This checklist grew from Tom Boles desire in early 2001 to make sure his next trailer was as near perfect as possible before he took delivery. He used it in his purchase of a 32' TT in February 2001 and except for a hidden water leak that took a couple months to uncover, the checklist served him well. It has been edited and updated with the 2015 Lance trailer in mind by Jerry Hall.

While Lance provides excellent warranty after sale service if you are near the factory, your best source for such service is the selling dealer. <u>Unlike automobiles, dealers other than your dealer are not obligated to do warranty repairs.</u> That is a major reason the PDI is so important.

Following is Tom's great advice:

The goal of a Pre Delivery Inspection (PDI) checklist is to give the new trailer owner "food for thought" for the time when they take delivery of their new RV. Many people don't think about these things in detail until months later, when a problem arises during their first camping trip and spoils the outing for everyone. By then, the dealer's service center is booked for the season and the owner has little or no alternative than to schedule a repair and wait.

- I advocate a full "New Owner PDI" while the trailer is still on the dealer's lot and still belongs to the dealer. Only when everything in the trailer is cosmetically and functionally correct should the new owner sign the paperwork and take delivery.
- Don't allow yourself to be pressured into accepting the trailer before you are satisfied! This way, new trailer problems can be quickly and easily corrected and the parties involved can do so on a clear business-like basis.
- This list is a compilation of several available on the net along with ideas and suggestions from my own experience, thinking & reading. No guarantees are made on the efficiency or correctness of these procedures or that your dealer will agree to any or all of them (although he should!) Your mileage may vary.

If you don't understand some of the procedures, bring a knowledgeable friend or have the dealer's PDI person demonstrate & explain in detail to help your understanding. A still camera or video camera along with this checklist, maybe a tape recorder and some scratch paper are all useful to have during the PDI for your future reference.

Please email me with comments or suggestions. Tom Boles, SF Bay, Tom boles@yahoo.com

(This updated version created by Jerry Hall. Contact <u>jerhall@sbcglobal.net</u> for comments and corrections or post suggestions on lanceowners.org/ Trailer Talk.

## **Preparation and Items to bring for PDI:**

- Old clothes or overalls for underneath inspection
- Flashlight with a strong beam
- Screwdriver with a straight, Phillips, and square bits
- 110V receptacle tester
- Roll of blue masking tape to mark any items to be attended to by the dealer
- Tire pressure gauge (or borrow from dealer)
- Delivery invoice for the trailer. It will show all the standard equipment and ordered options and should be compared to what was delivered. Pictures from the glossy brochure will also help.
- Coffee cup for microwave 5 min. boil test. Might as well bring instant caffeine too! You will need it.
- Notebook and pencil to document "Punch List" of things to be done, questions, and information about the trailer.
- Camera
- Movie DVD, music CD and audio cable with mini jacks
- Review the Lance trailer Users manual and supplier's manuals available here: http://www.lancecamper.com/owner-support/
- You may want to watch the Lance Videos (trailer related) available here: <a href="https://www.youtube.com/channel/UC0vYT6Mke4Sb0kjrw2WLU5A">https://www.youtube.com/channel/UC0vYT6Mke4Sb0kjrw2WLU5A</a>
- Join the Lance Trailer Forum <a href="http://lanceowners.hoop.la/forum/trailer-talk-1">http://lanceowners.hoop.la/forum/trailer-talk-1</a> and make note of any recent issues with trailers. Add them to your list as a double check that the factory has dealt with them in new trailers.

You will need the understanding & cooperation of your dealer for this process, as it probably involves far more depth & detail than they normally anticipate and schedule for. Make sure they know about it in advance. (You may get a better-prepared trailer if you do!) At the very least, tell the person doing the "owner inspection" or "walk through" what you intend to do, give him or her a copy of this checklist and work with them to plan the time accordingly. A sense of humor will also come in handy!

Finally, my assumption for this PDI is that propane tank(s) are full, 110V shore power is available, city water and a hose are located close by. A fully charged battery must be connected as well. Hopefully sewer connections, a dump station, or at least a drain for clean water is available to test the tank systems and valves.

