

Camray
COMBI

OPERATING, INSTALLATION &
MAINTENANCE MANUAL
FOR
CAMRAY 5 COMBI
Oil Fired Boilers (55, 70A & 90A)

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**Boulter
Buderus**

HEALTH AND SAFETY
INFORMATION FOR THE INSTALLER AND SERVICE ENGINEER.

Under the Consumer Protection Act 1987 and the Health and Safety at Work Act 1974, it is a requirement to provide information on substances hazardous to health (COSHH Regulations 1988).

The Company takes every reasonable care to ensure that these products are designed and constructed to meet these general safety requirements, when properly used and installed.

To fulfil this requirement products are comprehensively tested and examined before dispatch.

This appliance may contain some of the materials below.

When working on the appliance it is the Users/Engineers responsibility to ensure that any necessary personal protective clothing or equipment is worn appropriate to parts that could be considered as being hazardous to

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Under the Consumer Protection Act 1987 and the Health and Safety at Work Act 1974, it is a requirement to provide information on substances hazardous to health COSHH Regulations 1988. The Company takes every reasonable care to ensure that these products are designed and constructed to meet these general safety requirements, when properly used and installed. BOULTER BOILERS Boulter Boilers Limited Magnet House, White House Road, Ipswich IP1 5JA. Before using your new Boiler, we ask that you carefully read the following information. It is the responsibility of the installer to ensure that the Boiler is commissioned. If an engineer is not known, Boulter Buderus will be pleased to provide details of commissioning and servicing engineers from their register. Your Installer should give guidance on this. This is perfectly normal and should be no cause for concern. Note The nozzle on this appliance is only covered by a 1 year guarantee. The isolating switch must have all pole contact separations at least 3mm BOULTER BUDERUS CAMRAY 5 PAGE 7 35 DIMENSIONS Output. The chimney should comply with the latest edition of the Building Regulations and BS 5410 Part 1. A high level outlet should be provided for ventilation. BOULTER BUDERUS CAMRAY 5 PAGE 11 47 OIL STORAGE 47.1 Oil Tank Consideration to the access by fuel delivery lorries should be given when positioning the oil tank. As there is only one tapped outlet they are more suited to single pipe feed as gravity supply or with a Boulter 3K Oil Loop Deaerator where suction lift is required. The Flexible Oil Pipes are fitted inside the Boiler casing and are of adequate length to enable the Burner to be removed without disconnecting. Click the Programmer in place from the front. 6. Fitting Instructions for the programmer are included in the Programmer Kit. These may be as required but can be easily changed if not. Test enables a quick review of the 7 day programme.<http://jlconst.com/admin/images/car-amplifier-manual-pdf.xml>

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This enables a period of days to be set up to 99 during which time the Heating System is OFF. When the Holiday Period is over the Programmer reverts back to the normal programme. Balanced Flues permit considerable choice of siting of the Boiler. Boilers may be installed in situations where no chimney exists, where the chimney is unsatisfactory or in outhouses. Due to the efficiency levels of Camray 5 plumbing from the terminals may occur under certain conditions. The illustration shows a typical rear outlet flue. Assemble the flue generally as follows 1. Available from Boulter Buderus. 17. Inside Using the clips supplied fix the flexible air duct to the burner spigot and flue offtake securely. The following illustrations show boilers up against a rear wall as an example. It is not essential for the boiler to be positioned this way; As long as the joists are capable of supporting the flue via the support plate supplied in the kit. Continue with the rest of the installation. The following illustrations show boilers up against a rear wall as an example. It is not essential for the boiler to be positioned this way. As long as the joists are capable of supporting the flue via the support plate supplied in the Kit or the Flue support quadrant kit optional. Continue with the rest of the installation. This is attained by pushing two telescopic flues together until the desired dimension is obtained. Secure any vertical lengths by using a drill and 4 self tapping screws supplied. If an engineer is not known Boulter Boilers will be pleased to provide details of commissioning and servicing engineers from their register. Outer valve Filter Sludge cock Non plastic tanks. HEIGHT OF TANK Is the bottom of the tank above the oil pump if a single pipe system is installed. OIL SUPPLY LINE Ensure that galvanised iron has not been used.<http://www.insource-inc.com/stock/userfiles/epson-powerlite-735c-manual.xml>

