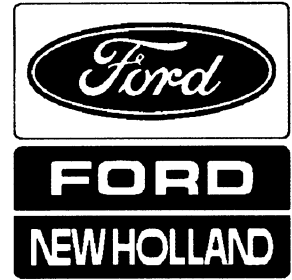


VERSATILE

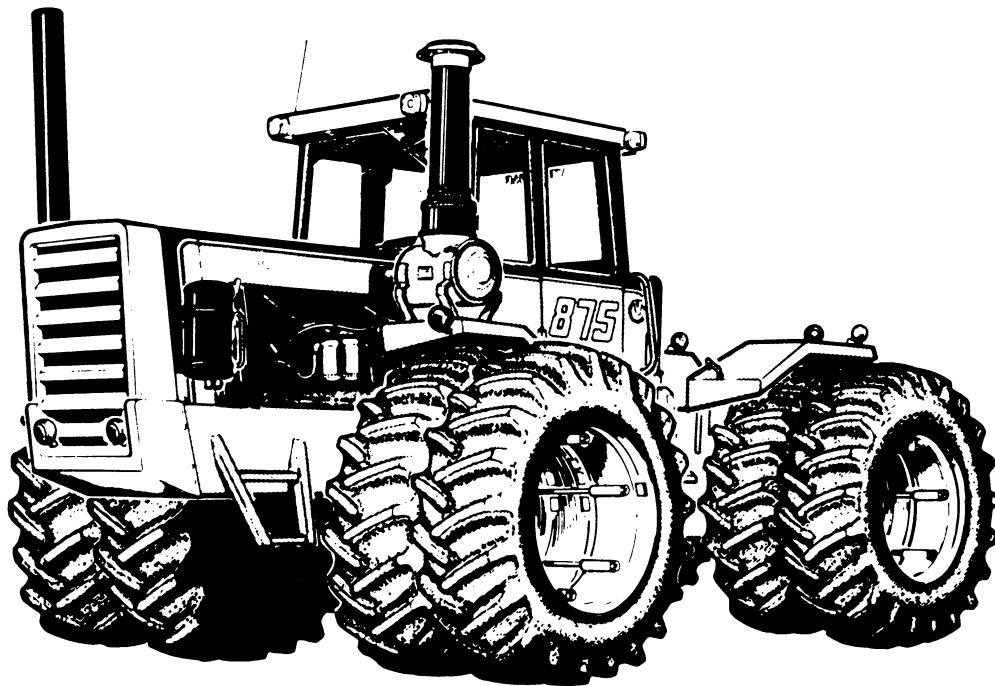
Operator's Manual



Tractors
835, 855, and 875

1978

42083530



Reprinted

VERSATILE WARRANTY

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.

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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.

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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 MERCHANTABILITY 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 at VERSATILE Manufacturing Ltd. are pleased that you have chosen a VERSATILE Four-Wheel Drive Tractor for your farming operation. The founders of VERSATILE pioneered the development of the four-wheel drive tractor. It has evolved through ideas and suggestions submitted to us by customers such as yourself.

We ask that you study this manual and adopt the preventative maintenance program outlined in it. Good preventative maintenance should provide trouble free service for years. 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 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.

Review with all operators on at least a yearly basis, the proper and safe way to operate and maintain the tractor. All operators should know the tractor completely before operating it.

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.

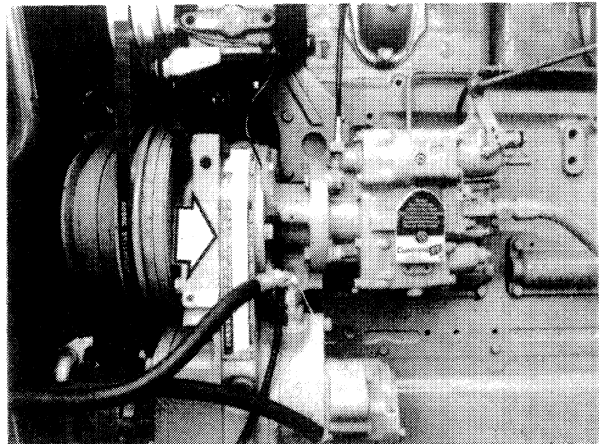
SERIAL NUMBER LOCATION

IMPORTANT:

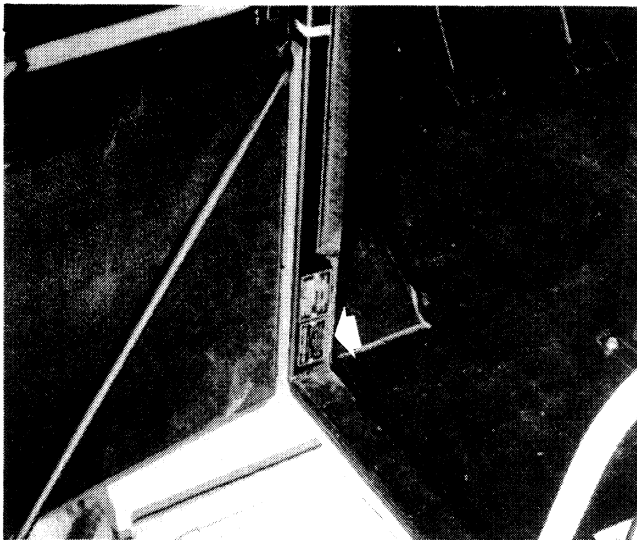
When ordering parts, state the serial number of the tractor and/or engine. The tractor serial number is stamped on the rear of the front frame section and on a metal tag on lower left hand side of the doorpost. The engine (Cummins) serial number is on a metal tag located on the left side of engine near the injector pump.

