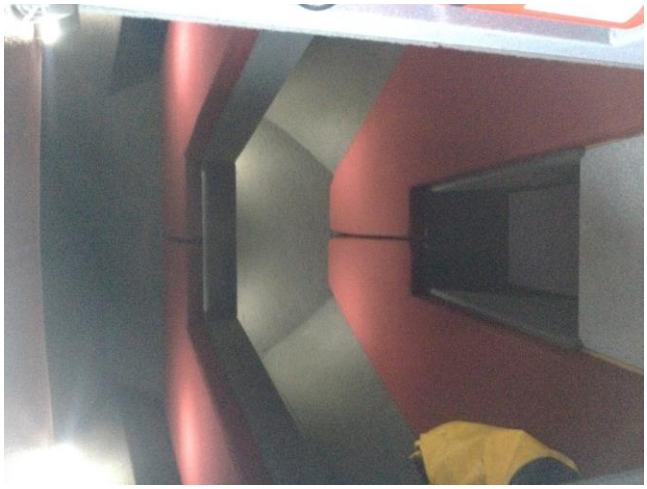
Meagan Anne

Operation Manual and Boater's Handbook

The ***Meagan Anne*** is a 33’ x 10’ offshore built in 2014 at Peregrine LLC in Eagle River, Alaska.



Operation

Meagan Anne is powered by a single Yanmar 6ly-2a 440HP diesel engine coupled to a Konrad 660 outdrive. The most efficient cruising speed is approximately 21-25 knots @ 26-2800 rpms.

- Never operate this engine over 2900 rpm.

This engine/outdrive combination has provided tens of thousands of hours of reliable service on charter boats. There are a few tips that keep both the engine and drive healthy.

- A single station, double lever Morse control provides throttle and shifting. When idling for any length of time such as warm up, it is best to increase to 1000 rpms. This is better for the engine, and minimizes "chattering".
- ALWAYS return the rpm's back down to low idle (around 750 rpms) before shifting into gear. Shifting should be deliberate. Failure to engage fully into gear will cause outdrive damage. Do not slam the lever back and forth from forward to reverse, always pause in neutral.
- Warm the engine up to temperature before accelerating. It's best to run under load at 1500 rpm until the engine is at operating temp.
- Accelerate slowly until the boat is on step. The engine has a lot of torque. "Punching" it will break things.
- Check fluids after each long run and/or daily. Checking the oil in these engines can be a little tricky. It's best to check after the engine has been off for at least a few hours. Check the dipstick several times to ensure an accurate reading. Only add enough to keep the level between the lines. Do not overfill. There will be a significant delay from the time you add until it shows on the dipstick. Do not overfill.

Expensive damage usually starts out as a small noise that gradually becomes a big Bang. If you hear anything that resembles "ticking", "grinding", "thumping", "grumbling", or "whining", it's best to shut down to idle speed, or stop the engine

completely. Stop operation if you hear these noises. When a u-joint explodes, it can do severe boat damage and cause severe bodily harm.

While operating any vessel, it is important to monitor engine gauges. Immediately shut down if any alarms sound, if the operating temperature climbs above 190 degrees, or if oil pressure drops.

Additionally, it is important to constantly watch ahead for logs, ice, and other debris. Striking a floating or submerged object will do severe damage to the vessel and outdrive. With lost revenue and shipping, a broken outdrive can cost nearly $40,000 during the season. You are 100% liable for damages you cause. Pay careful attention while at the helm!
If the engine fails to turn over, it is possible and most likely that the starter solenoid is not working. Try tapping the starter. Solenoid malfunction is common among marine engines.

Boat Maneuvering
Whittier is known for it's occasional windy conditions, especially during clear, high pressure conditions. Although these conditions are typically only local to Whittier and the Sound will be considerably calmer, winds make moving around in the harbor and other close quarters tricky. Expensive damage to your boat or others is possible if you are not extremely careful. Travel at a very slow speed in the harbor, even if this means you have to bump the drive in and out of gear. Always be prepared with lines and fenders ready. Have at least one person holding and ready to use an extra fender if needed. Call for assistance if necessary. We will meet you at the fuel dock, or outside dock if you need help. Whittier Harbor will also send personnel to assist you if you need help. They can be called on VHF channel 68. Never approach a dock without fenders out and people ready to handle lines. Err on the side of caution, you don't want to be responsible for expensive damage.

Boat Loading
Load the boat so that it sits level. Listing is better corrected by moving gear rather than by using trim tabs. Trim tabs will slow you down and decrease efficiency. Do not overload the vessel as this will stress the engine and drive and may cause unsafe stability issues. Eliminate extra and duplicate gear. Most boaters carry far more gear than necessary.

Cooling System
The Yanmar 6ly is cooled via a seawater heat exchange system. Seawater is pumped through the engine and is used to cool the freshwater/antifreeze system surrounding engine components. There is a large sea strainer mounted on the forward engine bulkhead. This will require occasional cleaning and is the most likely cause of engine overheating. The fresh water system is filled on the top of the engine and operates like a car radiator. Coolant levels should be checked prior to long trips. Only open the cap when the engine is cool. An overflow reservoir is mounted to starboard of the engine. Levels in this bottle change greatly. As long as the tank on the engine is full, the engine is fine.