BOULTER BUDERUS CAMRAY 5 PAGE 41 74 BOULTER BUDERUS RECOMMENDED COMMISSIONING CHECK LIST SHEET 2 OF 2 CASING PANELS Have grommets been fitted to relevant oil supply entry points knockouts Is the flue free of any obstruction. Has the chimney been adequately lined and insulated. NOTE Lining the flue and back filling will help prevent condensate problems BALANCED FLUE APPLIANCES Is the correct flue kit fitted. Is the Flue off take correctly secured to the boiler by four nuts and washers. GENERAL Has the boiler been installed in accordance with manufacturers instructions. BOULTER BUDERUS CAMRAY 5 PAGE 42 75 BOULTER BUDERUS RECOMMENDED COMMISSIONING TESTS Have the manufacturers onsite assembly instructions been followed Instruct the user on the operation of the appliance and leave this manual with the customer. CHANGE the nozzle for one with the specified make, oil rate, spray pattern and angle. Inspect the ignition electrodes for crazing in the porcelain. Replace if there are signs of deterioration. A dirty fan impeller can impair the performance of a burner, inspect and clean if necessary. To adjust the CO at the Air Shutter use a 3mm allen key as shown. BOULTER BUDERUS CAMRAY 5 PAGE 45 101 FAULT FINDING If the Boiler fails to start, make the following checks before calling a service engineer 1. BOULTER BUDERUS CAMRAY 5 PAGE 53 Burner starts but will not This can be due either to light up absence of oil or ignition. BOULTER BUDERUS CAMRAY 5 PAGE 54 Burner pulsates Worn nozzle with Replace with nozzle of correct type and size see a continuously excess throughout or Technical Data. Due to a policy of continual development Boulter Buderus reserves the right to alter or amend the design of its products without prior notice. The Company takes every reasonable care to ensure that these products are designed and constructed to meet these general safety requirements, when properly used and installed.

To fulfil this requirement products are comprehensively tested and examined before dispatch. This appliance may contain some of the materials below. Thank you, for helping us keep this platform clean. The editors will have a look at it as soon as possible. To fulfil this requirement products are comprehensively tested and examined before dispatch. This appliance may contain some of the materials below. May be harmful if inhaled. May be irritating to the skin, eyes, nose or throat. When handling avoid inhalation and contact with the skin or eyes. Use disposable gloves, face masks and eye protection. After handling wash hands and other exposed parts. When disposing, reduce dust with water spray, ensure parts are securely wrapped. Seek immediate medical attention for any rash, wart or sore developing on any part of the body, particularly the scrotum. 4. Avoid as far as possible any skin contact with mineral oil or with clothing contaminated with mineral oil. 5. Never breath any mineral oil vapours. Do not fire the Burner in the open i.e. out of the Boiler as a miss fire will cause unburnt oil vapours. Barrier cream containing lanolin such as Rosalex Antisol, is highly recommended together with a strict routine of personal cleansing. Under no circumstances should mineral oils be taken internally. BOULTER BUDERUS Boulter Buderus Limited Magnet House, 30 White House Road, Ipswich IP1 5JA Telephone 01473 Boulter Boilers Fax 01473 A subsidiary of Buderus Heiztechnik GmbH Due to a policy of continual development reserves the right to alter or amend the design of its products without prior notice. To obtain the best possible performance and trouble free operation from your Boiler, it is important that you read section 1 of this manual carefully. All Camray appliances are the result of many years of research, development and experience.

Whilst our Boilers are designed with simplicity of operation in mind, there are certain features and benefits which only become obvious when you thoroughly understand how best to use your new Camray product. We trust that you will enjoy many years of reliable service from your new Camray Boiler and, once again, thank you for choosing Camray. 11.1 Manual This Manual covers Safety, User Instructions, Installation, Commissioning and Maintenance of the Camray 5 Page 5 of 77 Combi Boiler. 11.2 Timer Programmer An optional Programmer is available which will enable you to time both your Central Heating and Domestic Hot Water store requirements. 12 USEFUL INFORMATION Your Installer will help you complete this where necessary. Information can be found on appliance

data label located inside the left hand side panel of the casing. Also on the front cover of your installation manual. CAMRAY 5 COMBI PAGE 2 13 IMPORTANT SAFETY NOTES To obtain the best possible performance and trouble free operation from your Boiler, it is important that you read these instructions carefully. Your Camray Boiler has builtin safety features, which are detailed in the 6 Page 6 of 77 relevant section of this manual. 13.1 Please Note The heating system must comply with the latest editions of British Standard 5410 and The Building Regulations. It is the responsibility of the installer to ensure that the Boiler is commissioned. It is essential that the instructions in this manual are strictly followed for safe and economic operation of the Boiler. Failure to observe these instructions may invalidate your right to free breakdown cover during the guarantee period. We recommend that you keep these instructions in a place near your appliance for easy reference. 13.2 Air Supply to Boiler Conventional Flue Where your Boiler is used on an open conventional flue system, a permanent air supply is required for combustion.

