<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HP-PTO: 54</td>
<td>HP-Engine: 71</td>
<td>HP-Drawbar:</td>
</tr>
<tr>
<td>HP-Range: 54</td>
<td>Engine-Make: PERKINS</td>
<td>Engine-Fuel: DIESEL</td>
</tr>
<tr>
<td>Engine-Cyl(s)-CID: 4/238</td>
<td>Transmission-STD: HYDRO</td>
<td>Optional:</td>
</tr>
<tr>
<td>Fwd/Rev Standard: 3-VAR/3-VAR</td>
<td>Fwd/Rev Optional:</td>
<td></td>
</tr>
<tr>
<td>Tires-Std Front: 11.2-24</td>
<td>Tires-Std Rear: 11.2-24</td>
<td>Wheelbase-Inch: 80</td>
</tr>
<tr>
<td>Pto Type: ENGINE</td>
<td>Pto Speed: 540</td>
<td>CAT I-3pt Hitch: True</td>
</tr>
<tr>
<td>CAT II-3pt Hitch: True</td>
<td>CAT III-3pt Hitch: False</td>
<td>Hitch Lift:</td>
</tr>
<tr>
<td>Hydraulics-Type: OPEN</td>
<td>Hyd-Cap: 40</td>
<td>Hyd-Flow: 15</td>
</tr>
<tr>
<td>Hyd Std Outlets: 2</td>
<td>Cooling Capacity: 17</td>
<td>Fuel Tank Capacity: 34</td>
</tr>
<tr>
<td>Cab-Stdm A/C; Rops: OPT</td>
<td>Weight:</td>
<td>New Price: 21476</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Make: Versatile</th>
<th>Model: 160</th>
<th>Years Made: 1982-1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP-PTO: 70</td>
<td>HP-Engine: 98.4</td>
<td>HP-Drawbar:</td>
</tr>
<tr>
<td>HP-Range: 70</td>
<td>Engine-Make: WAUKEsha</td>
<td>Engine-Fuel: DIESEL/TURBO</td>
</tr>
<tr>
<td>Engine-Cyl(s)-CID: 4/220</td>
<td>Transmission-STD: HYDRO</td>
<td>Optional:</td>
</tr>
<tr>
<td>Fwd/Rev Standard: 3-VAR/3-VAR</td>
<td>Fwd/Rev Optional:</td>
<td></td>
</tr>
<tr>
<td>Pto Type:</td>
<td>Pto Speed: 540</td>
<td>CAT I-3pt Hitch: False</td>
</tr>
<tr>
<td>CAT II-3pt Hitch: True</td>
<td>CAT III-3pt Hitch: False</td>
<td>Hitch Lift:</td>
</tr>
<tr>
<td>Hydraulics-Type: OPEN</td>
<td>Hyd-Cap: 40</td>
<td>Hyd-Flow: 15</td>
</tr>
<tr>
<td>Hyd Std Outlets: 2</td>
<td>Cooling Capacity: 17</td>
<td>Fuel Tank Capacity: 34</td>
</tr>
<tr>
<td>Cab-Stdm A/C; Rops: STD</td>
<td>Weight:</td>
<td>New Price: 38896</td>
</tr>
</tbody>
</table>
# Table of Contents

**VERSATILE**

150 Tractor

1 Safety ..................................... 1
2 Specifications ............................. 4
3 Controls and Instruments ............... 5
4 Operation .................................. 9
5 Fuels, Fluids and Lubricants .......... 19
6 Lubrication ............................... 22
7 Maintenance ............................. 25
8 Storage .................................. 43
9 Troubleshooting .......................... 45
10 System Schematics ....................... 50
11 Index .................................... 59
The drawbar is free-swinging and should be positioned for the best performance and least side draft. The drawbar may be used in the swinging position if so desired where it is necessary to turn corners under load. There are five drawbar positions. Choose the one that is right for the job and insert pins or long bolts in the position to keep the drawbar from swinging. Always use the correct size pin.

Category Change
Change from Category I to II (or vice versa) by turning link block on lower links. This increases or decreases lower link width.

- CAUTION

WHEN HITCHING DRAWN EQUIPMENT TO THE DRAWBAR, BACK THE TRACTOR PAST THE DRAWBAR, THEN MOVE FORWARD SO THAT IN MAKING THE CONNECTION THE TRACTOR WILL BE MOVING AWAY FROM THE IMPLEMENT.

IMPORTANT

After attaching heavy load to drawbar, engage hydrostatics slowly. Avoid jerky starts.

HYDRAULIC SYSTEM

An engine driven, open center gear pump provides pressure to the hydraulic system and operates the steering circuit.

