Operation Manual

Robin / Ruby High Pressure Fire Fighter

1. **Pre Operational Inspection – Ruby Pump**

- Check belt tension and alignment between pump and motor. Belt should be able to twist through 90 degrees and ensure that pump and engine pulleys are in line.

- Check and adjust the oil level if necessary. Only use a good quality SAE30 or SAE40 motor oil. (Castrol GTX is used on delivery).

- Ensure that grease cups contain sufficient grease (Multi Purpose). Before initial operation, and after each 2 hours of use, turn the grease cups two turns each to ensure valve and piston lubrication.
2. **Pre Operational Inspection – Robin EY20 Engine**

- Familiarise yourself with the operational controls of the engine, and visually check for oil or fuel leaks, and rectify if necessary.

- Check oil Level in the Engine and adjust to correct level if necessary. Always use a good quality SAE30 or multi-grade motor oil (Castrol GTX is used on delivery).

- Check and adjust fuel level.

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**WARNING**

DO not refuel while smoking, near an open flame or other such potential fire hazards.

- Stop the engine and open the fuel cap
- Use unleaded fuel only
- Close the fuel cock before filling the tank
- Always use the tank filter when filling
- Wipe off any spilled fuel before starting
3. **Pre Operational Inspection – Water Storage Tank**

- Ensure that the tank Drain plug is securely closed.
- Ensure that the tank is filled to the correct level.
- Ensure that the water strainer (in the tank) is clean and free from debris.
- Ensure that the tank lid is securely closed.
- Ensure that the hoses are securely fitted to the pump.
- Check the tank for signs of leakage.

4. **Operational Instructions**

- Turn the water cock (on the pump) to the closed position.
- Turn the engine stop switch to the “on” position.
- Open the fuel cock.
- Set the speed control lever to 1/3 open position.
- If the engine or ambient temperature is cold, close the choke lever.
- Position the engine on the compression stroke by pulling slowly on the recoil starter rope until resistance is felt on the rope.
- Return the rope to the original position and pull firmly and smoothly.
- After starting the engine, allow the rope to return to its original position.
- Once started, open the choke fully, and slowly increase the engine revs to maximum by positioning the speed control lever.
- Open the water cock on the pump to begin water flow from the tank to the pump.
- Ensure that, with spray gun closed, water is bypassing and returning to the tank (there should be no pressure indicated on the gauge at this time)
- Depress the handle on the gun, a high pressure water jet should be released from the gun, and the gauge should register a maximum pressure of 35 bar.
- Regulate the water pressure to the desired pressure (minimum 10 bar - maximum 35 Bar) by turning the black un-loader valve knob (clockwise to increase, anti – clockwise to decrease)
- Ensure that you have sufficient water and sufficient fuel on hand in case of top-up requirements.
Troubleshooting

**Engine will not start**

- Check that the engine stop switch is set to “on”
- Check that you have sufficient fuel, and that the fuel is fresh, and not old.
- Check that the fuel strainer is not blocked
- Check that the Air filter is clean and correctly fitted.
- Check that the spark plug has a good spark (this should be done by a qualified person, as there is a risk of electric shock)
- Check that the engine is turning freely, and that there is compression (resistance on the starter rope)
- Check that the pump is turning freely as the starter rope is pulled.

**Water Pressure is low, and will not increase**

- Check that the water level in the tank is sufficient to cover the suction strainer
- Check that the engine is running at maximum revolutions
- Release a possible air lock by opening and closing the unused water cock (be careful – this will release water and may wet the operator if you are not careful)
- Turn the black un-loader valve knob fully anti clockwise and sharply tap the top of the knob with the heel of your hand (this will release a stuck un-loader valve ball) and re-adjust the pressure by turning the knob clockwise until a pressure of 35 bar

**Storage recommendations**

- Always drain the fuel and run the carburettor dry if the unit is going to be stored for longer than 1 month.
- Drain the water, clean the strainer, and remove the water from the hoses (by compressed air) if the unit is going to be stored for longer than 1 month.
- Remove the spray-gun from the hose for safe keeping (theft of a spray gun will render the unit unusable)
- Keep the stored unit in a clean, dust free environment if possible, or cover the stored unit with a suitable cover. This will prevent unnecessary dirt and dust damaging the pump piston and engine parts

**We trust that you will get many years of successful use from your Fire Fighting Unit**

**Please service you engine and pump regularly at an authorised dealer to prevent failure**