Clearances provided at the sides and rear of the appliance for air entry must be kept free of obstruction. For further explanation please refer to section 4 of this manual. 14 CONNECTIONS Your Camray Boiler should be connected to an electrical supply complying with the Electrical Wiring Regulations BS7671 as well as an oil supply complying with BS5410; and an appropriate flue system. ALWAYS SWITCH OFF THE ELECTRICAL SUPPLY before removing any of the covers for cleaning. Commissioning involves testing the Boiler to ensure that it is working correctly, and also setting the Burner correctly to ensure the most efficient operation and use of fuel. If the Boiler has not been commissioned, it may not be operating at the maximum efficiency possible for your heating system, and may also invalidate the guarantee. Wiring should not be tampered with, modified or changed for any reason. 3. Only use Boulter replacement parts. Noncompliance with the above will invalidate the Guarantee. NOTE Due to the high efficiency of DHW production in certain circumstances i.e. very low flow rates, the temperature of the hot water at the tap can be high. If this temperature is likely to cause nuisance or discomfort your installer should be able to advise on a suitable temperature blending valve. The burner is lit by an automatic ignition system and therefore there is no pilot flame. The boiler should not be operated below 60 C, as this will cause corrosion which will reduce the life of the boiler. 16.2 Hot Water Tank Thermostat This thermostat controls the water temperature in the tank. Should this occur. the green indicator light on the control panel will illuminate. Wait for the boiler to cool, and reset the thermostat by depressing the limit thermostat reset button located on the control panel see Fig 1a If this problem recurs, turn the boiler off and consult your installer. 16.

5 Lockout Lamp In the unlikely event of a burner malfunction or you run out of oil it will automatically shutdown, and the red lockout indicator on the control panel and the lamp on the burner will illuminate. Wait 45 seconds before attempting to restart the burner. To restart the burner, remove the front boiler panel and depress the lockout reset button on the front of the burner control box see Fig 1b. If the problem occurs again, turn the boiler off and consult your installer. CAMRAY 5 COMBI PAGE 4 9 Page 9 of 77 Fig. 1b Lockout Reset 17 OPERATING FEATURES AND INSTRUCTIONS 17.1 How does your boiler work. From cold, this will take approximately 18 minutes. To obtain the maximum temperature and quantity of hot water ie for a bath set this to maximum. When the tap is turned OFF the boiler will continue to operate until the hot water tank reaches the temperature set on the Hot Water Tank Thermostat. The period of operation to replenish the energy used depends on the quantity of hot water drawn. During the period of draw off the circulating water pump will operate but not the boiler. Providing the tank has not discharged just prior to the Programmer switching off there is normally adequate hot water for occasional use of wash basins. It is important that the correct operating system pressure is maintained. If the System Pressure Gauge, in the Control Panel, should indicate low pressure i.e. below the marker, contact your Installer. 17.4 Frost Protection If there is any danger that your Boiler may freeze up during severe weather conditions, it is recommended that you consult your installer who will be able to

advise you on an appropriate course of action, either by installing a frost thermostat or the addition of system antifreeze. CAMRAY 5 COMBI PAGE 5 17.5 Oil Delivery Where possible, it is advisable to temporarily switch the Boiler off when your oil supply is being replenished. This is to allow any sediment to settle and not be drawn into the Boiler.

