

# U. S. SUBMARINES INTRODUCES THE S-101



## Technical Specifications

### General Specifications

Crew/Payload	2 + 200 kg
Operating Depth	100 m (305 ft)
Operating Depth (Production ver.)	to 350 m
Length	9.75 m (32 ft)
Beam	1.20 m (3.9 ft)
Height	2.10 m (6.9 ft)
Draft	1.00 m (3.3 ft)
Weight in Air	4.2 tons
Forward Viewport	660 mm (25")
Collapse Depth	370 m (1213 ft)
Hull Thickness	10 mm (.394")

### Dynamic Characteristics

Max. Surface Speed	9 knots
Cruising Surface Speed	7 knots
Max. Submerged Speed	4.5 knots

### Surface Propulsion

Surface Diesel	37 kW (50 hp)
Diesel Engine Type	Perkins 3-152
Gearbox Ratio	2:1
Surface Range	200 nm

### Sub-Surface Propulsion

Main Electric Motor	4.5 kW (6 hp)
Speed Control	Curtis Solid State
Reduction Ratio	5:1
Bow Thruster	1.0 kW

### Battery & Electrical System

Main Battery	72 VDC
Auxiliary Battery	4 x 12 VDC
Main Battery Capacity	10 KWH
Direct Drive Alternator	4 KVA
Main Battery Charger	120V/72V
Battery Charging Time	8 hours

### Life Support

Life Support	82 hrs
Oxygen Storage	2 x 2300 l @ 165 bar
CO <sub>2</sub> Absorbent	M.P. Sofnolime/LiOH

### Ballast & Trim Systems

External Ballast Capacity	450+200 litres
Compressor	Bristol 3-stage, 230 bar
Internal Ballast	700 litres
High Pressure Air	10,000 l @ 230 bar
Ballast Pump	Hydraulically driven HP
Drop Weight	180 kg

### Navigation & Communications

Compass Main	Magnetic Fluxgate
Speed Log	Analog
Depth Gauge (2)	400 m analog & digital
Depth Sounder	300 meter capable
Active Sonar	Imagenex color imaging
Surface Communication	Icom VHF
Subsurface UWT	OTS 25 KHz

### Additional Equipment

F-16 style joysticks (2)
Diesel Panel: Fuel, Temp., Oil Pres., Voltmeter, RPM
Life Support Panel
Ballast Panel
Hydraulic Pressure Gauge
Barometer
Inclinometer
Electrical Panel
Circuit Breaker Panels
Dive Panel: Depth Gauges, Pneumatic controls air pres.
Navigation Lights
Underwater Lights
Strobe Light
Deployable Surface Buoy
Electric bilge pumps and alarms
Life jackets, emergency rations, safety breathing system

## What can you do with your own submarine?

Whether you want to prospect sunken treasure sites in the Pacific Northwest or just quietly cruise the depths of the region's many bays and inlets, experiencing the unique marine life, operating the S-101 will make you the envy of every boat owner you encounter. When you tire of this area, hitch up the trailer and take off for the crystal clear waters of Lake Tahoe, Mexico's remarkable Sea of Cortez or the Florida Keys. The underwater world awaits!

## The Remarkable S-101

The S-101 is a versatile, multi-role 2-person diesel electric submarine that is highly autonomous and cost-effective to operate. Powered by a 50 HP diesel on the surface the submarine has a range of 200 miles, obviating the need for an expensive support ship, the use of which often typifies civil submarine operations.

S-101 models can be built with diving depths of up to 1200 feet. Operation is simple with intuitive controls and F-16 style joysticks.

One of the submarine's unusual characteristics is its relatively light weight, by submarine standards, which allows for launch and recovery from a large yacht or ground transportation by trailer.

The submarine currently available for sale was originally built by U.S. Submarines' Principal Engineer for the Swedish Navy to train against Soviet mini-submarine incursions into Sweden's territorial waters. The submarine was later sold to the Sea Shepherd's Conservation Society. In 1999 it was purchased by U.S. Submarines' Ellis Adams and completely refit. Recently the submarine has made 14 test dives in Lake Washington and Puget Sound.

The sale price is \$640,000.

