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# 3200VT

## Vertical Lift Track Loader

## Operator's Manual

**50940475 Rev. L 06/21**

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# Mustang 3200VT Compact Track Loader Operator Manual

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Brand: Mustang

Models: 3200VT

Machine: Compact Track Loader

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- Introduction
- Safety
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- Controls
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- Troubleshooting
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- EC Declaration of Conformity
- Torque Specifications


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Sample pages follow. Full manual: machinecatalogic.com

- Do not work on hot engines, cooling systems or hydraulic systems. Wait for the engine to cool. When the engine lube oil, gearbox lubricant or other fluids require changing, wait for fluid temperatures to decrease to a moderate level before removing drain plugs.

  **NOTE:** *Temperatures below 49°C (120°F) will reduce the chances of scalding exposed skin while allowing the fluid to drain quickly and completely. Do not let the fluid fully cool, because drain time will be substantially increased.*

- Dispose of all oils and fluids properly. Used oils/fluids are environmental contaminants and may only be disposed of at approved collection facilities. Never drain any oils/fluids onto the ground, dispose of in municipal waste collection containers, or in metropolitan sewer systems or landfills. Check state and local regulations for other requirements.
- All safety equipment must be maintained so it is always in good condition.
- Safety-critical parts must be periodically replaced. Replace the following potentially fire-related components as soon as they begin to show signs of deterioration:
  - Fuel system flexible hoses, fuel tank overflow drain hose and fuel filler cap.
  - Hydraulic system hoses, especially the pump outlet lines. Replace hydraulic hoses every 6 years from the date of manufacture, even if they do not appear damaged. The date of manufacture (month or quarter and year) is indicated on the hydraulic hoses.
- Keep mounting brackets and hose and cable routing straps tight. Hose routing should have gradual bends.
- After cleaning the machine, examine all fuel, lubricant and hydraulic oil lines for leaks, chafe marks and damage. Tighten any loose connections and repair or replace parts as necessary.
- Hydraulic tubes and hoses must be routed and fitted properly. Make sure no connections are interchanged.
- When handling oil, grease and other chemical substances, follow the product-related safety requirements Material Safety Data Sheet (MSDS) carefully to prevent burning or scalding.
- Diesel exhaust fluid (DEF) contains urea. Avoid eye contact. In case of eye contact, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Do not swallow DEF. In the event the DEF is ingested, contact a physician immediately. Reference the Materials Safety Data Sheet (MSDS) for additional information.
- Do not disconnect the DEF line between the aftertreatment DEF dosing unit and dosing valve while the machine is running or for some time after engine shutdown. Pressure in the line could cause ejection of DEF fluid. Shut off the machine and allow at least 5 minutes for the system to complete the purge cycle before disconnecting the DEF line.
- When washing the machine using water, do not direct the water onto any electrical connection, electrical component, or electronic components. Water may cause malfunction or damage. Power washing or other high-pressure jets may cause physical damage.

## Battery Hazards

- Use the battery disconnect switch, or disconnect the negative battery cables from the negative battery terminals, before performing electrical service or electrical welding on the machine.
- Do not use batteries with fluid levels below minimum. Doing so will hasten the deterioration of the battery and shortens battery life, and can also cause rupturing or explosion.
- Turn off all electrical equipment before connecting battery leads, including electrical switches on the battery charger or jump-starting equipment.
- When disconnecting at the battery terminals, remove the cable connected to the negative terminal first. When installing a battery, connect the positive terminal cable first.

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# Specifications

**Table 19: Features : Optional Features**

| | |
|---|---|
| Engine oil pan heater | Switchable self-leveling hydraulic lift action - selectable on / off during lift |
| IdealAccess™ fold-up door | Strobe light |
| High-flow auxiliary hydraulics | 14-pin harness / control joystick |
| Deluxe air-ride heavy-duty suspension seat | Sliding side windows |
| Rear-view mirror | |

# Common Materials and Densities

**Table 20: Common Materials and Densities**

| Material | Density | |
|---|---|---|
| | kg/m3 | lbs./ft.3 |
| Ashes | 560-800 | 35-50 |
| Brick-common | 1792 | 112 |
| Cement | 1760 | 110 |
| Charcoal | 368 | 23 |
| Clay, wet-dry | 1280-1600 | 80-100 |
| Coal | 848-1008 | 53-63 |
| Concrete | 1840 | 115 |
| Cinders | 800 | 50 |
| Coal-anthracite | 1504 | 94 |
| Coke | 480 | 30 |
| Earth-dry loam | 1121-1442 | 70-90 |
| Earth-wet loam | 1281-1602 | 80-100 |
| Granite | 1488-1776 | 93-111 |
| Gravel-dry | 1602 | 100 |
| Gravel-wet | 1922 | 120 |
| Gypsum-crushed | 1840 | 115 |
| Iron ore | 2320 | 145 |
| Lime | 960 | 60 |
| Lime stone | 1440 | 90 |
| Manure-liquid | 1040 | 65 |
| Manure-solid | 720 | 45 |
| Peat-solid | 752 | 47 |
| Phosphate-granular | 1440 | 90 |
| Potash | 1088 | 68 |
| Quartz-granular | 1760 | 110 |
| Salt-dry | 1602 | 100 |
| Salt-rock-solid | 2160 | 135 |

