VERSATILE

FORD NEWHOLLAND

Operator's Manual

4WD Tractor Series 2 Model 700

1976

42070020



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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 MERCHANTIBILITY 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.

TABLE OF CONTENTS

SERIES 2 TRACTOR

Section	Page
Specifications	3
Safety Rules	6
Controls and Instruments	8
Operation	15
Fuels, Fluids and Lubricants	24
Routine Service and Lubrication	27
Troubleshooting	45
Storage and Preparation	48
Electrical System	50
System Schematics	55

INTRODUCTION

We at VERSATILE Manufacturing Ltd. are pleased that you have chosen a VERSATILE Four-Wheel drive 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 Cummins' 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 Cummins 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.

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 the rear of the front frame section and also appears as a metal tag near the clutch pedal in the cab. The engine (Cummins) serial is on a metal tag located on the rear of the engine's left-hand cylinder bank.

Write your model and serial number information here:

TRACTOR

MODEL 700

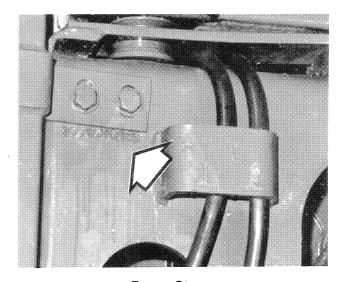
SERIAL _____

ENGINE

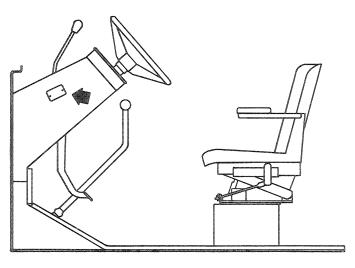
MAKE CUMMINS

MODEL V555

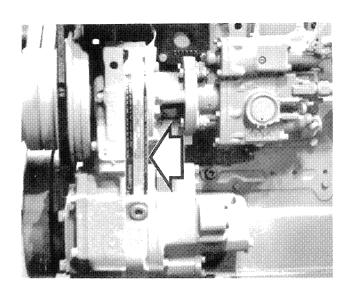
SERIAL _____



Frame Stamp



Cab Plate



Engine Plate

SPECIFICATIONS

Horsepower:

Engine maximum Brake Horsepower at 2850 rpm
-- 210

Dimensions:

Wheel Base	130 in. (3,30 m)
Length Overall	253 in. (6,43 m)
Height Overall	130 in. (3,30 m)
	to top of stack*
 Height to Drawbar 	18 in. (457 mm)
 Height to Differential 	23 in. (584 mm)
 Height to Frame 	22 in. (559 mm)
• Width	(See Tire Size)

Weight:

- Maximum Operating Weight -- 28000 lb (12700 kg)
- Recommended Operating Weights Range (most applications)

-- 22500 - 25000 lb (10200 - 11300 kg)

Tire Size and Tractor Width:

18.4 x 38 DUALS

- Between Tread Centers Inner Tires -- 72 in. (1,83 m) Outer Tires -- 118 in. (3,00 m)
- Tractor Width (outsides of tires) Inner Tires -- 90.5 in. (2,30 m) Outer Tires -- 137 in. (3,48 m)

20.8 x 38 DUALS

- Between Tread Centers Inner Tires -- 72 in. (1,83 m) Outer Tires -- 122 in. (3,10 m)
- Tractor Width (outsides of tires) Inner Tires -- 92.75 in. (2,36 m) Outer Tires -- 143 in. (3,63 m)

24.5 x 32 SINGLES

- Between Tread Centers -- 72 in. (1.83 m)
- Tractor Width (outsides of tires) -- 97.25 in. (2,47 m)

30.5 x 32 SINGLES

- Between Tread Centers -- 79.12 in. (2,01 m)
- Tractor Width (outsides of tires) -- 109.72 in. (2,79 m)

Engine Specifications: (naturally aspirated)

- Cummins V-555 V8 Diesel
- Maximum torque -- 425 ft-lb at 1700 rpm (576 N-m)
- Compression ratio -- 17.0:1
- Fan -- 24 in. (610 mm), six-blade sucker type.
- Bore -- 4.625 x Stroke, 4.125 in. (117.5 x 104.8 mm)
- Displacement -- 555 cu.in. (9.09 I)
- Idle speed -- 1000 rpm
- Full-load governed speed -- 2850 rpm
- Full-throttle no-load speed -- 3100 3135 rpm
- Oil cooler and full-flow oil filter with bypass oil conditioner. Oil pan angularity capability 30° incline.
- Radiator -- 750 sq. in. (4840 cm.), 8.5 fins per in. (4.1 fins per cm.), four-row core, independent surge tank.
- Exhaust -- single exhaust, rubber-mounted.

Specifications

Engine Specifications (naturally aspirated) con't.