If not this could result in an inconvenient break down. We advise that you keep your Boiler off for one hour after the oil is delivered to your tank. Please ask your supplier, or the driver to notify you before the oil is discharged. 18 MAINTENANCE For normal cleaning of the outside casing, simply wipe with a dry cloth. To remove stubborn marks and stains, wipe with a damp cloth and finish off with a dry cloth. DO NOT use abrasive cleaning materials. The Boiler must be serviced at regular intervals by a qualified service engineer. Press the reset button once the temperature has dropped sufficiently. 5. Check whether the red LOCKOUT lamp on the Control Panel and Burner Control box are glowing. This indicates that the Burner has attempted to start but has not fired successfully. Press the reset button on the Burner Control box, when released, the lights will go out and the Burner will again attempt to start. If the 11 Page 11 of 77 Burner does not run and again goes to lockout with red indicators glowing Wait three minutes. Repeat the procedure by pressing the button. Failure to start on the second attempt indicates a fault requiring attention. Switch off the mains supply and call your service engineer. CAMRAY 5 COMBI PAGE 6 21 INTRODUCTION The Camray 5 Combi is 1. Designed for producing Hot Water and Central Heating. 2. Suitable for sealed Central Heating systems which are within the maximum permitted working pressure. All Boilers are supplied with a manual reset limit thermostat. 3. Suitable for new installations and for replacing existing sealed system Boilers. CAMRAY Boilers offer greater freedom to select the most suitable position for siting and the opportunity to install the boiler in a suitable outbuilding if required. All models are supplied for connection to a conventional chimney or any of the available Camray 5 Combi Balanced Flue options. NOTE Right hand low level flue not available. They offer unique versatility and can be used in the following modes 1.

Low level rear outlet balanced flue. 2. High level rear outlet balanced flue. 14 Page 14 of Vertical outlet balanced flue. Insulated balanced draught chimney. 4. Low level left hand side outlet balanced flue only. 5. High level side outlet balanced flue RH or LH. 6. For connection to a conventional chimney. 7. Other options may be available. Please contact Boulter. Balanced flues are supplied in a carton which includes ALL parts for balanced flue installation. With conventional flue leave gap of 15mm at rear of boiler for air entry. 24 COMMISSIONING The heating system must comply with the latest editions of British Standard 5410 and The Building Regulations. IMPORTANT Should you wish to remove or dismantle any covers or parts of the Boiler for cleaning or maintenance ALWAYS FIRST SWITCH OFF THE ELECTRICITY SUPPLY. 1. On no account should any part of the Boiler or its Flue be modified except as specified in this manual. 2. The wiring of the Control Panel should be as the wiring diagrams included in this Manual. Wiring should not be tampered with, modified or changed for any reason. 3. Only use Boulter replacement parts. Non compliance with the above will invalidate the Guarantee. 31 LIQUID FUELS The Camray 5 COMBI Boiler will burn liquid fuels complying with BS2869 Part Class C2 specified in the Code of Practice for Oil Firing BS5410 Part 1. Class C2 Kerosene This fuel is suitable for Camray 5 COMBI. Burners are supplied with the appropriate nozzle and pump pressure as standard for this fuel.

32 TECHNICAL DATA 15 Page 15 of 77 Heat Input Full load based on Net efficiency of 91% Heat Output Full load Maximum Boiler working pressure Minimum return water temperature Maximum side panel temperature Conventional flue Minimum flue draught Conventional flue Maximum flue draught Range of Boiler Control Thermostat Maximum Temperature of Boiler Control Thermostat Boiler Limit Thermostat Setting Maximum Emissions Limit Class 1 3 bar Class m water head 60 0 C 16 Page 16 of 77 BS7671:2001 formerly IEE Wiring Regulations. This appliance must be effectively earthed and connection to the supply must be through a double pole isolating switch fused 5 amp.

The isolating switch must have all pole contact separations at least 3mm. 90A 70A 55 29kW 22.5kW 17.7kW 26.4kW 20.5kW 16.1kW CAMRAY 5 COMBI PAGE 9 35 DIMENSIONS 36 TUNDISH POSITION A Tundish must be fitted to provide a visual indication of water flowing from the Pressure Relief Valve of the Boiler. Installation of the Tundish must be located in a position clearly visible to the householder i.e. to comply with Part G of the Building Regulations typically as fig.3.b The Tundish should be positioned on the right hand side of the appliance. Flue Exit Temp o C Gross Boiler Test Point Temp o C 90A RDB 483T x60o W A RDB 483T x60o W RDB 484T x60o W There are two columns in the table for combustion gas temperature FLUE EXIT temperature, and BOILER TEST POINT temperature. 2. Where possible CO₂, smoke and flue gas temperatures should be sampled from the FLUE EXIT i.e. external balanced flue discharge, or from the test point provided in the conventional flue adaptor 3. These figures may be used to calculate combustion efficiency. 4. Alternatively where the forgoing is impractical such as vertical BF gases can be sampled at the BOILER TEST POINT inside the casing. Pt 7 Codes of Practice for Sealed Systems. Electrical Wiring Regulations.

