



Get to know your oil tank

A guide to looking after an oil storage tank
and avoiding pollution



Introduction

This guide gives information and advice about your above-ground oil storage tank. It is most relevant if you've had a new tank installed at your home or business, or if you've recently moved into premises with an existing oil storage tank.

The main purpose of an oil storage tank is to store fuel safely. Tanks come in all shapes and sizes, are usually made from steel or plastic, and have other equipment attached. This guide will help you to find out what you have and how to look after it.

Why you need to know more about your oil tank

Oil is a valuable fuel; it's important to store and use it responsibly to protect your health and safety and to reduce the risk of pollution.

Environmental considerations and concerns

Every year, leaks and spills from oil storage tanks and pipework cause many pollution incidents. Spilt oil can pollute streams, rivers and (if it soaks through the soil and rock) groundwater supplies. In the UK, public water supplies come from rivers and groundwater so we must protect them from pollution. Oil is toxic and harmful to plants and animals, and is a threat to their habitats.

Insurance advice

Cleaning up oil spills is difficult and can be very expensive – we're talking thousands of pounds. Dealing with a spill will cause you and maybe your neighbours a great deal of inconvenience. You should have insurance cover and your policy should include:

- the cost of replacing the lost oil
- the costs of cleaning up oil on your own property
- a high enough liability limit to cover you if neighbouring land and/or boreholes are affected
- environmental clean up for accidental oil loss.

It's against the law to cause pollution so you'll have to take action to clean up any serious spill or leak. Your insurance company may not pay if the leak has been occurring over time, so check your tank and pipework regularly and monitor how much oil you use so you can spot any sudden changes.

What type of tank do you have?

Plastic

A moulded polyethylene container for storing fuel. Normally green.

Steel

A fabricated steel container for storing fuel that's protected with an oil resistant coating before installation. You'll need to maintain this protection to prolong the life of the tank.

Single-skinned

An oil storage tank with only one layer of steel or plastic to contain the fuel. See Figure 1.

Integrally-bunded

An oil storage tank within a larger secondary containment tank (or bund). The bund can hold 110% of the inner tank's contents and contains other oil tank fittings, including its vent. See Figure 2.

Refuelling station

An integrally-bunded plastic or steel tank system for dispensing fuel, usually for vehicles. See Figure 2.

Double-skinned

Otherwise known as a twin-walled tank. Normally made of steel with an inner tank surrounded by an outer skin for extra strength. Don't confuse double-skinned tanks with integrally-bunded tanks; they don't give the same protection against oil loss from overfilling or damage to tank and pipework, and require extra secondary containment when installed above ground.

Underground

A tank specifically constructed for underground use; can be steel or plastic. This guide doesn't cover this type of tank.

Figure 1. Example of a typical single skinned plastic tank in a constructed bund.

