

How to Attach a Sidecar to a Vintage Vespa or Stella

You may need to readjust the toe-in and lean if the sidecar has already been mounted. I would also suggest doing any repairs/upgrades/maintenance on the scooter before mounting the sidecar. It is much easier to work on with no sidecar attached.

Before the Sidecar



1979 Vespa P200E before the sidecar



Crate

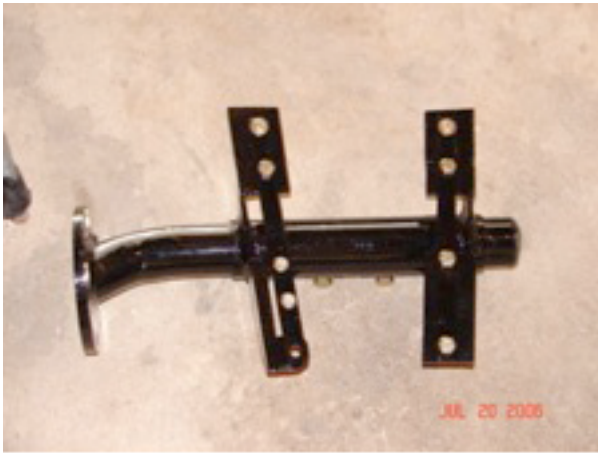


Sidecar in crate

Parts



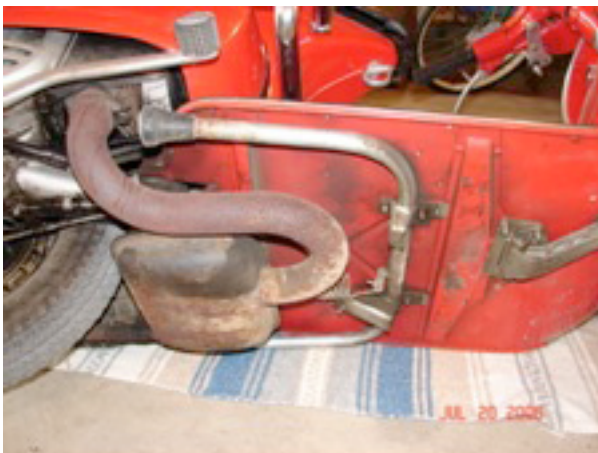
Windshield (if purchased), seats, cover, fender, wheel, luggage rack, crashbar for fender



The bracket

- Mount it with the wider part (on the top in the picture) to the rear of the scooter.
- The metal plates will be on top of the scooter floor board, so it should go (from bottom to top): sidecar bracket, scooter frame, metal plate.

Attach the Sidecar to the Scooter



Bottom of scooter before the sidecar hardware is mounted



Bottom of scooter with hardware mounted

- Lay the scooter down and remove the centerstand
- Attach the sidecar bracket to the scooter
- Fit the rear bolts of the sidecar bracket to the two holes of the centerstand
- Refit the centerstand with the longer portion of the clamp to the rear of the scooter (or leave the centerstand off).



Bottom view of mounted bracket



Top view of metal plates in place



Scooter with sidecar mount



Wheel assembly

- Drill new holes for the remaining bolts of the sidecar bracket (use 3/8" bit) and attach bolts.

- Assemble the sidecar wheel (parts are laid out in order). Grease the bearings too.



- Be sure to use the cotter pin on the outer nut and bend the tabs over the nut on the inner nut.



Wheel attached



Sidecar chassis attached to frame mount

- Attach the sidecar with the four bolts and rubber washer. Better get help on this one.
- Tighten the main bolts.



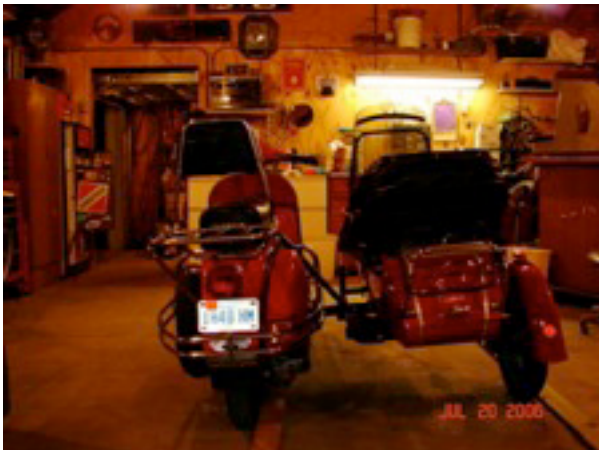
Seat stay attached

•Attach the sidecar stay to the seat bolts of the scooter.



Old style Vespa dampening unit not used for install

•Scooter needs to lean out about 2 degrees. Picture shows way too much lean out.



Side car mounted. Time to adjust.

Adjust the toe-in (recommended is 3/4" to 1-1/4")

Be sure to check your tire pressure first. All tires should be 30-32 psi



To Adjust Lean in/Lean out,

- Loosen the main bolts on the scooter (top picture)
- Loosen bolts on the sidecar (bottom picture).
- Twist the tube.

Adjustment points



- Lay a board or other straightedge alongside the sidecar wheel and a board alongside the front and rear scooter wheels.
- Use these to measure the distance with. Initial distance was 40.5" front 42.5" back.

Rear distance measurement



- Measure the distance from the inside of the front wheel on the scooter to the inner edge of the board. The difference in the two distances is the toe-in. Twist the center connector to adjust. I went with a 1" toe-in.

Front distance measurement

If you have the option, I recommend using two 8' fluorescent light bulbs instead of 2x4's - they're cheap and straight. Tape one to the back wheel of scooter and the other to the sidecar wheel.

Adjust the Lean

- To adjust the lean, loosen the tie-rod bolt on the stay and push and shove and try and try to adjust the lean. Tighten it back up for your test ride.



Test ride! It rides really different compared to a solo bike. It will take some getting used to.

Re-adjust the bracket and toe-in

If the lean is too severe, re-adjust the bracket and toe-in.

•Note: both scooter and sidecar tube are roughly the same height.



Bracket before adjustment



Use a straight edge to gauge the lean.
This amount of lean is slightly too much.

To adjust the lean and toe-in.

1. Loosen the stay bracket (or disconnect it).
2. Loosen the four bolts on the scooter
3. Lift the sidecar up, this will cause the scooter tube to rotate.
4. Tighten one bolt on the scooter.
5. Loosen the bolts on the sidecar tube.
6. Adjust the sidecar down so it is somewhat level (front to back). Now the scooter and sidecar should be even, and the lean should be a lot less.
7. Check the toe-in.

You may have to repeat steps 2-7 several times.

8. If the toe-in is good and the lean is good, retighten all the bolts for the bracket tubes.
9. Retighten the stay bolts.
10. Ride it and see if the adjustment is good, repeat if needed.

•Note the sidecar tube is higher than the scooter tube. This helped the lean-out a lot. Now the toe-in is 1.5”.



Bracket after adjustment



Lean-out after adjustment, the scooter now sits with a slight lean-in. This is about the right amount of lean-in.

Connect the light

To wire the light, just run wires from the light on the sidecar and connect to either the blue wire in the junction box on top of the engine or the yellow lead coming off the voltage regulator. I ran the wire along the sidecar frame then inside the rear fender and through the hole for the tail light wires.

Please note, these instructions were found online. The original link doesn't work. If you happen to meet the man who wrote this up, please thank him.