Oil from the exhaust pipe.

Oil coming from the exhaust is unsightly and annoying. It is generally caused by oil by-passing the piston rings or coming down the valve guides (glazed or polished cylinder bores, worn piston rings, worn valve guides or exhaust valve seals upside down). It is also accompanied by high oil consumption.

The first question that needs to be asked is; Has the engine been overhauled recently or has it had a recent oil change? If the answer is yes then here are a few reasons for the problem.

- 1. Piston ring gaps not staggered around the piston.
- 2. Piston ring gaps too wide.
- 3. Exhaust valve seals fitted upside down.
- 4. Wrong type of oil being used.
- 5. Engine not being 'Worked' hard enough.

When considering the diagnosis very careful consideration MUST be given to each possible cause.

1. When fitting the rings to the piston the ring gaps must be staggered around the piston but make sure there are none on the thrust side of the piston. (Looking from the front of the engine this is the left hand side)

2. Before fitting the piston rings they should be placed in the cylinder bore so that the gaps can be checked against the engine specification. Oil will find it way passed the rings if the gaps are wrongly placed or too wide.

3. The exhaust valve seals on older BMC or Leyland engine MUST be fitted with the internal chamfer facing down. Oil will be pumped down the guide if this isn't done! (Late turbo & non turbo engines used different seals)

4. When 'Classic' engines were designed Semi or Fully Synthetic oils were only used in specialist applications. Modern low emission engines have much closer tolerances and benefit from these low ash, low viscosity oils. If such oils are used in old generation engines, particularly if it has just been overhauled, the rings are kept too clean, the cylinder bores will get 'Glazed' and severe oil consumption will be evident! Basically the engine is kept far too clean and the piston rings can't bed in. Classic mineral oils are available and a good quality 20W - 50 oil is recommended.

5. Diesel engines love 'HARD' work and thrive on being 'Pulled' down onto 'Full Torque'! This beds the rings in quickly stopping oil from passing into the combustion chamber. A well bedded engine will use negligible oil.

In conclusion if your engine exhibits oil dribbling down the exhaust pipe the first step is to check/consider all of the above possibilities. After this put your tractor into hard work, for example; a rotary cultivator, a plough, an irrigation pump or a disc harrow etc. etc.

Tractors used only for shows, rallies or road runs are very susceptible to 'Oil from the Exhaust'.

If the engine is worn out then consideration should be given to an overhaul. Engines that 'Breath' heavily out of the breather indicates worn/damaged rings and liners. If there is a fault in the oil feed to the valve rockers excess oil can overload the valve seals allowing oil to go down the valve guides. A faulty oil feed relief valve is a typical cause of this problem.