

VAN LADDER ANNUAL INSPECTION CHECKLIST
For Models T, TR, TRS (S/N 5000 – 6271)

Van Ladder Owner's Name: _____

Van Ladder Model # _____ **Van Ladder Serial #** _____

Vehicle VIN: _____ **Vehicle Mileage:** _____

Inspection Date: _____

✓ = Acceptable R = Repair or Adjustment Needed N/A = Not Applicable

Entire Unit

- Ensure all structural fasteners are secure and free of rust.
- Ensure all visual or audible safety devices are working properly
- Ensure all operational controls and limit switches are operating properly.
- Open and inspect all electrical boxes
- Check for missing or illegible decals or placards.
- Check all wire rope (cable) for rust, fraying, kinking, crushing, or improper routing.

Ground Level Exterior

- Rear access ladder – fasteners tight, structure and welds sound
- Outrigger (if equipped) – fasteners tight, structure and welds sound
- Gutter mount system and Vehicle gutter – fasteners tight, mount castings and other structure and welds sound (no cracks or corrosion)
- Front platform and ladder – fasteners tight, structure and welds sound, ladder operates properly
- Tie-down straps are secure and in good condition
- “Electrocution Hazard” decals – intact and legible on all four sides of vehicle
- Vehicle Tires – Tread wear & pressure at max cold PSI rating
- Inspect vehicle suspension components (springs, shackles, sway bars, etc.)
- Vehicle Battery and wiring leads – Load Test battery, Terminals clean and tight, Van Ladder power lead and circuit protection is in good condition.

Inside vehicle

- “Overall height” decal in cab is in a visible location & properly labeled.
- “Stow Lock Down” decal is in a visible location and legible.
- Operator's manual stored properly in vehicle
- Slope level indicator is visible on dash
- Auxiliary Batteries – Load Test, Terminals clean and tight
- Ensure auxiliary battery charging and monitoring system (if equipped) is operating correctly and batteries are fully charged.
- System Brain or Battery box circuitry-check for evidence of excessive heat, burnt relays, loose or damaged wires or connectors
- Charging Components – Operating properly, wires and connections sound
- Main Power Cab control – Operating properly, circuit protection intact
- Remote Control (if equipped) – Operating properly, components sound

Rotation Ring, Carriage, & Lift Arm

- Base Ladder pivot points – fasteners tight, structure and welds sound
- Rotation Carriage – fasteners tight, structure and welds sound
- Rotation ring – fasteners tight, structure and welds sound (check for elongated holes and pinched or separated channel)
- Inspect condition of structure, fasteners, pins, shafts, bearings, etc that are associated with the moving areas on the Van Ladder
- Slip Ring – inspect brushes and contact rings for tarnish or indications of excessive heat, ensure connections are secure and wires not twisted, inspect relays for indications of burnt contacts, inspect condition of wiring harness from Brain Box, ensure all fasteners are tight, cover installed properly
- Rotation Rollers – inspect for flat spots, proper movement, & lubricate as needed
- Rotation Power unit – fasteners tight, mount structure and welds sound, check for oil leaks, inspect motor for excessive dust, moisture, and proper brush length (replace if below ½")
- Rotation Shaft, & Cog wheel – inspect for secure fasteners, tight keyways, visible damage, and proper operation
- Lift Arm – fasteners tight, structure and welds sound, track rollers turning freely, bushings not excessively worn
- Stow Cradle (if equipped) – Inspect for visible damage
- Stow alarm switch operating properly

Ladder Boom

- Base Ladder – fasteners tight, structure and welds sound, no sharp edges on handrails, inspect pivot points and fasteners for excessive wear or corrosion.
- Check continuity on ground strap between Boom and Rotation carriage near pivots.
- Fly Ladder – fasteners tight, structure and welds sound, no sharp edges on handrails, inspect bucket pivot points for excessive wear, all rollers operating properly
- Bucket wiring harness and Power track – fasteners tight, no visible damage or excessive wear, properly routed, secured, & protected
- Relay Box(es) – Ensure connections tight, check for evidence of heat, condition of relays and circuit breakers, exterior plugs, circuit breakers, and wires
- Base Control Box (Emergency Override) – Box and switches are secure and operating properly.
- Telescopic and Boom Angle Limit Switches – fasteners tight, no visible damage, proper switch operation and no indications of bypassing
- Decals – ensure all warning and operational decals are intact and legible