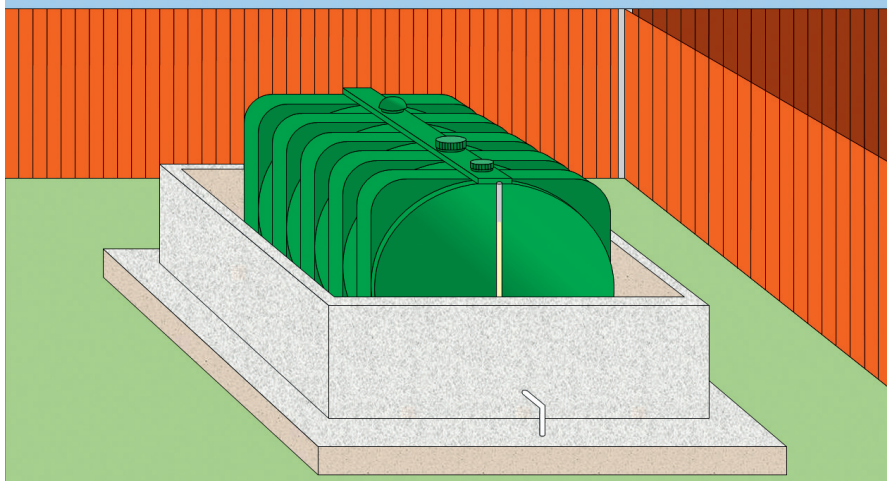
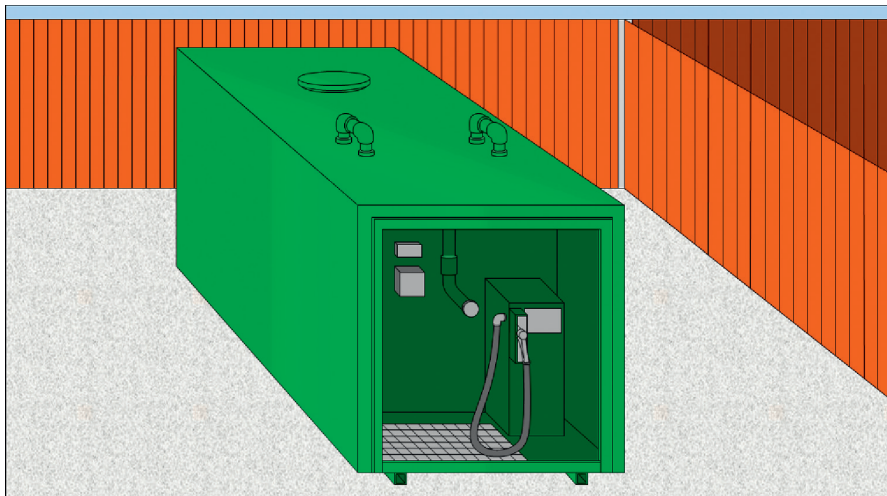


Figure 2. Example of a typical integrally bundled steel refuelling station.



Figures 1 and 2 aren't drawn to scale or engineering drawings. They are for illustration only. Different configurations exist depending on the manufacturer, type of tank and installation.

The fittings on your tank

Many of these fittings are shown in Figures 3 and 4. Again, they are for illustration only and aren't to scale.

Fill point

A threaded pipe (usually 2"/50mm diameter) that the delivery driver connects onto to fill the tank. This may be on, or at, the tank or piped to a remote fill location.

Vent

A means of releasing vapour and air from the tank into the atmosphere when the tank is being filled, and air into the tank when fuel is drawn off. It's important to keep vent outlets clear to allow a free passage of air in and out of the tank.

Contents gauge

A device that indicates the quantity of oil in the tank. Gauges can be manual, visual or wireless. The reading may be seen at the tank, next to the tank or even at a remote location (e.g. in the kitchen).

Isolation valve

Otherwise known as a service valve which shuts off the oil supply from the tank. Normally found at the tank outlet.

Overfill alarm/prevention device

A device to avoid oil spillage from overfilling; it can either sound an alarm and/or give a visual warning, or automatically stop the oil delivery into the tank.

Bund (also called secondary containment)

An area around the tank designed to contain any loss of fuel to prevent pollution. It can be manufactured as part of an integrally-bunded tank or built separately to the tank. It can be constructed from reinforced concrete or masonry and rendered impermeable to oil. Secondary containment should hold at least 110% of the tank's contents. This may be a legal requirement for some tanks.

Your tank may need to have secondary containment by law depending on where it is and what it's used for but, to protect the environment, you should consider having it provided anyway, even if it isn't a legal requirement.

Supply pipework

Oil supply pipes can be plastic-coated copper (or steel-protected from corrosion) or approved plastic pipe (for underground use). Pipes installed above ground should be supported by purpose-made clips and attached to permanent structures. Underground pipework should be protected from physical or accidental damage and its route marked with a warning tape. If serving a non-domestic application, it should incorporate a leak-detecting facility. Any underground mechanical joints should be accessible for inspection.

Figure 3. Section through a typical integrally-banded plastic tank.

