



OIL HEAT TANK INSPECTION:

Whose Tank is it, Anyway?

By JOHN LEVEY

Ask a typical homeowner about his fuel oil storage tank and you'll probably get a blank stare in response.

The oil heat industry has a bit of a dilemma: Their customers normally own their tanks, but they almost never think about them. Unless it starts to leak or the house goes up for sale, the oil tank is not very high on the list of things that customers are concerned with.

Obviously, it isn't prudent to wait until a tank leaks to address it and if you wait until the house is being sold, there's an urgency that might lead to a less than ideal decision – conversion to another fuel, basing the purchase simply on price, etc.

Fortunately, the home heating oil industry woke up a number of years ago and decided that it was time to get proactive about the inspection and maintenance of their customers' tanks. Under the leadership of the National Oilheat Research Alliance (NORA), the industry developed several tank inspection protocols that enable us to find signs of trouble before they lead to serious problems.

NORA, in conjunction with the homeowner's insurance industry, scripted three distinct levels of inspection for both above-ground and buried fuel oil tanks. After a significant amount of discussion, a panel of experts from both industries decided that these different types of inspections should be performed by a qualified service technician:

1. Initial inspection
2. Routine inspection
3. Pre-delivery inspection

While these inspections normally are performed by service technicians, home inspectors, real estate professionals and others may be interested in attending tank inspection seminars to improve their understanding of tank "issues." The NORA tank seminar covers several topics, including:

- Why tanks fail
- Proper installation and service procedures
- Tank assessment

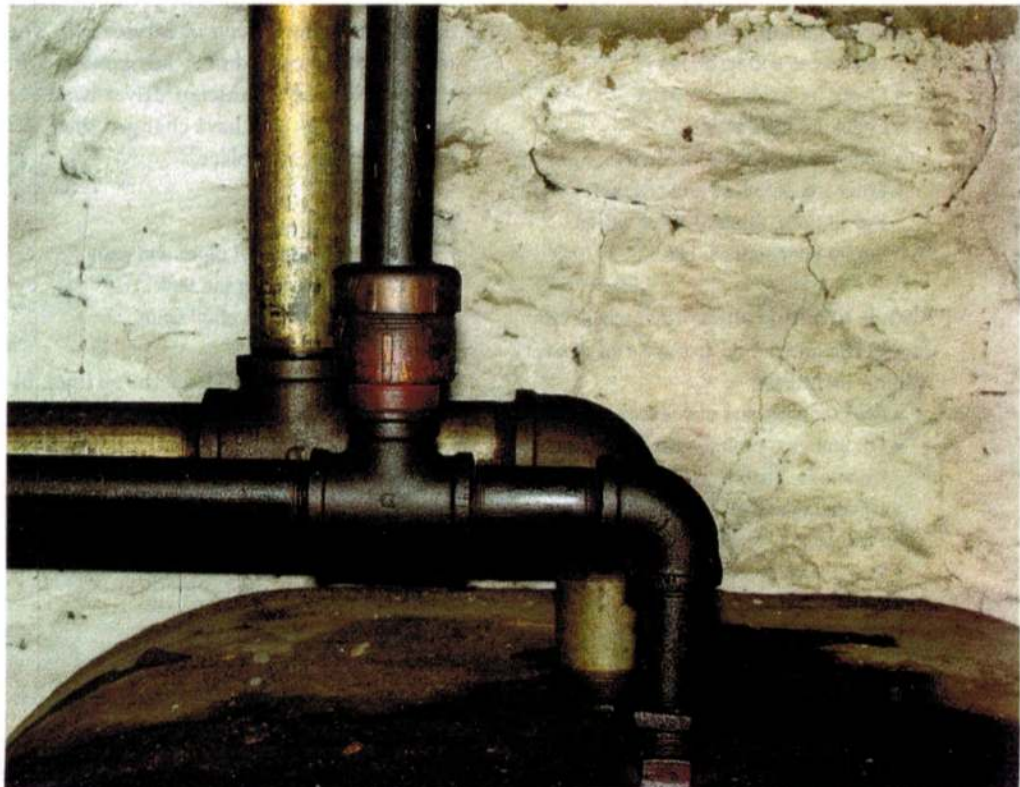
Individuals interested in attending this seminar should contact their local oilheat industry trade association.

During these inspections, the tank should be checked for the presence of water. The most common sources of water (other than buried tank failure) in home heating oil tanks are:

- Corroded piping
- Missing vent/fill caps
- Condensation
- Broken gauges (outdoor above-ground tanks) ▶▶



The vent pipe should be changed to steel pipe and a proper vent cap should be installed. The way this is now, it would be fairly easy for an insect nest to clog the vent.



Not only is this vent pipe too small, but this is a heck of a place for a vent alarm!

PHOTOS COURTESY OF JOHN LEVEY

Any time water is found in a tank, it should be taken seriously. It is NOT enough to simply pump it out. The source of the water should be found and corrected so that it doesn't keep occurring.

