

TANK TYPE Diaphragm	MOUNT Tabs	LOCATION Mid Plane
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This is a 23-inch x 25 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) near the tank mid-plane. Mounting is accomplished by four (4) lateral tabs parallel with and adjacent to the sphere mid-plane.

Part Number 80323-1

SIZE: 23.13" ID x 25.46" Long
SIZE: 587.5 mm x 646.7 mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS		QUALIFICATION TESTS
Acceptance Test	50-000314	Operating Pressure, psig	552	Acceptance Test
Qualification Test Procedure	50-000315	Proof Pressure, psig	937	Vibration
Fracture Analysis Plan	54-000076	Cryo Proof, psig	NA	Internal Leakage
Qualification Test Report	56-000129	Burst Pressure, psig	1,104	External Leakage
Cleaning	CPP 3657	Actual Burst Pressure, psig	Note 6	Differential Pressure Test
				Internal Leakage
				Life Cycling
				Penetrant Inspection
				Radiographic Inspection
				Internal Leakage
				External Leakage
				Vibration
				Burst Pressure
				Radiographic Inspection
				Final Examination of Product

DIAPHRAGM INFORMATION

Diaphragm P/N	80-323007-1
Diaphragm Mold Tool Number	T-3129
Diaphragm Gross Weight	
Diaphragm Material Type	AF-E-332
Diaphragm, Material, Note 2	90-000075
Diaphragm Processing, Note 2	90-000087
N-Ray Inspection	1002

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	38.06	Total Volume, l	#####
Proof Pressure, bar	64.60	Prop Volume, kg	#####
Cryo Proof, bar	NA	Max Design Wt, kg	14.31
Burst Pressure, bar	76.12	Minimum Wall, mm	1.016
Burst Pressure, bar	Note 6		

HEMISPHERE FORGINGS

FORGINGS P/N	QTY	SUPPLIER	Die No
80-323061-1	2	ARCTURUS	3475

- Notes:**
- 1: Tooling belongs to Northrop Grumman
 - 2: Proprietary Document
 - 3: Metric anchor nuts were furnished by the customer.
 - 4: Tube protectors are SK 1031 & SK 1032
 - 5: Fracture Critical
 6. Tank pressure was held for thirty (30) seconds, depressurized to ambient pressure, visual examination, and drained

RING FORGINGS (Roughed Machined)

80-323063-1, Retain	3.44" +/- .06 OD x 22.0" +/- .06 ID x 1.7" +.25 Lg
	(595.4 mm +/- 1.52 OD x 558.5 mm +/- 1.52 ID x 43.2 mm + 6.4 Lg)
80-323063-3, Cylinder	4.0" +/- .06 OD x 22.44" +/- .06 ID x 3.56" + .25 Lg
	(609.6 mm +/- 1.52 OD x 569.98 mm +/- 1.52 ID x 90.42 mm + 6.4 Lg)
80-323065-1, Lug	23.87 +.13 OD x 22.25 +/- .06 ID x 4.0 +.25 Lg
	(606.29 mm + 3.3 OD x 565.15 mm +/- 1.52 ID x 101.6 mm + 6.4 Lg)

ACCEPTANCE TESTS

Preliminary Examination of Product
Pre-Proof Volume Determination
Proof Pressure
Internal (Diaphragm) Leakage
External Leakage
Expulsion Efficiency
Penetrant Inspection
Radiographic Inspection
Weight Determination
Final Examination of Product
Cleanliness Verification

PROGRAM INFORMATION

Program	EURECA
Customer	MBB/ERNO
Customer P/N	SPE 1200744
Original Job No	8418
Customer Installed Device	No
Customer Controlled Design	No

TUBE TYPE AND SIZE

TITANIUM	SIZE
80-323001-1 (2)	.250" OD X .016" Wall (6.4 mm x .4064 mm Wall)

