TANK TYPE	MOUNT	LOCATION
Pressurant	Strap	Other

NORTHROP GRUMMAN

This tank is a 9-inch spherical pressure vessel constructed of 6Al-4V titanium. This vessel has an all welded construction exterior. This tank contains a port for pressurant outflow.

Part Number 80345-1

SIZE: 9.44-inch ID Sphere

SIZE: 240-mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Qualification Test Procedure	50-000351
Acceptance Test Procedure	50-000352
Fracture Analysis Plan	54-000212
Qualification Test Report	56-000141
Cleaning	CPP 3669

Notes:

1: Northrop Grumman owns majority of this tooling

2: Customer furnished vibration fixture, including straps

3: Tube protector is SK 1086

4: Fracture Critical

5: General Electric Astro Space

6. Cryo Proof pressure test is no longer performed. We will conduct a fracture update & inspect this tank using fracture critical non-destructive inspection (NDI) techniques. (X-Ray & Penetrant)

PROGRAM INFORMATION

Program	DMSP & TIROS
Customer	Note 5
Customer P/N	2629323-1
Original Job No.	8722
Customer Installed Device	No
Customer Controlled Design	No

TANK CHARACTERISTICS

Operating Pressure, psig	4,500	Total Volume, ci	400
Proof Pressure, psig	6,700	Actual Volume	N/A
Cryo Proof, psig	See note 6	Actual Mass	7.17
Design Burst Pressure, psig	8,985	Max Design Wt, lbs	7.40
Actual Burst Pressure, psig	10,460	Minimum Wall, inch	0.132

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	310.26	Total Volume, l	6.6
Proof Pressure, bar	461.94	Prop Volume, l	N/A
Cryo Proof, bar	See note 6	Max Design Wt, kg	3.36
Design Burst Pressure, bar	619.48	Minimum Wall, MM	3.353
Actual Burst Pressure, bar	721.18		

FORGINGS

FORGINGS P/N	SUPPLIER	Die
80082-63	ARCTURUS	3326

TUBE TYPE AND SIZE

TRANSITION	SIZE
80-345001-1	.250 OD x .035 Wall

TUBE TYPE AND SIZE (Metrics)

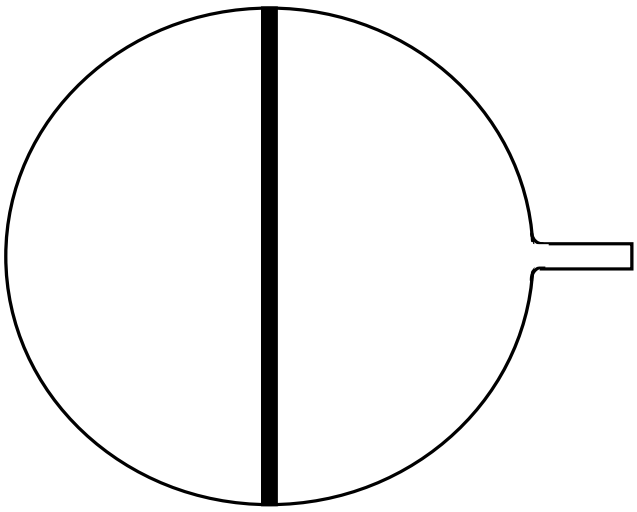
TRANSITION	SIZE
80-345001-1	6.35 x .889 mm

ACCEPTANCE TESTS

- Preliminary Examination of Product
- Volumetric Capacity Test
- Proof Pressure Test
- Volumetric Capacity Test
- Cryogenic Proof Pressure Test
- External Leakage Test
- Random Vibration Test
- External Leakage Test
- Outside Surface Quality Inspection
- Weld Quality Inspection
- Weight Test
- Final, Examination of Product
- Cleanliness Verification

QUALIFICATION TESTS

- Preliminary Examination of Product
- Volumetric Capcity Test
- Proof Pressure Test
- Volumetric Capcity Test
- Cryogenic Proof Pressure Test
- External Leakage Test
- Random Vibration Test
- External Leakage Test
- Outside Surface Quality Inspection
- Weld Quality Inspection
- Vacuum Integrity Test
- External Leakage Test
- Random Vibration Test
- External Leakage Test
- Cylce Life Test
- External Leakage Test
- Outside Surface Quality Inspection
- Weld Quality Inspection
- Final Examination of Product
- Burst Pressure Test



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