

TANK TYPE	MOUNT	LOCATION	PMD DEVICE
Simple PMD MMH	Pads	Cylinder	Vane

This tank is a 35.5-inch x 80-inches long, carbon overwrapped titanium tank. The liner is constructed of titanium 6Al-4V with a nominal membrane thickness of 0.029"-0.032". Mounting is provided by 4 bonded sidemounts & 2 strut supports located on the tank inlet boss. The tank contains an internal Propellant Management Device assembly, constructed from titanium sheet & titanium woven screen. The PMD serves to maintain separation of liquid propellant (MMH) & gaseous pressurant, & to provide predictable gas-free liquid propellant expulsion from the tank under low or zero gravity conditions. gas-free liquid propellant expulsion from the tank under low or zero gravity conditions.

Part Number 80395-1

SIZE: 35.5-inch ID x 80.5-inch Long
SIZE: 901.7 x 2044.7-mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	
Protoflight Test Procedure	50-000483
Acceptance Test Procedure	50-000485
Bubble Point Test Procedure	50-000486
Induction Heat Treat	50-000487
QBS Report, Note 5	56-000171
Stress	96-011A
Fracture	96-009A
Cleaning	CPP 3815

TANK CHARACTERISTICS			
Operating Pressure, psig	300	Total Volume, ci	64,515
Proof Pressure, psig	375	Prop Volume, ci	64,321
Cryo Proof, psig	NA	Max Design Wt, lbs	93.2
Burst Pressure, psig	450	Minimum Wall, inch	0.029

ACCEPTANCE TESTS
Examination of Product
Vol Determinat
Pressure Drop Test
Vibration Testing
Tank Assembly Bubble Point Test
External Leakage
Examination of Product
Cleanliness
Data Review

Notes:

- 1: Tooling belongs to Northrop Grumman
- 2: This tank is qualified by similarity to P/N 80391-1
- 3: Fracture Critical

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, Bar	20.68	Total Volume, l	1,057.22
Proof Pressure, Bar	25.85	Prop Volume, l	
Cryo Proof, Bar	NA	Max Design Wt, Kg	42.28
Burst Pressure, Bar	31.03	Minimum Wall, MM	0.737

QUALIFICATION TESTS
Qual by similarity on 80391-1.

FORGINGS		
FORGINGS P/N	SUPPLIER	Die
80-391061-1		

TUBE TYPE AND SIZE	
TITANIUM	SIZE
80-391011-5, Pressurant	3/8-inch OD (9.52 MM)
80-391007-5, Fuel	3/8-inch OD (9.52 MM)

COMPOSITE MATERIAL	
WRAP	LINER
Only the cylinder section is wrapped	Titanium

