VERSATILE



Operator's Manual

Tractor 150

1977





VERSATILE MANUFACTURING LTD. (VERSATILE) warrants each item of new Versatile equipment sold by it to be free from defects in material and workmanship under normal use and service. The sole obligation of Versatile to the Dealer under this warranty is limited to repairing or replacing, as Versatile may elect, any part or parts that prove in Versatile's judgment to be defective in material or workmanship within one year after delivery to the original purchaser, under normal farm use. Such a defective part or parts will be replaced or repaired ONLY TO THE ORIGINAL PURCHASER, such repair or replacement will be done at the location of the selling Versatile Dealer. Purchaser must give written notice to the Authorized Dealer from whom equipment was purchased of any claimed defect and the Dealer will have a reasonable time under the circumstances then existing to repair or replace said part or parts found to be defective. It is understood that if there is any delay in giving such written notice wherein it is possible that the alleged defective part may have caused damage or defects to other parts of the equipment, then this warranty shall not cover the repairs necessitated therein.

NOTE: THE SOLE REMEDY OF THE PURCHASER FOR BREACH OF THIS WARRANTY IS THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS.

This warranty does not extend to the engine or tires on Versatile tractors which are manufactured by others, and which carry separate warranties from said manufacturers. There are no representations, warranties, or conditions express or implied, statutory or otherwise, except those herein contained and no agreement collateral otherwise, except those herein contained and no agreement collateral hereto shall be binding upon either party unless in writing hereon or attached hereto, signed by purchaser and accepted by Versatile at its head office.

Versatile's liability under this warranty is limited to the repairing or replacing of parts, and Versatile shall in no event be liable to the Purchaser for consequential damages or loss of profits on crops sustained by it as a result of any defect in material or workmanship on any of the equipment covered by this warranty.

Versatile equipment is warranted for agricultural use only. This Warranty does not cover industrial application. ALTERING, MODIFYING OR ADDING ADDITIONAL EQUIPMENT WHICH IS NOT APPROVED FOR INSTALLATION ON VERSATILE EQUIPMENT BY THE COMPANY WILL VOID THE WARRANTY.

All Warranties are subject to the legislation of the state or province in which the machine is sold.

THERE WILL BE NO DEVIATION FROM THE PROCEDURE AS OUTLINED.

NOTE: THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANT-IBILITY OR FITNESS FOR A PARTICULAR PURPOSE BY VERSATILE OR ITS AUTHORIZED DEALER, REGARDING VERSATILE EQUIPMENT EXCEPT THE WARRANTY AGAINST DEFECTS IN MATERIAL OR WORKMANSHIP EXPRESSED HEREIN. NO PERSON IS AUTHORIZED TO BIND VERSATILE FOR ANY OTHER WARRANTY WHATSOEVER.

INTRODUCTION

We are VERSATILE Manufacturing Ltd. are pleased that you have chosen a VERSATILE Utility Tractor for your farming operation. The founders of VERSATILE have pioneered the development of the four-wheel drive tractor for agricultural use. It has evolved through the ideas and suggestions which have been submitted to us by customers such as yourself.

We ask that you study this manual and adopt the preventative maintenance program outlined in it. Preventative maintenance will provide you with trouble free service for years to come. The suggested schedule has been designed to meet most operating conditions. It may be necessary to adjust your maintenance program to suit your specific operating conditions and to perform the maintenance more often than outlined.

As the purchaser of a VERSATILE Four-Wheel Drive Tractor you have also received a Perkins Operation and Maintenance Manual. We would ask that for maintenance on the engine which is not covered by our tractor manual, you follow the instructions outlined in the Perkins manual. Before placing the tractor in service become familiar with all the procedures described in both the engine manual and the tractor manual.

Your dealer is factory-trained to provide you with genuine parts and professional repair service. Consult him regarding your service needs. He is working for you.

NOTE

Revisions, other than deletions, are marked with this symbol.

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P.T.O 19	Break-In Period
Standard application	Periodic Servicing
Stationary application	Con't.
Stationary application	Con t.

SERVICE Con't.

Recommended Service Intervals Service Chart of:		STORAGE & PREPARATION
as required		Storing the Tractor
every 10 hours/daily every 50 hours every 200 hours every 400 hours every 1000 hours/annually Lubrication chart/illustration		Preparation of Engine for Storage
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SERIAL NUMBER LOCATIONS

IMPORTANT:

When ordering parts, state the serial number of the tractor and/or engine, whichever applies.

The tractor serial number is stamped on a metal tag located on the steering column. The engine (Perkins) serial number is stamped on the front side below the engine's exhaust manifold.

Write your model and serial number information here:

Tractor Serial Number

TRACTOR

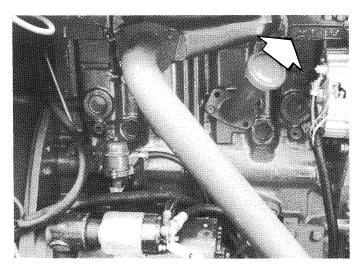
MODEL 150

SERIAL #

ENGINE

MODEL Perkins 4.236

SERIAL # _____



Engine Serial Number

MODEL 150 TRACTOR SPECIFICATIONS

GENERAL

Wheelbase — 80 inches (2,0 m)
Maximum operating weight (full bucket) — 10,700 lbs. (4860 kg)
Recommended range of operating weight — 7800 lbs. (3540 kg)
Fuel tank capacity — 34 U.S. Gal.; 28.3 lmp. Gal.; (128.7 L)
Length overall — 150 inches (3,8 m)
Height overall — 109 inches (2,8 m)
Nominal turning radius — 121 to centerline of 72 in. tread