1. Initial inspection – A thorough inspection should be performed before a delivery is made to a new customer or a new tank. This is the most comprehensive level of inspection and enables the company to address any situations that may exist before they deliver to a problem tank.

Unfortunately, some customers refuse to invest in tank repairs and simply call a competitor when a supplier makes recommendations about tank upgrades or repairs.

Buried tanks: Obviously, there are a limited number of things that can be inspected on a buried tank, but the technician can:

- Verify the tank location
- Check fill and vent pipe sizes, clearances and locations
- Check for water in the tank
- Check for code violations
- Look for evidence of oil spills
- Enter the premises and check the oil lines, filters, fusible valves, burner connections, etc.

Above-ground tanks: The technician checks the entire fuel storage and delivery system, including:

- Tank location and clearances
- Fill and vent piping, vent alarm, code violations, historic spills
- Unused openings properly plugged
- Presence of water in the tank
- Proper tank foundation
- Evidence of leaks – weeping, etc.
- Oil lines, filters, fusible valves, burner connections, etc.

Upon completion of the inspection, the technician can designate the tank as “acceptable for delivery,” “acceptable for delivery after certain repairs have been completed” or “not acceptable for delivery” (tank must be replaced).



The result of a bad tank leg.

2. Routine Inspection – Once the tank has passed the initial inspection, it should be inspected on an annual basis, typically during a system tuneup or service call. The recommended procedure is less extensive, in that the service technician/driver basically looks for things that have changed since the last inspection took place.

Buried tanks:

- Check fill and vent pipes and caps
- Check for water in the tank
- Look for evidence of oil spills

Enter the premises and check the oil lines, filters, fusible valves, burner connections, etc.

Above ground tanks: The technician checks the entire fuel storage and delivery system, including:

- Tank leaks
- Fill and vent pipes and caps
- Presence of water in the tank
- Proper tank foundation
- Oil lines, filters, fusible valves, burner connections, etc.

Upon completion of the routine inspection, the technician indicates whether or not the tank is “still acceptable for delivery.”

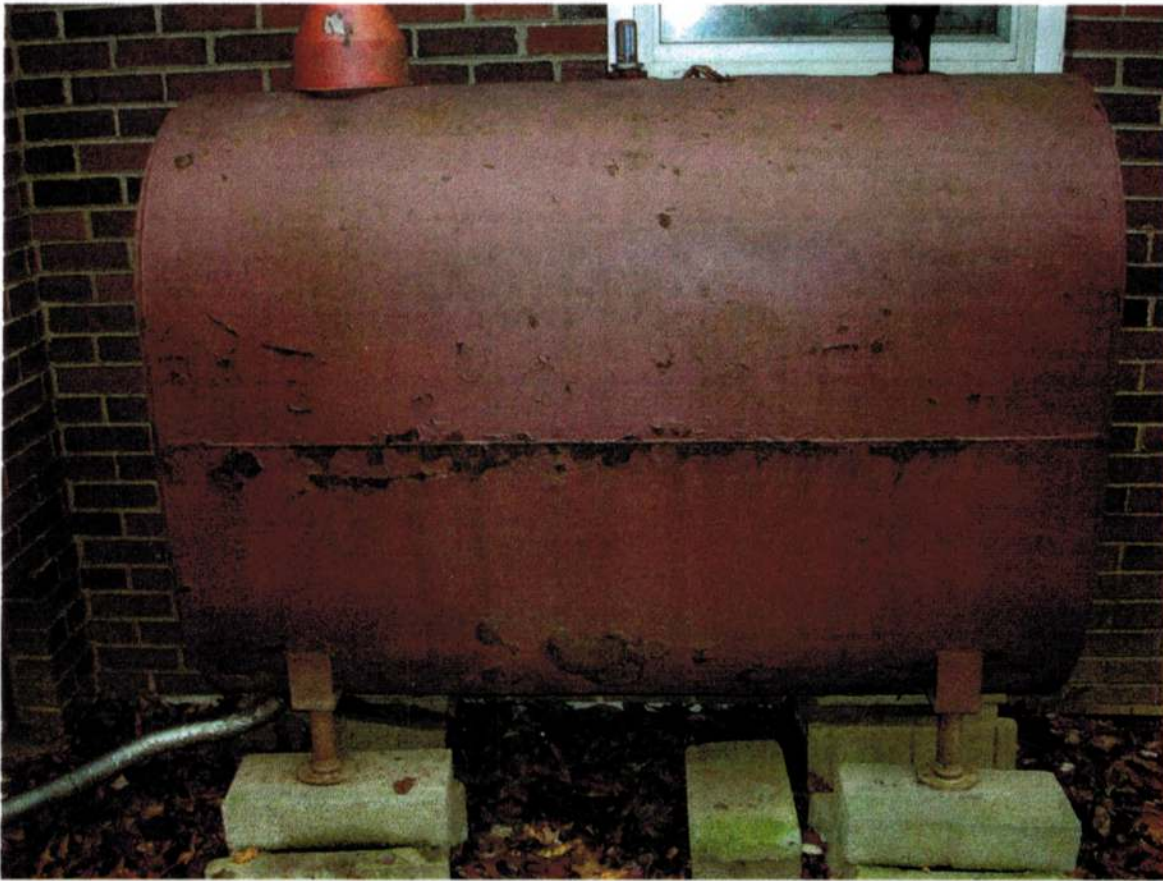
3. Pre-delivery Inspection – This brief inspection is performed by the oil driver and should NOT slow her/him down to the point where production suffers. The main purpose of this inspection is to make sure that the driver is at the right house and the right tank. There are a number of oil spills each year because the driver went to “10 Main St.” instead of “10 E. Main St.”

