



# PRE-RIDE CHECKLIST

## POLARIS 850 VCS BYPASS TURBO SYSTEM

Thank you for choosing Force Turbos for all your turbo needs and supplies. We strive to have the highest quality service and the best performance parts on the market.

We want you to have the best experience possible, so we created a list of pre-ride checks that will help you with your new Polaris 850 VCS Bypass Turbo System.

### PRE-START

Check the following:

- Spark plug gap is set to .18.
- Throttle is not sticking or stuck open.
- Kill switch works and is in good condition.
- Brake is functioning properly.
- Belt is in good condition and there's a spare.
- Clutches are clean and in good working condition.
- Steering moves freely from side to side, no loose or sticking components.
- Track is tight, with no rips or tears.
- Suspension is greased, bolts are tight, and hi-fax is in good condition.
- All fuses are good. (The accessory fuse runs your fuel controller and add on gauges.)
- Make sure it's full of oil, fuel, and coolant.
- If the optional Force Turbos clutch kit has been purchased, set the weights at 2,3,2 and use the large slug all the way at the tip.
- Check for any left over tools or rags in the engine bay.

## FUEL TYPE

- Use 91 octane non-ethanol fuel. It is recommended to add 1-2 gallons of 110 or 100 octane fuel per 10 gallon tank to prevent detonation.
- If non-ethanol fuel is unavailable, you must run 1-2 gallons of race fuel per tank. However, too much race fuel will cause your sled to bog and run poorly.

## FUEL TYPE SELECTION SETTING INSTRUCTIONS

Use the following procedure to change the fuel type designation in the gauge:

- Start the engine.
- Press and hold the center button to enter the Options Menu.
- Press and release the MODE button until FUEL TYPE is displayed in the information display area.
- Press and release the SET button to toggle through available options until the desired fuel type is displayed in the information display area.
- To exit Options Menu, press and release the MODE button until EXIT appears in the information display area.
- Press and release the SET button to exit. The fuel type being displayed is the active fuel type.
- Start in premium, non-ethanol mode on the dash. If detonation occurs under non-ethanol mode, switch to ethanol mode.

