

# OPERATING SEAGULL ENGINES

## IN VERY COLD OR FREEZING CONDITIONS

Our factory testers are called upon to test many hundreds of engines in the open air—new and stiff engines at that—during the winter months, and our standard methods enable a start to be obtained within half a minute under these conditions with certainty.

Under freezing conditions, no internal combustion engine will start easily by normal methods, and special treatment is called for. . . the important thing is to use the special treatment immediately, before you start operations, and not after a great deal of time has been spent in futile attempts of a more normal kind.

The important thing is NOT to try and start the engine on a boat, or in the water at all . . . don't even think about it.

Clamp the engine on a rack, or some other convenient support, in a shed if possible, or in the open if you have to, and start it up out of the water, to warm it up for about a minute.

Engines are always much easier to start out of the water, on dry land, than afloat, and when once they've been warmed up in this way, ninety-nine times out of a hundred they will start readily when put on the boat.

The important thing, however, is to avoid trying to start it on the boat, and instead, to start it up on land as a preliminary. Actually to start the engine, set about it like this:

In the case of the Model 102, thoroughly flood the carburettor, open the throttle about half way, close the air intake with one hand—or if you like, by stuffing a piece of rag up inside the air intake and ten chances to one, the engine will start first or second pull, at once . . . remove the rag, of course, when the engine is running.

In the case of the smaller type engines; fitted with square shaped cylinders, and a carburettor equipped with a choke shutter . . . close the choke. . . open the throttle fully . . . FULL THROTTLE ALWAYS. . . and pull the starting cord. Gradually open the choke as usual when the motor is running. The most frequent cause of starting failure is too big a gap at the sparking plug, and so, in any case BEFORE you start any operations remove the plug . . . close the gap to not more than .015" . . . and if you have the opportunity at hand, heat the sparking plug before putting it back in the cylinder.

Don't be afraid to run up the engine on land, until the cylinder is quite warm to the touch . . . it won't do any harm at all.

The other important thing to do during the winter months, or under cold conditions, is to make sure that the gear oil in the gear box is replaced by heavy engine oil. This makes a tremendous difference. With engine oil in the gear box, naturally the box will have to be checked more frequently, to ensure that engine oil is always there.

Don't, under any circumstances, reduce the quantity of the oil mixed with the petrol, below the recommended proportions... this is frequently urged by onlookers, etc. who have little real knowledge of engines.

By decreasing the oil, compression is reduced . . . the seal round the piston rings is nullified . . . and just the conditions are created which make starting impossible.

If anything, it would be wise to Increase the quantity of the oil by 5%, to ensure an adequate seal at the piston rings, and to overcome the iii effects of frost and damp inside the motor. Don't forget that if there is a spark at the plug, and the fuel is correct, and these instructions have been carried out before tackling the engine, the motor is almost bound to start.

When the climatic conditions are unfavourable, do everything possible to protect the motor from the cold, when not in use, by keeping it in the warmest available place, and wrapping it up in sacking, etc., to reduce condensation.

It's far less trouble to carry out these instructions, and take these precautions, than to spend hours trying to start a motor which is probably in an unstartable condition in any case. Remember that ninety-nine times out of a hundred, these suggestions NEVER fail.

THE BRITISH SEAGULL CO. LTD.  
Service Organisation  
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