

# FERGUSON TRACTOR

MODEL: (PETROL ENGINE) TYPE TE-A20. YEAR: 1954.

## ENGINE

Bore, 85 mm. Stroke, 92 mm. Capacity, 2,088 c.c. (127.4 cu. in.).  
Firing order, 1-3-4-2. Compression ratio, 6 to 1.  
Piston clearances: Top, .0030-.0037 in. Bottom, .0015-.0022 in.  
Oversize for reboring: 1st, -.37665 in. + .0005 in. Maximum ring gap, .015 in. all rings  
- .00025 in.  
Piston rings—Type and No.: 2 compression, 1 scraper above gudgeon pin, 1 scraper below  
gudgeon pin.  
Valve-seating angle, 45°.  
Valve timing: Inlet opens at T.D.C. Closes at 40° A.B.D.C.  
Exhaust opens at 40° B.B.D.C. Closes at T.D.C.  
Valve clearances: Inlet, .010 in. (cold).  
Exhaust, .012 in. (cold).  
T.D.C. indicated by flywheel marked. Located externally by tommy bar inserted through  
hole in crankcase into corresponding hole in flywheel for Nos. 1 and 4 pistons.  
Crankshaft diameters: Main, 2.4795-2.4790 in. Crankpin, 2.0861-2.0866 in.  
Crankshaft clearances: Main, .0025-.0010 in. Crankpin, .0024-.0006 in.  
Crankshaft side float: Main, .0117-.0048 in. Crankpin, .0115-.0075 in.  
Regrind: Minimum diameter, main journals and crankpins, .040 in.

## CARBURETTOR

Type: Zenith 24T-2.  
Settings: Choke, 17 mm. Main, 100.  
Air correction (inter-con.), 1 mm. Air jet, 2.0 mm.  
drilled. Needle seating, 2.0 mm.  
Progression, 120 (2 holes). Slow-running jet, 60.

## CLUTCH

Type: Single dry plate, 9 in. effective diameter.

## FRONT AXLE AND STEERING

Camber, 2° 1' 42". Castor angle, 5°. King-pin angle, 9° 0' 7".  
Toe-in, 0- $\frac{1}{8}$  in. Track: F, 48-80 in. } Adjustable in approx.  
Wheelbase, 5 ft. 10 in. B, 48-76 in. } 4-in. steps.

## TYRES

Size, Front, 4 × 19 in. Pressures: F, 26 lb. sq. in. B, 12 lb. sq. in.  
Rear, 10 × 28 in.

## BACK AXLE

Type: Spiral bevel final drive, semi-floating shafts.  
Adjustments: Bevel pinion } Shims.  
Differential bearing }  
End play, .008-.010 in. Lash, .004-.018 in.  
(half-shafts). (crown wheel and pinion).

## LUBRICATION SYSTEM

Oil sump capacity, 12 pints. Transmission, 5 gallons (includes hydraulic  
oil pressure, 40-60 lb. sq. in. system and rear axle).

## RADIATOR AND COOLING SYSTEM

Capacity, 15 pints.

## ELECTRICAL SYSTEM

Voltage, 12. Battery, 38 ampere-hour 7-plate unit.  
Charging system, dynamo, C.V.C. Distributor rotation, clockwise viewed from  
Contact-breaker gap, .014-.016 in. driving end.  
Spark plug, 14 mm. Gap, .030-.032 in.  
Ignition timing, 1° before T.D.C. (static setting).

# FERGUSON TRACTOR

MODEL: (PETROL ENGINE) TYPE TE-A20. YEAR: 1956-57.

## ENGINE

Bore, 85 mm. Stroke, 92 mm. Capacity, 2,088 c.c. (127.4 cu. in.).  
Firing order, 1-3-4-2. Compression ratio, 6 to 1.  
Piston clearances: Top, .0030-.0037 in. Bottom, .0015-.0022 in.  
Oversize for reboring: 1st, - 3.3665 in. + .0005 in. Maximum ring gap, .015 in. all rings.  
- .00025 in.  
Piston rings—Type and No.: 2 compression, 1 scraper above gudgeon pin, 1 scraper below gudgeon pin.  
Valve-seating angle, 45°.  
Valve timing: Inlet opens at T.D.C. Closes at 40° A.B.D.C.  
Exhaust opens at 40° B.B.D.C. Closes at T.D.C.  
Valve clearances: Inlet, .010 in. (cold).  
Exhaust, .012 in. (cold).  
T.D.C. indicated by flywheel marked. Located externally by tommy bar inserted through hole in crankcase into corresponding hole in flywheel for Nos. 1 and 4 pistons.  
Crankshaft diameters: Main, 2.4795-2.4790 in. Crankpin, 2.0861-2.0866 in.  
Crankshaft clearances: Main, .0025-.0010 in. Crankpin, .0024-.0006 in.  
Crankshaft side float: Main, .0117-.0048 in. Crankpin, .0115-.0075 in.  
Regrind: Minimum diameter, main journals and crankpins, .040 in.

