

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 fully reversible ethylene-propylene terpolymer (AF_E-332) rubber diaphragm retained (welded in) at the mid-plane. Mounting is accomplished on a continuous flange parallel with and adjacent to the mid-plane.

Part Number 80376-1

SIZE: 40-inch Oblate Spheroid
SIZE: 1016-MM

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000441
Fracture Analysis Plan	54-000133
Cleaning	CPP 3733

TANK CHARACTERISTICS

Operating Pressure, psig	338	Total Volume, ci	28,144
Proof Pressure, psig	525	Prop Volume, ci	Variable
Cryo Proof, psig	NA	Max Design Wt, lbs	76.0
Burst Pressure, psig	676	Minimum Wall, inch	0.050

ACCEPTANCE TESTS

Preliminary 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 Examination of Product
Weight Determination
Cleanliness
MMAS Final Inspection

DIAPHRAGM INFORMATION

Diaphragm P/N	80-263007-1
Diaphragm Mold Tool Number	T-1868
Diaphragm Gross Weight	7.6 (193 Kg)
Diaphragm Material Type	AF-E-332
Material Specification, Rubber	MT3-73
Diaphragm Processing, Note 2	90-000094
N-Ray Procedure	1002

TANK CHARACTERISTICS (Metrics)

Operating Pressure, Bar	23.30	Total Volume, l	461.20
Proof Pressure, Bar	36.20	Prop Volume, l	Variable
Cryo Proof, Bar	NA	Max Design Wt, Kg	34.47
Burst Pressure, Bar	46.61	Minimum Wall, MM	1.270

FORGINGS

FORGINGS P/N	SUPPLIER	Die
80-260061-1 (2)		
RING FORGING		
80-263065-1, Retainer	40.46 +.09 OD x 39.12 -.09 ID x 1.68 +.09 Lg	
80-263063-1, Cylinder	42.57 +.09 OD x 39.56 -.09 ID x 3.81 +.25 Lg	

QUALIFICATION TESTS

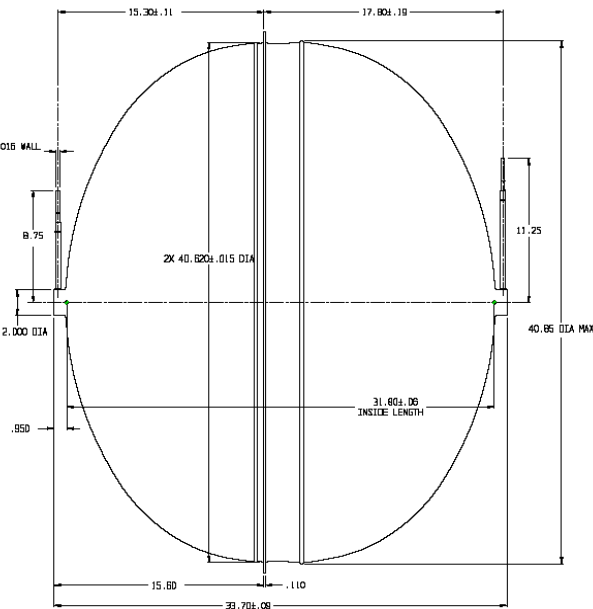
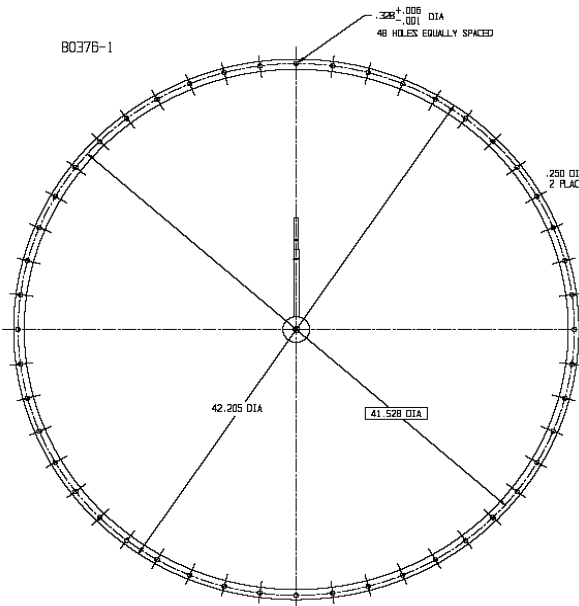
Qual performed on tank 80263-1.

