



Boiler servicing – Warmflow diesel boilers

To ensure safe and efficient operation this boiler must be serviced annually. It is essential to ensure that any parts replaced are genuine original parts. Use of non-genuine parts may void the warranty on these appliances. The servicing of this appliance should be carried out annually and should include all of the following items.

Service requirements (in recommended sequence)

- Check all heating/hot water functions and the system operates as it should do.
- Turn all power to the system OFF.
- Whilst carrying out the service visually inspect all system and boiler interior etc. for any preventative maintenance requirements.
- Remove and clean all inline diesel tank filters, check for bio sludge and water ingress.
- Refit and purge any air out of the fuel filters and lines etc...
- Gain access to primary and secondary heat exchangers by removing access doors etc. Remove and clean all primary and secondary heat exchanger baffles and springs.
- Clean all interior surfaces of primary combustion chamber. Replace baffles in correct order and orientation. Refit any items removed for access.
- At this point remove, disassemble and clean the condensate trap. Reassemble and refit cleaned condensate trap.
- Clean and brush through fully all condensing spring tubes. Be sure to push flexible brush fully through and down into primary heat exchanger area. Replace springs with longer tips facing rearwards.
- Remove diesel burner from boiler and inspect flexible fuel line for damage. In any case we recommend the flexible fuel line to be replaced every 2 years; diesel fuel will slowly degrade flexible fuel lines.
- Partially strip down burner exposing the fan impellers. The fan should be brushed with a small paintbrush whilst vacuuming away debris. Reassemble the fan housing, cleaning dust etc. as you go.
- Remove blast tube, loosen electrode holder and remove/discard old atomising nozzle. Atomising nozzles should be replaced every 12 months. To prevent excessive fuel use and promote efficient operation.
- Fit new, correctly sized atomising nozzle. Clean and check ignition electrode gap/position with reference to the install manual retighten in correct location.
- Check, clean and refit blast tube.
- Refit burner into boiler with fuel pressure gauge attached for checking diesel pressure.

- Check system water pressure and top up if required. Continual water pressure drops may indicate a leak and must be investigated.
- Remove and clean the magnetic filter then refit. Purge air out of filter assembly, don't let it back into the system!
- Test the system water – add inhibitor as required.
- Turn the system power back on, and select heating on a thermostat to bring the boiler burner and pump on.
- Give the boiler a few mins to warm up, at the same time check the diesel pressure on your gauge is correct for the boiler size and nozzle. See additional PDF with these figures on.
- Take a reading of the smoke from the test point with your smoke pump. Reduce smoke by adjusting air levels if required until you get a clean burn with very little or no smoke.
- Once you have a good smoke reading then you can use your flue gas analyser to fine tune the Co2 and excess air settings. Again refer to the additional PDF for these settings.

To carry out this service you will require the following-:

- A calibrated flue gas analyser.
- Diesel fuel pressure gauge kit.
- Smoke pump and papers.
- A system water/inhibitor test kit.
- Vacuum cleaner with good filter system.
- Dust sheets if required.
- PPE.
- Metric allen key set.
- Metric spanner set.
- 1 x 5/8" spanner for nozzle removal.
- Your basic tool kit.

Your New Zealand warranty requires that service be completed as prescribed at least every 12 months. Service as described above is a mandatory requirement in law in other markets such as the UK & Europe At the very least we should all follow the requirements of service for the good of our industry.