

ALTERNATOR RELAY (or Voltage Regulator)

With the combined help of VODCA members Jay Dockman and Sid Rosen I was able to locate within days a part which had not yielded to a year-long search by my Galesville boatyard and the Albin people in Cos Cob.

The part is an aluminium box the approximate size of a pack of cigarettes and is installed on many of the diesels with both a generator and an alternator. In the owners manual it is identified as "the alternator relay," although it includes other electronic components and should be requested as a "voltage regulator."

Jay's Volvo-Penta manual correctly shows it in the diagram and identifies it as "relay" Volvo part number 239964. (This is important because my boatyard told me they couldn't get the part because they had no Volvo part number.)

Armed with Jay's manual pages I went to Washington Marina, which Sid Rosen had suggested as the best Volvo parts source. He proved right.

But here is the catch. The component is not a Volvo part, it is a Bosch part (although nowhere does it so indicate). Using Washington Marina's catalogues were able to identify it as:

Bosch: 0 190 600 010 850 Regulator

Under that description, Washington Marina obtained the part in 48 hours.

A note for the future: Washington Marina said that Bosch is in the process of renumbering its parts. The new number, which was handwritten on the box is:

Bosch: 30-047

The relay, by the way, is a relatively vulnerable part. It will burn out if some crewmember forgets and turns off the ignition while the engine is still running. Mine didn't burn out but started overheating and producing erratic voltage.

Replacement is a breeze. Simply plug in the unique three-prong connector and you are in business. Screw the box itself at any handy spot behind the instrument panel.

- Tom Moore

To be on the safe side, every time the diesel engine is turned over, even by hand with the crank, the ignition key should be on so that the relay does not burn out.

I previously reported that I had substituted for the original Bosch alternator regulator on my MD6A diesel engine a solid-state 12V Motorola regulator Model 8RH 2004A. This substitution worked for about a year, but the slightly higher voltage set into the Motorola regulator finally rendered my alternator inoperative.

I had the alternator repaired, and am now back to using the original Bosch equipment, latest regulator part number 30-051 (0 190 601 006-740). In an emergency when the Bosch regulator isn't obtainable, you can use the Motorola regulator (with its own wiring harness) temporarily, but replace it with the Bosch regulator as soon as possible to protect the alternator.

Also, an easily obtainable alternator belt is the Gates belt No. 7520 (10 x 1325 mm) available at most automotive supply stores. The Volvo belt is Continental SPZ 1312 (9,5 x 1325 mm).

- Art Levin

The alternator regulator I had to replace had Bosch part number 0 190 600 016 stamped on it, which was the part number I ordered from Germany. While waiting for delivery, I stopped in at a Carquest Auto Parts discount store and they came up with a better part obtained from C.E. Neihoff Co., Division of TRW, Chicago, IL (part no. WA 709 Regulator). Not only was it \$10 cheaper than the Bosch part (1984), but also produces $\frac{1}{2}$ volt higher charge.

- Jim Sheldon

I took the diode pack off the alternator and connected up a battery selector switch instead. Now I can use either battery for starting, which could not be done with the original system.

- Harold Cohon

