



Service News



Manual operation for Aux. Boiler

Miura Service News, Volume No.16 would like to explain the manual operation for Aux. Boiler.

Under the manual combustion circuit, there is danger of the serious accidents such as back-fire, over heat caused by improper operation. Therefore, please check the service news and instructions thoroughly before operation.

1. Manual operation basic use

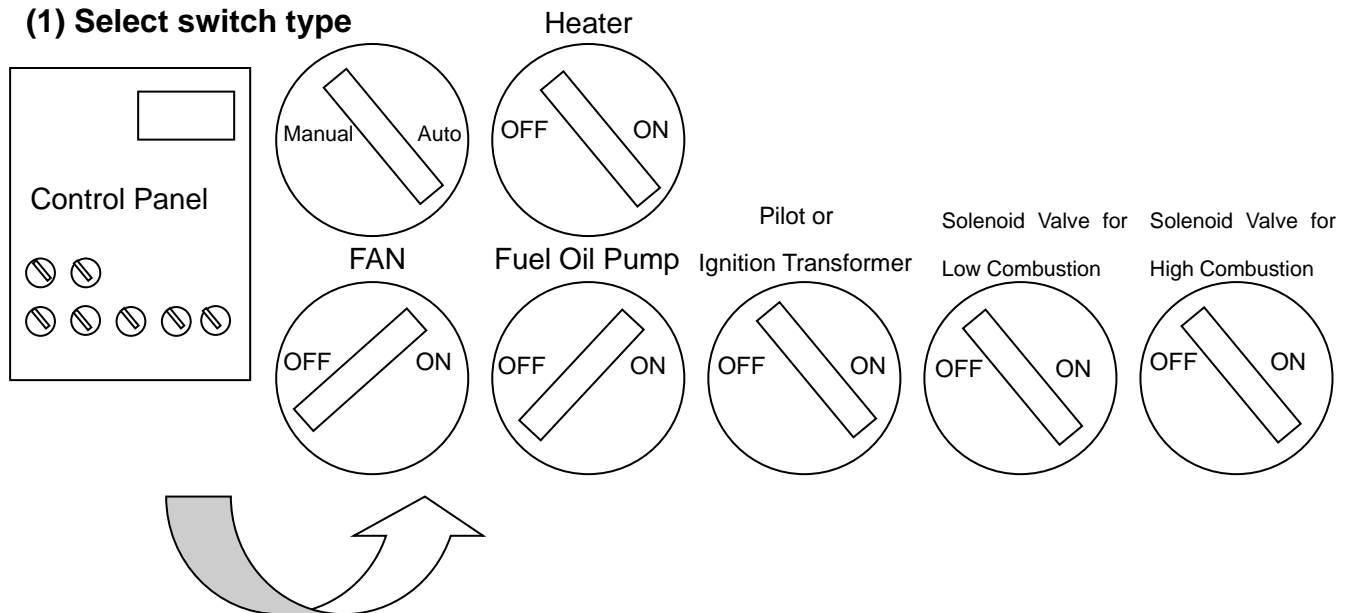
- Basically, carry out the operation along with a person in charge of boiler, and stay beside boiler during operation.
- Carry out the operation under the stance to stop the operation immediately if any problems happen.
- Kindly understand that the manual operation is emergency measures.
- Manual operation can be used to check the equipment (motor and so on) damage.