## CARBURETTOR

Type: Zenith 28G.  
Settings: Choke, 17 mm. Main, 105.  
Air correction (inter-con.), 1 mm. Air jet, 2.0 mm.  
drilled. Needle seating, 2.0 mm.  
Progression, 120 (2 holes). Slow-running jet, 60.

## CLUTCH

Type: Single dry plate, 9 in. effective diameter.

## FRONT AXLE AND STEERING

Camber, 2° 1' 42". Castor angle, 5°. King-pin angle, 9° 0' 7".  
Toe-in, 0- $\frac{1}{8}$  in. Track: F, 48-80 in. } Adjustable in approx.  
Wheelbase, 5 ft. 10 in. B, 48-76 in. } 4-in steps.

## TYRES

Size, Front, 4 × 19 in. Pressures: F, 26 lb. sq. in. B, 12 lb. sq. in.  
Rear, 10 × 28 in.

## BACK AXLE

Type: Spiral bevel final drive, semi-floating shafts.  
Adjustments: Bevel pinion, shims.  
Differential bearing, shims.  
End play, .008-.010 in. Lash, .004-.018 in.  
(half-shafts). (crown wheel and pinion).

## LUBRICATION SYSTEM

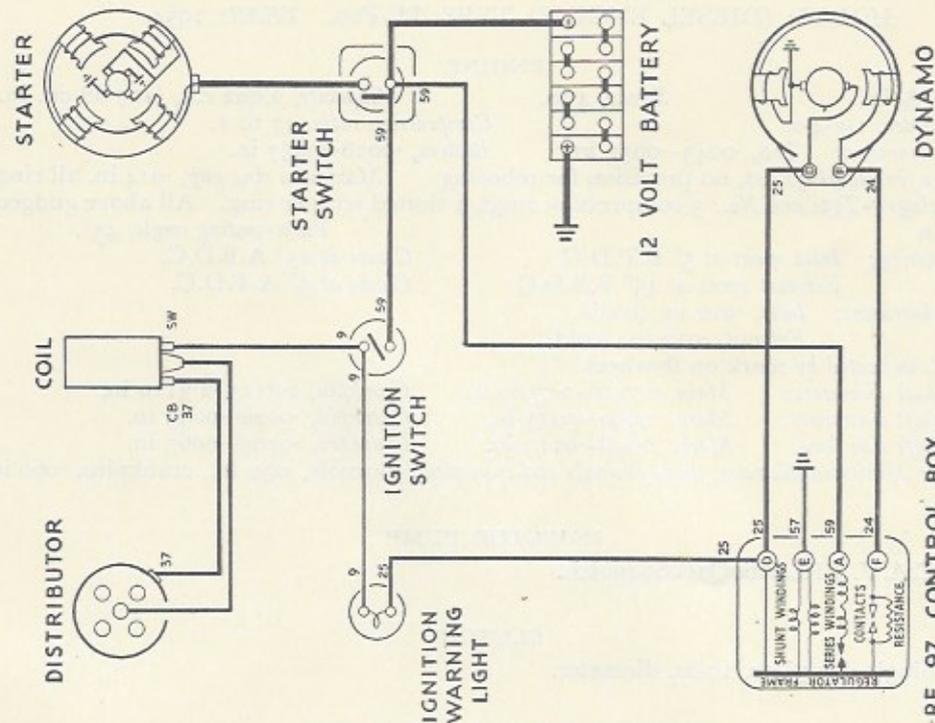
Oil sump capacity, 12 pints. Transmission, 5 gallons (includes hydraulic system and rear axle).  
Oil pressure, 40-60 lb. sq. in.

