

135HP Hino Low Idle Vibration Reduction Project

Excessive low RPM vibration is a common characteristic of the 135 Horse Power Hino Diesel. The primary cause of the vibration is the use of non-Hino front (alternator side) engine mounts. Typically there are three variety of mounts found on the front of the 135HP Hino diesel. They are pictured below:



Angled Mounts

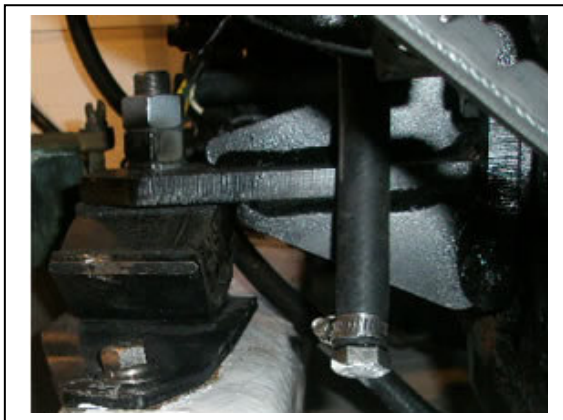


Hino Front Mounts

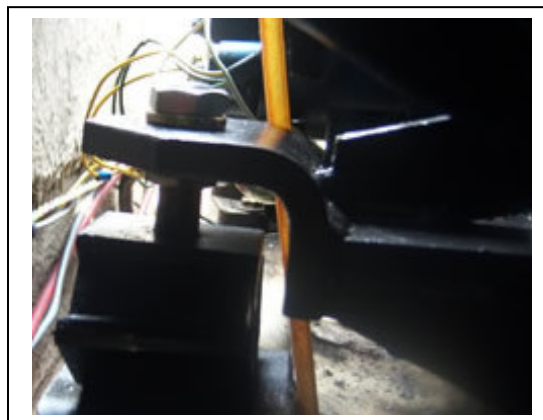


Standard Round Mounts

Hino powered 32xx yachts with 135HP or 150HP diesels that do not have the Hino OEM mounts installed in the front of the engine will suffer excessive vibration at idle speeds. The fix is to purchase and install Hino OEM mounts, Hino part number: S1203-11890. There are a few items to consider before taking on this project. The first is to verify that you have the correct engine brackets necessary to support the Hino OEM Engine mounts. If you have the Angled style mounts then you will need to replace your existing brackets with Hino part number: S1203-11341. If you have the Standard Round Mounts, then the existing brackets will work. Regardless, it will be necessary to modify the Stock engine bracket for most installations. The Stringers on the older 32xx's seem to be higher than the later models. The Hino OEM front mounts are about 3.25 inches high. When you add the adjustment nut the mount will now sit at or about 3.5 inches high. In order to get proper alignment the front of the engine needs to be at or about 3.18 inches. So the motor mount sits too high to allow for proper shaft alignment. In order to get the proper engine height you must modify the Engine brackets. See pictures below of stock Hino Engine Bracket and then a Modified Hino Engine Bracket.



Stock Hino Engine Bracket



Modified Hino Engine Bracket

Note on the modified Hino Engine Bracket a 90 degree bend has been incorporated in order to allow for a mount that is higher. The 90 degree bend allows for exactly an extra inch in height when measured from the top of the stringer to the bottom of the bracket. This will allow for proper alignment when you install the new Hino OEM Engine Mounts.

To remove your current mounts, you will need to access the front of the engines from the "Cave". You can use a small jack to raise the front of the diesel by placing the jack under the front of the oil pan making sure you are using some wood to protect the oil pan and to help distribute the load. Once you slowly jack the engine up, this will relieve pressure on the mounts allowing for removal. Install new mounts/modified brackets and check/adjust shaft alignment. This project requires 1-2 hours of labor per engine.