University of Kentucky

The Wildcat 3112

Owners Manual

Wildcat Pulling Team
Safe Use Information

In the better interest of the customer, Wildcat, Inc. has taken into consideration several key safety steps to be followed regarding the Wildcat 3112. These safety precautions, called Safe-use, can help reduce risk of injury for both the operator and surrounding bystanders during the use of the Wildcat 3112. The purpose of this operator’s manual is to ensure the existence of a Safe-use environment in an effort to reduce risk of injury and increase customer satisfaction with the Wildcat 3112. This operator’s manual is also intended to extend the service life of the Wildcat 3112 if the recommended proper and regular maintenance instructions are followed. Every operator of the Wildcat 3112 should read the entire operator’s manual, and is responsible for any accidents that may occur during operation.
Components and Key Features

1. **Arm Rest**
   Arm rest with finger tip controls. Left hand is the key switch and steering. Right hand is the throttle and brake adjustment.

2. **Throttle**
   A lever-action throttle offers more control over the tractor. Pushing the lever forward increases the throttle of the Wildcat 3112.

3. **Ignition**
   The ignition consists of a multiple position key switch.

4. **Steering Switch**
   The standard steering control knob is attached in a comfortable position in relation to the grab handle.
5. **Mounting Grab Handle**

For added safety when mounting the tractor, a grab handle has been added.
6. **Superior Steer**

   The redesigned front axle reduces the turning radius by 20% over previous years’ tractors.

7. **Hitch**

   The hitch is located on the rear of the tractor. For more information see pulling section.
8. Fuel Tank
The fuel tank is located under the seat. It holds approximately 1 gal of fuel, with a sight gauge located at one quart. In case of emergency or for repairs, the fuel shut off valve is in the rear of the tractor under the operator's station.

9. Brakes
There are individual brakes for each wheel. They are located at the end of the floor pan and operate respective rear brakes.

10. Rigid Frame
11. PullTECH

Data Acquisition system that measures ground speed, wheel speed, engine speed, CVT speed and transmits it via radio.

Using the Wildcat 3112

Safe-use Pre-Operation

The following Safe-use checklist should be used before using the Wildcat 3112 in order to maintain a Safe-use environment:

- Proper Clothing - Long sleeves, pants, and/or fire suit, as well as closed toed shoes
- Helmet - The operator should always wear a DOT certified helmet while operating the Wildcat 3112
- Face Shield - Proper equipment should be worn to protect the operator’s eyes and face. A face shield on the helmet is recommended, but eye goggles are acceptable.
- Visual inspection of the Wildcat 3112 - The operator should inspect all areas of the Wildcat 3112 to make sure it is in proper working condition. Inspection points include, but are not limited to, air pressure of tires, quality and quantity of fluids such as fuel and engine oil, and any visible physical damage to the frame or other areas of the Wildcat 3112.
- Check electrical system, fuel lines, and throttle cables. Visual inspection of these systems should be carried out to make sure they have not been damaged or become worn.
- Check kill switch. Make sure the kill switch is in proper working order.
- Make sure all shielding is in place. Inspect all of the shielding of rotating components and exhaust. Never operator the tractor without the shielding in place.
- Check Belt. Make sure the belt is not visibly worn.
Safe-use During Operation
The following Safe-use guidelines should be followed during operation of the tractor:

1. Remain in the operator's station the entire time the Wildcat 3112 is running. At no time should the operator leave the Wildcat 3112 unattended while it is running. If the operator is forced to leave the tractor, it should be turned off in the appropriate manner beforehand (see Stopping).
2. Keep hands and feet inside the operator's station. Avoid heat sources and rotating components (engine exhausts and driveline components).
3. The operator should be fully aware of the location of components within the operator's station, as well as how they are properly used (pedals, throttle, steering, ignition switch, fire extinguisher, grab handle).
4. The fire extinguisher is mounted on the fender, to the left side of the operator's seat. The operator should be familiar with the directions located on the fire extinguisher, so that in the event of a fire the operator can sustain it long enough to exit the Wildcat 3112 and to move a safe distance away from the tractor.
5. The operator should always operate the Wildcat 3112 at a responsible speed. The operator is not to maintain operation at such a speed which would make the tractor hard to maneuver, stop, or exit in the case of an emergency or endanger nearby observers and track personnel.
6. The Wildcat 3112 is not designed to carry more than one person at a time. It is prohibited to carry passengers on the Wildcat 3112.
7. The Wildcat 3112 is not equipped with headlights or running lights. Therefore, the Wildcat 3112 should only be operated in well-lit conditions.
8. At no time should the operator attempt to operate or perform maintenance on the Wildcat 3112 while under the influence of drugs and/or alcohol.