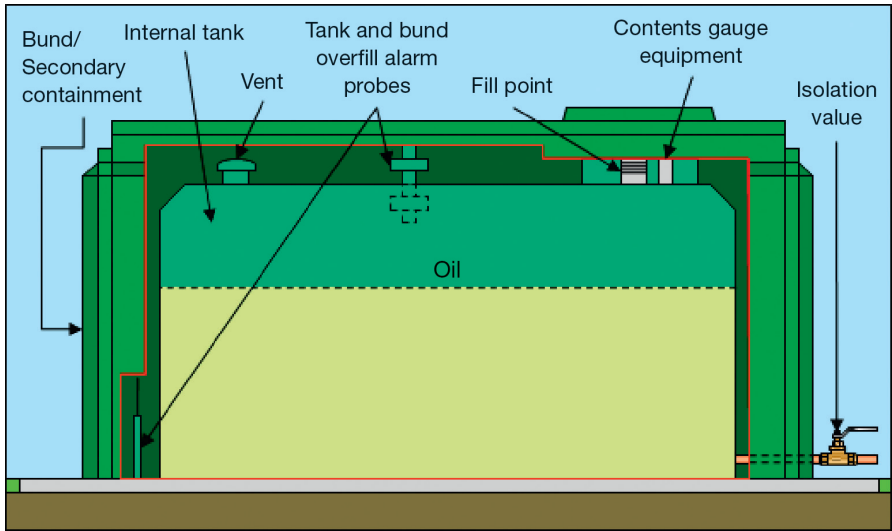
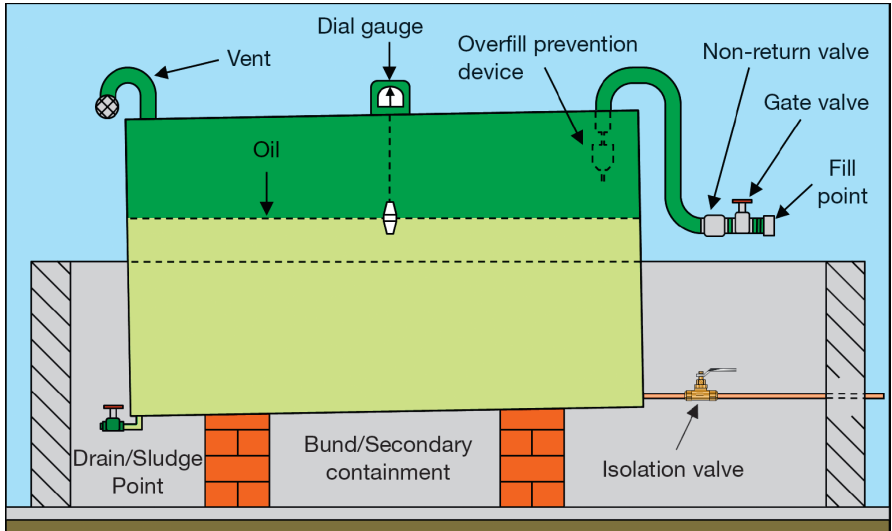


Figure 4. Section through a typical single-skinned steel tank with offset fill point in a concrete or masonry bund.



Regulations and controls (oil storage regulations/ building regulations)

Different sets of legislation cover oil storage systems depending on where your tank is; all are designed to reduce the risk of oil pollution and ensure the health and safety of people around them.

Make sure you know which legislation applies to your tank. See Further Information (on page 14) for regional legislators' contact details.

Using professionals – competent persons for installing, servicing, repairs, decommissioning and sourcing reliable fuel suppliers

Oil-fired equipment must be installed and maintained correctly for performance and safety. Use a competent person for any work your tank and connected systems may need. A competent person is trained and qualified to offer advice, guidance and can, for example, self-certify their work.

For your oil deliveries, there's a choice of suppliers. Many suppliers offer a prepayment or direct debit scheme and may have a telemetry system to sense when the tank needs filling so you don't have to worry about running low on fuel.

Getting to know your tank

It's important you know what type of tank and pipework arrangement you have and how to use it. Your tank manufacturer, installer, maintenance engineer or oil delivery company may be able to help you.

The following are things you need to do when your tank is newly installed or you become the owner.