It is not the purpose of the manual, nor is it possible, to adequately deal with the subject in this manual. On existing heating systems where a Boiler is replaced, ensure that the system is chemically cleaned, consult a reputable manufacturer. The system should contain clean water and be free from leaks. Suitable inhibitors against limescale and corrosion should be added to the system. Consideration must be given however, to the following points. 1. Noise may be accentuated by the installation in small rooms or recesses with hard or hollow stud wall surfaces. Due consideration to the siting of Boilers should be given. Further advice from BOULTER should be sought where any doubt exists. 2. Some individuals may be particularly sensitive to even low noise levels and this should be discussed before installation. 3. The type of chimney, position relative to the Boiler and whether a draught stabilizer is to be fitted may affect sound level in the room. 4. The Camray 5 Combi Boiler model is serviced from the front and top. A space of 450mm 18 in front and above the Boiler should be available. On CF a 15mm gap at the rear must be provided for air entry. 5. Any kitchen work top above the Camray 5 Combi Boiler must be made removable for service access or replacement of parts. 20 Page 20 of Boiler installation in bedrooms or living rooms should be avoided if possible. 44 THE HEARTH The Camray 5 Combi has a Hearth Temperature of less than 85 0 C. The Boiler require a level hearth on which to stand which should comply with the Building Regulations. If the Boiler is to stand on a floor made of combustible material then protection between the Boiler and the floor should be provided by means of non combustible material. Consideration should be given to the weight of the Boiler see Fig. 32. CAMRAY 5 COMBI PAGE 13 45 BOILER ARRANGEMENT Fig. 4.

5 Camray 5 Combi Boiler Arrangement CAMRAY 5 COMBI PAGE 14 46 SEALED SYSTEM DETAILS litre Expansion Vessel The Expansion Vessel is suitable for systems with a static head of up to 5 metres 16.5ft i.e. the vertical distance between Expansion Vessel and highest point of system, usually the top of bedroom radiators. If the static head is greater than 5 metres, then the charge in the vessel must be increased to equal this higher static pressure. The pressure can be increased if required by simply pumping up the vessel with a standard air type pump and checking the pressure with a tyre gauge with the system at zero pressure. A Schrader type valve is provided on the vessel for this purpose see note below. NOTE The air charge should not exceed a pressure of 1.5 Bar 22 p.s.i. Expansion Vessel Requirements Vessel Charge and Initial System bar 21 Page 21 of 77 Pressure psi Expansion Vessel size supplied Total water content of system including 40 litre tank using expansion vessel supplied. 12 litres litres gallons For systems having a larger capacity multiply the total system capacity by the factor 0 obtain the total minimum expansion vessel capacity required Storage Tank An insulated tank providing storage for heated water that is used via the Plate Heat Exchanger for domestic hot water production. 3. Pressure Gauge The Gauge 06 Bar mounted on the Control Panel is provided as a visual indication of the water pressure within the

system. Routine venting of radiators is still advised. 6. Circulating Pump The pump is fitted to the Flow Pipe as a circulating pump for the Heating System and the Domestic Hot Water Plate Heat Exchanger. 7. Tundish not supplied Provides a visual indication of water flowing from the Pressure Relief Valve. 8. Boiler Primary Heat Exchanger Insulated steel Heat Exchanger with combustion chamber and access cover at front for servicing. 9. Three Port Motorised Valve Normally open to Storage Tank.