Starting the Wildcat 3112:
The following steps should be followed to effectively start the Wildcat 3112 and prepare it for operation:

1. Ensure all shielding is in its proper location.
2. Remove all obstacles and bystanders to a safe distance from the tractor.
3. Mount the operator's station and fully depress the seat.
4. Ensure throttle is not engaged.
5. Fully engage and hold LEFT brake pedal.
6. Insert the key, and turn to ignition switch to the ON position. (In colder environments, the choke lever on the engine may need to be pulled in order for the engine to start.)

Stopping the Wildcat 3112:
1. Hold both brake pedals and release throttle until the Wildcat 3112 comes to a complete stop.
2. Turn the key to the OFF position and remove it.
3. In case of power failure, steering components will be locked in the position when power was lost.
**Pulling With the Wildcat 3112:**
The Wildcat 3112 is designed for pulling uses, and will perform acceptably in such situations. To ensure sufficient performance and safety, the following steps should be taken during a pull:

1. The operator should be fully aware of the rules pertaining to the existing pull, as well as bystanders within the vicinity.
2. Maneuver the Wildcat 3112 slowly onto the track, and into position in front of the sled, using the help of the person directing you.
3. Attach the chain securely to the hitch, and properly connect the break-away kill switch located above the hitch.
4. After the Wildcat 3112 is prepared to pull, wait for the start signal. After receiving the start signal, release the brakes and fully engage the throttle.
5. While pulling, the steering switch and brakes can be used to keep the Wildcat 3112 on the track.
6. At the end of the pull, and when instructed, release the throttle and press the brakes to stop. After the sled is detached from the Wildcat 3112 slowly exit the track.

**Ballasting the Wildcat 3112:**
Both in pulling situations and other instances, it may be necessary to ballast the Wildcat 3112 by adding weight to the provided weight brackets. There are brackets located in the front and rear of the tractor, two under the operator’s station and one behind the battery. The amount and position of the weight added depends on the condition of the track, and the circumstance under which the Wildcat 3112 is being used. It is a common practice to add weight on the rear weight bracket, which adds weight to the rear drive wheels, increasing the amount of power transferred to the ground. In some situations, however, it may be necessary to add weight to the front weight bracket in order to keep the front wheels from lifting off the ground.

The Wildcat 3112 is also equipped with a live ballasting system (LBS). The LBS was designed to actively control the weight distribution by automatically adjusting ballast along the length of the frame based on the output of two load cells.

**Maintenance/Upkeep**
Before doing any maintenance on the tractor, the battery cables should be removed.

**Maintenance Before Every Use**
It is necessary to properly care for the Wildcat 3112 in order for it to remain at maximum operating efficiency. Different maintenance procedures should be conducted at different time intervals to accomplish this. The following tasks should be performed (in addition to the Safe-use pre-operation procedures) before every use:

- Check brakes and hitch.
- Check nuts, bolts, and screws to ensure all components are securely fastened.
- Check and clean the engine air filter if needed.
- Disconnect engine spark plugs and check to see if they are in proper condition.
Storage of the Tractor
If the Wildcat 3112 is going to be out of use for an extended period of time, it is recommended that proper storage measures be taken in order to ensure the service life of the machine. The following are some Safe-use guidelines for proper storage of the Wildcat 3112:

- It is recommended that the fuel be completely drained from the Wildcat 3112 before storage.
- The Wildcat 3112 should not be stored in a place susceptible to drastic heat changes. Storing the Wildcat 3112 in a location which experiences minimal year-round temperature changes will help extend the life of the machine.
- In order to ensure the engines will remain working properly, the operator should consult the engine owner’s manual and prepare the engines for storage along with the Wildcat 3112.
- The battery should be removed from the tractor during storage.

Maintenance After Storage
The following tasks should be performed every year after removing the Wildcat 3112 from a storage position:

- Replace engine filters (oil, air, and fuel)
- Drain and Replace engine oil
- Check/replace spark plugs
- Check/bleed brakes

Fuel
Only use unleaded gasoline in the Wildcat 3112. Any other substance is strictly prohibited. Always check the quality and quantity of the fuel in the Wildcat 3112 before operation to reduce the risk of damaging components. In order to add fuel, raise the operator's seat, and remove the gas cap. Refill the tank to the fill ring, taking care not to overflow. In the event of fuel spillage, remove the spill immediately using a towel or cloth. Make sure to properly replace the gas cap after refueling. A fuel site gauge is located at the rear of the tractor at the 1 quart level.

Changing the Oil and Oil Filter
As recommended by Briggs and Stratton change oil and filter after first 5 to 8 hours and every 100 hours thereafter.

