

USA

Trailer #2

Trailer Towing Tips

And

Quick Reference

Trailer #2

Loading and Unloading

- Trailer should remain attached to towing vehicle for glider assembly and dis-assembly, if possible.
- Open the rear door of the trailer such that the rear of the angle iron frame on the door is on the ground.
- Raise the front of the trailer with the tongue jack so the front of the angle iron frame on the rear door/loading ramp is just firmly on the ground. DO NOT over-raise the nose. The angle iron frame requires a firm contact with the ground, no more, no less.
- If you are unable to properly position the rear of the trailer height with the trailer attached to the towing vehicle, disconnect the trailer from the vehicle. Ensure:
 - Both wheels chocked.
- Place the wood strip stored just inside the door into the slot between the door and the trailer bed. Be sure to remove it before closing the door.
- Prior to removing the glider fuselage from the trailer, disconnect the securing chains at the nose of the glider. After the fuselage has been extracted, remove the mock Tost ring from the nose of the glider and store on the chain in the front of the trailer.
- Prior to rolling the fuselage into the trailer, attach the mock Tost ring stored on the forward securing chains to the nose tow release of the glider. After the fuselage has been rolled into the trailer against the stops, reattach the forward securing chain to the mock Tost ring and tension modestly. This will prevent the damage to the glider during transit.
- While removing or returning the horizontal tailplane trolley from/to the trailer, be careful to stabilize it from falling over. The wheel base of the trolley is narrow. It will tip over easily.
- After removal, position the trolley alongside the left side of the trailer. Tie it to the eyebolt to be found there.
 - It is absolutely necessary to secure the trolley.
- To secure the trolley in the trailer:
 - Secure the pin on the lower front of the trolley into the floor mounted stop.
 - Secure the pin on the lower rear of the trolley into the floor mounted stop. Install the wing nut and safety clip.
 - Secure the lateral support fixture on the top of the trolley.
- The wings are stored on the opposite sides of the trailer for their use. i.e. The wing for the right side of the glider is stored in the left side of the trailer.
- To store/remove wings in/from the trailer, a person inside the trailer should hold the wingtip away from the sidewall of the trailer while the wing is slid forward. Stop when the wing tip is near the front bulkhead of the trailer. Then place a piece of foam between the wingtip and the front bulkhead and continue in with the wing such as to capture the foam between the wing tip and front bulkhead.
- Prior to towing, ensure there is padding:
 - on both wings between the wingtip and the front bulkhead of the trailer.
 - between the wing root trailing edge and the sidewall of the trailer (both sides).
 - between horizontal stab against fuselage.

- Lash each wing root toward the trailer sidewall with the cord found on eyebolts in each trailer sidewall (lash around the "spigots" in each wing root).
- This trailer is equipped with a tie-down strap that is secured around the tail boom after the fuselage is loaded.
- Plan to tow with a drop down hitch. It is important that this trailer is rigged to the towing vehicle so that the trailer is level, or slightly nose down. A 6" drop down receiver was generously donated, and is included in the equipment for this trailer for this purpose.
- **Twin Astir loading/unloading cautions:**
 - Ensure the fuselage dolly is positioned just ahead of the gear doors. The front wheels of the dolly will raise off of the ground. This is normal.
 - USE CAUTION that the pitot tube does not contact the padded vertical fin docking strap in the top of the trailer. The padding may need to be removed.

Pre-Towing Checklist

Glider Security

- Open all doors to trailer for interior inspection.
- Affirm glider is properly secured in trailer.
 - Each club trailer has different methods to secure glider.
- Make sure all parts are safely and securely stowed.
- Check proper padding has been installed for critical parts of the glider.
- Remove all loose parts from the inside of the glider trailer. This includes the rear area as well as the forward storage compartment. (Sand bags may be stored loosely during travel.)

Trailer to Vehicle connection

- Receiver hitch secured in vehicle with installation pin and safety pin.
- Ball latch securely closed. Safety pin installed.
- Safety chain attached (two sides).
- Light connection is secure (all lights functioning).
- Trailer hand brake completely off.
- Trailer emergency brake cable connected to vehicle.
- Trailer tongue jack is raised completely, secured and swiveled (if swivel installed).

Trailer Walk-Around

- Front compartment door latched closed (if installed).
- Chocks removed (vehicle and trailer).
- All jack stands removed from under the trailer.
- Rear door/clamshell door closed, latched and latches secured.

- All lights functioning:
 - Turn signals
 - Running lights
 - Brake lights
 - Emergency flashers
- Proper tire pressure (each club glider trailer has different tire pressure).
- Trailer hitch height: The trailer should be level, or slightly nose down.
- Make sure that prior to starting the journey you have proper slack in the safety chain, lights cable, and the emergency brake so there is no tension during sharp turns.
- Emergency road assistance equipment is present and available:
 - Jack
 - Flares/Traffic triangles
 - Lug wrench
 - Miscellaneous tools
 - Spare tire (check inflation)

Towing Tips

- Plan your trip. If high winds are forecast, transport the trailer another day.
- Plan ahead. Give yourself plenty of time for the trip. You will be traveling much more slowly than normal.
- Use extreme caution when transiting dips in the road. This will occur when entering gas stations, driveways, and side streets. Try to pass through the dip on an angle. This will reduce the possibility of scraping the glider trailer tongue jack, as well as the glider trailer tail.
- When traveling on a downhill grade at highway speeds your vehicle/trailer combination is more susceptible to destabilization. Use caution.

- Sway can occur at any normal travel speeds. The causes may be:
 - Natural oscillation set up by driver steering.
 - Bow wave from passing trucks (especially large trucks/semi's).
 - Crosswind
- If the trailer starts to sway, slowly reduce speed. Carefully reduce accelerator pressure. Apply brake with extreme caution only when absolutely necessary. Plan far ahead during tow.
- An empty trailer behaves much differently than a trailer containing a glider.
- Deceleration will be reduced.
- Change lanes with caution.
- Hitch weight should be 10-12% of total weight.
 - A good rule of thumb is that a loaded trailer weighs 2400-2700 pounds.
 - 15% tongue weight is good, but may cause issues with the towing vehicle.
- Drive defensively.
- Use caution at all times.
- Do your own pre-tow checks, both interior and exterior.
- Each trailer tows differently. The vehicle type will also determine glider trailer behavior during tow.
 - Vehicles with long wheel bases tend to tow much better than vehicles with short wheel bases.
 - Stiffer sprung vehicles tow better than softly sprung vehicles.
- Each USA trailer is different. Familiarize yourself with the trailer you will be towing. Make sure any emergency equipment, spare tires, jacks and tools are readily available.