Find out about your tank, its equipment and pipework and fill in the information on the inside cover of this booklet

Make sure:

- the tank is clearly labelled with the fuel type it contains and an Oil Care sticker, which tells you what to do if you have an oil leak or spill. Contact the Environment Agency for a replacement if you don't have one
- all valves are labelled so everyone knows what they control
- you know the tank capacity, and how to use its contents measuring system and the information it gives you
- you know how to isolate the tank to stop the oil flow if there's a leak in the pipework or valve
- you know if any of your pipework runs underground and where it runs.

It's a good idea to have an oil spill kit with sorbent materials, drain blockers and leak sealing putty to help you deal with a spill or leak. Get some advice from the company who supply the spill kit so you know how to use what's in it.

If your tank doesn't have secondary containment (a bund) for the tank and associated equipment, consider providing it even if not required by law.

If the tank is filled from a point where it can't be seen during delivery (remote fill), check it has an overfill prevention device or alarm. Get one installed if there isn't one. Your tank might need this by law.

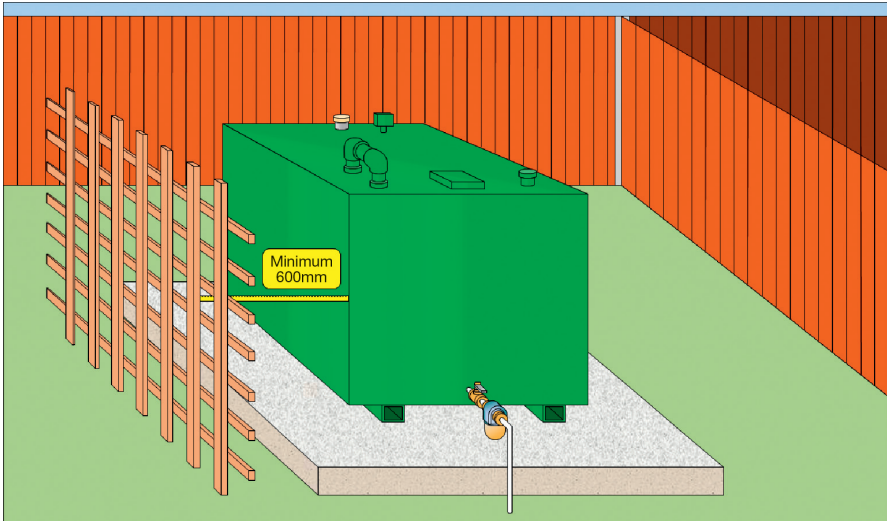
Check the access to your tank and its equipment

Keep the access to and around your tank clear at all times for safe deliveries, maintenance and inspection. Avoid having to cross uneven, slippery or muddy ground to get to and around the tank.

Don't:

- let plants grow around or too close to the tank
- camouflage the tank, for instance by growing tall plants or fitting fences and trellises too close to it. There must be room for someone to walk round next to the tank. Screening should be at least 600mm/2 feet away from the tank. See Figure 5
- make any changes to the site that could hamper delivery tanker parking, hose routing, ladder positioning, delivery, inspection or maintenance.

Figure 5. Example of access space around an integrally-bunded tank.



Security

The oil in your tank is valuable; you should consider taking appropriate security measures to prevent its theft, or unauthorised use, by providing suitable locks and/or lockable valves where necessary and then ensuring that they are used. This may be a legal requirement for some tanks. Your tank installation engineer or fuel delivery company will be able to advise you. Don't forget to provide the keys/combinations for these devices to the delivery company when a delivery is expected and you may not be present.

Tank inspection

Get a qualified professional to inspect your tank system at least once a year. Take action to fix any problems or concerns they report to you.

Check the amount of oil in your tank regularly so you know how much you use over time. You'll be able to plan your deliveries better and ensure you don't run out of oil unexpectedly. Sudden drops in oil level may indicate your tank has a leak. If you think there's a problem, consult a professional urgently.

You should regularly inspect the tank, its associated pipework, equipment, secondary containment and the surroundings. Follow the suggestions below:

Check your tank, pipework and bund for:

- signs of corrosion or degradation (oil staining, rust, discolouration, cracks, crazing)
- damage, interference and any obvious leaks
- signs of distortion or bulging.

