

# Pacific Glider

## A Converted Salmon Troller



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# History



*Illustration 1: Canadian Fishing Vessel Pacific Glider*

## **Surveyors Summary**

"PACIFIC GLIDER" is an example of a professionally executed troller to yacht conversion. After purchasing the vessel in November of 1999, discussions began with local Naval Architect Rick Etsell (<https://pacificmotorboat.com>) concerning plans for a yacht conversion. Mr. Etsell first did stability calculations and performed a stability test. In September of 2000, with drawings in hand, professional shipwright Paul Pipes (Pipes Marine Repair of Seattle, WA) was hired to accomplish the conversion from ex-troller to yacht.

Since the professional conversion of the vessel, the owner has accomplished additional upgrades and repairs. The existing fish boat interior was removed and replaced with living spaces more appropriate to a pleasure vessel. All electronics, and many mechanical systems were replaced, to include an approved head/MSD system, a new hot water system, a new pressured fresh water system including the tanks, Wallas diesel cooktop, and Dickinson Newport Heater. Pacific Glider was rewired using ABYC Standards as a guide.

The above is a excerpt from the survey done by Roger Morris.

To ensure a stabile seaworthy boat, of sound construction, the owner sought out professional help. Rick Etsell, PE, a naval architect and engineer, was brought in to to do the design for the conversion. For the build of the aft trunk cabin, Pipes Marine Repair was hired.

The owner, a Licensed Professional Engineer, did all of the interior, electrical, and plumbing work himself. When needed, professionals were consulted to ensure all work was done to ABYC standards.

Since the conversion, all hull repairs have been done professionally by Thomas Boat Repair.

## Current Condition

Pacific Glider has been tied to the dock since the summer of 2021. The owner's wife has Alzheimer's Disease, and he took her, and her friends, on their final cruise together. Upon return, his wife needed near constant care, and he became her full time caregiver.

Just before the cruise, the engine was replaced with a rebuild later model Detroit Diesel 4-71, the transmission was rebuilt, and the fuel tanks were replaced.

Unfortunately, the technician installing the engine did not seal the bell housing, and bilge water leaked in and was thrown out an access hole. This water was ingested into the engine and over several years of sitting, the engine seized. Under normal conditions, the owner would have fogged the then running engine for storage, and arranged the repair of the leaking bell housing.

The first diesel mechanic brought in to access the situation felt the engine needed to be removed to do another rebuild. A second mechanic felt the engine could be lifted in place, and an in frame repair could be done. The fisherman that originally owned the boat did an inframe rebuild.

A few photos of the 2021 re-engine are shown below.

