1868
Diaphragm Gross Wt	7.6 (3.44 Kg)
Diaphragm Matl Type	AF-E-332
Material Spec, Rubber	MT3-73
Diaphragm Processing, Note 2	90-000094
N-Ray Inspection Procedure	1002

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, Bar	27.58	Total Volume, l	461.2
Proof Pressure, Bar	41.37	Prop Volume, kg	454
Cryo Proof, Bar	N/A	Max Design Wt, Kg	34.5
Design Burst, Bar	55.16	Minimum Wall, mm	1.270
Actual Burst, Bar			

Notes:

- 1: Tooling owned by Northrop Grumman
- 2: Proprietary Document
- 3: Fracture Critical
- 4: Different tubes, same mounting flange as 80263-1
- 5: Tube protectors are SK 1487

FORGINGS		
FORGINGS P/N	SUPPLIER	Die No
80-260061-1 (3)	ARCTURUS	3241

ROLL RING FORGING SIZE, (Rough Machined)		
80-263065-1	40.46 +.09 OD x 39.12 -.09 ID x 1.68 +.09 Lg	
80-263063-1	42.57 +.09 OD x 39.56 -.09 ID x 3.81 +.25 Lg	

TUBE TYPE AND SIZE (in.)	
Ti 3AL-2.5V	SIZE
80-263001-1 (2)	.250 OD x .016 wall

TUBE SIZE (mm)	
80-263001-1 (2)	6.35 x .406 mm



ACCEPTANCE TESTS
Examination of Product Pre-Proof Volumetric Capacity Test Proof Pressure Test Post-Proof Volumetric Capacity Test Internal Leak Test External Leak Test Radiographic Inspection Dye Penetrant Inspection Final Exam of Product Cleanliness Data Review

VACUUM RATE
YES