## RADIATOR AND COOLING SYSTEM

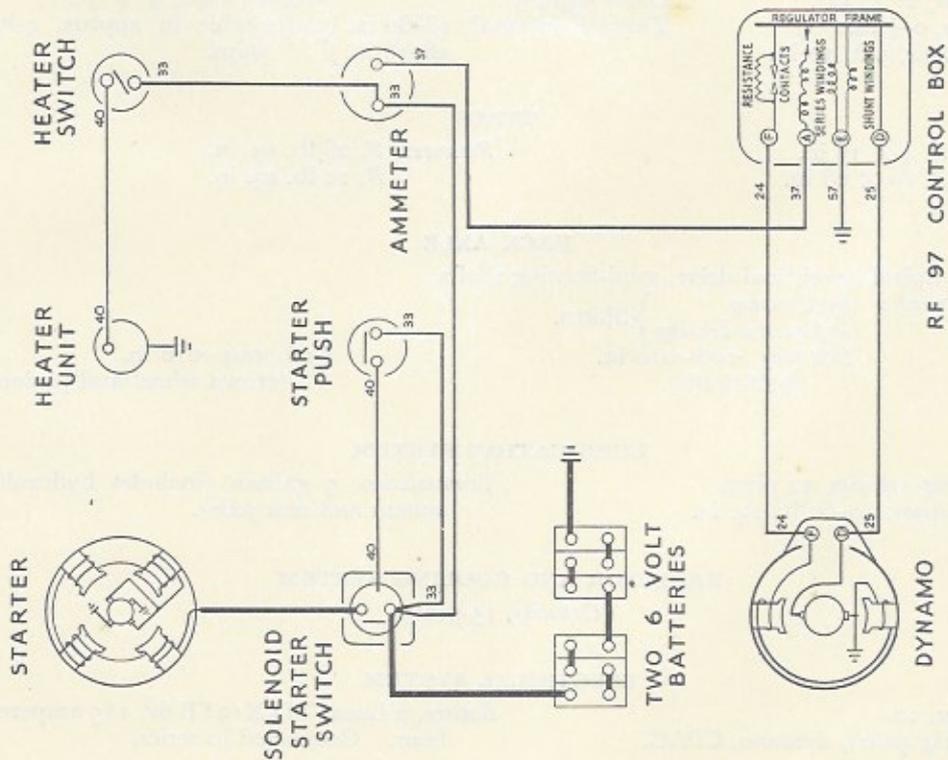
Capacity, 15 pints.

## ELECTRICAL SYSTEM

Voltage, 12. Battery, 38 ampere-hour 7-plate unit.  
Charging system, dynamo, C.V.C. Distributor rotation, clockwise viewed from driving end.  
Contact-breaker gap, .014-.016 in.  
Spark plug, 14 mm. Gap, .030-.032 in.  
Ignition timing, 1° before T.D.C. (static setting).



Ferguson Petrol Engine Tractor TEF-50.



Ferguson Diesel Engine Tractor TEF-50.

# FERGUSON TRACTOR

MODEL: (DIESEL ENGINE) TYPE TE-F20. YEAR: 1954.

## ENGINE

Bore,  $3\frac{3}{16}$  in. Stroke, 4 in. Capacity, 2,092 c.c. (127.68 cu. in.).  
Firing order, 1-3-4-2. Compression ratio, 17 to 1.  
Piston clearances: Top, .0043-.0052 in. Bottom, .0028-.0037 in.  
Oversize for reboring: 1st, no provision for reboring Maximum ring gap, .014 in. all rings.  
Piston rings—Type and No.: 3 compression rings, 1 slotted scraper ring. All above gudgeon pin. Valve-seating angle,  $45^\circ$ .  
Valve timing: Inlet opens at  $5^\circ$  B.T.D.C. Closes at  $25^\circ$  A.B.D.C.  
Exhaust opens at  $45^\circ$  B.B.D.C. Closes at  $5^\circ$  A.T.D.C.  
Valve clearances: Inlet, .012 in. (cold).  
Exhaust, .012 in. (cold).  
T.D.C. indicated by mark on flywheel.  
Crankshaft diameters: Main, 2.7505-2.7500 in. Crankpin, 2.3115-2.3110 in.  
Crankshaft clearances: Main, .0050-.0025 in. Crankpin, .0020-.0035 in.  
Crankshaft side float: Main, .0048-.0117 in. Crankpin, .0105-.0065 in.  
Regrind: Minimum diameter, main journals and crankpins: journals, .040 in., crankpins, .060 in.

## INJECTOR PUMP

Type: C.A.V. BPE4A60Q120S6292EL.