The tractor uses a three spool implement control valve centrally mounted behind a panel, below the window on the engine end of the cab.

The first spool is a spring return spool with a float detent; the second and third are spring return spools.

The first and second spools are connected to remote couplers mounted on the cab frame above the lift arms. To use the third spool, the optional hose package must be installed.

Moving the desired lever forward or backward raises or lowers the implement. A high pressure relief valve is located inside the valve and is set at 2250 ± 50 psi (15.75 ± 0.35 mPa). The 2500 psi relief valve protects the steering circuit.

HYDRAULIC COUPLERS

The tractor is equipped with two sets of high pressure quick-couplers on the hydraulic line, and two sets of gold male connector tips. Push the male tips firmly into the female connectors on the tractor. It is not necessary to release line pressure to connect hydraulic lines.

Be sure that flexible shunt (part #47647) is in place when optional hydraulics are not in use. Refer to Operator's Manual.
Hydraulic Control Valve Linkage Adjustment

The linkage for the implement control valve may be adjusted by the following procedure:

1. Shut off tractor engine and set parkbrake.
2. Remove the cover from the area below the window facing the engine.
3. Remove the cotterpin from the yoke.
4. Loosen jam nut and adjust rod until the spool bottoms out in both directions.
5. Tighten jam nut and use a new cotterpin to secure the pin through the spool and yoke.

NOTE

These adjustments can also be made to adjust the angle of the foot pedals for operator comfort.

6. If problems are still encountered, contact VERSATILE® dealer.
7. Replace cover.

IMPORTANT

Use only type ‘A’ transmission fluid.

NOTE

The hydrostatic transmission should be running and in neutral when oil is being added to the tank.

Capacity of the tank is 10 gal US (37.9 L).

NOTE

Because of its operating angle, yoke should be turned so that the pin goes through the yoke at 90 degrees to the side of the cab.

HYDROSTATIC TRANSMISSION Reservoir

The reservoir for the hydrostatic transmission is located on the left side of the tractor (engine forward configuration). It is marked with a decal ‘HYDROSTATIC OIL’.

The filler spout is on the top of the tank. Add Type ‘A’ transmission fluid, e.g. Dexron II, whenever the level is below the sight glass.

NOTE

The foot pedal inside the cab should travel in either direction without contacting the floor.

NOTE

It is recommended that different brands or grades of oil not be mixed in the hydrostatic system.

A drain plug is located on the bottom of the oil reservoir. Drain condensation from the tank at 200 hour intervals.
Index

A
Adjusting depth-limit control valve ........... 15
Air cleaner, maintenance ................. 30
Air conditioner and heater system .... 18

B
Braking procedure ......................... 13
Break-in, engine......................... 10
Break-in period ......................... 25

C
Cab filters, maintenance ................. 32
Cab pressurization .................... 18
Cold weather ........................... 12
Console rotation ....................... 9
Controls and instruments .............. 5
Cooling system, maintenance ......... 30

D
Depth-limit control valve, adjusting ...... 15
Drawbar .................................. 15
Drivelines, maintenance ................ 38

E
Electrical system, maintenance ......... 31
Engine:
  Break-in .................................. 10
  Oil and filters .......................... 22
  Perkins ................................. 29
  Starting .................................. 12
Ether starting aid, maintenance ....... 38

F
Filter, oil .................................. 22
Filters, locations ......................... 28
Fluids .................................... 20
Fuel ....................................... 19
Fuel, fluids and lubricants ............ 19
Fuel storage ................................ 17, 20
Fuel system, maintenance ............ 40
Fuel tanks .................................. 17

G
Gear transmission, maintenance ....... 38
Grill and radiators, maintenance ..... 31

H
Hydraulic control valve adjustments .... 34
Hydraulic couplers ................. 16
Hydraulic system ....................... 16
Hydrostatic control linkage adjustments .... 36
Hydrostatic transmission, maintenance .... 35

I
Inspection:
  Pre-starting ......................... 10
  Visual .................................. 41
  Instruments and controls .......... 5

L
Light system ............................... 17
Lubricants ................................ 21
Lubrication ................................ 22
Lubrication schedule ................... 23

M
Maintenance ................................ 25
Maintenance procedures, detailed:
  Air cleaner ............................... 30
  Cab filters ................................ 32
  Cooling system ......................... 30
  Electrical system ....................... 31
  Ether starting aid ...................... 38
  Fuel system ............................ 40
  Gear transmission and drivelines .... 38
  Grill and radiators .................... 31
  Hydrostatic transmission .............. 35
  Power takeoff ........................... 41
  Steering and implement hydraulics .... 33
  Visual inspection ...................... 41
  Wheels, tires and axles ............... 36
  Maintenance schedule ................ 26