2. Caution at manual operation

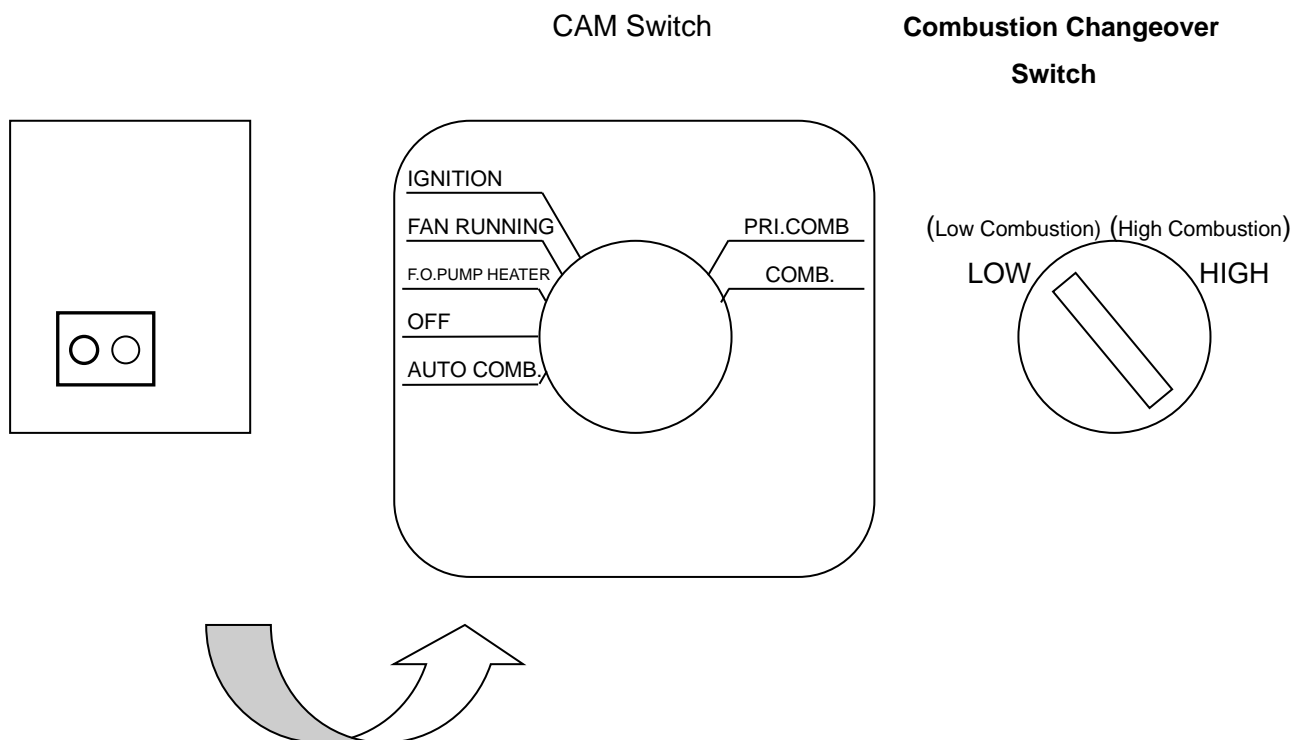
- Each safety device works under the auto combustion circuit, but the safety device is cancelled under the manual combustion circuit.
- Be sure to check the boiler water before operation.
- Check the water level gauge open, and normal water level position in the both gunwale's water level gauge.
- *For the manual combustion circuit, it is possible to assemble the necessary safety devices. Carry out the pre-purge before ignition and post-purge after combustion sufficiently for 60 seconds and more.
- *For the manual combustion circuit, it is possible to install the pre-purge timer later. There is danger of back fire if there are any full atomized fuels before ignition.

3. Type of control panel (two types)

(1) Select switch type



(2) CAM switch type (Products since August 2002)



4. Manual switch operation method

<Select switch type>

- (1) Turn the Manual-Auto Changeover Switch "Manual".
- (2) Start to run FAN. At this time, carry out pre-purge sufficiently for 60 seconds or more.
- (3) Start to run F. O. P.

The circulation starts. Check there are no any leakage of the combustion oil.

- (4) Turn ignition transformer (Pilot) ON.

In case of the pilot burner, check the combustion by the green lamp for combustion check.

At this time, be sure not to repeat ON-OFF operation again and again when the pilot burner does not ignite. Be careful that the atomized fuels which could not be burnt are full in the chamber, it is very dangerous.

- (5) Turn the solenoid valve ON.

Check the combustion by the green lamp for combustion check.

*With pilot burner: Turn both solenoid valve and ignition transformer OFF immediately if the green lamp does not light up within 3 seconds after solenoid valve ON.

*Without pilot burner: Turn the both solenoid valve and pilot OFF immediately if the green lamp goes off at proceeding from pilot to main.

- (6) Turn the ignition transformer (Pilot) which was turned to ON at the above procedure No.4 OFF.

*Procedure of 1-6 is the details for manual operation. If high combustion occurs, turn the solenoid valve switch for high combustion ON in due order after No. 6 operation finishes.

*For C Heavy Oil, turn the heater switch ON. ON-OFF operation is started by the thermostat or temperature controller operation.

*If there are fear of FO dropping and atomizing in the furnace by miss fire and so on, carry out purge sufficiently to decrease the temperature in the furnace. Start manual operation after checking of no FO built up in the furnace.

*Be sure to check the notes about operation described also in the instruction manuals.

<CAM Switch>

Check the instruction manuals for CAM switch type. For CAM switch also, be sure to carry out pre-purge and post-purge sufficiently.

5. "CAUTION" Plate for Pre-purge

! DANGER

**NO BURNER TO BE IGNITED BEFORE THE
FURNACE HAS BEEN PROPERLY PURGED.**

! 危険

着火前に必ず 十分なパージを 行なって下さい。

We can supply "CAUTION" plate if you need, so please inform us of Ship's name, Shipyard and S No.

6. Final

If you should request the safety device taking in manual operation, consult Miura Marine Boiler Maintenance Dept.

Scan the QR code or click on the following URL for information about our service network.

<https://www.miuraz.co.jp/en/marine/service/network.html>



If you have any questions, please contact nearest MIURA's office.

We hope to receive your continuous support in the future.