- Lift Power unit – Inspect gearmotor and cones. Ensure fasteners are secure, cables tracking properly on cones, upper and lower limit switches deactivating unit properly. Check motor for oil leaks, inspect motor for excessive dust, moisture, and proper brush length (replace if below ½”) ensure cover is installed. Brake is sound and functioning properly.
- Lift Cable – Inspect cable for signs of rust, fraying, or any visible damage. Ensure cable is tracking properly on pulleys. Check service records; Minimum cable replacement interval: 2 years.
- Telescopic Power unit – fasteners tight, check for oil leaks, inspect motor for excessive dust, moisture, and proper brush length (replace if below ½”) ensure cover is installed, T-brake is sound and functioning properly
- Telescopic Shaft & Drums – inspect for excessive wear, tight fasteners and keyways, proper drum alignment
- Telescopic Cables – Inspect all cables for frays, corrosion (rust), abnormal wear & proper routing... Check torque on telescopic cable anchor fasteners and adjust if necessary (Min: 25 in/lbs, Max: 35 in/lbs)...minimum cable replacement interval: 3 years.
- Conduct Gearmotor Load Tests as specified below. Document the results here:

Lift Gearmotor creep distance: _____ inches in 15 minutes

Telescopic Gearmotor creep distance: _____ inches in 15 minutes

Test Procedure for Lift Gearboxes:

1. The bucket shall be loaded with 300lbs of weight
2. Raise the boom approximately 6” above where the lift arm scissor disengages.
3. Extend the fly ladder to the maximum reach allowed by the limit switches.
4. Measuring from the bucket to the ground, the unit shall not settle more than 1” in a 15 minute time period.

Test Procedure for Telescopic Gearboxes:

1. The bucket shall be loaded with 300lbs of weight
2. Raise the boom to its full elevation
3. Extend the fly ladder incrementally, starting and stopping 6-8 times and taking note of any delay in movement when the motor begins to run. There should not be any delay, as this would indicate the gearbox is slipping at startup.
4. After extending the fly ladder 3-4 feet, measuring from the back end of the fly ladder to a fixed point on the base ladder, the unit shall not settle more than 1” in a 15 minute time period.

Cage Bucket

- Cage Bucket weldment: fasteners tight, structure and welds sound, no sharp edges on handrails, inspect pivot points for excessive wear, ensure proper operation of door and mid-rail cables
- Decals – ensure all warning and operational decals are intact and legible
- Fall Arrest Anchor – ensure good condition and fasteners tight
- Ensure all electrical wiring is sound and properly routed, secured & protected
- Linear Actuator – inspect for damage, tight fasteners, proper operation
- Bucket Control Box – inspect wire condition, connections, drain hole, toggles and seals, damage to box, decals intact and legible, properly operating
- Ensure E-stop switch is operational and in good condition
- Bucket Leveling Box – no visible damage, properly operating
- Bucket Tilt switch (if equipped) - Inspect operation and condition
- Bucket Stow Lock switch (if equipped) – Inspect operation and condition
- 110V option – test GFCI receptacle and all wiring and components associated with this option

Accessory Items (*Inspect if so equipped*)

- The following accessory items have been inspected for structural soundness and proper operation, decals are intact and legible, electrical wiring and connections are sound, items operate properly and safely:
- Accessory Items inspected (*list*):

Lubrication

- Ensure all components are properly lubricated as specified in the *Lubrication* section of the Van Ladder owner's manual.

Final Testing

- Perform operational testing as specified in the Van Ladder owner's manual.
- Perform stability testing specified by ANSI A92.2:
 - With 450 lbs in bucket, boom horizontal at maximum allowable extension off side of vehicle. Vehicle and Van Ladder must remain stable, with no structural damage.
 - With 400 lbs in bucket, on a 5 degree ground slope, boom horizontal at maximum allowable extension off side of vehicle. Vehicle and Van Ladder must remain stable, with no structural damage.

VAN LADDER ANNUAL INSPECTION SUMMARY
For Models T, TR, TRS (S/N 5000 – 6271)

THIS PAGE MUST BE SUBMITTED TO BRINK'S MFG. FOR CONTINUED PARTS AND SUPPORT

Van Ladder Owner's Name: _____

Van Ladder Serial # _____ Vehicle VIN: _____

Inspection Date: _____ Vehicle Mileage: _____

Inspection PASSED / FAILED (circle one)

Summary of Findings:

(Note items needing corrective action, and how resolved.)

Inspector's Signature _____

Inspector's Name (printed) _____

Company Name: _____

Address: _____

State/ ZIP: _____ Phone: _____

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FAX TO: 507-826-3814 or EMAIL TO: aerialhelp@vanladder.com