TIRE SIZE	TREAD
11.2 x 24	62 - 84 in. (1,6-2,1m
13.6 x 24	62 - 84 in. (1,6-2,1m
SHIPPING	SHIPPING
WIDTH	WEIGHT
77.25 (1,9 m)	7500 (3405 kg)
77.25 (1,9 m)	7700 (3500 kg)

TURNING RADIUS

Measured to outside edge of tire — 120.5 - 130 inches (3,06 - 3,3 m)

ENGINE

Perkins 236 cu. in. (3,8 L) in-line 4 cylinder diesel Maximum brake H.P. 71 2250 RPM (per SAE Std. J270 1.3.4)

Maximum torque — 192 ft. lb. @ 1350 RPM(260 n-m)

Full load governed speed — 2250 RPM

Full throttle no load speed — 2430 RPM

Idle Speed — 800 RPM

Bore — 3.875 inch (48.4 mm)

Stroke — 5.000 inch (127.0 mm)

Displacement — 235.9 cu. in. (3.8 L)

Compression ratio — 16:1

Hydraulic system pump — gear driven from timing gears

Mounts — fully rubber-mounted

COOLING SYSTEM

Capacity — 17 U.S. Gal.; 14.2 Imp. Gal. (64,3 L) Radiator — Cross flow Fan — 17.5 in. diameter suction type (441 mm) Pressure cap — 7 psi

DRIVE HYDROSTATICS

Eaton Model 46 variable volume axial piston, driven from the engine flywheel, operating in a closed loop system with an Eaton Model 46 fixed displacement motor. Overload protection is provided via an integral relief and pressure override in the pump. Maximum pressure is 4600 psi. System charge is maintained by a 0.85 C.I.D. (1,4 L) pump on the main pump. Inlet oil to the charge pump is filtered through a 10 micron filter. Excess case oil is drained through a 207 sq. in. (1290,4 sq. cm.) oil cooler mounted in front of the radiator and returned to a 10 U.S. Gal. pressurized tank. Hydrostatic motor speed is infinitely variable from full forward to neutral to full reverse and is controlled by adjusting the pump swash plate angle through a pintle shaft.

TRANSMISSION

Versatile design, 3 speed with sliding gear shifting, 3 shafts horizontally arranged.

Timken tapered roller bearings Spur Gear
Console mounted shift lever
Speed ranges at 2250 RPM with 13.6 x 24 tires (21.5 in. (240 mm) rolling radius)
Gear 1 0 - 4.21 MPH (6,8 km/hr)
Gear 2 0 - 8.34 MPH (13,4 km/hr)
Gear 3 0 - 17.23 MPH (27,7 km/hr)

DRIVELINES

Engine to Drive Hydrostatics - Spicer Series 1310 Transmission to Differentials — Spicer Series 1350 Driveline carrier bearing mounted on articulation joint P.T.O. Driveline — Spicer Series 1310

BRAKES

Service brake — 14 in. (356 mm) disc on drive line, hydraulically operated by foot pedals (2). Parking brake — mechanically operated by over center lever.

AXLES

Versatile designed, outboard drop box final drives. Dana Hypoid Differentials. No-Spin (Engine End). Heavy — Duty (Drawbar End).

Differential ratio — 3.73:1 Hub — adjustable double integral keyed. Retained by two 7/8 in. (22 mm) diameter U-bolts.

G/A Drive Ratio — 10.97:1

FRAME

DRAWBAR

Articulated frame 4-wheel drive, 36° articulation, oscillation of engine and axle — 5-1/2°

Articulation bearings are 1.75 (445 mm) diameter ball bushings.

Oscillation bearings are 1.25 in. (31,7 mm) diameter ball bushings. Main frame member's are constructed of 1/4 in. plate and 4 x 6 in. rectangular tubing.

Straight swinging type constructed of 1.5 inch x 2.5

Height — 17 in. (432 mm) to top of main member.

HYDRAULICS

Open center system Steering circuit — 5 GPM @ 2500 psi 15 GPM @ 2250 psi

Control valve — Gresen SPK4-4-4, with one four-way spool, and one four-way float spool 3 Point Hitch — position control valve Reservoir — 40 U.S. Qts.; 33.3 Imp. Qts. (151,2 L) Third Spool Control — optional Oil Cooler — 121 sq. in.

INSTRUMENT PANEL

inch (31,7 x 63,5 mm) steel

Engine tachometer and hour meter Engine oil pressure gauge Engine temperature gauge Electrical fuel level gauge Voltmeter Ignition Key with solenoid operated fuel shut-off Hydrostatic charge pressure light Light switch

SERVICE FEATURES

Hydraulic filters positioned so that they can be replaced without draining system.

ELECTRICAL

12 volt negative ground system 12 volt 72 amp Delco alternator Two, 95 ampere hour batteries (450 amp cranking power @ 0° F.) Lights - two headlights/working lights in each direction. Tail lights in each direction. Roof mounted flashers.

CONTROL CONSOLE

Left Hand Console (Engine Forward Configuration) Forward/Reverse/Variable speed (Hydrostatic) Power Take Off Control Cold Start Control Right Hand Console Gear shift lever Throttle control

3 point hitch control Auxiliary hydraulic controls are foot operated by pedals in the engine backward configurations and hand operated by floor mounted levers in the engine forward configuration. Overhead mounted directional signals.

FUEL TANK

Electrical fuel gauge on instrument panel and mechanical readout at tank. Fuel tank capacity — 34 U.S. Gals.; 28.3 Imp. Gal.; (128,7 L)

COLD START AID

Type — Ether, operated from side control console.

STEERING

Articulated frame, 36° in each direction Fully hydrostatic operation Two, 2 in. x 7 in. stroke cylinders

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