

# The Sachs "Sideboard" Motor

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Photos: from Ken Kirk's Collection

We've all heard the names of the different mechanical means of powering our boats. Names like sterndrive, outdrive, V-drive, Arneson drive, long tail drive, outboard, inboard, jet drive, direct drive etc.

But how often have you heard the word "SIDEBOARD" drive? Not very often I bet and certainly not a common method for propelling a boat. In 1895 Karl Fichtel and Ernst Sachs started a ball bearing factory in Schweinfurt Germany. Famous for their development of the Torpedo free wheeling bicycle hub, they were the leader in bicycle development. They were the leaders in ball bearing development and manufacturing. Just after the turn of the century, their interest in the automotive and engine craze led them to develop a small motor for a bicycle. They continued to develop small engines, ball bearings and motorized bicycles. The pre-war years saw development of outboards, stationary engines and many varieties of other SACHS powered machines.

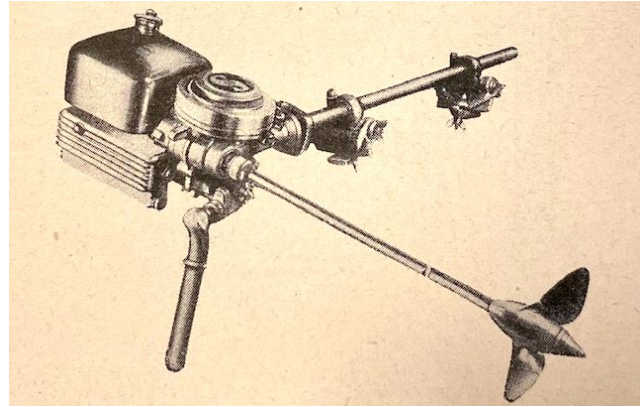
My 1936 SACHS "sideboard" motor was an idea from the engineers at F & S. This is a 98cc engine developing a blistering 2 hp. The magneto is not adjustable, but the motor speed is controlled by the throttle only.

The engineering and thoughtfulness in the design of this motor is amazing. Items like the "foldaway" water intake scoop, the oil dipstick for the gears and hidden air intake( which is really the carrying handle) are just a few of the ingenious design-into-function items that are truly special.

The motor clamps to the gunwales of a canoe or rowboat. Another functional design is the "ball & socket" swivel gunnel clamps which allows the motor to be mounted on any angle and allows for adjustable water depth for the prop.

The prop has 2 hot water exit holes in the backside of the prop. The vacuum created on the back side of the turning blades, sucks the hot water down the hollow 5 foot propshaft out of the cylinder block. In essence, the motor has a Pressure-Vacuum cooling system. Simple, but very effective. Another great idea is a spring-loaded pet cock on the block, to drain off any water left inside the cylinder block in case of freezing temperatures.

In order to have a vertical crankshaft and horizontal propshaft, the use of an internal worm gear set is used. This worm gear drive, changes the vertical motion of the crankshaft to a horizontal direction, thus turning the propshaft. This allows the motor to rev up but allows an increase in torque to the propshaft maintaining a reasonable propshaft RPM. This is a very unique and rare "Sideboard" motor. Look for it this summer at one of our displays.



## Editors Notes:

The 2 h.p. Sachs "Sideboard" Motor weighs 25 lbs and breaks down into three parts for easy transportation. The motor separates from the gunwale bracket via a bayonet joint. The 44" long hollow propeller shaft is detachable. The water pickup scoop folds up neatly when not in use.

The motor does not pivot or turn. Steering must be done with a paddle or a rudder on the canoe, kayak or other small watercraft. "Sideboard" Motors were popular in Germany during the 1930's. Both Konig and Zuendapp also built "Sideboard" type Motors.