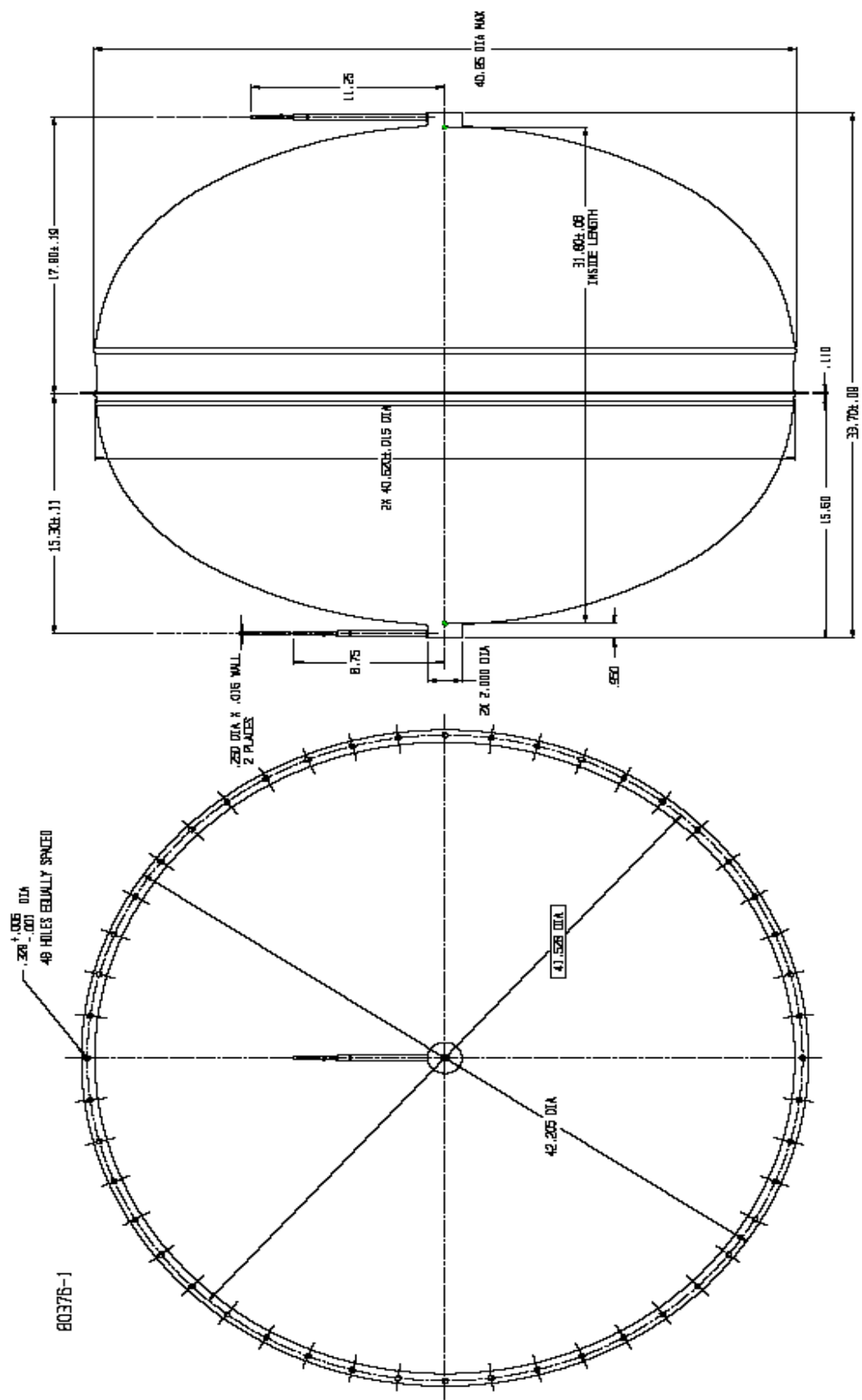
Notes:

- 1: Tooling owned by Northrop Grumman
- 2: Proprietary Document
- 3: This diaphragm is fully reversible
- 4: Burst report is 56-000120
- 5: This tank is similar to P/N 80263-1
- 6: Proof Test Fixture: T-1885
- 7: Tube protector is SK 808
- 8: Tubing material is 3AL-2.5V per AMS 4943
- 9: Fracture Critical

TUBE TYPE AND SIZE

TITANIUM	SIZE
80-376002-3, Pressurant Extension	.375 OD x .035 Wall x 7.31 (9.52 x .889 x 185.67 MM)
80-376002-5, Pressurant Interface	.250 OD x .016 Wall x 2.9 (6.35 x .406 x 73.66 MM)
80-376004-3, Propellant Extension	.375 OD x .035 Wall x 4.81 (9.52 x .889 x 122.17 MM)
80-376002-5, Propellant Interface	.250 OD x .016 Wall x 2.9 (6.35 x .406 x 73.66 MM)





80376-1