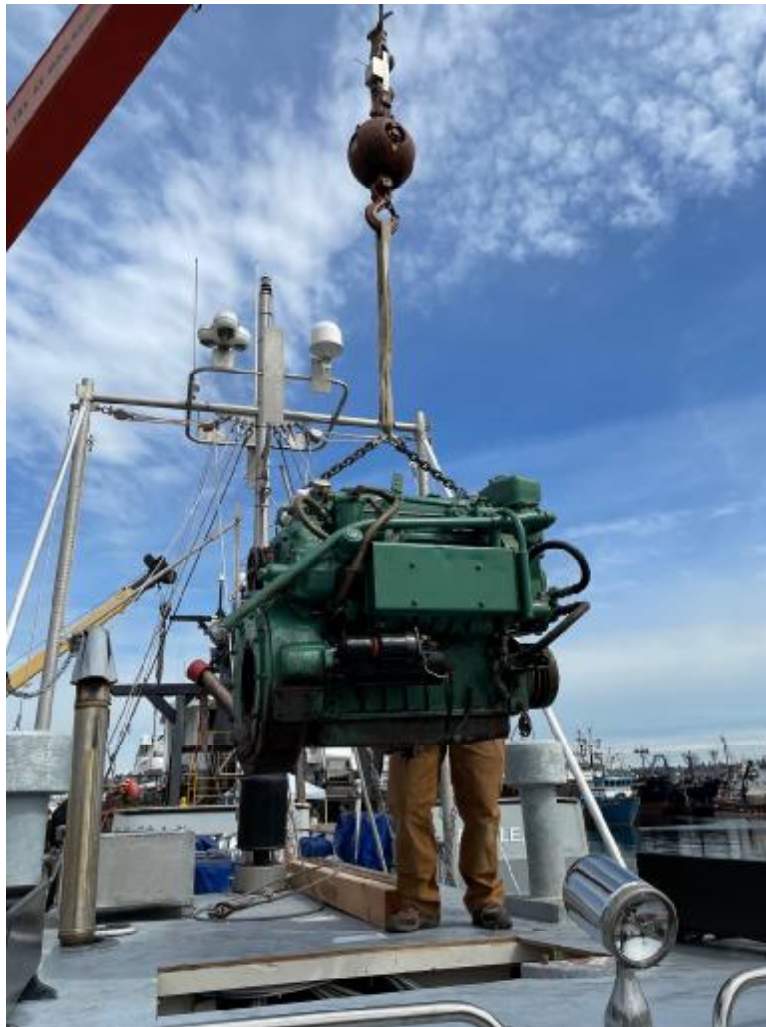


*Illustration 2: MV Pacific Glider Engine Removal*



*Illustration 3: MV Pacific Glider Engine Removal*

In Illustration 3, a frame around the pilot house side window can be seen. This frame, and one on the opposite side, supported a beam used to attach a chain fall. The chain fall was used to lift and rotate the engine during removal. A similar frame would be needed to do a repair in place.



*Illustration 4: MV Pacific Glider Engine Removal*

## ***Exterior of Boat***

### **The Fishboat**

A few photos are shown below of the Canadian Fishing Vessel (CFV) Pacific Glider.



*Illustration 5: CFV Pacific Glider Bow*



*Illustration 6: CFV Pacific Glider on the Grid*



*Illustration 7: CFV Pacific Glider Stern View*



*Illustration 8: CFV Pacific Glider Bow*



*Illustration 9: CFV Pacific Glider Aft Deck*

## ***The Yacht***

The primary modification to the fish boat was the addition of a trunk cabin. The original aft deck had a hatch (Shown in Illustration 9) that went below to the fish hold. This opening was increased to the size of the new cabin to allow the cabin to be as low as possible. The cabin sole is approximately at the water level. This allows for more pleasing lines, and increased stability. The trunk cabin is full width and 18 feet long.

The original trolling cockpit was covered with a deck, and is now a lazerette.

To allow access to the fore deck, a Dutch Door was added to the Pilot House.



*Illustration 10: MV Pacific Glider Forward View*



*Illustration 11: MV Pacific Glider Fore Deck*





*Illustration 12: MV Pacific Glider Stabilizers*



*Illustration 13: MV Pacific Glider Aft View*

## Interior Spaces

### *Stateroom (Foc'sle)*

#### **The Fishboat**

The original fish boat foc'sle had 2 bunk beds, a locker along the starboard side, and a Wilcox Crittenden marine toilet in a locker. The toilet pumped directly overboard.



*Illustration 14: CFV Pacific Glider Foc'sle*

#### **The Yacht**

The conversion of the Foc'sle (Stateroom) was never completed.

The converted Pacific Glider has a single v-berth in the foc'sle, with a custom made mattress from Slumber Ease Mattress Factory. Storage is available under the berth. The mattress folds allowing access to a hatch under the mattress. There is one locker that has a Thetford Porta Potti "Curve", and 3 drawers. Shelves run nearly the full length on both sides. On the aft bulkhead, there are shelves, with storage baskets, on both sides of the access stairs.

Ventilation is provided by a Bowmar hatch, with fan, and 2 ventilators on Dorade boxes. Heat is provided by a thermostatically controlled heat exchanger that uses hot water from the Dickinson diesel heaters, and warm air ducted down from the galley.

There is also a 20 inch TV set mounted at the forward end.

Two "juice squeezer" deck prisms provide natural light. Electric light is provided by two overhead

lights, and two reading lights.

The foc'sle ceiling is vertical grain fir. All trim is done with sapele.



