

Aerial Device Inspection Report

Truck Number **FORSYTH CO./9077**
Report Number **24-493-2**
Test Date **9/24/2024**

Customer **RANDALL BRACKETT FIRE TRUCK REPAIR**
471 VINSON MOUNTAIN LOOP
ROCKMART, GA 30153

Location **FORSYTH COUNTY FIRE TRAINING**
Temp **84 deg** Humidity **66%**
Wind **6 mph**
Weather **CLOUDY**

Fire Truck Data

	Aerial Fire Truck	Chassis
Manufacturer	PIERCE	PIERCE
Model	100' TILLER	ARROW XT
Serial Num	4898117	4P1CA01H25A004641
Mfg Date	12/1/2004	12/1/2004
Hours/Mileage	1378	2350/144886

Test Type
Annual

☒ Visual
☒ Magnetic Particle
☒ Ultrasonic

Tests Performed

☒ Dye Penetrant
☐ Hardness
☒ Load Test

☒ Functional/Operational
☐ Spectroanalysis Hyd. Oil
☐ Waterway Test

☒ Repairs Recommended

☒ Immediate Repair Required

Remarks **Last inspection 10/24/23**
FORSYTH COUNTY FIRE DEPARTMENT: 404-450-4375
3480 Settingdown Road
Cumming, GA 30028

Please note! To receive your inspection certificate, you will receive a NOTICE FOR INSPECTION CERTIFICATE in the mail along with your invoice. The notice will list all items on this report that may require further action. Please have your department's AHI (Authority Having Jurisdiction) sign and date all of the noted items on this report and fax the signed report to 715-426-6941 or email to sales@atctest.com. If you have not received your notice, or if you have questions, please call 800-451-9087.

Test and Report Limitations

This report is provided to you with the understanding that American Test Center's responsibility is solely to conduct the test and assist you with an interpretation of the results; the decisions you make thereafter concerning the equipment are your exclusive responsibility, and American Test Center is not responsible for those decisions or their consequences. Inspection criteria is based on NFPA 1910 Chapter 23 "Performance Testing of Aerial Devices" (2024 edition).

WARNING!

These tests determine the state of the equipment at the time the tests were performed only! Any overloads, accidents, or abuse of this equipment after the test could result in the test performed no longer being valid, as structural damage may have occurred even though the equipment visually may appear intact and usable after said overloads, accidents, or abuse.



BRIAN CARON
CELL # 864-386-6397

Results reviewed with.

Please note! This signature indicates you have reviewed the results of this report with the test technician.

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Defect Comments, review with tech on site

Class 1 Defects: Serious, recommend shut down and out of service

Lacing, Fly

Other

Left side of section, attic ladder not secured.
"Top attachment mount, damaged with top of lock missing"
"Possible head injury can occur"
REFER TO MFG. REQUIREMENTS

Sign and date

Relut 10/10/24

Class 2 Defects: Caution, use with Caution

Lower Boom

Rest Support

Lower attachment bolt (Visible from tiller frame area),
top attachment bolt missing/not installed.
REFER TO MFG. SPEC./REQUIREMENTS

Sign and date

Relut 10/10/24

Upper/Extend Cylinder

Left side cylinder, rod jam nut, loose on rod.
"Marked with BLACK marker"
REFER TO MFG. SPEC./REQUIREMENTS

Relut 10/10/24

Class 3 Defects: Repairs needed, recommend soon or next maintenance

Aerial Ladder Tests

WILL ADDRESS AT NEXT PM

Operational Test

Refer to MFG. Rotation spec./requirements,
"Refer to rotation time test readings"

Sign and date

Outriggers

Stiff Legs/Beam/Housing

Officer side horizontal beam, fluid (Hydraulic) visible inside beam.
RECOMMEND: CLEAN & REINSPECT

Stiff Legs/Beam/Housing

Officer side outrigger, STEEL cover plate, dent /bend visible lower right corner.
REFER TO MFG. REQUIREMENTS

Chassis

Hydraulic Pump & Mounting

Fluid (Hydraulic) leak with drops forming.
REFER TO MFG. REQUIREMENTS

Other

NOTE:
Recommend performing all other tests/inspections specified by NFPA 1911-17 including
chassis, pump and, electrical.