The Lance Trailer is a quality product, and it goes through an inspection at the factory and at your dealer. It is likely that you will find few items that need to be fixed. That said, the best time to deal with those items is during the PDI.

**OUTSIDE WALK AROUND** — An inspection should take around one hour. At this point, you're generally searching for anything that does not look right. Mark the "OK" column if item has been inspected is OK, and check the "?" column for follow-up items. Make notes on questioned items.

# Top of Trailer

**Roof Sealing & Fixtures**— You will need to get up on the roof here, so round up a ladder or carefully inspect the one on the back of the unit if you are going to use it.

**Ladder** mounting points solidly attached to the body, sealed well, and the rungs are firmly fixed to the frame?

**Roof seams, gaskets** and any other place that the roof material has been cut or holes drilled all sealed and weather tight?

**Shrouds & covers** intact, unbroken and properly seated on the roof? Proper polyurethane caulking should have been used to seal all places where the roof has been penetrated.

Air conditioner(s), vents, antennas, sewer vents, and side seams sealed and intact?

**Roof membrane**: Any defects such as bubbles (large and small), delamination, foreign objects or protruding screw or nail heads under the membrane?

## **Sides of Trailer**

# **Entry Doors**

- Gasket on all doors have proper adhesive and coverage?
- Door from inside sits flush against the inside of the doorjamb?
- Each key works in the appropriate lock?
- Keyless entry and key fob work?
- Doors open & close smoothly and lock without undue effort?
- Hinges tight and secure?
- Screen door opens smoothly alone and locks to the main door without any extra effort?
- Pull out steps operate smoothly and are sturdy?
- Assist handle sturdy and firmly affixed to trailer?

### Windows

- Properly aligned and sealed?
- Any condensation between the panes of glass?
- Glass damaged?
- Frame bent?

## **Baggage Compartments**

- Open and close each door checking for alignment and gasketing.
- Do floor coverings or walls show any signs of moisture that might indicate rain leakage?
- Compartment lighting work properly?
- Door hold-opens hold the door correctly and safely?
- Keys and locks work properly?

### Sewer & Fresh Water Tanks and Connections Add water to each tank (fresh, grey and black)

- Does water enter fresh water tank easily? Is fill tubed kinked in any way?
- Valves and connections: none broken or deformed?
- Does each valve or fitting work?
- Verify that there are no leaks and that tanks drain properly.
- Does black tank back flushing system work?
- Does low point drain work for the fresh water system?
- Any leakage under the tanks?

### **Telephone & Cable TV Connections**

- Weather cap present for each connection?
- Connectors properly identified & mounting plates properly sealed?

### **Propane** (The dealer should have propane in the tank(s) for the PDI.)

- Does the stove light when you switch between propane tanks?
- Confirm that an overall propane leak test has been performed on both pigtails between the tanks and regulator and the rest of the system?
- Locate main shut off valve for each tank. Turn them off before you leave the dealer.
- Understand tank switch over system and "empty" indicator.

# Paint & Siding

- Check the paint finish on the RV. Mark any flaws with blue masking tape.
- Sight down the side of the unit to check for bumps or depressions.
- Divide each side of the unit into 2, 3 or 4 sections and inspect for siding issues: color variations, dents or irregularities.
- Do the same for the ends of the unit
- Is the vinyl film used for graphics free of flaws, air bubbles and firmly fixed and aligned to the trailer?

### Tires and Wheels

- Inspect tires and wheels for flaws.
- Cap on each valve stem?
- Tires Inflated to manufacturer's standard pressure?
- Lug nuts torqued properly?
- Identify wheel removal procedure, jacking point and what kind of jack to use.
- Identify what lug nut wrench to use. Supplied? Your tow vehicle's?

# **Spare Tire**

- Understand location and how to remove.
- Check the condition & pressure of the spare tire.
- Cap on valve stem?
- Wheel and tire in new condition?

**Chassis** (Put on some old clothes or coveralls and get a good-sized piece of cardboard or carpet to make it easier to lie on your back while checking around under the trailer.)