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### Backfilling

1. Lower the bucket a few inches from the ground (Fig. 73).

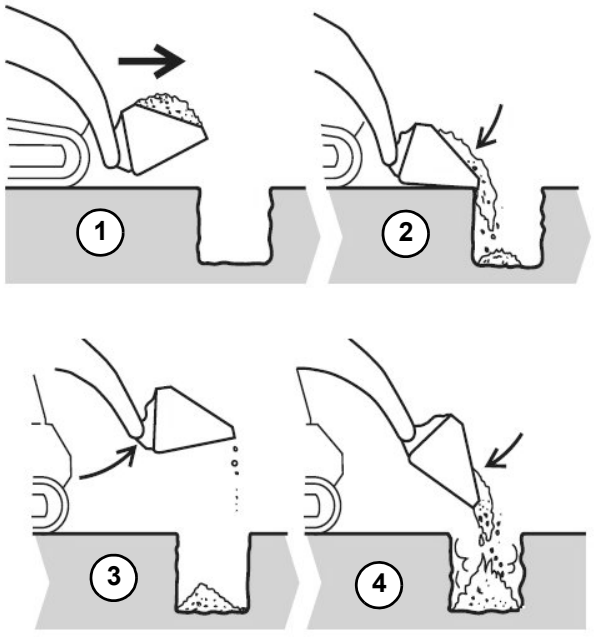



**Fig. 73 – Backfilling**

2. Slowly drive up to the hole until the front edge of the bucket is over the near edge of the hole.
3. Tilt the bucket forward to dump material into the hole.
4. Tilt the bucket back and raise the bucket. Inspect the hole for proper filling.
5. Continue to dump material into the hole as necessary for proper fill.

## Working with Pallet Forks

### *Safety Instructions When Working with Pallet Forks*

**⚠ WARNING**

**Read the "Safety" section in this manual, starting on page 17, before working with pallet forks. Serious injury or death can occur if the safety information is not followed. Pay special attention to the "During Operation"information, starting on page 19.**

**Follow all instructions provided with the pallet forks.**

**Use only approved pallet forks. Use special caution and maintain tilt control at all times when using pallet forks.**

**Always approach the load from a straight-ahead position.**

**Position the fork arms as far apart as possible, as allowed by the load.**

**Load both fork arms evenly, positioned under the pallet as far as they will go.**

**Lift, transport and unload loads only on firm and level ground with sufficient load-bearing capacity.**

**Always transport the load close to the ground as is safely possible. Observe minimum ground clearance.**

**Use pallet forks for material handling and/or material transport only.**

**Never lift a load using only one fork arm.**

**Make sure the fork arms are safely locked onto the fork frame before use.**

**Do not lift unstable material, or material that is not properly secured on the fork arms.**

**Never leave a machine with the forks raised or a load unattended. Make sure all persons stay clear of suspended loads.**

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5. If the hydraulic oil level is low, Lift the ROPS/FOPS according to “Raising ROPS/FOPS” on page 129 and remove the hydraulic tank breather/oil fill cap (P, Fig. 98).

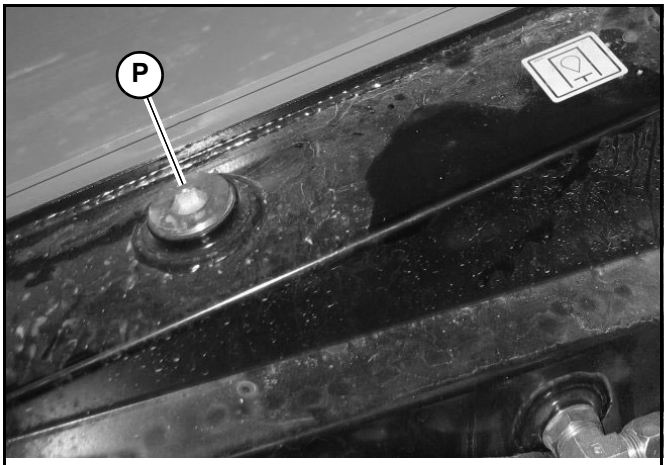



**Fig. 98 – Hydraulic Oil Fill**

**NOTE:** *Slowly remove the hydraulic breather/oil fill cap (P). Allow the pressure to escape before completely removing the cap.*

6. Add hydraulic fluid as required. See “Fluids/Lubricants Types and Capacities” on page 33 for proper hydraulic oil grade and type.