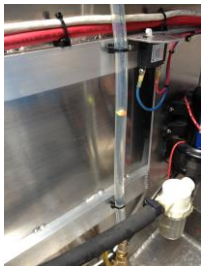
Belts
Spare V belts are onboard and can be changed with a 12 and 14 mm socket. There is also a power steering pump run via a second belt mounted on the front of the engine.

Fuel
Two 150 gallon fuel tanks are located forward of the main engine room bulkhead. One is to port and one is to starboard. Sight tubes indicate the tank's level. The engine draws from the port tank and an equalizer hose will keep the tanks level. Be sure that the valve is left open. Fill the tanks to the lines on the sight tube. This will give you approximately 250 gallons of useable fuel. Do not fill the tanks to the top.

A Racor filter is located on the port side of the bulkhead forward of the main engine. 2 micron replacement elements are onboard in the unlikely event that a filter should become plugged. A second stage filter is mounted on the port side of the engine forward of the fuel pump. This filter should not need service, but there is a spare onboard.


Racor filter


Secondary filter


Sight tube

Auxiliary Power
A Yamaha outboard provides auxiliary power. The motor bracket must be lowered for use. An oil reservoir is located on top of the cowling. Use regular unleaded gas and be certain that the oil reservoir is full. The motor has electric start.

Electrical System
The boat is equipped with a house battery bank, and a starting battery. Batteries are automatically isolated and charged. Switches are to port and starboard should you need to shut a bank down. Normally, you would not need to turn batteries off.

Bow Thruster
This boat is equipped with a bow thruster to aid in maneuvering. To turn in on, you must push the button twice. Then the jog stick should work. Do not operate the motor for more than 20 seconds continuously. Always have someone ready with an extra fender when docking and never operate at a speed faster than you would want to hit something when docking. The thruster is operated from a battery located under the v-berth floor. There is a replaceable fuse located on the power cable. A spare fuse is taped to the bulkhead near the thruster.

Bilge Pumps
There are four bilge pumps onboard. Two are located under the engine, one is located in the fish hold, and one is located under the cabin sole. They are controlled from switches on the dash and should be left on "Auto" at all times.

There are two high water bilge alarms onboard. One is located under the engine and the other is located under the cabin sole through the aft hatch. Bilges should always remain fairly dry. If an alarm sounds, you need to immediately address the source of the water.

Trim and list
The stern drive trim is controlled by the toggle switch starboard of the steering wheel. Normally, it does not need to be adjusted. If you do need to tilt the drive, be certain that it is all the way down and then "bumped up" before operation. Severe ujoint damage will occur if you operate the drive when it is up. Both the outdrive trim and trim tabs are powered by a breaker on the dash panel.

Consider list when loading the boat. If the boat lists to one side, a correction can usually be made by sliding a heavy cooler, the halibut weight basket, fish box, etc. to even the boat out. It's unlikely that you will need to use the trim tabs, but they are controlled from the rocker switches on the dash. Both trim controls are powered from a breaker on the dash.

Fresh Water System
There is a 20 gallon fresh water tank located under the cabin sole. A 12 volt pressure pump, run from a breaker on the panel, runs the pump.

Salt Water Wash down
The wash down pump is located in the engine compartment. The pickup is through the sea chest in that compartment. A breaker in the panel controls the pump. The breaker should turned off when not in use. Although there is a pressure switch, leaving the pump on all of the time will lead to shortened life. Additionally, the pump will flood the boat if a line is ruptured.

Marine Head
The marine head sits on a holding tank. When 3 Nm offshore, the valve under the tank can be opened so that the tank can be drained overboard. This is a very reliable system.

Never put anything other than human waste and marine toilet paper into the toilet. You will be charged a cleaning fee if we need to remove objects from the tank.

Bunks
Along with the v-berths, the table will drop into a bunk. Remove the backrest from the passenger seat. Then lift up on the table and remove the pole. Continue lifting (folding) the table up and it will release from the bracket on the wall. It will then fit between the seats.

Fish Hold
The large fish hold below decks is used for storage. Do not put fish in it. Monitor it for water and pump it out if necessary.

Electronics
A Garmin 840xs offers GPS charting, radar, and broadband sonar functions. Operation is intuitive, but the manual is onboard, or can be downloaded to a smart phone if needed.

Safety Equipment
8- Type I Adult and 2 Type I Child personal floatation devices are located in the storage compartment under the table.

Signal flares and a basic first aid kit are located in the drawer under the table.

Anchoring
The anchor system consists of a 33lb Bruce anchor, 30’ of chain, and 600’ of line. A buoy system with either a ring or a retrieval device is used to pull the anchor. Take great care when pulling the anchor as it can be extremely hazardous. **Do not wrap the anchor line around the outdrive. Doing so in heavy seas and/or current will sink you quickly.** There is a sacrificial line tied to the chain. This should allow a stuck anchor to be pulled.

Instructions for Use

Setting an anchor
Oregon State Marine Board guidelines recommend paying out anchor line a minimum of seven times the depth of water. Then apply Orval's EZ Pull.