Pedestal

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Defect Comments, review with tech on site

Class 3 Defects: Repairs needed, recommend soon or next maintenance

Sign and date

Other

WILL ADDRESS AT NEXT PM

Aerial paint worn with surface rust visible in numerous locations,
REFER TO MFG. MAINTENANCE REQUIREMENTS

Other

4 of 4 aerial sections, right side hand rails,
BLACK alignment lines don't align with aerial fully retracted.
REFER TO MFG. SPEC./REQUIREMENTS

Other

Aerial paint worn with surface rust visible in numerous locations,
REFER TO MFG. MAINTENANCE REQUIREMENTS

Non 1911 Chapter 22 items

Not covered under the scope of this inspection

Engine, fluid (oil) leak with drops forming.

Class 4, Inspection Detail

Aerial Ladder Tests

Max Elevation Load Test Max elevation load test, elevated 75 deg and fully extended, loaded to 1000 lbs for 5 minutes. No permanent deformation or twist noted.

Horizontal Load Test Horizontal load test, elevated 0 deg, loaded 500 lbs for 5 minutes. No permanent deformation or twist noted.

Operational Test After passing load test, operational test procedure was performed. Ladder was taken to full elevation, maximum extension, then rotated 90 degrees. All functions were completed smoothly and without undue vibration. Completed in 60 seconds.

Operational Test ELEVATION: 50 seconds, "High idle" (1400-1000-2900 psi)
"From stow position, to full elevation"

Operational Test STOW: 58 seconds, "High idle" (1650-1500 psi)
"From full elevation, to stow position"

Operational Test ROTATION(90 Degree-Left): 28 seconds, "High idle" (2350-2300 psi)
(360 Degree-Left): 112 seconds, "High idle" (2350-2300 psi)

Operational Test ROTATION(90 Degree-Right): 30 seconds, "High idle" (2200 psi)
(360 Degree-Right): 116 seconds, "High idle" (2200 psi)

Operational Test EXTENSION: 48 seconds, "High idle" (2500-2700 psi)
"(Full elevation) From retracted position, to full extension"

Operational Test RETRACTION: 48 seconds, "High idle" (1200 psi)
"(Full elevation) From full extension, to retracted position"

Measurements

Drift Test-Elevation Cylinders Left elevation cylinder drift .025" at 1 hour.
Right elevation cylinder drift .025" at 1 hour.

Drift Test-Extension Cylinders Left extension cylinder drift 0" at 1 hour.
Right extension cylinder drift 0" at 1 hour.

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Class 4, Inspection Detail

Chassis

Hydraulic Components & Lines Aerial hydraulic components mounted on chassis inspected for kinks, cuts, abrasions, and leakage.

Pedestal

Mounting Bolts & Welds Pedestal attachment welds visually inspected for flaws, none found.

Structure Visual inspection of critical welds, no defects found.

Hydraulic Swivel Joint Rotation hydraulic swivel inspected for leakage and proper attachment.

Hydraulic Component & Lines Pedestal hydraulic components inspected for kinks, cuts, abrasions, and leakage.

Swing Drive Gearbox Mounting Bolts 1/2" grade 8 bolts torque checked at 75 ft-lbs. No defects noted.

Rotation Bearing

Lower Bearing Attachment Weld & Bolts 7/8" grade 8 bolts torque checked at 400 ft-lbs. No defects noted.

Condition Rotation gear inspected for missing or damaged teeth, pinion-to-gear alignment, and proper lubrication.

Turntable

Structure Visual inspection of turntable structure, no defects found.

Hydraulic Components & Lines Turntable hydraulic components inspected for kinks, cuts, abrasions, and leakage.

Lower Control Operation Lower controls are clearly labeled and functioning properly. Interlocks engage properly.

Alignment Indicator Turntable alignment indicator installed and functioning properly.

Lower Boom

Heel Pins Heel pin inspected for proper installation and operation.

Lift Cylinders Cylinder rods inspected for pitting, scoring and other defects. Cylinder rod to barrel seal inspected for leakage.

Lift Cylinder Attachment and Pin Retainers Lift cylinder attachment points are properly installed and functioning normally.

Upper/Extend Cylinder Attachment and Pin Retainers Upper boom extension cylinder attachment points inspected for defects.

Rails, Base

Structural Welds Weldments visually inspected for defects, no defects found.

Dents & Gouges Base rails inspected for straightness and signs of wear, ironing, dents, or corrosion.

Wear Pads & Babbitt Slides Guides, babbitted areas, and wear pads inspected for proper operation and deformities.

Rail Glove Rail gloves removed for inspection, no defects found.

