Best practice
We recommend that you use hoses marked with BS EN ISO 7840 although hoses marked with SAE J 1527, DIN 4798 or marked with the type of fuel in use are acceptable.

2.3 Fuel tank vents

Potentially dangerous and polluting fuel blow-backs are known to happen during refilling. The tank also needs to be able to 'breathe' to help the supply of fuel to the engine or appliance. Temperature changes cause the volume of fuel to expand and contract.

Venting needs to be effective at all levels of fuel in the tank. A vent line can also be a filling line, or an overflow line, and the requirement for a vent does not apply to small auxiliary tanks with a vented filling cap on the tank.

2.3.1/R REQUIREMENT

Does every fuel tank have an effective vent facility?

Check all fuel tanks for the provision of a vent facility.

A vent line must be fitted to the top of each fuel tank, or a vent must be fitted to either the filling cap, or filling line.

Note – Vents in the filling cap or filling line must have their outlet at or above filling point level.

2.3.2/R REQUIREMENT

Does the fuel tank vent line have a minimum internal diameter of 9.5mm?

Measure the outside diameter of fuel vent lines.

The internal diameter of vent lines must be at least 9.5mm (⅜ in).

Notes – The internal diameter may be verified by measuring the outside diameter and estimating wall thickness. The following are approximate indications, copper 11.5mm (½ in), steel 12.5mm (½ in), hose 15.5mm (⅝ in).

The hole in the filler cap of small capacity tanks of no more than 27 litres is deemed to meet this requirement. Examples include those found on Stuart Turner petrol tanks, Yanmar engines' close-coupled tanks or diesel tanks supplying appliances.

Best practice
We recommend fitting a vent line of at least 12mm (½ in) internal diameter fitted which meets with international standards.

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2.3.3/R REQUIREMENT

Are the fuel tank vent line connections leak free and in good condition?

Check the condition of fuel tank vent line connections where they can be seen or reached.

Vent line connections must be secure and free of leaks, signs of damage or deterioration.

If a vent line retains fuel, it could leak or stop the vent from working.

2.3.4/R REQUIREMENT

Is the fuel tank vent line self-draining so that fuel is not retained, and is it free of kinks or other restrictions?

Check the fall of each vent line.

Check for any kinks or other obvious restrictions in any vent lines where it can be seen or reached.

Vent lines must be connected to the top of the tank and be 'self-draining', i.e. fall continuously from the vent outlet to the tank, or, where a swan neck is installed, from the top of the swan neck down to the vent outlet and the fuel tank connection.

Vent lines must not be kinked or restricted.

Notes – vent lines must not have their internal bore diameter restricted to less than 9.5mm (⅜ in).

'Top of the tank means the top plate of the fuel tank or the highest part of the side of the tank.

Best practice
We recommend that you use hoses marked with BS EN ISO 7840 although hoses marked with SAE J 1527, DIN 4798 or marked with the type of fuel in use are acceptable.

b