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TANK TYPE	MOUNT	LOCATION	PMD DEVICE
DIAPHRAGM	Tabs	MID-PLANE	

The propellant tank is a 23" diameter x 25" long pressure vessel constructed of 6AL-4V Titanium. Positive propellant expulsion is provided by a reversing AF-E-332 rubber diaphragm retained at the tank mid-plane. Mounting is accomplished by (4) equally spaced tabs parallel with and adjacent to the mid-plane. Connection is made to the propellant and pressurant compartments through tube stubs.

ATK Part Number 80447-1

SIZE: 23.13-inch **ID x 25.46** inches long
SIZE: 587.5 mm x 646.7 mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000593
Cleaning	CPP 3657

DIAPHRAGM INFORMATION

Diaphragm P/N		80-323007-1
Diaphragm Mold P/N		T-3129
Diaphragm Gross Wt		3 Lbs.
Diaphragm Matl Type		AF-E-332
Material Specification, Rubber		MT3-73
Diaphragm Processing	Note 2	90-000094
N-Ray Procedure		1002

Notes:

1: Tooling belongs to ATK
2: Proprietary Document
3: Metric anchor nuts were furnished by the customer.
4: Tube protectors are SK 1031 & SK 1032
5: Fracture Critical
6. This tank is a derivative of 80428-1

TANK CHARACTERISTICS

Operating Pressure, psig	417	Total Volume, in^3	7,261
Proof Pressure, psig	625	Prop Volume, in^3	7,261
Cryo Proof, psig	N/A	Prop Volume, lbs	250
Burst Pressure, psig	626	Max Design Wt, lbs	29.00
Actual Burst, psig	N/A	Minimum Wall, inch	0.040

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	28.75	Total Volume, l	119
Proof Pressure, bar	43.09	Prop Volume, l	119
Cryo Proof, bar	N/A	Prop Volume, kg	113.40
Burst Pressure, bar	43.16	Max Design Wt, kg	13.15
Actual Burst, bar	N/A	Minimum Wall, MM	1.016

RING SIZES

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

HEMI SIZES (Roughed Machined)

80-323063-1	23.44 +/-.06 ODx22 +/-.06 IDx1.7 +.25 Lg
80-323063-3	24.0 +/-.06 ODx22.44 +/-.06 ID x3.56 +.25Lg
80-323065-1	23.87 +.13 ODx22.25 +/-.06x4.0 +.25 Lg

TRANSITION TUBE TYPE AND SIZE (in.)

6AL-4V TO 304L	SIZE
80-447001-1	0.250" OD x 0.020" Wall
	6.35 mm x 0.508 mm Wall

QUALIFICATION TESTS

Qual performed on 80323-1

ACCEPTANCE TESTS

Preliminary Examination of Product
Pre-Proof Volume Determination
Proof Pressure
Post-Proof Volume Determination
Radiographic Inspection
Penetrant Inspection
Internal Leakage
External Leakage
Determination of Weight and Final Inspection
Cleanliness Verification
Final Examination

VACUUM RATED

YES

6033 East Bandini Boulevard
Commerce, California 90040

Telephone (323) 722-0222
Facsimile (323) 721-6002