

| <u>TANK TYPE</u> | <u>MOUNT</u> | <u>LOCATION</u> |
|------------------|--------------|-----------------|
| Pressurant | Strap | Other |

This tank is a 13-inch spherical pressure vessel constructed of 6Al-4V titanium. Mounting is by the strap method. A single tube is provided for inlet and outlet operation.

Part Number 80197-1

SIZE: 13.386-inch ID Sphere

ISO 9001 & AS 9100 REGISTERED

| APPLICABLE DOCUMENTS | |
|------------------------------|-----------|
| Qualification Test Procedure | 50-000141 |
| Acceptance Test Procedure | 50-000140 |
| Qualification Test Report | 56-000057 |
| Cleaning | CPP 3348 |

| TANK CHARACTERISTICS | | | |
|-----------------------------|-------|--------------------|-------|
| Operating Pressure, psig | 480 | Total Volume, ci | 1,232 |
| Proof Pressure, psig | 805 | Prop Volume, ci | |
| Cryo Proof, psig | | Max Design Wt, lbs | 2.87 |
| Design Burst Pressure, psig | 1,073 | Minimum Wall, inch | 0.024 |
| Actual Burst Pressure, psig | | | |

| ACCEPTANCE ENVIRONMENTAL TESTS |
|---------------------------------------|
| Cryogenic Proof |

Notes:

- 1: Tooling owned by Northrop Grumman
- 2: Also used by HAC on their A10 program (A10 tank is a 80197-3 configuration)
- 3: Report 55-000085 is for P/N 80197-3
- 4: Fracture Analysis Plan for 80197-3 is 54-000129
- 5: Proprietary Document

| TANK CHARACTERISTICS (Metrics) | | | |
|---------------------------------------|-------|-------------------|-------|
| Operating Pressure, bar | 33.09 | Total Volume, l | 84.94 |
| Proof Pressure, bar | 55.50 | Prop Volume, l | NA |
| Cryo Proof, bar | 0.00 | Max Design Wt, kg | 1.30 |
| Design Burst Pressure, bar | 73.98 | Minimum Wall, MM | 0.610 |
| Actual Burst Pressure, bar | 0.00 | | |

| ACCEPTANCE TESTS |
|--------------------------|
| Visual Inspection |
| Dimensional Inspection |
| Proof Pressure |
| Leakage |
| Radiographic Inspection |
| Cleanliness Verification |
| Shock |
| Acceleration |
| Vibration |
| Leakage |
| Thermal Vacuum |
| Leakage |
| Pressure Cycling |
| Leakage |
| Final Proof Pressure |
| Burst Pressure |

| FORGINGS | | |
|---------------------|-----------------|------------|
| <u>FORGINGS P/N</u> | <u>SUPPLIER</u> | <u>Die</u> |
| 80-198061-1 (2) | | |

| TUBE TYPE AND SIZE | |
|---------------------------|---|
| <u>Titanium</u> | <u>SIZE</u> |
| 80-345001-1 | .250 OD x .035 Wall (6.35 x .889 MM) |