Write your model and serial number information here:

	ENGINE
MAKE	CUMMINS
MODEL	NT855
SERIAL	_____
	TRACTOR
MODEL	835 / 855 / 875
SERIAL	_____



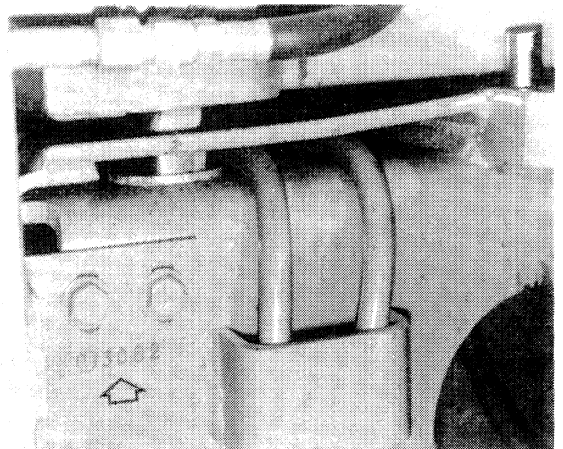
Engine Plate



Tractor Plate

FRAME

SERIAL _____



Frame Stamp

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SPECIFICATIONS

(Models 835, 855 and 875 Tractor)

DIMENSIONS:

- Wheel Base - 130 in. (3.3 m)
- Length Overall - 253 in. (6.43 m)
- Height to Drawbar - 18 in. (47.7 cm)
- Height to Differential - 23 in. (58.4 cm)
- Height to Frame - 22 in. (5.6 cm)
- Width - See Tire Size
- Height - See Tire Size

WEIGHT: (Model 835 Tractor)

- Maximum Operating Weight - 28,000 lbs. (12 700 kg)
- Approximate Weight With Various Tire Sizes:
 - 18.4 x 38 Duals - 19,830 lbs. (8990 kg)
 - 20.8 x 38 Duals - 20,660 lbs. (9370 kg)
 - 20.8 x 38 Singles - 18,100 lbs. (8210 kg)
 - 24.5 x 32 Singles - 18,720 lbs. (8490 kg)
 - 30.5 x 32 Singles - 19,240 lbs. (8370 kg)
 - 24.5 x 32 Rice & Cane Singles - 18,915 lbs. (8580 kg)
 - 30.5 x 32 Rice & Cane Singles - 19,890 lbs. (9020 kg)
- Recommended Operating Weights Range (most applications) - 24,000 to 26,000 lbs. (10 890 to 11 790 kg)

WEIGHT: (Model 855/875 Tractor)

- Maximum Operating Weight - 29,500 lbs. (13 400 kg)
- Approximate Weight with Various Tire Sizes - (weights are measured with 30 gallons of fuel and no three-point hitch)
 - 18.4 x 38 Duals - 20,110 lbs. (9120 kg)
 - 20.8 x 38 Duals - 20,950 lbs. (9500 kg)
 - 24.5 x 32 Duals - 22,130 lbs. (10 040 kg)
 - 20.8 x 38 Singles - 18,380 lbs. (8340 kg)
 - 24.5 x 32 Singles - 19,000 lbs. (8620 kg)
 - 30.5 x 32 Singles - 19,520 lbs. (8850 kg)
 - 24.5 x 32 Rice & Cane Singles - 19,695 lbs. (8705 kg)
 - 30.5 x 32 Rice & Cane Singles - 20,170 lbs. (9150 kg)
- Recommended Operating Weight Range (most applications) - 27,500 to 29,000 lbs. (12 470 - 13 150 kg)

TURNING RADIUS: (Measured to Outside of Outer Tire)

- 236 in. (5.99 m) with 18.4 x 38 Duals
239 in. (6.06 m) with 20.8 x 38 Duals
- 216 in. (5.5 m) with 24. x 32 Singles
222 in. (5.64 m) with 30.5 x 32 Singles

835 ENGINE: (Turbocharged)

- Cummins NT855A230
- Horsepower - 230 at 2100 rpm
- Peak Torque - 800 ft. lbs. (1082 N-m) at 1400 rpm
- Compression Ratio - 15.8:1

855 ENGINE: (Turbocharged)

- Cummins NT855A250
- Horsepower - 250 (176 kw) at 2100 rpm
- Peak Torque - 850 ft. lb. (1150 N-m) at 1400 rpm
- Compression Ratio - 14.1:1