How to install Orval's EZ Pull™
Hold the device in your left hand with the slot facing to the right, use your left thumb to depress the lever down.

Lay the anchor line in the slot, beginning at the roller end. The line snaps in and under both line locks with a little pull on the rope and a slight twist on Orval's EZ Pull™.

Detailed Instructions

Hold the EZ Pull in your left hand and with the left thumb press the lever down.

Lay line in the slot and then pull line in under the center rope lock and under the retainer on the roller end of the casting.

You're now ready to toss the line overboard with the puller and buoy in-place. Pay out some more line and secure the line to the bow.

Lifting & retrieving an anchor

Move the vessel forward till the line is tight and the anchor has lifted clear of the bottom. You're now able to lift and retrieve using the boat's forward motion at a nominal speed.

Pulling crab pots

Pull along side the buoy and retrieve the pot buoy and some line; place Orval's EZ Pull™ on the crab pot line (as described above) with the attached puller buoy. Give Orval's EZ Pull™ its buoy and some slack line in the water. You're now able to retrieve using the boat's forward motion at a nominal speed.

Removing Orval's EZ Pull™

Grasp the rope about 8" to 10" below the roller end, fold it back into the slot and give it a pull toward you.

This end faces the anchor or crab pot.

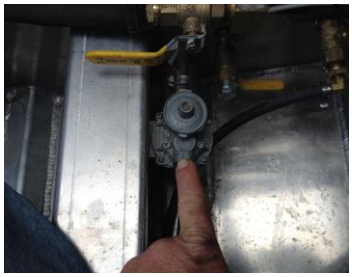
This end faces the boat.

To remove rope from EZ pull. Grab the rope about 10" below the EZ Pull and fold the rope back in the slot and give it a pull toward you. Then it will snap right out.

Chain should be about 14" from buoy. This length works best for me.

Dickinson Heater

The Dickinson heater is run on diesel which is provided by a pulse pump in the engine compartment. A breaker on the panel provides power. Please monitor it closely and follow the directions provided in the manual for operation.



Low pressure fuel pump

Lighting Procedure

1. Turn on the fuel pump or open the gravity feed valve to allow fuel to flow into the oil metering valve on the stove.
2. Open the lid and twist the superheater so the bottom makes a good contact with the bottom of the burner.

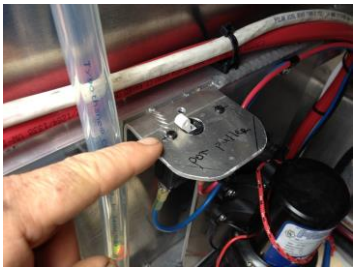
3. Lift and turn the oil metering valve knob on to setting #5 for 2 minutes to accumulate 2 tablespoons of oil in the bottom of the burner pot.
4. Then turn the oil metering valve OFF.
5. Twist a piece of tissue, light it and throw it into the pool of oil in the burner pot. Use a poking tool to push the lit paper into the pool of oil.
6. Once the oil has ignited, replace the lid.
7. Turn the draft assist fan on to the medium speed (6 o'clock) then turn it back down to the slowest speed (4 o'clock).
8. After a few minutes, watch the flames grow above the top burner ring where they should burn at all times.
9. It will take approx. 5-10 minutes for the priming fuel to burn. Once the flames drop back down into the burner pot it's time to turn the oil metering valve back on.
10. Lift and turn the oil metering valve knob to setting #2.5 and turn the fan OFF and watch the flames grow back to above the top burner ring.
11. Wait 20 minutes for the heater and chimney pipe to warm up before you adjust the valve further.

*NOTE: The flames must ALWAYS burn above the top burner ring regardless of the valve setting.

*****DANGER: If the flames go out at any point at this stage, turn the valve off and wait 5-10 minutes for the burner to cool. Re-lighting warm diesel or a flooded burner can result in an explosion. *Do not use gasoline or any other flammable materials to light the burner. Do not operate this heater unattended.**

Pot Puller

The pot puller on the davit is an electric capstan. A push button switch located on the gunnel near the davit turns it on. It is powered by a breaker near the starboard fuel tank in the engine room. Use care when pulling pots. Do not pull too hard, personal injury and/or damage to the boat can occur.



Pot Puller Breaker

Raft

An Achilles raft is onboard for shore excursions. Take care in where you land the raft as sharp rocks and barnacles will puncture the raft. You are responsible for damage to the

raft. Always wear a life jacket and be prepared while ashore. Remember to take adequate safety equipment, food and water, and to be mindful of tidal and weather conditions.

Returning the Vessel
It is your responsibility to return the vessel in the condition in which you received it. Fuel tanks must be full and the boat needs to be clean. Portable toilets also need to be emptied. Cleaning supplies will be provided to you after you unload and prior to final checkout. Plan accordingly. If you run off for the tunnel and leave the boat messy, you will be charged a steep cleaning fee.

Whittier Harbor
Make arrangements with the Harbor Master if you plan to stay in the harbor overnight. You are responsible for moorage fees while you are renting the vessel.