*Illustration 15: MV Pacific Glider V Berth*



*Illustration 16: MV Pacific Glider Lockers Under Berth*



*Illustration 17: MV Pacific Glider Foc'sle Starboard Side*



*Illustration 18: MV Pacific Glider Foc'sle Port Side*



*Illustration 19: MV Pacific Glider Foc'sle Port Aft*



*Illustration 20: MV Pacific Glider Foc'sle Starboard Aft*



*Illustration 21: MV Pacific Glider Foc'sle Aft View*



*Illustration 22: MV Pacific Glider Foc'sle Porta Potii*

## ***Pilot House***

### **The Fishboat**

The original pilot house is shown below. Only the hydraulic steering and compass remains.



*Illustration 23: CFV Pacific Glider Pilot House*

## **The Yacht**

The pilot house was given a “modified” Dutch Door to access the forward deck. The Captain's Seat was designed to fold up, and has three drawers underneath. There is a fixed passenger seat with two lockers below. Electronics consist of individual pieces interfaced by NMEA 0183. There is



a computer monitor, and USB connection for a laptop. This laptop connection is to use a navigation program, such as Rosepoint Coastal Explorer, as a chart plotter. The autopilot is as ComnavP2.

## Electronics

**Compass:** Wagner with 5" card.

**Horn:** Kahlenberg model S-0A air horn with fog horn controller.

**Nav. Lights:** Running: 4 Anchor: 1

**Steering:** 18" wheel. Hydraulic power, Wagner type "T" system.

**Auto Pilot:** ComNav Commander P2 (SN S862873).

**Spotlight:** Remote on cabin top, Ray-line controls at helm station console.

**Radios:** VHF- Standard Horizon Matrix GX2000 with DSC; with whip antenna on mast and a handheld Icom, model IC-M92D.

**Depthsounder:** Furuno, model FCV-582L (SN 8835-2494).

**GPS:** Furuno, model GP – 32 (SN 6426-1781), with antennae on mast.

**Radar:** Furuno, model 841Mk2 (SN 3360-1135), Radome atop pilothouse on 27" Aluminum mast.

**AIS:** Vesper XB8000

**Multiplexer:** Shipmodul MiniPlex – 2USB

## Photos



*Illustration 24: MV Pacific Glider Pilot House*



*Illustration 25: MV Pacific Glider Captain's Seat Down*



*Illustration 26: MV Pacific Glider Captain's Seat Up*



*Illustration 27: MV Pacific Glider Wheel and Instrument Panel*



*Illustration 28: MV Pacific Glider Electronics Port Side*



*Illustration 29: MV Pacific Glider Electronics Stbd Side*



*Illustration 30: MV Pacific Glider Chart Table*



*Illustration 31: MV Pacific Glider Passenger Seat and Door to Galley*

# Galley

## The Fishboat

Only the Dickinson Atlantic diesel stove and chart table remain from the fish boat galley.



*Illustration 32: CFV Pacific Glider Galley*

## The Yacht

Pacific Glider has an L shaped galley. This L shape allows the person working in the galley to easily step aside to allow others to pass. There is counter space adjacent to the deep double sink. A Dickinson Atlantic diesel stove, and Wallas diesel cooktop, are opposite the sink. Below the Wallas cooktop is a microwave oven. During warmer summer months, when the Dickinson Atlantic is not in use, a butcher block top rests on the Dickinson for extra counter space. Refrigeration is provided by a Isotherm 195 AC/DC refrigerator.

There is locker space below all countertops, and above the refrigerator. There is a pot and pan drawer below the Dickinson. There is bulkhead mounted storage for dishes, bowls, cups, cutlery, utensils, french press, pump pot, vacuum canisters, and paper towels. Additional storage for glasses exists in the saloon.





