Installation Instructions for IHI RHB31 Turbo.

When preparing to install a turbocharger, there are some important preinstall items to assure that you will receive the most out of your product.
Note: Installation of a Turbo must be done by a professional.

Pre Installation Instructions –Please READ BEFORE INSTALLATION

a. Drain off the dirty engine oil and fill in diesel (or gasoline) to the engine oil line.

b. Spin the motor over with the spark plugs wires unhooked, and start the engine for 7-8 times. This will Flush your engine. Drain dirty fuel from the engine, replace oil filter.

c. Tighten all bolts firmly except compressor housing bolts. Tighten compressor bolts until snug,. Do not apply glue to any of the turbo gaskets. Do not apply glue to any of the gaskets for both OIL IN and OIL RETURN Lines when sealing up.

d. Twist the cork on oil pan tightly. Pour in fresh pressure boost engine oil 5 mm above oil line.

   Wait for oil to begin to drip through the turbo and come out the return line fitting.

e. Hook up the spark plugs and the oil return line.

Hold compressor wheel firmly with your hand to keep the shaft from spinning **(There is no oil in your turbo at this point so it is vital that it does not spin!)**. Start the engine and let it idle for 40 seconds (to circulate oil) before releasing the compressor wheel.

ONCE IT'S SPINNING DO NOT TOUCH THE COMPRESSOR WHEEL!

Install the intake tubing and air filter assembly. Keep the engine idling for 15-20 minutes to complete turbo break-in procedure. Do not Race Engine.

Additional Instructions

Fuel Delivery (Only applicable to the engines that have had no Turbos installed before)

Note: As will all turbo systems being installed, the fuel delivery system will have to be modified to deliver the correct amount of fuel to the engine when boost is present. Make sure this is done or your motor will suffer internal damage quickly if the air/fuel mixture goes lean.

Oil Lines (Only applicable to the engines that have had no Turbos installed before)

A properly installed turbocharger will include a properly installed oil lubrication system. When selecting a spot to tap into the oil system make sure it is close to the main lubricating route. The Oil IN line to the turbo should be 3ft or less. The oil return should "gravity" feed back into the oil pan, i.e. within 30 conical degrees vertical to the ground. This means the turbo can not be placed below the oil pan. Doing so would require a sump pump to feed the oil back from the turbo into the oil pan. We always recommend using Aeroquip fittings and lines for turbochargers. They are race proven and will provide years of service. A -3 AN or -4 AN will provide adequate flow for the OIL IN line. A -8 AN or -10AN line will serve as an adequate return line. We also recommend going to synthetic oil as it has better thermal properties than conventional motor oils. A thermostatically controlled oil cooler is also good assurance that the oil temperature will not reach dangerous levels.

Gaskets

Do not reuse the exhaust manifold gasket or the manifold to turbo stainless steel gasket. They are compression style gaskets and once compressed they will not seal again.