When heating is in demand the valve diverts hot water to the radiators. This may require an approved pressure reducing regulator to be fitted before the inlet valve. The final 600mm of mains water supply pipe to the Boiler must be copper. All combination Boilers suffer performance degradation due to the effects of hard water limescale build up on heat exchanger surfaces. Your local water supply authority should be able to advise on hardness. To achieve the flow rates specified at water outlets taps, pipework over 3m in length from the Boiler must be dia 22mm. For specific information relating to fittings e.g. showers, dishwashers, washing machines etc. The temperature of DHW depends on the water flow from the tap. To obtain a more even temperature a mixing valve can be fitted Bidets Subject to local Water Company regulations the supply of hot and cold mains water direct to a bidet is permitted if it is of the overrim flushing type. The outlets should be shrouded and it should not be possible to temporarily attach a hand held spray. An antisiphon device is unnecessary. Fixed head showers Thermostatically controlled showers are recommended for greater comfort and prevention of high temperatures. Flexible head showers It must not be possible for the head to fall closer than 25mm above the top edge of the bath to prevent immersion in it, or the shower must be fitted with an antisiphon device at the connection to the flexible hose. 48 CONNECTIONS TO THE BOILER Connection to the Boilers 15mm and 22mm pipes should be made using compression fittings, either elbow or straight couplings can be used dependent on installation. 48.1 Cold Mains In To achieve optimum flow rates the incoming cold should be 22mm pipe reduced to 15mm to suit the Boilers pipe. 23 Page 23 of 77 48.2 Domestic Hot Water To achieve optimum flow rates the 15mm domestic hot water flow from the Boiler should be increased to 22mm. 48.2 Heating Connection The Boilers heating flow and return pipes are 22mm. 48.

3 Pressure Relief Valve Connection The Boilers Pressure Relief outlet pipe is 15mm. VERY IMPORTANT All Camray 5 boilers are supplied in Balanced Flue Form. To connect to a conventional chimney you must use The Conventional Flue adaptor Part No. FC4CF. This includes all parts necessary to make the connection to the boiler. A test point is also provided for ease of installation and commissioning. Secure the air duct in the clip provided. The use of this adaptor is essential for safe performance and is a condition of the guarantee that this must be fitted. The boiler requires a minimum stable draught of 0.1 mbar 0.04w.g.. If the chimney exceeds 6m 20 feet in length, it may produce a draught exceeding 0.37 mbar 0.15 w.g. and a draught stabiliser should be fitted. 24 Page 24 of 77 The chimney should comply with the latest edition of the Building Regulations and BS 5410 Part 1. Factory built chimneys must comply with the Building Regulations and BS 4543 Parts 1 and 3. Compliance with the Building Regulations does not indicate that the chimney is satisfactory in respect of draught conditions, or is positioned so that down draughts will not occur. Special pots and cowls which might restrict the flow of gases must not be fitted and should be removed. A brick chimney must be fitted with a suitable stainless steel liner. Insulation between the liner and an exposed chimney may be necessary to avoid condensation. A flexible liner should be the same diameter as the Flue Offtake size of the boiler 4100mm. The Flue pipe, connecting the boiler to the chimney adaptor should be the same diameter as the Boiler Flue Offtake and should not be more than 1.8m 60 long. Flue Pipes when fitted should satisfy or be deemed to satisfy the Building Regulations. Flue pipe bends bends must not be used use bends. Bends with soot doors should be used where necessary. FOR BALANCED FLUE INSTALLATIONS SEE SECTION 6.

410 AIR SUPPLY CONVENTIONAL CHIMNEY INSTALLATION ONLY A permanent adequate supply

of air is required for combustion and correct operation of a draught stabiliser, if fitted. This air enters the Boiler through the back panel. At least 15mm clearance is required at the rear of all boilers. Ensure that the heated adjoining space itself has an adequate supply of air. When the Boiler is installed in a basement or low level boiler house where air can enter only from high level, the incoming air supply for Combustion and Ventilation should be ducted to low level. A high level outlet should be provided for ventilation. CAMRAY 5 COMBI PAGE 17 411 OIL STORAGE 25 Page 25 of 77

411.1 Oil Tank Consideration to the access by fuel delivery lorries should be given when positioning the oil tank. Tank positioning should be in accordance with BS 5410 Part 1 and OFTEC Technical Book 3. In the interest of most economical deliveries the Oil Tank should be of 3,000 litres 600 gallons capacity. It should be complete with the following

1. Sludge Cock on steel tanks.
2. Outlet Valve.
3. Contents Indicator.
4. Screw fill connection and independent vent. The Fill and Vent should be suitably capped to prevent ingress of water or fitted with return bends.

411.2 Steel Tanks Tanks should be mounted on suitable supports, if these are of brick or blocks, a damp proof membrane should be inserted between the tank and its supports. Tanks should slope 20mm per 1m of length downwards from the Oil Outlet to the Sludge Cock situated at the opposite end.

411.3 Plastic Oil Tanks Tanks made from plastic are now available. These should be UV stabilised for protection against sunlight, and coloured green. Plastic tanks do not need to stand on piers, but should be supported across the entire base area, ideally on 50mm thick garden slabs or a concrete base.