*Illustration 33: MV Pacific Glider Galley Looking Aft*



*Illustration 34: MV Pacific Glider Galley Port Side Aft*



*Illustration 35: MV Pacific Glider Galley Sink, Dishes, and Flat Wear Storage*



*Illustration 36: MV Pacific Glider Wallas Stove & Microwave*



*Illustration 37: MV Pacific Glider Galley Dickinson Atlantic & Wallas Stove*



*Illustration 38: MV Pacific Glider Galley Refrigerator & Door to Pilot House*



*Illustration 39: MV Pacific Glider Galley to Saloon Passage*

# **Saloon**

## **The Fishboat**



*Illustration 40: CFV Pacific Glider Aft Deck*

There was no saloon on Pacific Glider. The saloon was added as part of the conversion.

## **The Yacht**

The new trunk cabin has an aft door and sliding hatch that enters the saloon. The original aft deck is preserved on the starboard side, with lockers underneath. Above the remaining deck, are book shelves, a 32 inch LED TV with Bose speaker, and a Dickinson Newport bulkhead mount diesel heater.

The port aft corner of the trunk cabin is where the head is located. Just forward of the head there is a locker, a couch that folds out to a bed (with a pipe berth above), another locker, and finally a dining counter that seats two. The forward bulkhead has storage shelves and a small electric oven.

Below the cork covered saloon sole, hatches provide access to water tanks, water heater, water pumps, and seacocks.



*Illustration 41: MV Pacific Glider Saloon Sole*



*Illustration 42: MV Pacific Glider Fold out Couch*



*Illustration 43: MV Pacific Glider Saloon Stbd Fwd*





*Illustration 46: MV Pacific Glider Dining Counter*

### **Head**

### **The Fishboat**

The fish boat had a Wilcox Crittenden Junior marine toilet in a foc'sle locker. There was no holding tank.

### **The Yacht**









***Engine Room***

**The Fishboat**



*Illustration 47: CFV Pacific Glider Engine Room*

**The Yacht**











# Appendix

## Construction

### Hull Planking:

Carvel planked construction, 1 1/4" (approx.) Red Cedar

### Frames:

White Oak, 1 1/2" x 2 W", steamed bent on 1 0" centers.

### Floor Timbers:

Doug Fir, 2 1/2" x 7" (avg).

### Shelf Timber:

Alaskan Yellow Cedar, 2" x 6". Longitudinals: Doug Fir, 2 1/2" x 3 5/8".

### Longitudinals:

Upper - Alaskan Yellow Cedar, 2 1/2" x 3 5/8". Bilge Stringer- Alaskan Yellow Cedar, made up of ( 4 ) 1 5/8" x 3 W" fastened side by side.

### Stem:

Hardwood, painted, 5" wide.

### Forefoot Knee:

Alaskan Yellow Cedar, 5" wide.

### Keel Batten:

Doug Fir, 6 1/2" x 9 1/2".

### Engine Beds:

Doug Fir, 4 7/8" x 5 1/4".

### Keel:

Doug Fir, 5" wide.

### Keel/Bug Shoe:

1" x 5" steel flat bar.

### Bulkheads:

Doug Fir Marine Plywood.

### Fastenings:

Planks- galv boat nails and galv screws. Others- galv steel.

### Deck Beams:

Doug Fir, varied depending on location, 3 W" x 3 W" to 1 W" x 2 1/2".

### Decking:

- Fore deck and side decks, Doug Fir 1 Wx 2 %"planking with non-skid rubber covermg.
- Salon coach roof and cockpit, marine plywood with non-skid rubber covering.
- Internal, painted marine plywood.

**Stern:**

Alaska Yellow Cedar timber lifts.

**Bulwarks:**

Aluminum forward port and starboard from stem to salon cabin and around stern/aft cockpit.  
Bulwarks are capped with varnished Sapele rail cap.

**House/Cabin:**

Painted marine plywood. Trim- Varnished or painted Honduras mahogany

## **EXTERIOR HULL/UNDERBODY**

### **Propeller(s):**

Single, 3 bladed bronze. Stamped with the following information: L 30 x 26.

### **Shaft:**

Single. Tailshaft - 2" Monel. Intermediate shaft - 1 3/4" steel. The intermediate shaft is supported by two (2) babbet bearings with remote lubrication system.

### **Packing Gland:**

Conventional cast bronze stuffing box/packing gland (flax packing).