## CLUTCH

Type: Single dry plate, 10-in. diameter.

## FRONT AXLE AND STEERING

Camber,  $2^\circ 1' 42''$ . Castor angle,  $5^\circ$ . King-pin angle,  $9^\circ 0' 7''$ .  
Toe-in,  $0\frac{1}{2}$  in. Track: F (normal) 48-80 in. } Adjustable in approx. 4-in. steps.  
Wheelbase, 5 ft. 10 in. 48-76 in. }

## TYRES

Size: F, 4 × 19 in. Pressures: F, 26 lb. sq. in.  
B, 10 × 28 in. B, 12 lb. sq. in.

## BACK AXLE

Type: Spiral bevel final drive, semi-floating shafts.

Adjustments: Bevel pinion } Shims.  
Differential bearing }  
End play, .008-.010 in. (half-shafts).

Lash, .004-.018 in. (crown wheel and pinion)

## LUBRICATION SYSTEM

Oil sump capacity, 12 pints. Transmission, 5 gallons (includes hydraulic system and rear axle).  
Oil pressure, 40-60 lb. sq. in.

## RADIATOR AND COOLING SYSTEM

Capacity, 15 pints.

## ELECTRICAL SYSTEM

Voltage, 12. Battery, 2 Lucas T/TX19TE 6v. 115 ampere-hour. Connected in series.  
Charging system, dynamo, C.V.C.

# FERGUSON TRACTOR

MODEL: (DIESEL ENGINE) TYPE TE-F20. YEAR: 1956-57.

## ENGINE

Bore,  $3\frac{3}{16}$  in. Stroke, 4 in. Capacity, 2,092 c.c. (127.68 cu. in.).  
Firing order, 1-3-4-2. Compression ratio, 17 to 1.  
Piston clearances: Top, .0043-.0052 in. Bottom, .0028-.0037 in.  
Oversize for reboring: 1st, no provision for reboring. Maximum ring gap, .014 in. all rings.  
Piston rings—Type and No.: 3 compression rings, 1 slotted scraper ring. All above gudgeon pin. Valve-seating angle,  $45^\circ$ .  
Valve timing: Inlet opens at  $5^\circ$  B.T.D.C. Closes at  $25^\circ$  A.B.D.C.  
Exhaust opens at  $45^\circ$  B.B.D.C. Closes at  $5^\circ$  A.T.D.C.  
Valve clearances: Inlet, .012 in. (cold). Exhaust, .012 in. (cold).  
T.D.C. indicated by mark on flywheel.  
Crankshaft diameters: Main, 2.7505-2.7500 in. Crankpin, 2.3115-2.3110 in.  
Crankshaft clearances: Main, .0050-.0035 in. Crankpin, .0020-.0035 in.  
Crankshaft side float: Main, .0048-.0117 in. Crankpin, .0105-.0065 in.  
Regrind: Minimum diameter, main journals and crankpins, journals, .040 in., crankpins, .060 in.

## INJECTOR PUMP

Type: C.A.V. BPE4A60Q120S6402EL.

## CLUTCH

Type: Single dry plate, 10 in. diameter.

## FRONT AXLE AND STEERING

Camber,  $2^\circ 1' 42''$ . Castor angle,  $5^\circ$ . King-pin angle,  $9^\circ 0' 7''$ .  
Toe-in,  $0-\frac{1}{8}$  in. Track: F, (normal) 48-80 in. } Adjustable in approx. 4-in.  
Wheelbase, 5 ft. 10 in. 48-76 in. } steps.

## TYRES

Size: F, 4 × 19 in. Pressures: F, 26 lb. sq. in.  
B, 10 × 28 in. B, 12 lb. sq. in.

## BACK AXLE

Type: Spiral bevel final drive, semi-floating shafts.  
Adjustments: Bevel pinion, shims.  
Differential bearing, shims.  
End play, .008-.010 in. (half-shafts). Lash, .004-.018 in. (crown wheel and pinion).

## LUBRICATION SYSTEM

Oil sump capacity, 12 pints. Transmission, 5 gallons (includes hydraulic system and rear axle).  
Oil pressure, 40-60 lb. sq. in.

## RADIATOR AND COOLING SYSTEM

Capacity, 15 pints.

## ELECTRICAL SYSTEM

Voltage, 12. Battery, 2 Lucas T/TX19TE 6v. 115 ampere-hour. Connected in series.