

# REPOWERING YOUR SAILBOAT

**N**o matter how old your sailboat is, you still have the option of repowering. Stanley Feigenbaum of Beta Marine North Carolina — [www.betamarine.com](http://www.betamarine.com), (252) 249-2473 — is the North American distributor for the Beta Marine line of engines, including the Atomic 4 replacement series. Beta specializes in diesel engines for sailboats and displacement powerboats, primarily in the 10- to 75-hp range. Here Feigenbaum answers some common questions he fields from customers interested in repowering.

## **As the owner of an older sailboat, when should I consider repowering?**

Most people will repower their sailboat (or displacement powerboat) when its engine has died an awful mechanical death or when regular maintenance becomes too expensive. With an older engine, parts and labor costs for normal maintenance and repairs seem exorbitant. The \$500 here and \$800 there soon add up to a sizable chunk of change, and make a new engine an attractive alternative. A complete rebuild of an older diesel or gas engine often is within only \$1,000 to \$2,000 of the price of a new engine, and the rebuilt powerplant sometimes retains its starter, alternator and transmission. A new engine will come with a complete warranty, so other than oil, filters and the odd impeller there should be no hidden expenses for a good number of years. If your boat has an old gasoline engine, then a new diesel with its fuel economy will look particularly attractive.

## **What's a common concern among owners debating whether or not to repower?**

The cost. All too often a boat owner will put off the expense of repowering for years. The hope is that he or she will sell the boat, and the engine will be someone else's problem. What happens is the boat doesn't sell, so the owner has to repower to attract a buyer. The buyer usually wins, as the previous owner still had to repower but never had the pleasure of the reliable power the new engine provides.

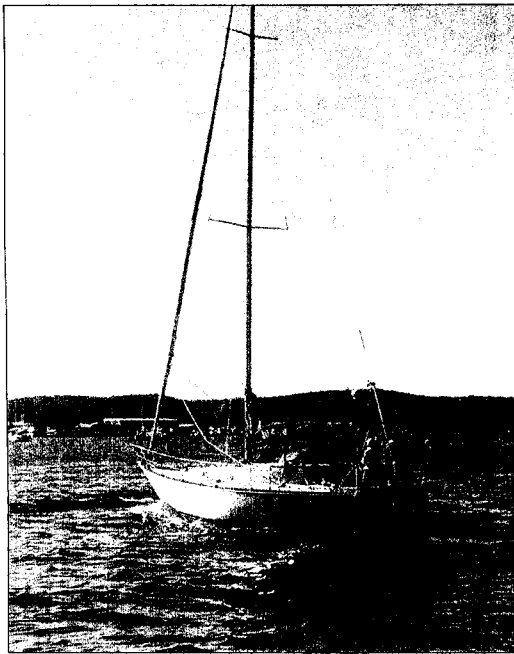
## **Can I replace my engine with a more powerful one?**

Most people replace an old 20- or 40-hp engine with a new one of similar horsepower, though occasionally the call is for more power. Someone with a worn out 35-hp diesel (optimistically called a 50-hp by the manufacturer 20 or 30 years ago) says, "I need more power to move my boat." This is fine if the power can be put to use driving the boat, and charging the batteries and refrigeration system.

The problem comes about when the larger engine won't fit the engine compartment, and the prop that it needs to work properly won't fit under the hull. At Beta Marine we work with naval architects and propeller companies. These professionals have the knowledge that allows us to supply the correct engine and transmission ratio for a particular boat. We, and the boat owner, can then be assured that the propeller will fit the boat, and the engine's power can be transmitted to the water. Ask if an engine/transmission combination will work in your boat. Most engines are available with a choice of transmission ratios, so choose what is best for your boat, and you will be happy with the result. Remember, diesel engine technology has come a long way in the last three decades.

## **How can I be sure the new engine will fit into my boat?**

Measure very carefully, and do it twice. It is cheaper than trying to build new engine beds or redo the cabinetry. Some manufacturers supply engines with options for the feet (Beta Marine & Universal) so people with Atomic 4 engines can repower with diesel without redesigning the



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engine beds. These engines are no more expensive than those with standard feet, so why go through the added expense of changing the boat to suit the engine?

## **Will a new engine increase the value of my boat?**

The answer to this question usually is no. If you were to look at an older boat with a bad engine or no engine, you would deduct that from the asking price. If you were to sell your boat at or near BUC value, then the buyer would expect a good, working engine. A new engine indeed will make the boat more attractive to a potential buyer and may increase the value of the boat by a few thousand dollars. However, it will not increase the value by the price of the engine, and please don't even think of recouping the labor costs involved.

## **What's the typical cost for repowering a sailboat?**

The average cost of repowering a 28- to 34-foot sailboat ranges from around \$7,000 to \$12,000. This doesn't allow for V-drive transmissions, which always add to the labor cost because of the extra time involved. Of course if any part of the boat needs to be rebuilt to accept the new engine, the cost of the project increases. I have seen many older, cherished boats whose engine beds were found to be loose when the old single-cylinder thumper was removed. The beds had previously broken away from the hull, but the vibration they created hid the fact that they had caused damage.

On larger sailboats the cost of repowering is too vast to estimate. A boat that's simple to work on, such as one with decent engine access, could be only \$1,000 plus the cost of the new engine. On other boats, a Bristol 41.1 or a Valiant 40 for example, a mechanic is likely to have 80 to 100 hours in the job. Multiply that by the hourly rate to get your labor price, without yet allowing for exhaust parts, control cables, and the like.

## **Does rebuilding an old engine ever make more sense than repowering?**

It is usually uneconomical to rebuild a small engine that has been raw-water cooled for 20 years. Although the rebuild usually can be accomplished successfully, what often happens is that saltwater corrosion in the block and head has taken its toll, leading to problems with water in the oil after a year or two. The only way to cure this, if it is a block problem, is to replace the engine. The boat owner then has paid for a rebuild at nearly the cost of a new engine, and now is faced with the cost of the repower as well. Sometimes it pays to spend a bit more and get a proper job.