1. With engine OFF but still warm, remove oil drain plug and drain oil into appropriate receptacle. Reinstall drain plug.
2. Remove oil filter. Before installing new filter, lightly oil filter gasket with fresh, clean oil.
3. Screw filter on by hand until gasket contacts oil filter adapter. Tighten ½ to ¾ turn more.
4. Place engine level. Remove oil fill cap and add fresh oil. First, add 67 oz. Start and run engine at idle for 30 seconds. Shut engine off and wait 30 seconds. Then, add more oil slowly to bring level to full mark on dipstick. Do not overfill.
5. Replace oil fill cap and dipstick
Changing the Fuel Filter
The Wildcat 3112 makes use of one in-line fuel filter located on the engine. In order to change the fuel filter, the operator should first turn the fuel shut off-valve, located on the bottom of the fuel tank, to the OFF position and remove the negative battery cable. It is also recommended for a container to be placed underneath the fuel filter in an effort to catch any fuel which may leak from the fuel lines. Next, the spring clamps on either side of the fuel filter can be moved down each rubber line, away from the fuel filter. Remove the existing filter and replace with a new one, replacing the spring clamps. After finished, return the fuel shut-off valve to the on position and reattach the battery cables.

Engine Care
It is necessary for the operator to properly care for the engines as well as the rest of the Wildcat 3112. In order to perform proper maintenance on the engines (changing filters and oil), the operator should consult the engine operator manual which is included with the Briggs and Stratton 31HP Vanguard Big Block engines.
**Trakside**

In order to properly change the Trakside transaxles on the Wildcat 3112, the following steps should be followed:

1. Place block or jack under tractor forward of the transaxle.
2. Remove the tires.
3. Locate and remove the four mounting nuts located on wheelie bars.
4. Use handles on wheelie bars to pull the Trakside transaxle straight back for 3 inches then angled down to clear the shift lever through the fenders.
5. To replace the Trakside transaxle, angle the shift lever through the fenders, align the splines of the driveshaft with those of the transaxle and push the transaxle forward until seated.
6. Replace the four retaining nuts.

---

**Changing Trakside Transaxle Oil**

Once the Trakside Transaxle is removed, the oil can be changed.

1. Locate plug on rear of transaxle and place container underneath to catch used oil, then remove plug to let oil drain.
2. After oil is completely drained, clean plug thoroughly. Replace drain plug.
3. Remove shifter from transaxle and fill with approximately 3 quarts of transaxle oil.
4. Replace shifter and appropriately dispose of used oil.
Battery Care
To properly clean the battery and cables:

1. Make sure that key is removed from the Wildcat 3112 and remove all battery cables.
2. Remove the bolt and metal strap which hold the battery in place on the tractor.
3. Remove the battery from the Wildcat 3112.
4. Clean battery terminals and cable connections with a wire brush to remove any sign of dirt or corrosion.
5. Replace the battery in the battery mount on the Wildcat 3112, and replace metal strap.
6. Reattach battery cables, taking care to connect proper terminals.

Transportation of the Tractor
When transporting the Wildcat 3112, the crucial factor is to make sure it is secure. It is recommended to secure the Wildcat 3112 at the front and rear of the tractor. The front weight bracket has holes for straps to be hooked to and the rear hitch is an acceptable anchor point. Also when transporting the tractor long distances, the frame should be supported with blocks to prevent any damage to the tractor during transportation.

Troubleshooting
In the event the Wildcat 3112 will not start or respond appropriately, the following things should be checked.

- Battery Charged Up
- Fuel level
- Depressing left brake pedal
- Choked is pulled out
- Spark Plugs
- Operator is in the seat
- CVT Cover is in Place
<table>
<thead>
<tr>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power - (Net) 27 bhp @ 3200 rpm</td>
</tr>
<tr>
<td>Torque - (Net) 48 lb-ft @ 2200 rpm</td>
</tr>
</tbody>
</table>

### PRICE
- Retail: $
- Cost: $

### Tractor Type
- Mid Engine, Rear-Wheel Drive, One Driver, No Passengers

### Features
- PullTECH, ComfortFIT, LBS, PowerMax, TrakSIDE, Superior Steer

### CHASSIS
- Chassis Type: Ladder
- Body Material: Aluminum

### ENGINE
- Big Block V-twin, OHV, electric start
- Bore/Stroke: 3.37/3.07 in (86 x 78 mm)
- Displacement: 54.6 cu in (895cc)
- Fuel Delivery System: Float Carburetor
- Redline: 3400 rpm (governor limited)

### DRIVETRAIN
- Transmission: 3-Speed Manual
- Final-Drive Ratio: 4.60:1, Open
- Differential:
  - Gear 1: Ratio 2.47
  - Gear 2: Ratio 2.26
  - Gear 3: Ratio 1.00

### DIMENSIONS
- Wheelbase: 83.03 in (2109 mm)
- Length: 110.08 in (2796 mm)
- Width: 41.45 in (1052 mm)
- Front Track: 36.92 in (938 mm)
- Rear Track: 29.35 in (746 mm)
- Ground Clearance: 4.00 in (102 mm)

