

TANK & FUEL TYPE	MOUNT	LOCATION	PMD DEVICE
Simple PMD- NTO	Pad & Flex Plate	Cylinder & Ports	Vane

This tank is a 21-inch x48-inch long titanium tank & is constructed from titanium 6Al-4V with a nominal membrane thickness of 0.029" - 0.032". Mounting is provided by 1 welded sidemount & 4 strut supports located on the tank inlet & outlet bosses. The tank contains an internal Propellant Management Device, constructed from titanium perforated sheet. The PMD serves to maintain separation of NTO & gaseous pressurant, & to provide predictable gas-free liquid propellant expulsion from the tank under low or zero gravity conditions. The propellant & pressurant ports are 3/8" titanium tubes

Part Number 80406-1

SIZE: 21.25" ID x 48.08" Long
SIZE: 540 ID x 1,221 mm Long

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000518
Fracture Mechanics Plan	54-000148
Cleaning	CPP 3820

TANK CHARACTERISTICS

Operating Pressure, psig	300	Total Volume, ci	13,979
Proof Pressure, psig	375	Prop Volume, ci	13,979
Cryo Proof, psig	NA	Max Design Wt, lbs	25.70
Burst Pressure, psig	450	Minimum Wall, inch	0.017

ACCEPTANCE TESTS

Examination of Product
Volume & Proof Test
Vibration Test
External Leakage
Radiographic & Penetrant Inspection
Examination of Product
Cleanliness Verification
Data Review & Ship

Notes:

- 1: Tooling belongs to Northrop Grumman
- 2: This tank is Proton Launch Qualified
- 3: Fracture Critical

TANK CHARACTERISTICS (Metrics)

Operating Pressure, Bar	20.68	Total Volume, l	229.08
Proof Pressure, Bar	25.85	Prop Volume, l	229.08
Cryo Proof, Bar	NA	Max Design Wt, Kg	11.66
Burst Pressure, Bar	31.03	Minimum Wall, MM	0.432

FORGINGS

FORGINGS P/N	SUPPLIER	Die No
80-390061-1		
RING FORGING		RING SIZE, Rough Machined
80-390063-5, Center Section 22.38 +.12, OD x 20.93, -.09 ID x 25.75 +.25, -.00 L		