### **Rudder:**

Steel plate, palmed, 26" x 27" approx. with 1 3/4" diameter bronze rudder stock..

### **Skeg:**

Continuation of 1" x 5" steel keel shoe with cutlass pintle bearing.

### **Stern Tube Bearing:**

Lignum Vitae in conventional bronze stem tube casting.

### **Transducer:**

Port side.

### **Color Hull Painted:**

Above W/L: White, Below W/L: Red.

### **Guards:**

Single, full length, painted. Appeared to be Iron Bark guard fastened to White Oak sponson approx. 1 3/4" x 5" x 30'.

### **Stem Iron:**

Steel.

### **Sea Valves:**

Bronze.

### **Thru-hull Openings/Penetrations:**

Port

- (1) Knot meter, fwd qtr- BWL
- (2) 3/4" Bronze, amidship -AWL
- (1) Keel Cooler, 6 pass, midship
- (1) 3/4" Bronze, aft of midship -AWL
- ( 1) 1" Bronze, aft qtr - AWL
- (1) 1 1/2" Bronze, ovrbd, aft qtr - BWL
- (2) 1 1/2" Bronze, aft - AWL

Stbd

- (1)  $\frac{3}{4}$ " Bronze, fwd qtr- AWL
- (1) Grounding plate for abandoned SSB radio, fwd qtr - BWL
- (1) Transducer and wood fairing block at keel, abandoned, fwd qtr -BWL
- (1) 1  $\frac{1}{2}$ " Bronze, suction for fire pump, fwd qtr-BWL
- (2)  $\frac{3}{4}$ " Bronze, aft qtr -AWL
- (1)  $\frac{3}{4}$ " Bronze, suction, aft qtr- BWL
- (1) 1" Bronze, aft qtr- AWL
- (1) 1  $\frac{1}{2}$ " Bronze, aft- AWL

**Key:** AWL = at or above water line, BWL = below water line

**Zinc Anodes:**

- (1) 3" x 12" bar on skeg. (1) 3" x 6" bar on stem tube housing.
- (1) 3" x 6" bar on rudder tube housing.
- (2) 3" x 9" tear drops on keel shoe.

## **DECK EQUIPMENT/ARRANGEMENT**

### **Anchor Winch:**

Hydraulic, make unknown, label plate not sighted.

### **Anchor:**

Forfjord, 145 lb. Anchor roller at head of stem.

### **Chain:**

3/8" galvanized open link, approx. 300 ft.

### **Cleats:**

(1) 12" cleat on centerline at bow with two open chocks (1P&1S).

(2) 12" cleat atop anchor winch.

(2) 10" cleats aft of midship (1P & 1S).

(2) 10" cleats aft of midship (1P & 1S).

(2) 10" cleats at cockpit (1P&1S).

### **Vents:**

Two (1 ea side P&S) atop pilothouse for ventilation of engine room.

### **Railings:**

1 1/2" aluminum pipe and stanchions with 1 "x 5" mahogany rail cap located on salon coach roof and around stem.

### **Escape Hatch:**

One (1) 19" x 19", Bomar aluminum, from foc'sle to foredeck.

### **Mast/Stabilizers:**

5" diameter aluminum pipe mounted on forward end of salon coach roof with compression post to keel beneath. Mast supported by 7 /16" galvanized cable side stays and forestay (with turnbuckles).

## **Propulsion**

### **Engine:**

**Engine Seized and requires repair.**

Single diesel, Detroit 4 cy4 model4-71, 120 HP.

### **Attached Units:**

Single Balmar alternator and hydraulic pump, hydraulic pump belt driven on forward, alternator belt driven on aft.

end of engine. Heat exchanger for marine transmission.

### **Marine Transmission:**

Borg Warner Velvet Drive, gear ratio- 2.9:1 (Rebuilt in 2021).

### **Engine Instruments:**

Isspro instrument cluster at helm station with gauges for engine rpm's, oil pressure, cooling water temperature, amps, volts and drive oil pressure.

### **Engine Hours:**

57.1 hours since 2021 major overhaul (re-engine at 889.7 hours).