- Are there water leaks? (Hook up the city water to pressurize the water lines so you can check for leaks underneath.) Have your assistant turn on each water valve, flush the toilet, run water in the shower.
- Fill the grey tank and the black tank about ¼ full and make sure there are no leaks.
- Inspect wiring, shock absorber attachments, and in general every place that a wire or pipe could rub against something that could cause a problem later.
- Are tank coverings all ok?
- Any unpainted or rust spots on the frame?
- Is trailer "Box" attached well to frame? No gaps or discontinuities?

# Awnings

- Extend and retract awning: Does it operate smoothly and quietly?
- Does awning lock as it should in the retracted position, safely for travel?
- Do all springs, locks and supports work well and are they aligned?
- Wiggle the mounting points for the support arms: Are they solidly mounted to the body?
- Awning lights work OK?
- Understand and test the awning automatic retract system.

# Slide Out Operation

- Understand the mechanism that extends and retracts the slide. Operate it several times and understand any restrictions on operation. Understand what must be clear for a safe retraction.
- Check the seals around the slide out when the slide is retracted.
- Check for bolting attachment of the slide out where it is attached to the trailer. This has become detached in the past. Likely redesigned by now.
- Check rollers under slide out. Install metal runners if signs of wear under the slide out.
- Any places where you can see light or detect airflow? Use flashlight to look into dark corners.
- Check for metal shavings on the floor and the base of the slide out and signs of the gear teeth not properly aligning with the runners.
- Perform the manual retraction as if the automatic mechanism had failed.
- Look for proper alignment and clearance over flooring.
- Check the under-slide area for proper routing of wires or cables.
- Nothing rubs on the tires (parts of the slide, wiring, insulation, etc.) when slide is retracted?
- Verify successful operation of the slide out awning cover.
- Locate and understand the slide out control computer.

# **Edge Trim Caulking**

• Check caulking at all interfaces between exterior trim pieces and panels to insure they have no gaps, and are weather tight. (Windows, doors, corners, roof line, fixtures...)

## **Outside Lights**

- Hitch light works?
- Side lights work?

## Battery

- Battery box ventilated?
- Are the batteries in good external condition, secure and protected?
- Compartment doors and locks work properly?
- Verify that no battery cables are rubbing on any part of the frame.
- Connections all firm and solid? Wires and cables well secured?
- Are the battery cells filled to the proper level?
- Locate any <u>outside</u> fuse boxes, eg. battery or electric jack, or?
- Understand the battery shut off switch used during storage of the trailer.
- Understand the battery type provided and how to maintain them.
- Is the battery of adequate capacity? Did you ask for an upgrade to group 27 or up, or to a different type of battery? Did you request dual batteries?

## Stabilizing Jacks

- Manual jack handle supplied?
- Lower and raise manually and electrically (if installed.)
- Listen and observe for smooth function
- Properly attached to trailer when extended? Bent? Note any weakness or flaws.

# **Tongue Jack**

- Operate the jack, up and down and check for smooth and quiet function.
- Locate the inline fuse or fuse box for separate protection of the jack power. Consider getting a spare fuse.
- Return trailer to a "level" position.

**INSIDE FIT AND FINISH** — Now it's time to go inside. In general you are looking for things that are not finished correctly since it is really too late to inspect the design of anything.

# Is it what you ordered?

- Are all standard features listed in the current brochure present?
- Are all optional features on your order sheet installed?
- Is the decor what you ordered?

**Is it clean?** A quick overall walk-thru to look for:

- Scratches and/or dirt on floor or appliances?
- Dirt or stain on upholstery?

#### **Cabinets**

- Inspect & open all of the cabinets and drawers:
- Door hinges and latches work smoothly and accurately and close so that they will not open on the road?
- Plumbing and wiring that enters the cabinets well sealed, fastened, and neat?
- Do drawers open and then lock closed so that they will not open on the road?
- Any evidence of water leaks?
- Do edges of cabinet line up evenly and straight with walls, floors and each other?
- Run your hand along all edges, front & back to check for and delamination or loose edges on molding or vinyl wraps (you may want to wear gloves for this part)

# Molding & trim

- Examine all the trim on walls, doors and furniture for flaws.
- Is everything fastened well and not loose?
- Are any nails or staples protruding?

**Lighting** (at this point, only 12V lighting can be tested, as the unit is NOT connected to 110V shore power until later.)