875 ENGINE: (Turbocharged)

- Cummins NT855A280
- Horsepower - 280 (209 kw) at 2100 rpm
- Peak Torque - 920 ft. lb. (1245 N-m) at 1400 rpm
- Compression Ratio - 14.1:1

835,855 AND 875 ENGINE SPECIFICATIONS:

- Constant Power In-Line Six Diesel
- Displacement - 855 cu. in. (14.0 L)
- Bore - 5.5 in. (14.0 cm)
- Stroke - 6.0 in. (14.2 cm)
- Full Load Governed Speed - 2100 rpm
- Full Throttle (no load) Speed - 2250 to 2300 rpm
- Idle Speed - 1000 rpm

- Lubrication System - 41 U.S. Qts., 34.1 Imp. Qts. (38.8 L). Full-flow, oil filter with by-pass oil conditioner and oil to water cooler, 30° angularity capability oil pan.
- Engine Mounts - rubber mounted

TRANSMISSION:

- Completely rubber mounted
- Tapered roller bearings 12-speed, fully constant mesh with sliding collars
- Four vertical shafts, 3 in. (76.2 mm) diameter. Pressure lubricated 4 to 15 psi (28 to 105 kPa)
- Range and Shift Levers
- Helical forward gears, spur reverse gears
- Independent lubrication system with pump, 10 micron filter, cooler steel lines and wire braid hose, dash-mounted indicator light
- Oil capacity - 21 U.S. Qts., 18 Imp. Qts., (20.3 L)
- Speeds at 2100 rpm with 24.5 x 32 tires, 31.5 in. (30 cm) load radius tires.

	RANGE 1		RANGE 2		RANGE 3		RANGE 4	
	mph	km/h	mph	km/h	mph	km/h	mph	km/h
GEAR 1	2.6	4.2	3.0	4.8	3.5	5.7	4.1	6.6
GEAR 2	4.7	7.6	5.5	8.9	6.3	10.1	7.3	11.7
GEAR 3	9.2	14.8	10.7	17.2	12.3	19.8	14.3	23.0
REVERSE	3.4	5.5	3.9	6.2	4.5	7.2	5.2	8.4

CLUTCH:

- 14 in. (35.6 cm) (super duty on Models 855 and 875) SELF ADJUSTING two plate dry type with ceramic button lining, spring-loaded, cushion hub discs. Mechanically actuated by foot pedal.
- Greaseable shaft bearing with slinger and sealed release bearing.

BRAKES:

- Road Brake - drive-line mounted 15 in. (38.1 cm). Self-adjusting disc type. Independent of tractor hydraulic system.
- Parking Brake - mechanically actuated caliper.

AXLES:

- Spiral bevel differential with outboard planetary final drives.
- Ratios - 27.45 axle, 4.88 differential 5.625 planetary

- Oil capacity/axle - Model 835 - 38 U.S. Qts., 31.6 Imp. Qts., (36 L) - Models 855/875 - 41 U.S. Qts., 34.0 Imp. Qts., (38.6 L)

COOLING SYSTEM: (Model 835 Tractor)

- Capacity - 49 U.S. Qts., 40.8 Imp. Qts., (46.4 L)
- Radiator (4 row core) rubber mounted - 930 sq. in. (6,000 sq. cm.) with 9 fins/in. (3.5 fins/cm)
- Independent surge tank
- Hinged perforated metal grill screen
- Fan (6 blade sucker type) - 28 in. (71.1 cm)

COOLING SYSTEM: (Models 855/875 Tractor)

- Capacity - 50 U.S. Qts., 41.6 Imp. Qts., (47.3 L)
- Radiator - (5 row core) rubber mounted
- Cooling Area - 1080 sq. in. (6970 cm²) with 9 fins/in. (3.5 fins/cm)
- Pressure Cap - 7 psi (48 kPa)
- Independent surge tank
- Hinged perforated metal grill screen
- Fan (6 blade sucker type) - 28 in. (71.1 cm) diameter

EXHAUST SYSTEM:

- One 8.25 in. x 11.5 in. (21 x 292 cm) oval x 40 in. (101.6 cm) muffler
- Built-in vacuum aspirator for engine pre-cleaner
- Muffler is rubber mounted
- Built-in vacuum aspirator for engine pre-cleaner

AIR CLEANER:

- Dry type dual element with safety element, exhaust aspirated strata tube pre-cleaner, restriction indicator gauge on instrument panel.

STEERING:

- Articulated frame, 42° left or right. Fully hydrostatic actuation via two, 3 in. (7.6 cm) x 16.5 in. (41.9 cm) stroke cylinders mounted on self-aligning ball bushings.
- Steering Control Valve - 5 port, 45 cu. in./rev. (290 ml/rev), rubber mounted.

DRAWBAR:

- Swinging clevis type with wear blocks. One and one-half in. (38.1 mm) pin with locking lever. Replaceable bushings.
- Height - 18 in. (45.7 cm) to top of main member.

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