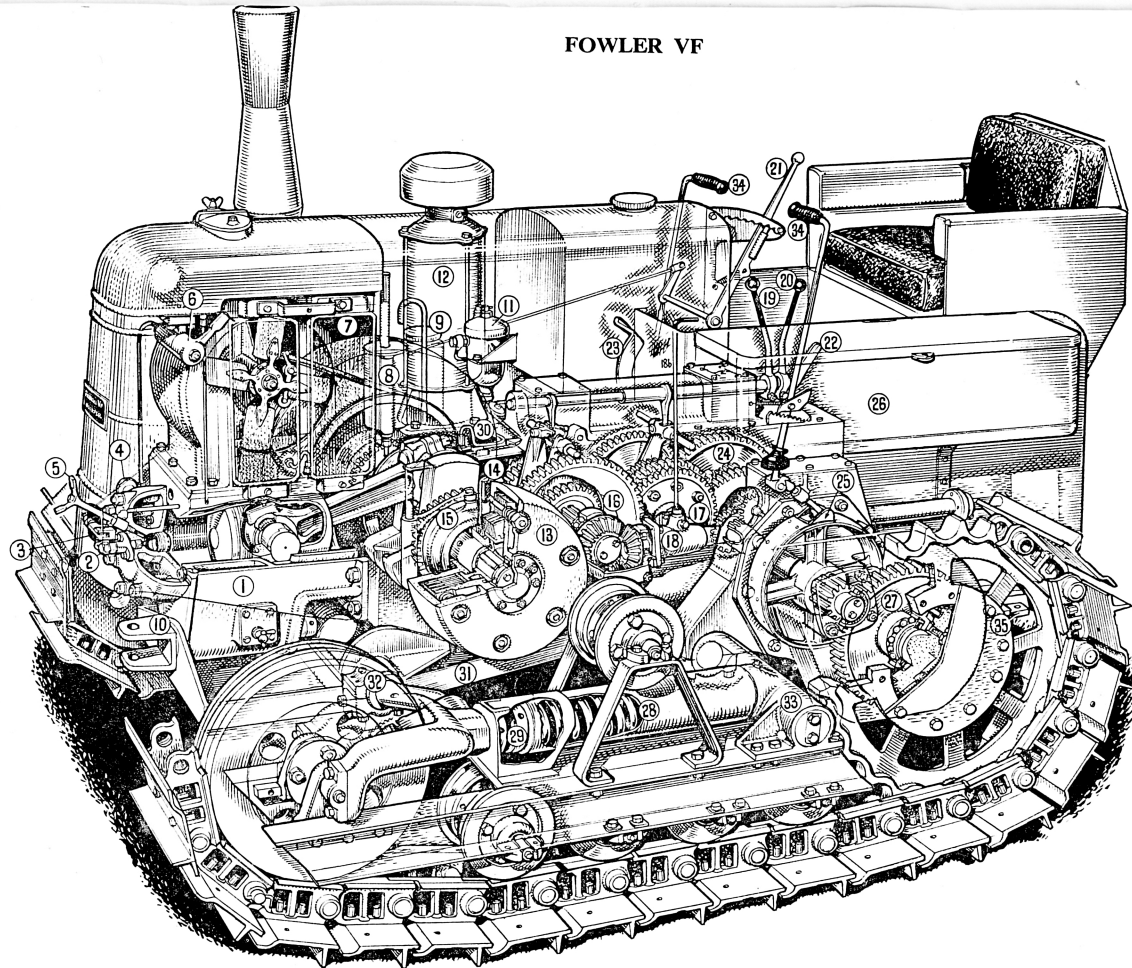


FOWLER VF

KEY TO NUMBERS ON DRAWING.—1. 40-h.p. single cylinder 2-stroke diesel engine. 2. Fuel injector. 3. Compression release valve. 4. Hand-start valve. 5. Ignition paper holder. 6. Cartridge starter. 7. Radiator. 8. Oil filter. 9. Oil filler cap. 10. Front drawbar. 11. Fuel filter. 12. Air cleaner. 13. Clutch and belt pulley. 14. Clutch brake pad. 15. Clutch operating fork. 16. First motion shaft. 17. Second motion shaft. 18. Power take-off. 18b. Power take-off control lever. 19. 3-speed change-gear lever. 20. High-low change-gear lever. 21. Governor control. 22. Clutch hand control. 23. Clutch foot control. 24. Steerage unit. 25. L.H. steerage band. 26. Tool box. 27. Final drive. 28. Track recoil spring. 29. Track tension adjustment. 30. Oil pipe to L.H. main crankshaft bearing. 31. Engine and transmission undershield. 32. Torsional front axle. 33. Rear cross beam. 34. Steering levers. 35. Swinging drawbar.



FARM MECHANIZATION HANDBOOK

FOWLER VF

Engine: compression-ignition, single-cylinder, horizontal, water-cooled, 2-stroke, diesel oil. Bore and stroke 6.5×9in. Piston swept volume 298.65 cub. in. Compression ratio 16:1. Brake h.p. 38–40 at maximum governed speed of 750 r.p.m.

Cylinder: integral with detachable block; rebore advised when wear on diameter is 0.018in.

Piston and connecting rod: can be removed from top of cylinder.

Ring data (counting from top):

Ring	Gap in unworn part of cylinder	Groove clearance
	Correct	Correct
1	0.035–0.040in.	0.006in.
2	0.035–0.040in.	0.002in.
3	0.062in.	0.002in.
4	0.062in.	0.002in.

Piston to cylinder clearance: 0.010–0.012in. at skirt. Oversize pistons available: 0.040in.

Gudgeon-pin clearance: running fit for needle-roller bearings.

Big-end bearing: upper half bronze shell, lower half direct on to bronze cap; usually necessary to renew upper half only, minimum clearance 0.006in.

Crankpin: maximum permissible ovality 0.004in.

Main bearing: two roller bearings, end float 0.015–0.022in., controlled by shims between outer race of left-hand bearing and housing.

Crankshaft: undersizes available 0.050in. on crankpin only.

Lubrication: low-pressure feed from multiple plunger pump. Surplus oil discharged from crankcase through filters to lubricating pump sump by crankcase pressure.

Cooling system: thermo syphon and fan.

Fuel system: C.A.V. Timing fixed at works. When mark on fuel-pump tappet is set within $\frac{1}{32}$ in. of the end of pump window on maximum stroke, this automatically gives the correct timing. Setting controlled by shims under tappet.

Governor: centrifugal, controls engine speed to a maximum of 750 r.p.m. at full load.

Starting aids: power cartridge, ignition paper, decompressor valve.

Clutch: multi-plate, dry, spring loaded. Pedal-free movement approx. $\frac{1}{2}$ in. (Clutch cable must be slack when pedal is in engaged position.)

Steering: controlled epicyclic differential, brake operated, lever-free movement $3\frac{1}{2}$ in. (at top of lever).

Tracks: correct adjustment allows 2in. slack above top roller.

Pins and bushes: turn when 0.1in. wear has occurred on bush face or when wear has reduced bush diameter to 1.9in. minimum. Bushes are recessed in outer links.

Threads: B.S.F., B.S.W. Tightening torque in lb. ft.: cylinder head (cold) 125–133, big end 100.

Factory reconditioned exchange units available.