### **Alarms:**

Aqua Alarm system with panel at helm station. Alarms for high bilge water level, low engine oil pressure, high engine coolant temp and engine room fire. Alarm bell mounted on pilothouse bulkhead.

### **Cooling:**

Keel cooler

### **Starting:**

Battery

### **Alternator:**

Single Balmar 95 Series 165 amp.

### **Exhaust:**

Dry, lagged. Stack atop pilothouse aft.

**Engine Shut-down:**

Manual, pull cable.

**Engine Controls:**

Dual lever, Morse cables

## **ELECTRICAL**

### **AC System:**

50A/125V

### **Shore Power:**

Single Marinco 50Amp receptacle, starboard forward at break in deck. One fifty foot shore power cable. Blue Sea Systems main/distribution panels with 50 amp breaker, and switches for polarity test, polarity reversal and lock-out. Located at starboard side of pilothouse.

### **DC System:**

12V with Blue Sea Systems distribution panels at starboard side of pilothouse.

Batteries:

-Engine Starting Bank: (1) 8-D 12 Volt in secured plastic box w/cover.

-House Bank: (8) 6V Trojan T-105 golf cart batteries in secured plastic boxes w/cover.

Battery Switch(es): (3), Blue Sea Systems rotary.

Battery Monitor: Victron Energy SmartShunt and V.E Direct Smart Dongle bluetooth control.

Alternator: (1) 165 Amp.

Inverter/Charger: Victron Energy 12/2000 Multi Plus Compact, automatic 3-stage charger.

### **Lighting:**

12VDC incandescent and LED

### **Wiring:**

Marine grade.

### **Circuit Protection:**

Breakers.

### **Other:**

110 V outlets are GFI.



## **AUXILIARY SYSTEMS/EQUIPMENT**

### **Bilge Evacuation System:**

(1) Rule 1500 12V with float switch in aft end of engine room bilge.

(1) Rule 2000 12V with float switch in aft end of saloon bilge.

(1) Whale Bilge IC Automatic diaphragm pump, with BilgeKleen filter, in aft end of salon bilge for stripping bilge water.

(1) Whale Bilge IC Automatic diaphragm pump, with BilgeKleen filter, in aft end of engineroom bilge for stripping bilge water.

Two Seadog switches for auto/manual bilge pump control are located at the helm station.

Two switches for auto/manual bilge pump control are located at the electrical panel.

High Water Alarms in engine room and saloon bilge

### **Fresh Water System:**

Pressure demand system. Pump: Shur-Flo 12V, 3.8 GPM with ShurFlo pre-charged stainless steel accumulator tank and in-line filters. Deck fills located atop salon coach roof, forward port and stbd. Two polyethylene tanks 50 gals each and two polyethylene tanks 20 gals each beneath salon deck sole along with manifold system for four ( 4 ) water tanks. Acu-Gage tank level monitor panel in galley. Total fresh water capacity: 140 gals.

### **Hot Water:**

Seaward hot water heater with Watts expansion tank. 11 gallon capacity

### **Fuel System:**

Diesel two 180 gallon aluminum tanks in the engine compartment (replaced in 2021). Atmosphere vented with deck fills on pilothouse side deck (P&S). A fuel manifold with two Racor filters (model 75/1 000) with pressure gauge located on aft engine room bulkhead. Total fuel capacity: 460 gals. Fuel level measured with Tank Tender Gage in Pilot House.

### **MSD System:**

Type III with polyethylene holding tank, 40 gallon capacity. Deck fitting for pump out on port side deck aft.

### **Galley Equipment:**

Waeco12V DC/110V AC refrigerator/freezer. Dickinson diesel fired stove, Atlantic model. Magic Chief micro wave. Wallas 85DU Diesel Stove/Heater with model 270 Blower Lid.

### **Other:**

- Loud hailer mounted under pilothouse brim.
- Aluminum diesel day tank (approx. 20 gals.) for galley stove mounted atop pilothouse, stbd aft. Day tank well secured to wood foundations, fitted with sight glass, vent and shut-off valves.