- Operate every light switch and observe its correct function.
- Use the monitor panel to check battery levels.
- Locate 12 volt fuse box. Ask for spare fuses and tape inside box.

#### Closets and Man Doors

- Open and close all doors checking for free operation, proper alignment, and secure locking for on the road
- Hanger rods should be properly fastened, sturdy and secure for travel under the load of clothing.
- Check out any closet lighting and switches.

### Furniture

- Examine and sit in every piece of furniture to check for construction, upholstery, pattern and cloth matching.
- Check out the dinette by making it a bed with the appropriate cushions.
- Does table sit firmly and square on rails when made up as a bed?
- Do the same with the couch or sofa.

#### Windows

- Does every window open, close easily and latch safely for travel?
- Do the two egress windows or emergency windows operate smoothly?

## Blinds/Shades

- Operate each blind and check for alignment and ease of use.
- Look at valances and trim to be sure they are secured and with no flaws.

# Countertops, Sinks, and Fixtures

- Inspect all counter tops for scratches alignment and fastening.
- Are trim pieces tight and neat?
- Caulked everywhere there may be water, at edges of sink, neat and tight?
- Check the installation of sinks and function of faucets.
- Any leaks when faucets are used, at faucet and under sink?
- Fixtures mounted tightly with no wobble?

#### Shower

• Remove access door in shower pan and check for leaks while shower is draining

#### Floor

- Have floor coverings been properly fastened down in all corners.
- Check areas that slide outs may roll over for pulled threads, cuts or?
- Check closely for gouges or cuts in linoleum tile.
- Is floor flat, and interface neatly and straight with cabinet base?

## Walls

- Do all wall coverings cover and join properly?
- Any discoloration or patch jobs that may cover hidden problems?
- Find any places where it is not perfect since now is the time to get it fixed while matching patterns are in stock.
- (Consider ordering extra fabric, carpet, and wallpaper so that matching material is available to make modifications or repairs.)

**HOUSE SYSTEMS** (You should be about two hours into to the PDI by now and you are ready to test all of the house type systems.)

# **Shore Power System** (Now is the time to connect up to 110V shore power.)

- Pull out all of the AC cord, confirm the length and inspect the plug for proper attachment.
- Does the AC cord connect easily and firmly to the power source.
- Inside the unit, check any 110V lighting and switches.
- Use 110V receptacle tester to check all outlets (inside an out) for proper wiring/polarity.
- Find the GFI-protected outlet and test using the push button.
- Understand which receptacles "down stream" from the GFI are protected.
- Locate 110V electrical panel. Understand operation of breakers.
- Any electrical problems should be corrected immediately.

## Converter

- Locate the converter/charger.
- Turn on several interior lights to create a load for the converter and confirm no excessive converter noise or vibration.
- Have the PDI person explain the operation of the converter, the AC circuit breakers and the DC fuses.
- Make sure that there is a written list of the devices and loads connected to each breaker.

# Water Pump (Your PDI person should have filled the fresh water tank.)

- Turn on the water pump switch at the control panel to test the function of the water pump. After turning it on, you should hear it pump for several seconds, even up to a minute to create enough pressure in the system.
- If the pump does not shut off, there is a problem.
- Run water in the kitchen and bathroom sink and notice that the pump will come back on until proper water pressure is restored.
- Now is the time to fix a noisy pump if it is vibrating or making any irritating sounds.

#### Tankage

- Re-fill the fresh water tank if necessary and run water into the gray tank to verify the gauge reading and that there are no leaks.
- Filling gray tank until water comes up in the shower makes it easier to find leaks inside & out.
- Do the same thing to the black water tank, including filling so that water comes up inside the toilet.
- Check for leaks (if the toilet is installed correctly, there will be no leaks!) You fill the black water tank by using the tank flushing system.
- Look under trailer for leaks under tanks and at valves.
- Check the gauges for accuracy while you are filling.
- Now is the time you want to find leaks if there are any.
- Drain the gray and black water tanks using the sewer hose or the garden hose adapter.

## City Water System

- Turn off the pump, connect up to city water. Use a regulator if high pressure is suspected.
- Does the hose connection work easily and not leak?
- Any leaks under sinks or in cabinets where pipe is routed?
- All fixtures operate correctly with no leaks?
- Outside shower have adequate water flow and pressure? No hose kinks?

