

# Basic\* models & engine variations of the UK-built Ferguson TE-20

By Paul Nelson & John French

Model	Description	Configuration	Years
TE-20	Tractor with Continental Z-120 gasoline engine		1946-1948
TEA-20	Tractor with Standard gasoline engine		1947-1956
TEB-20	Tractor with Continental Z-120 gasoline engine	Narrow	1946-1948
TEC-20	Tractor with Standard gasoline engine	Narrow	1948-1956
TED-20	Tractor with Standard vaporizing oil (TVO) engine		1949-1956
TEE-20	Tractor with Standard vaporizing oil (TVO) engine	Narrow	1949-1956
TEF-20	Tractor with Standard Diesel engine		1951-1956
TEH-20	Tractor with Standard lamp oil engine		1950-1956
TEJ-20	Tractor with Standard lamp oil engine	Narrow	1950-1956
TEK-20	Tractor with Standard gasoline engine	Vineyard	1952-1956
TEL-20	Tractor with Standard vaporizing oil (TVO) engine	Vineyard	1952-1956
TEM-20	Tractor with Standard lamp oil engine	Vineyard	1952-1956
TEP-20	Tractor with Standard gasoline engine	Industrial	1952-1956
TER-20	Tractor with Standard vaporizing oil (TVO) engine	Industrial	1952-1956
TES-20	Tractor with Standard lamp oil engine	Industrial	1952-1956
TET-20	Tractor with Standard diesel engine	Industrial	1952-1956
TEY-20	Tractor with Perkins P3 (TA) Diesel engine (same as a conversion)		1955-1956

Vaporizing engines used Tractor Vaporizing Oil (TVO) for fuel. TVO engines are used in temperate climates such as in the UK. TVO has an octane rating of about 55 to 70

Lamp Oil (sometimes known as kerosene) engines are also called Zero Octane engines as the fuel they run on is Zero Octane rated. Lamp Oil engines can only be used successfully in hot climates.

The engine must be kept hot when running on either vaporizing oil or Zero Octane fuel. Otherwise the fuel will not burn properly and, apart from misfiring due to wet plugs, it will cause oil dilution in the oil pan. Both types

are started on gasoline until they reach working temperature and then the fuel supply is switched from gasoline to the main tank containing the main fuel supply (TVO or Lamp oil).

*\* Space does not permit the listing of all the many other non-agricultural model variations that were available. A wide variety of bumpers, fenders and radiator guards were options. The industrial types all had two braking systems comprised of two sets of brakes shoes in one wide brake drum, one set basically the same as the agricultural tractor and the other set operated hydraulically.*

## RECIPE FOR TRACTOR VAPORISING OIL (TVO)

(adapted from the Friends of Ferguson Heritage web site – UK)

### Ingredients

Since TVO is not generally available, users have come up with their own recipes for formulating a TVO fuel. In the UK the formula must meet legal requirements and is limited to only two ingredients.

- Gasoline (unleaded is acceptable) – 98 Octane
- 28 Second Heating Oil - 20 Octane

### Suggested TVO Octane values for tractor loads

- 55 if doing very hard work
- 70 if doing light work
- 

### Some sample mix ratios

- 1 part gasoline and 1 part heating oil yields 59 Octane
- 2 parts gasoline and 1 part heating oil yields 72 Octane
- 1 part gasoline and 2 parts heating oil yields 46 Octane

Note: Gasoline only is suitable for road runs (with the heat shield removed).

*Our thanks to John French who is a retired representative of what was the MF largest distributor in the UK. John, a frequent contributor to the Yesterday's Tractors Harry Ferguson web site, logs in as John (UK).*