• Air Cleaner -- triphase, dry type dual safety element, exhaust aspirated, restriction indicator gauge on instrument panel.

Transmission:

- Tapered roller bearings 12-speed, fully-constant mesh.
- Four shafts, 3 in. (76,2 mm) diameter. Pressure lubricated (40 to 15 psi, 28 to 105 kPa).
- Range and Shift levers.
- Helical forward gears, spur reverse gears.
- •SPEEDS AT 2850 RPM WITH 24.5 TIRES (32.5 in.) (800 mm) load radius tires.

RANGE	. 1	2	3	4
1st gear	2.6 mph	3.1 mph	3.5 mph	4.1 mph
2nd	4.7	5.6	6.3	7.5
3rd	9.1	10.8	12.2	14.5
Reverse	3.4	4.0	4.5	5.3

(km/h = mph x 1.6)

Axles:

•Spiral-bevel double-reduction differentials with outboard planetary final drives.

Brakes:

- •Road Brake -- drive-line mounted 15 in. (381 mm). SELF-ADJUSTING disc type. Independent of tractor hydraulic system.
- Parking Brake -- mechanically actuated caliper.

Clutch:

•Dana-Spicer®, 14 in. (356 mm), SELF-ADJUSTING two-plate dry type with ceramic button lining, spring-loaded cushion hub discs. Mechanically actuated by foot pedal.

Steering:

•Articulated frame, 42° left or right. Fully hydrostatic actuation via two, 3 in. (76 mm) x 16.5 in. (419 mm) stroke cylinders.

Drawbar:

•Swinging clevis type with wear block. One and one-half in. (38.1 mm) pin with locking lever. Replaceable bushings. Height -- 18 in. (457 mm) to top of main member.

Frame:

- Articulated via two ball bushings between front and sub-frame.
- Artriculation capability -- 42°.
- Oscillation capability -- 15°.

Electrical:

•Two, 204-Amp-hour batteries. Negative ground. 12-Volt, 75-Amp brushless alternator with built-in voltage regulator. Automatic reset circuit breakers and replaceable fuses, six working lamps two red tail lamps and two warning flashers.

Hydraulics:

- •Open center. Nominal 23.5 U.S., 19.1 Imp. gpm; (1,48 I/s) for steering. Nominal 8.0 to 23.5 U.S., 6.7 to 19.1 Imp. gpm, (1,50 to 1,48 I/s + 10% for implements (flow is adjustable from inside the cab).
- •Filters -- reusable suction filter on suction line, one replaceable 33 micron filter on return oil line.
- •Cooler -- finned cooler mounted in front of radiator. Swings down for cleaning.
- •Implement control -- built-in flow control. Relief valve (tank mounted) set at 2300 + 50 psi (15.86 MPa + 340 kPa). Two four-way self-cancelling spools set at 2100 + 0 100 psi (14,48 MPa + 0 690 kPa). One four-way spool with float position.
- •Couplers -- Pioneer® 8200 Series, push-to-connect-under-pressure type. 7010-4 male gold colored tips.

Cab:

•Fully isolated module on six rubber mounts. Roll Over Protective Structure (ROPS). Noise Isolated. Pressurized and Air conditioned. Tinted glass. Bostrom® Seat. Lap type seat belts.

Specifications

Fluid Capacities:

- •Fuel -- 185 U.S. Gal, 155 Imp Gal (700 I)
- •Engine Lube Oil -- 26 U.S. Qt, 22.5 Imp Qt (24,8 I)
- •Coolant -- 40 U.S. Qt, 48 Imp Qt (45,4 I)
- •Hydraulic System -- 74.5 U.S. Qt., 62 Imp Qt (70,5 I)
- •Transmission -- 21.5 U.S. Qt., 17.9 Imp Qt (20,3 I)
- •Axle with Planetaries -- 28 U.S. Qt, 23.5 Imp Qt (26,5 I).

Instruments:

•Tachometer, hour meter, voltmeter, air restriction, fuel gauge, engine temperature gauge, oil pressure gauge, transmission oil light, key ignition, starter button, manual safety-switch, override button, hazard warning flasher with turn signals, light switch, wiper switch, Ether cold start control, parking brake light, air conditioner, warning lights, alternator warning light.

Air Conditioner:

•Front-mounted Condensor. Engine-mounted Compressor. Ceiling mounted Evaporator. Temperature and Fan-Speed controls. Self-cleaning OUTSIDE cab air filter ejects dust when cab door is closed firmly and by gravity.

Heater:

•Ceiling mounted core. Variable flow rate. Windshield defrosting Louver.

Radio:

•Solid state. Five push buttons with volume and tone controls. Spring mounted telescoping antenna.

Options:

- •Three point hitch (Category III).
- •Tire Sizes: 18.4 x 38 or 20.8 x 38 Duals,
- 24.5 x 32 or 30.5 x 32 Singles.
- Rear Fenders.

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