#### Water Heater

- Try the water heater on propane first.
- Seconds after you turn it on, should hear a click of igniter and small pop when burner lights.
- The red light should stay on until that process happens.
- If it does not ignite, then there is a problem.
- Turn on AC element in the water heater and confirm operation.
- Find location of the electrical switch at water heater and correct operation of interior switch.
- Confirm that hot (or warm water depending on how long the water heater has been on) comes out of the hot tap at the various sinks.

# Winterizing

• Understand the operation of the water heater drain and bypass valves, hot and cold low point drains, and procedure for winterizing.

## Furnace/Fireplace

- Understand operation of the thermostat that controls heating and A/C.
- Turn furnace on and set temperature that is 10 degrees hotter than ambient temperature.
- In about 30 seconds, you should hear the furnace fans come on.
- Shortly you should hear the click of the igniter and the sound of the burner. If not then there is a problem. It could also be taking a while for propane to get to the heater, so don't dispair. Let the furnace blow and you should get hot air at about 110 degrees coming out of all vents.
- Does each vent blow hot air?
- Turn the furnace down. Air will turn cooler and fans will stop after furnace has cooled.
- Have someone with a good nose check smell of any material getting hot, or exhaust coming out.
- Fireplace operates in all modes: simulated flame, with and without heat? Thermostat works? Any unusual or annoying noises?

### Air Conditioner

- Turn on the air conditioner at the thermostat.
- After a couple of minutes, cool air, 20 degrees cooler than ambient, should be coming out of the registers.
- Good airflow comes out of each ceiling register?
- Learn how to clean the filters at this time

## Propane and Carbon Monoxide Alarms & Smoke Detector

- Check the function of these alarms.
- The PDI person should have a small canister of gas that can be sprayed at the alarm to test. Have them perform this test while you watch and learn how the alarms work.
- Confirm that there is a new battery in the smoke detector (write the date on it for reference)
- Activate the test button to check operation of the smoke detector.

#### TV Antenna

- Understand signal strength lights, and learn how to turn on the amplifier and the DC outlet.
- Learn how to rotate the antenna to maximize the quality of the picture.
- Activate the control on the front TV that scans for local stations.
- Understand how the TV arm extends, and locks for travelling

## Refrigerator

- The refrigerator works on propane or AC and has an automatic mode that gives preference to AC and then will switch to propane if AC power is not available. Try both modes.
- Understand the controls and the status lights and set the unit on propane. The RV may need to be unplugged for this to happen.
- Check outside refrigerator vent grill. Is propane heating column lit and heating?
- While the refrigerator grill is open: Is the drain line positioned for proper drainage?
- Set the temperature at the highest cooling setting. Check in about 10 minutes to feel that the coil/fins are actually starting to cool.

### **Entertainment Unit**

- Check radio reception. Compare to your tow vehicle reception.
- Play music CD.
- Play video DVD to TV.
- Verify USB port can play media input.
- Use audio cable to check audio from phone or other device.

## Air Vents

- Test the operation of kitchen and bathroom ceiling air vents making sure they open and turn on properly (if powered).
- Verify that they retract and close tightly.
- Check any other vents such as stove vent for proper operation.
- Check and understand operation of Fan-Tastic vent controls and thermostat.
- Check installation and fit of insulated hatch covers.

## Microwave

- Put a cup of cold water in the microwave and set the timer for 5 minutes.
- The water in the cup should boil in less than 5 minutes.
- Make sure there are no unusual sounds coming from the Microwave.

## **Propane Stove**

- Turn on one burner of the stovetop while the refrigerator and water heater are running on propane. The automatic igniters should cause a strong spark to light the burner.
- Turn on the other burners to verify that there is enough propane flow to operate the refrigerator, water heater and all the burners.
- If everything is OK, turn off the burners on the stove.
- If your unit has an oven, then understand how the pilot is lit and verify its operation.

## Manuals

- Current Lance manual supplied for the trailer?
- Current manuals supplied for the other manufacturers' systems?