**IMPORTANT:** *Do not mix different types/grades of hydraulic fluids.*

7. Reinstall and tighten the oil fill cap. Lower the ROPS/FOPS according to “Lowering ROPS/FOPS” on page 130.

### *Changing Hydraulic Oil and Filter*

**NOTE:** *The hydraulic oil filter can be changed without changing the hydraulic oil or draining the hydraulic reservoir.*

Change the hydraulic oil filter after the first 50 hours, and after 500 hours or 1 year of use thereafter.

Change the hydraulic oil if it becomes contaminated, after major repairs, and/or after 500 hours or 1 year of use.

1. Park the machine on a flat, level surface.
2. Raise the lift arm and support it in the raised position according to “Engage Lift Arm Support” on page 85.
3. Perform the “Mandatory Safety Shutdown Procedure” on page 18.
4. Wait until the engine has cooled. See “Maintenance and Service Safety Practices” on page 23.
5. Position a waste oil collection container with a capacity of at least 65 L (17 gals.) underneath hydraulic oil reservoir drain plug (Z, Fig. 99).

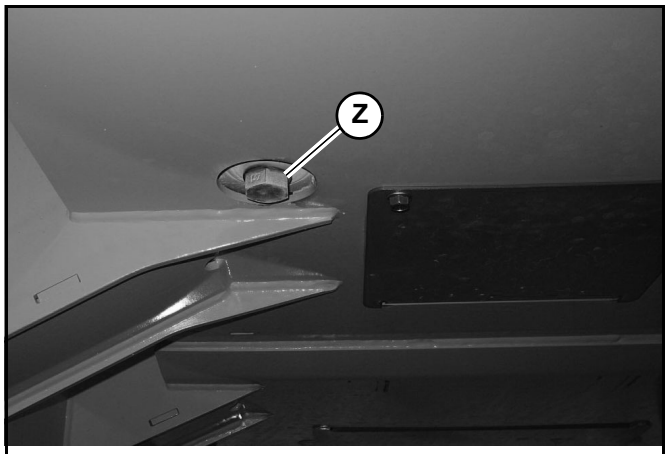



**Fig. 99 – Hydraulic Oil Reservoir Drain**

**NOTE:** *Hydraulic oil drain plug (Z) is located under the machine at the front right.*

6. Remove hydraulic reservoir drain plug (Z) and allow the oil to drain completely.

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**Table 48: Engine Diagnostic Trouble Codes (DTC)**

| DTC | | | |
|---|---|---|---|
| **SPN** | **FMI** | **Trouble Code Type** | **Error Description** |
| 105 | 3 | Charge Air Temperature Sensor Error | Charge air temperature Sensor: the voltage of sensor measured by ECU is out of target range, high |
| 105 | 4 | Charge Air Temperature Sensor Error | Charge air temperature Sensor: the voltage of sensor measured by ECU is out of target range, low |
| 107 | 0 | Air Filter Differential Pressure Sensor Error | Air filter differential pressure: the pressure difference of the intake air between the filter inlet and outlet calculated by ECU is above the target range and the ECU activates a warning threshold |
| 110 | 0 | Coolant Temperature Sensor Error | Coolant temperature: the coolant temperature calculated by ECU is above the target range; the ECU activates a warning power reduction or a shutdown threshold |
| 110 | 1 | Coolant Temperature Out-Of-Range | Physical range check low for coolant temperature |
| 110 | 3 | Coolant Temperature Sensor Error | Coolant Temperature sensor: the voltage of the sensor measured by ECU is out of the target range, high |
| 110 | 4 | Coolant Temperature Sensor Error | Coolant Temperature sensor: the voltage of the sensor measured by ECU is out of the target range, low |
| 111 | 1 | Coolant Level | Coolant Level: the coolant level calculated by the ECU is underneath the allowed minimum |
| 157 | 3 | Rail Pressure Sensor Error | Rail Pressure Sensor: the voltage of sensor measured by ECU is out of target range, high |
| 157 | 4 | Rail Pressure Sensor Error | Rail Pressure Sensor: the voltage of sensor measured by ECU is out of target range, low |
| 164 | 2 | Rail pressure safety function is not executed correctly | Threshold for error detection is an internal ECU threshold. Reset the fault and at reappearance check ECU and injection system |
| 168 | 0 | Battery Voltage Sensor Error | Battery Voltage: the voltage measured by ECU is out of the target range, high |
| 168 | 1 | Battery Voltage Sensor Error | Battery Voltage: the voltage measured by ECU is out of the target range, low |
| 168 | 2 | Battery Voltage Sensor Error | Battery Voltage: the voltage measured by ECU is out of the target range, battery voltage above warning threshold |
| 168 | 3 | Battery Voltage Sensor Error | Battery Voltage: the voltage measured by ECU is out of the target range, battery voltage above warning threshold, short cut to battery |

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