TANK TYPE	MOUNT	LOCATION
Diaphragm	Lugs	Girth

NORTHROP GRUMMAN

This is a 16.5-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 four (4) lugs parallel with and adjacent to the sphere mid-plane

Part Number 80303-1

ISO 9001 & AS 9100 REGISTERED

SIZE: 16.5-inch Sphere
SIZE: 419-mm

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000264
Qualification Test Procedure	50-000265
Qualification Test Report	56-000098
Cleaning	CPP 9106

TANK CHARACTERISTICS

Operating Pressure, psig	396	Total Volume, ci	2,300
Proof Pressure, psig	792	Prop Volume, ci	1,963
Cryo Proof, psig	NA	Max Design Wt, lbs	13.0
Burst Pressure, psig	1,584	Minimum Wall, inch	0.040

QUALIFICATION TESTS

Acceptance Test
Random Vibration
Internal Leakage High/Low Pressure
External Leakage
Proof Pressure cycles
Internal Leakage High/Low Pressure
External Leakage
Life Cycle & Expulsion Efficiency
Internal Leakage High/Low Pressure
External Leakage

DIAPHRAGM INFORMATION

Diaphragm P/N		80-271007-1
Diaphragm Mold P/N		SK 666
Diaphragm Gross Wt		.88 Lbs
Diaphragm Matl Type		AF-E-332
Material Specification	Note 2	90-000075
Diaphragm Processing	Note 2	90-000087
N-Ray Procedure		1002

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	27.30	Total Volume, l	37.69
Proof Pressure, bar	54.61	Prop Volume, l	N/A
Cryo Proof, bar	N/A	Max Design Wt, kg	5.90
Design Burst Pressure, bar	109.21	Minimum Wall, MM	1.02

FORGINGS

FORGINGS P/N	SUPPLIER	Die No
80011-63		
80-276061-1		

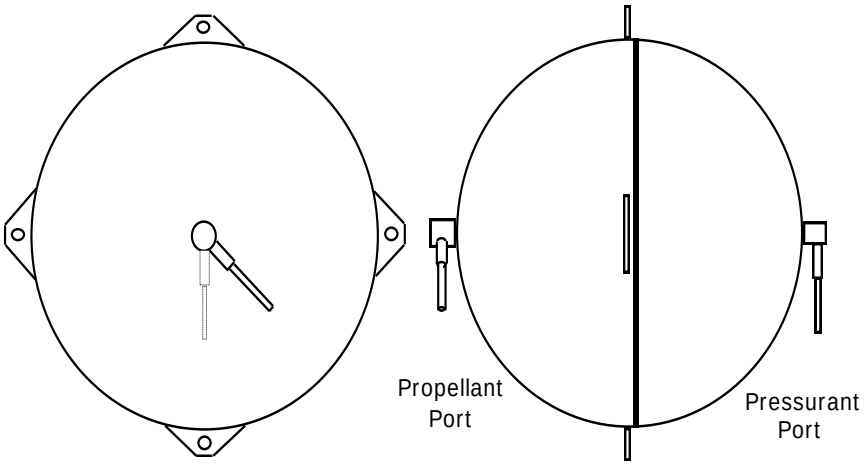
RING FORGING	RING SIZE, (Rough Machined)
80-214065-1, Retainer	16.75 +.06 OD x 15.5 -.06 ID x 1.4 +/- .06 Lg
80-271060-3, Lug	19.38 + .06 ODx17.19 -.06 IDx.87 +/- .06 Lg

TUBE TYPE AND SIZE

TRANSITION	SIZE
80-216001-1 (2)	.250 OD x .020 Wall

Notes:

1: Majority of tooling is owned by Northrop Grumman
2: Proprietary Document
3: Each roll ring will make 9 lugs
4: This tank is similar to 80275-1
5: Random vibration requires high strength bolts
6: Vibration fixture is T-2528
7: Proof pressure (792 psig) is fracture mechanics proof pres
System proof is 606 psig
8: Global Positioning Satellite (GPS)
9: Rockwell International (Downey)
10: Fracture critical



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