

PACIFIC

POWER GROUP

MARINE

Customer Solutions

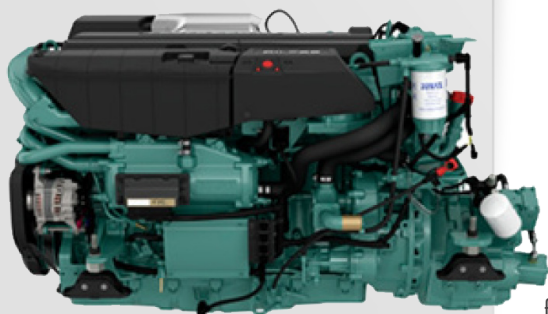
CUSTOMER:
BAY WELDING

POWER SYSTEM:
Twin Volvo Penta D11 625 hp Engines

VESSEL TYPE:
Fishing Boat

LOCATION:
Anchorage, Alaska

DATE:
Spring 2017



**VOLVO
PENTA**
Volvo Penta D-11



Fantasy Vessel for Hardworking Fishermen

Our client was tasked to design and build a boat that could get to the fishing grounds at 25 – 30 mph and get back to port with 5,000 – 10,000 pounds of fish on board at 20 – 25 mph. The overall comfort of crew and practical usability of the boat were high priorities as well.

What resulted is the Highlander, a one-of-a-kind Cook Inlet Stern Picker/Longliner combo fishing vessel that, thanks to twin Volvo Penta D11 625 hp engines from PPG Dealer In Demand Marine, is fast, extremely maneuverable, fuel-efficient, and well-appointed with technology and comforts.

POWER SYSTEM DETAILS

At the heart of the speed and weight carrying capability of the boat are the twin Volvo Penta D11 625 hp engines, coupled to the Hi500 water jets from Hill Innovations. Features of the Volvo Penta D11 inboard engines include:

- Compact design
- Powerful torque at low RPM
- Excellent drivability and stronger acceleration
- Effective turbo and air filter reduce noise levels significantly

ENVIRONMENTAL AND ECONOMIC IMPACT

The Highlander's D11 diesel engines are EPA Tier 3 rated, which give the fishing vessel environmentally-friendly performance.

The fuel economy, when full of fuel and water, averaged .72 mpg from 14 to 32 mph, showing a great efficiency range across a wide speed selection.

ABOUT THE BOAT

The boat hull, structural calculations, and stability engineering was performed by Coastwise Corporation in Anchorage, Alaska. The cabin design, systems layout, and detail design was completed in house by Bay Welding. The hull concept design was a spin-off of Bay Welding's successful high speed 42 x 14 hull that was also designed by Coastwise and Bay Weld, which was built a few years ago for the Alaska State Troopers.

ABOUT OUR VOLVO PENTA ENGINES

Volvo Penta engines and generators have been trusted for more than 100 years to provide quality and environmentally friendly propulsion for marine vessels. Volvo Penta's diesel engines are trusted in commercial and leisure applications alike for their excellent power-to-weight ratio, low fuel consumption and legendary reliability. Volvo Penta marine engines are designed to keep running with maximum uptime, the highest levels of safety and minimal environmental footprint.

Even though there can be only one Highlander, Pacific Power Group can design a custom Volvo Penta power system for your boat. Contact us for more information or to get started, to take passengers to see sights that they will never forget.



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Specs

OVERALL

- Length: 44' hull / 47' overall
- Width: 14' at gunnel
- Deadrise at transom: 13 degrees
- Draft: 20"
- Fuel capacity: 800 gallons in 4 tanks
- Fresh water capacity: 150 gallons
- Fish hold capacity: 400 cubic feet
- Weight with full fuel and water: 43,700#
- Main engines (2) Volvo D11 625 hp at 2400 rpm
- Marine transmissions (2) ZF325 with 1.72:1 ratio, live PTO, and electric shift and troll valve

CONTROL AND STEERING

- Control Systems: Volvo Penta Electronic Vessel Control system - 3 stations
- Water Jets: (2) Hill Innovations Hi500 jet - 20" diameter impeller. Aluminum fabricated jet housing
- Jet controls/steering: Electric over hydraulic solenoid bucket control valves with joystick toggle control / Sea Star hydraulic steering system with Power assist
- Generator: Northern Lights 6Kw
- RSW: PacWest 7.5 Ton hydraulic system
- RSW control system: Remotely controlled all electric zone controls. Control board mounted inside cabin for full RSW plumbing function control without going below deck

- Bow Thruster: Side Power 10" electric thruster with joystick control
- Video: Engine room camera / Deck Go Pro camera linked to Furuno NavNet display

SPEEDS

- Max speed with holds empty: 37.8 mph (41,250# as tested)
- Cruise speed with holds empty: 28.3 mph at 2000 rpm
- Max speed with 4,000# weight in holds: 35.5 mph (45,250# as tested)
- Cruise speed with 4,000# weight in holds: 25.8 mph at 2000 rpm
- Max speed with 8,000# weight in holds: 32.5 mph (49,250# as tested)
- Cruise speed with 8,000# weight in holds: 22.7 mph at 2000 rpm
- Max speed with 12,000# weight in holds: 28.1 mph (53,250# as tested)
- Cruise speed with 12,000# weight in holds: 20 mph at 2000 rpm
- Max speed with 16,600# weight in holds: 25.1 mph (57,850# as tested)
- Cruise speed with 16,000# weight in holds: 16.5 mph at 2000 rpm



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