Check that:

- tank inspection and access points are correctly closed and, if appropriate, locked shut;
- if you have one, the sight gauge reading valve is closed and locked shut;
- the tank vent outlet and, if provided, its insect screen or rainwater shield is clear of debris and vegetation;
- the external bund doesn't have large amounts of water or oil in it and it's free of rubbish or plants.

Check the contents gauge

Mechanical – operation and linkages by simulating operation.

Electronic – battery condition and indication of level changes.

Sight gauge – operation, security, clarity, condition, cleanliness and valve position (open and closed).

Ask a competent person to show you how your contents gauge works.

Check the surroundings for:

- obvious changes in the supporting structure and base
- oil staining on supports or ground near the tank (report this to the oil supplier if you find this immediately after a delivery).

Ordering and taking delivery of fuel

Always use a reputable fuel supplier and avoid changing supplier without good reason; this could put you at risk of problems from poor service, or an unsafe delivery, caused by unfamiliarity with your tank installation.

Before you order, check, as accurately as possible, how much fuel you will need. Don't overestimate your oil needs as it could cause an overfill and spillage or a 'small quantity' price surcharge for the reduced amount of fuel actually delivered.

Never ignore any previous advice from your fuel supplier on the condition of your tank, pipes or access; they may refuse to supply you with oil if you haven't fixed it or they could abort the delivery.

Before delivery, check that the tank is clearly labelled with its fuel capacity and with the type of fuel it should contain.

Try to be present during the delivery. Otherwise, leave any gates, doors or other secured barriers to access, unlocked and make sure that pets or other animals are secured. Keep the access route to the tank clear of vehicles, bins, tools and equipment, or waste materials.

After the delivery, check that the contents gauge registers the new quantity of oil (your fuel may have been delivered elsewhere, or even leaked away). If you have a sight gauge, make sure it hasn't been dislodged and its valve is in the closed position. Check for any changes in appearance of the tank and its supporting structure. Check for any fresh oil spills or leaks and report a suspected delivery spillage to the fuel supplier as soon as possible.

If you're concerned about any oil leak or spill, call the UK pollution incident hotline on **0800 80 70 60** for advice (see Emergencies on page 14).

Tank maintenance and repair

You should have your oil tank and fittings (such as valves, gauges and pipework) inspected by a suitably-qualified competent person at least once a year. If they find any leaks, damage or defects with the installation, you'll need to arrange a repair or replacement immediately to keep the equipment in a satisfactory condition. You'll also need to arrange removal of any accumulated water or sludge found in the tank.

In between annual inspections, your fuel supplier may identify defects with the installation and can, in some cases, issue an 'Unsafe Delivery Point Report'. If defects are identified, however small, you should get them fixed immediately to minimise risk of a pollution incident.

If you see a problem with your tank, gauge or pipework when you're checking it, get it fixed urgently by a professional.

Replacing a tank

When replacing your oil storage tank, get advice from a suitably-qualified competent tank installer. They can help you identify features on the site which will dictate what can be installed and how to comply with legislation.

Choose a tank that has been manufactured to a recognised relevant European, British or industry standard. These show that a tank has been manufactured and tested to strict quality standards. Oil tanks should be clearly marked with a nominal (maximum) filling capacity to assist with ordering fuel. All new tanks should display information on what actions to take if there's an oil leak or spill.

Site oil storage tanks to minimise risk of pollution. A suitably-qualified competent tank installer can help you comply with regional building regulatory requirements by identifying hazards such as nearby watercourses, loose-fitting manhole covers, wells or boreholes. Any of these may mean you need secondary containment for your tank; this may be a legal requirement.

Make sure that access to the tank for fuel delivery is retained or improved (tanker parking, hose routing, tank siting, and height of fill point).

Make sure your oil delivery driver can get to and around your new tank safely. The following areas should be free of hazards and obstructions:

- the location of the tank
- the fill point
- where the delivery tanker parks
- where a delivery hose is routed
- where the delivery driver stands during the delivery.

If you're in any doubt, ask the fuel delivery company to check your site.

If you have multiple tanks installed at different heights, they shouldn't be interconnected, or have the same fill point; this could result in overfill and oil loss.