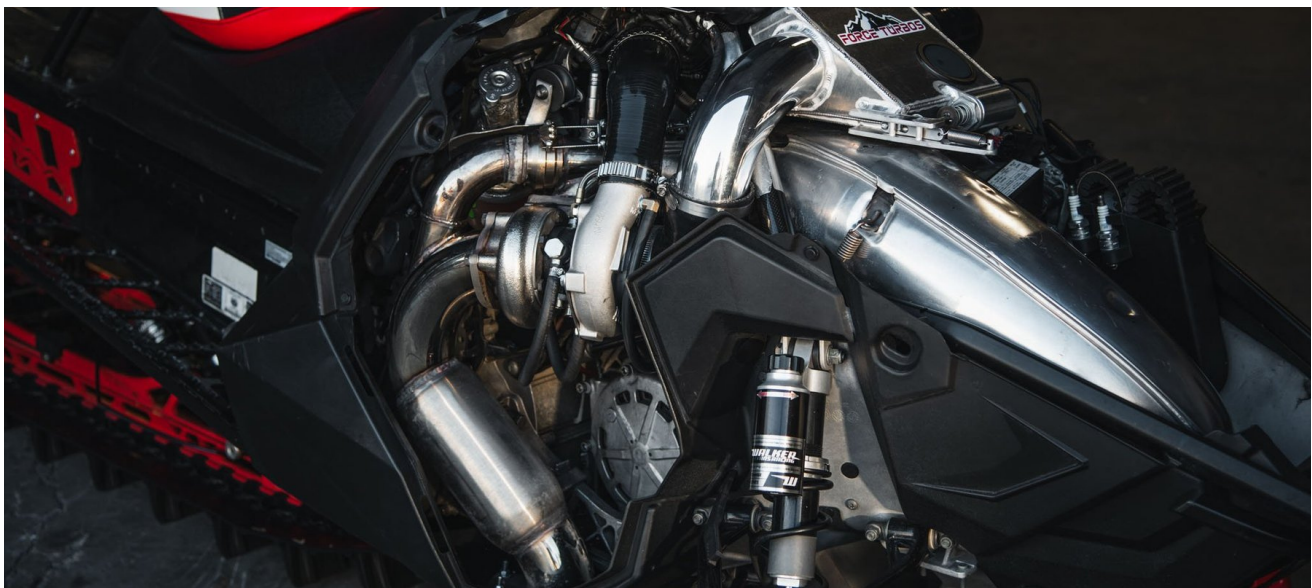


## START-UP & FIRST RIDE

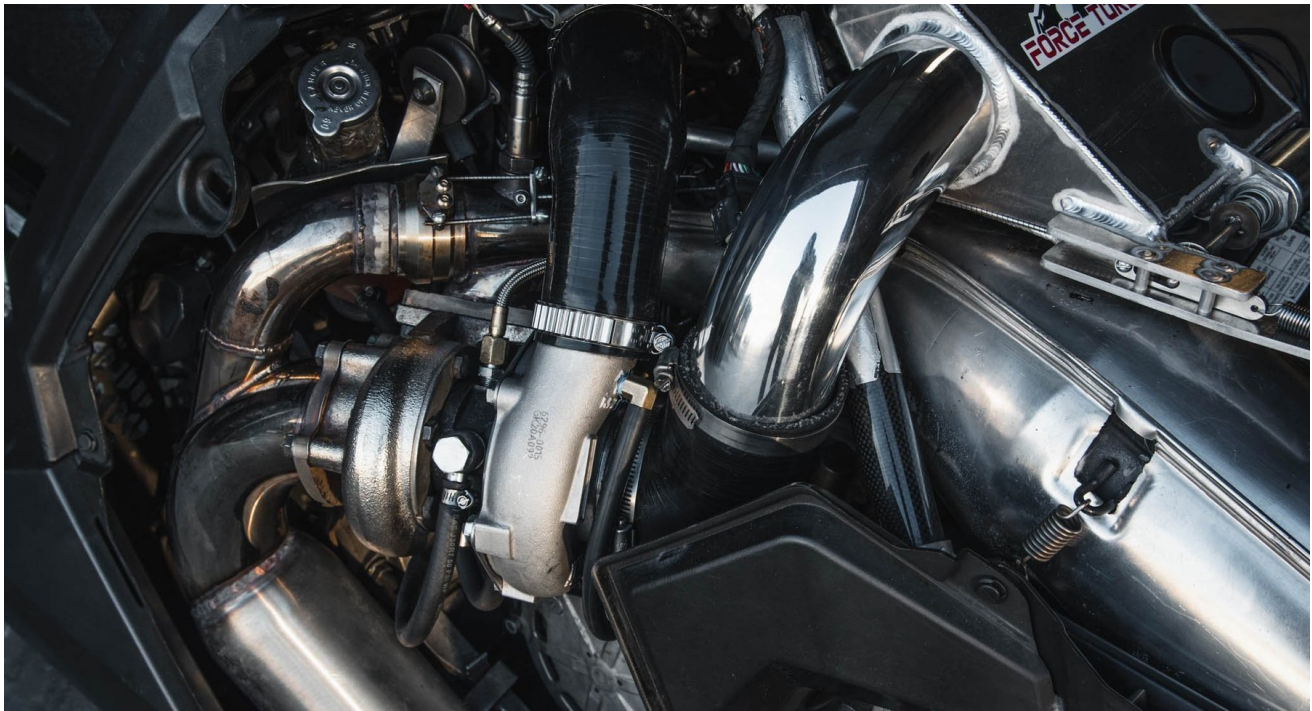
- Start the sled and watch the oil line feeding the turbo. You should be able to see the oil pump pumping oil thru the clear line portion of the turbo oil feed line. The pump is a positive placement pump set to pulse roughly every 3 seconds at idle.
- Dislodge the track from frozen tundra.
- Put the sled on a Jack stand (always have tether hooked up). Allow the sled to warm up to 120°F. Polaris owners manual recommendation: “Operating the vehicle immediately after cold starting could cause engine damage. Allow the engine to warm up for several minutes before operating the vehicle. If cold drive-away is attempted, the engine RPM may stumble slightly to protect the engine”.
- Slowly push the throttle in and out and verify the sled is running properly. Make sure there are no weird sounds coming from anywhere and that the sled returns to idle state.
- During the first ride, you’re targeting 8,350 to 8,400 RPM. If the sled is under-revving, first check that belt deflection is set to factory standards. A loose belt will lose up to 1,000 RPM. If the sled is still under-revving, switch to medium slug at the tip and take out .5 turn increments until target RPM is reached. If the sled is over-revving, add a magnet to the tip weight, making the orientation 2,3,3 and add a small slug flush with the weight.

## AFTER EACH RIDE

- We recommend spraying WD-40 around the VCS activation rod to displace water and prevent freezing. The activation rod is located on the front of the airbox under the front hood panel.







## CHECK EVERY 100 MILES

- Pull the intake silicone and visually inspect the compressor housing for any rub marks from the blades. Make sure that there is nothing in there. It's normal for some oil to be gathered here.
- Check oil, coolant, and fuel lines for cracks, rub marks, leaks or potential damage. Repair or move if necessary.
- Check wastegate vacuum line and make sure it is zip-tied to the wastegate and boost reference point on the compressor housing.
- Make sure all hardware mounting the turbo to the inlet and exhaust outlet is there and tight.
- From the turbo side, use a flashlight to look into where the airbox mounts to the throttle bodies. Make sure the springs are in place and that there isn't any oil blow-by coming from any of the connections on the airbox to throttle bodies.
- Look over the sled for any loose wires. Put the hood and panels back on.
- Look over all suspension bolts and make sure none are missing, broken, or loose. Check the shocks for broken springs.
- Check the carbides under the skis and make sure they are not worn down.
- Check the hi-fax that goes between the rail and track. There is an indicator line on the outside to show the wear. If worn, replace hi-fax.

Find the deepest snow around, have fun, and hold on. VCS is a handful.