Cable Sheaves Cable sheaves inspected for signs of wear, free movement during operation, proper retainers, and proper lubrication.

Sheave Mounting Brackets Sheave mounting bracket welds visually inspected for defects.

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Class 4. Inspection Detail

Hand Rails, Second

Welds & Bolts Accessible welds visually inspected for fractures and other defects. Fasteners inspected for cracks and other defects, and cracks in surrounding material

Dents, Gouges, or Bent Rails Hand rails inspected for misalignment

Rails, Third

Structural Welds Weldments visually inspected for defects, no defects found.

Dents & Gouges Base rails inspected for straightness and signs of wear, ironing, dents, or corrosion.

Wear Pads & Babbitt Slides Guides, babbitted areas, and wear pads inspected for proper operation and deformities.

Cable Sheaves Cable sheaves inspected for signs of wear, free movement during operation, proper retainers, and proper lubrication.

Sheave Mounting Brackets Sheave mounting bracket welds visually inspected for defects.

Cable Attachment Points Cable attachment points visually inspected for proper installation and operation.

Rail Inspection Rails inspected for straightness and any signs of wear, ironing, dents, or corrosion.

Rungs, Third

Structural Welds Weldments visually inspected for defects, no defects found.

Dents/Gouges/Bent Rungs Rungs inspected for straightness, signs of ladder lock damage, damaged or loose rung covers and rung cap castings, and signs of cracks or missing rivets.

Lacing, Third

Welds & Bolts Accessible welds visually inspected for fractures and other defects. Fasteners inspected for cracks and other defects, and cracks in surrounding material

Dents, Gouges, or Bent Lacing Vertical and diagonal braces inspected for straightness, dents, and other deformities.

Hand Rails, Third

Welds & Bolts Accessible welds visually inspected for fractures and other defects. Fasteners inspected for cracks and other defects, and cracks in surrounding material

Dents, Gouges, or Bent Rails Hand rails inspected for misalignment

Rails, Fly

Structural Welds Weldments visually inspected for defects, no defects found.

Dents & Gouges Base rails inspected for straightness and signs of wear, ironing, dents, or corrosion.

Wear Pads & Babbitt Slides Guides, babbitted areas, and wear pads inspected for proper operation and deformities.

Cable Sheaves Cable sheaves inspected for signs of wear, free movement during operation, proper retainers, and proper lubrication.

Sheave Mounting Brackets Sheave mounting bracket welds visually inspected for defects.

Cable Attachment Points Cable attachment points visually inspected for proper installation and operation.

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Class 4, Inspection Detail

Cables

- Third - Fourth, Right Extend Lay length = 1.250", nominal diameter .313", and measured diameter .305".
Total diameter reduction is 2.56%. Greatest outer wire wear is 5%.
- Third - Fourth, Left Retract Lay length = 1.250", nominal diameter .313", and measured diameter .305".
Total diameter reduction is 2.56%. Greatest outer wire wear is 5%.
- Third - Fourth, Right Retract Lay length = 1.250", nominal diameter .313", and measured diameter .303".
Total diameter reduction is 3.19%. Greatest outer wire wear is 5%.

Fifth Wheel

- Lower Mounting Bolts 7/8" grade 8 bolts torque checked at 400 ft-lbs. No defects noted.
- Mounting Welds Fifth wheel mounting welds visually inspected for defects, none found.

Waterway

- Components: Other NOTE:
Smooth bore installed at time of inspection.

General

- Capacity Chart Mounting Capacity chart is present, proper, and legible.
- Lower Control Placard at Turntable Lower control placard is present, proper, and legible.
- Controls
- ATC Tool Calibration Torque Wrench, Precision C4D600F, serial number 14615, calibration due on 10/31/2024
- ATC Tool Calibration Torque Wrench, Precision C3FR250F, serial number 127401, calibration due on 10/31/2024
- ATC Tool Calibration Mag Particle, CONTOUR B300, serial number 015, calibration due on 10/31/2024
- ATC Tool Calibration Ultrasound, Dakokta CMX DL+, serial number 9430, calibration due on 10/31/2024
- ATC Tool Calibration Dillon, Dillon 5000#, serial number D12017, calibration due on 10/31/2024
- ATC Tool Calibration Dillon, Dillon 2000#, serial number D931240, calibration due on 10/31/2024
- Other NOTE:
Copy of last aerial inspection was attached to signed copy of "24-493-2" &, mailed to ATC office.