### WEIGHT
- Curb: 655 lb
- Per Horsepower: 25 lb
- Distribution: Front: 40% Rear: 60%
- Maximum Draft Load: 1000 lb
- GVWR: 1750 lb

### STEERING
- Dual Pitman Arm, Variable Speed Drive Actuator
- Dynamic Load Capacity: 100 lb
- Stroke: 8 in (203 mm)
- Max Speed: 0.5 in/sec
- Turning Radius: 46.34 in (1177 mm)

### BRAKES
- Hydraulic, independent Rear
- Master Cylinder Bore: 0.63 in
- Caliper Bore: 1.00 in

### WHEELS AND TIRES
- Front Wheels: 8 x 4
- Rear Wheels: 12” x 12” / spun
- Front Tires: 3.5” x 8” tri-rib
- Rear Tires: 26”x12”-12” titan flotation
Wildcat, Inc.
Model: Wildcat 3112
Assembly: 1000-Drive train

<table>
<thead>
<tr>
<th>Reference #</th>
<th>Part #</th>
<th>Part Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1100</td>
<td>Transaxle Assembly</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1200</td>
<td>Drive Shaft Assembly</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1001</td>
<td>CVT</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>1002</td>
<td>31 hp Engine</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>1300</td>
<td>Hitch Assembly</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>1003</td>
<td>Drive Shaft Brake</td>
<td>1</td>
</tr>
</tbody>
</table>

Torque Bolts to 25 ft-lbs

Torque Bolts to 40 ft-lbs
<table>
<thead>
<tr>
<th>Reference #</th>
<th>Part #</th>
<th>Part Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2001</td>
<td>Left Wheelie Bar</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2002</td>
<td>Right Wheelie Bar</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2003</td>
<td>Wheelie Bar Pad</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>2004</td>
<td>Weight Bar Center</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>2005</td>
<td>Weight Bar End</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>2006</td>
<td>Weight Bar End Cap</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>W17</td>
<td>Weight</td>
<td>Max 12</td>
</tr>
<tr>
<td>Reference #</td>
<td>Part #</td>
<td>Part Description</td>
<td>Qty</td>
</tr>
<tr>
<td>-------------</td>
<td>--------</td>
<td>------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>1</td>
<td>3001</td>
<td>Frame Rail Left</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>3002</td>
<td>Frame Rail Right</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>3100</td>
<td>Battery Box Assembly</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>3200</td>
<td>CVT Shield Assembly</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>3003</td>
<td>Left Carrier</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>3004</td>
<td>Right Carrier</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>3005</td>
<td>Floor Board</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>3300</td>
<td>Engine Mount Assembly</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>3006</td>
<td>Fire Wall</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>3007</td>
<td>Grab Handle</td>
<td>1</td>
</tr>
</tbody>
</table>
Widcat, Inc.
Model: Widcat 3112
Assembly: 5000-Front End

<table>
<thead>
<tr>
<th>Reference #</th>
<th>Part #</th>
<th>Part Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5001</td>
<td>Front Axle</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>5002</td>
<td>Mounting Bracket</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>5003</td>
<td>Spindle</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>5004</td>
<td>Wheel and Tire</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>5005</td>
<td>Bushing</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>5006</td>
<td>Pitman Arm</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>5007</td>
<td>Outer Sleeve</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>5008</td>
<td>Inner Sleeve</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>5009</td>
<td>Actuator Mount</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>5010</td>
<td>Actuator</td>
<td>1</td>
</tr>
</tbody>
</table>
Widcat, Inc.
Model: Wildcat 3112
Assembly: 6000-Brake

<table>
<thead>
<tr>
<th>Reference #</th>
<th>Part #</th>
<th>Part Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6100</td>
<td>Front Pivot Linkage</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>6200</td>
<td>Rear Pivot Linkage</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>6300</td>
<td>Brake Assembly</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>6001</td>
<td>Foot Rest</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>6002</td>
<td>Actuator</td>
<td>1</td>
</tr>
</tbody>
</table>
Wildcat, Inc.
Model: Wildcat 3112
Assembly: 7000-LBS
Sub-Assembly: 7109-Cart Assembly

<table>
<thead>
<tr>
<th>Reference #</th>
<th>Part #</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8516</td>
<td>5/16&quot; - 1 1/4&quot; Bolt</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>7101</td>
<td>Cart</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>7102</td>
<td>Bearing</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>7103</td>
<td>Retaining Wheel</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>7104</td>
<td>Bushings</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>7105</td>
<td>Wheel</td>
<td>4</td>
</tr>
</tbody>
</table>

Diagram showing parts 1, 2, 3, 4, 5, 6 located as indicated in the table.