Any oil tanks and pipework that you no longer use should be decommissioned, disabled, and clearly marked. Preferably, have the tank and pipework removed by a professional as soon as possible to avoid them being filled in error and causing a pollution incident.

Health and safety

Oil is a flammable liquid and can give off fumes and flammable vapours. You can get information about oil safety from your fuel supplier. Read it and make sure you know what you need to do to protect everyone's health and safety.

Follow these precautions:

- don't use a naked flame, smoke or create sparks (e.g. from a domestic torch or power tool), near your tank, even one that's no longer in use
- don't inhale the fumes when inspecting or checking a tank
- wash skin or clothing immediately if you spill oil on them
- never check the contents, condition or support structure of your tank by striking or rocking it.

Emergencies

You should be prepared for an accident, oil leak or spill and you need to know what to do.

By following the advice in this booklet you'll be going a long way towards preventing problems before they arise, but accidents do happen. Being prepared will reduce the chances of causing pollution. Keep an oil spill kit with sorbent materials, drain blockers and leak sealing putty near your tank so you can get to it quickly when you need it.

If you discover an oil leak or have a spill:

- deal with it immediately. If you leave it you could cause a serious pollution incident
- If you can, stop the flow of oil from source by closing valves or using material from your spill kit
- contact your fuel supplier for advice (they may offer a clean-up service or be able to recommend a course of action)
- call the UK pollution incident hotline on **0800 80 70 60** (24 hours) to get advice and help. You may be in an environmentally-sensitive location which needs a very quick response to prevent serious pollution of the local environment and drinking water supplies
- never wash any spilt oil away into drains or into the ground. Most drains connect to the nearest stream or river and oil can cause serious pollution
- never use detergents to clean up the oil; you could cause a worse pollution incident
- use the contents of your spill kit, sandbags or earth to soak up the oil if it's on a hard surface and to stop it entering drains, rivers or streams
- if the oil has soaked into the soil/ground, you'll need to take action quickly to prevent it soaking further into the ground and possibly into groundwater supplies. You'll need a professional company with training and accreditation to clean up oil that's soaked into the ground
- contact your insurance company and tell them that there's been a leak or spill from your tank or pipework, that a clean up operation may be needed and to claim the cost of your lost oil.

Further Information

From the Environment Agency:

Oil Care domestic oil storage in England and Wales

Pollution Prevention Guideline 2 (PPG 2) Above ground oil storage

Order by 'phone: 08708 506506 or download from www.environment-agency.gov.uk/ppg

Regional contact information

England

Approved Documents (Department of Communities & Local Government)

www.communities.gov.uk

Statutory Instruments

www.legislation.co.uk

Environment Agency

www.environment-agency.gov.uk

Incident hotline

0800 80 70 60

Wales

Approved Documents (Department of Communities & Local Government)

www.communities.gov.uk

Statutory Instruments

www.legislation.co.uk

Environment Agency

www.environment-agency.gov.uk

Incident hotline

0800 80 70 60

Scotland

Scottish Building Standards (Scottish Building Standards Agency)

www.scotland.gov.uk

Scottish Statutory Instruments

www.legislation.gov.uk

Scottish Environmental Protection Agency (SEPA)

www.sepa.org.uk

Incident hotline

0800 80 70 60

Northern Ireland

Technical Booklets (DFPNI)

www.dfpni.gov.uk

Statutory Rules

www.legislation.gov.uk

Northern Ireland Environment Agency

www.doeni.gov.uk

Water Pollution hotline

0800 80 70 60

Republic of Ireland

Technical Guidance Documents

www.environ.ie

Statutory Instruments

www.environ.ie

Department of Environment, Heritage and Local Government

www.environ.ie

Jersey

Technical Guidance Documents (Building Byelaws)

www.gov.je

Pollution hotline

01534 709 535

Guernsey

Approved Documents

www.gov.gg

States of Guernsey Environmental Department

01481 717 200

Isle of Man

Approved Documents

www.gov.im

Statutory Documents

www.gov.im

Department of Local Government and Environment

01624 685 894

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