

FIELD MARSHALL TRACTOR

- YEAR: 1950
- MODEL: VF Field Marshall Series 3A
- COUNTRY: Marshalls of Gainsborough - England
- ENGINE: 40HP – 1 Cylinder – 5.1L Diesel – 12g Shotgun Start
- ITEM NUMBER: 119
- S/N: 13140
- DONATED BY: Mr Harold Anderson.

Using the legendary Marshall single cylinder valveless two stroke, full compression ignition diesel engine, which first appeared in 1935 in the Marshall 12-20. In each of the wheeled and crawler versions, the massively rugged engine lay horizontally with the cylinder head facing forward. It featured a 6" x 9" bore and stroke and developed 40 hp at a mere 750 rpm. The transmission in the tractor provided six forward and one reverse gear.

To start the Marshall a smouldering piece of special paper, containing saltpetre, is inserted into the cylinder head by means of the special screw-in holder in the cylinder head (this smouldering paper acts as a glow plug).

The engine is then turned over with a starting handle placed in the starting dog on the flywheel. This is aided by the decompression valve, which decompresses the engine and makes it easier to turn over to allow the flywheel to gain speed and momentum to turn the engine through compression, and get the engine to fire. A spiral groove on the perimeter of the flywheel carries a wheel on the decompressor mechanism and is used to determine the number of revolutions before the decompressor disengages. This is generally up to three revolutions, but can be anything up to six revolutions.[2] Depending on the condition of individual tractors, it may need considerable physical exertion to start a Marshall. A shotgun cartridge can also be used however they were not used on a regular basis as the often caused damage to the decompressor.