#### Recalls

- Ask your dealer to check to see if their are any pending recalls on any elements of the trailer systems.
- Example: Carefree Latitude Awning recall: Potentially affected awnings were manufactured between August 7, 2014 and October 3 2014.

## **Towing System**

This is perhaps the most critical system that you must select and understand. Do not leave the dealer's lot with the trailer until you feel confident you have selected and installed a safe towing system adequate for your loads. Work on the towing system well in advance of delivery where possible.

### Tow Vehicle

- It is your responsibility to have an adequate tow vehicle, an adequate receiver type trailer hitch installed, and to understand the several different weight weightings for your tow vehicle and how they match up to the towing needs of your trailer.
- Often overlooked are the loads in addition to the pulling load of the trailer and in addition to the load on the hitch. Passengers, cargo, add-ons to your tow vehicle such as bed-liners, camper shells, racks, running boards, and camping equipment and luggage all count as loads. Allowing a 10% safety margin to vehicle manufacturer specifications is wise.
- Your dealer may be limited in assisting you on tow vehicle matters as his goal is to complete the PDI and sale on the day of delivery.
- The Lance Owners of America is a good starting point to get information about your tow vehicle and trailer match up. Go to <a href="http://www.lanceowners.org/">http://www.lanceowners.org/</a>

# **Load Leveling and Sway Control**

- It is your responsibility to acquire a hitch system that is safe and sturdy enough to safely tow your vehicle.
- Load leveling means your tow vehicle and trailer are level when fully loaded for a trip with no sag at the hitch. Load leveling means that weight has not been removed from the front wheels, which can lead to a loss of steering and braking control. Load leveling hitches of many designs are available. A large heavy duty truck may not need a load leveling device. That is the exception.
- Sway control means a provision for the trailer to resist swinging from side to side when faced with side forces such as wind or a passing large vehicle. There are several different designs to meet this need. Sway control may be from an independent device, or integrated with the load leveling hitch.
- Your trailer dealer is likely to have a preference for hitch and sway systems. There are also independent hitch installers and suppliers.
- Do you fully understand the process for hitching up, all connections, and unhitching?
- Test the Breakaway Cable with the help of your dealer.
- Check tongue weight with propane and water full. (If dealer has scale to do so.) Is this within the capacity of your tow vehicle and hitch system?

#### **Brakes**

- Verify that trailer brakes work while hooked up to your tow vehicle.
- When you leave, on the dealers lot, you should test the trailer brakes alone by using the slide switch on the brake controller in your tow vehicle to see if the trailer is braking.
- Self adjusting brakes may need to be set manually initially. Dealer should check this. You should be able to hear a very slight rubbing if the wheel is jacked up and spun.

## On the Road Check List

- Understand what systems need to be secured, turned off, and put in safe travel position before you leave the dealer's lot.
- Eg. TV antenna down, propane off, cables and hoses disconnected, jacks up, windows and doors closed and locked, all connections hitched up; running, stop, and turning lights operating and...?
- Make a check list and use it on each trip

# **Summary**

You have now done an inspection and test of the major systems and can operate them. You likely will have a list of things that need correcting. Prepare yourself for waiting until these things are corrected and don't be tempted by the PDI person to sign the acceptance paperwork just yet. It may be the end of the day. Decide if you are going to accept the trailer as is or if it needs to stay with the dealer until fixes are done.

If you do accept the trailer plan on camping near the dealer for the night. This will give you a chance to further test the various functions. For a really serious checkout of your new trailer after you have accepted it, you should "dry camp" the first night and not be tempted to hook up to shore utilities just yet. Bring enough kitchen equipment and food so that you can prepare an evening meal. There is no better way to test the living facilities than to actually use them.

**ACCEPTANCE** — When satisfied that systems are OK then sign the acceptance papers. Schedule your first return trip to the dealer in about a week to a month. You are now ready to take your "shake down" cruise.

SHAKE DOWN CRUISE — Select an interesting destination about 100 miles away for your maiden voyage. Preferably near your dealer. Actually use all the systems multiple times to try to detect infant failures (electronic equipment fails at greater rates at the beginning of its life). Carefully note any problems or discrepancies in a "punch list" and make a copy for the dealer when you take the trailer in again.

Enjoy your RV and good luck!