Buried tanks: Many companies have the driver measure the oil level and check the tank for water before starting the delivery. In addition, the driver should:

- Verify address
- Verify tank location (If it's not where you were told, maybe it's not the right tank)
- Check exposed fill and vent pipes and caps
- Look for evidence of oil spills

Above-ground tanks: The driver has the opportunity to check more with accessible outdoor tanks than with basement/indoor tanks. The important things are to:

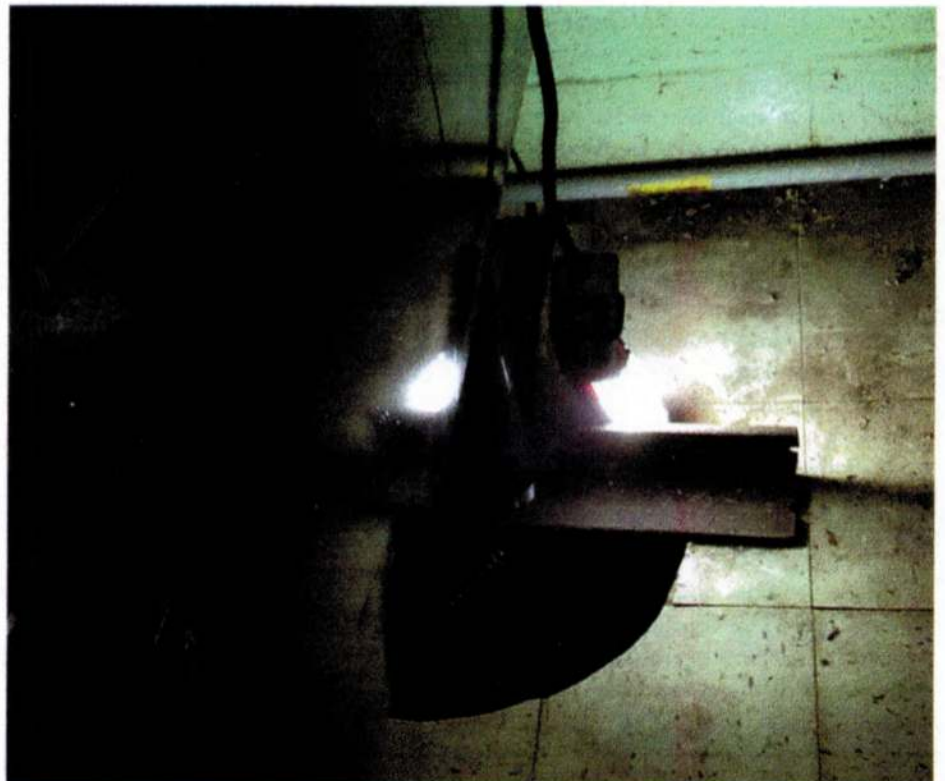
- Verify address
- Verify tank location
- Check exposed fill and vent pipes and caps
- Look over the tank for any possible problems, leaks or violations



This tank is on hollow blocks, NOT a stable base for an oil tank.

In this article, we've listed a "Readers Digest" version of recommended tank inspection procedures. NORA's tank inspection procedures, along with free downloadable forms, can be found at www.nora-oilheat.org. By adopting these inspection protocols, fuel oil companies can become proactive regarding tanks and avoid costly oil spills, improving their customers' peace of mind and loyalty to oil heat. ■

John Levey is a consultant and educator who brings over 40 years of industry experience to Oilheat Associates, a consortium of independent consultants in the oilheat and propane industries. He directs the HVAC education program for the Oilheat Institute of Long Island, serves on the Education Committee for the National Oilheat Research Alliance (NORA), serves on the National Fire Protection Association Committee on Liquid Burning Equipment (NFPA 31) and is a member of Underwriter's Laboratories Standards Technical Panel for Above-Ground Oil Tanks (UL - 80). For more information, go to www.oilheatassociates.com and www.steeltank.com.



Dangerous situation: This tank leg is on a steel plate over a sump pump.