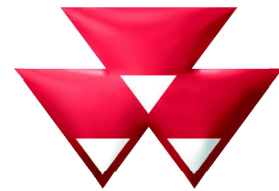


Workshop Service Manual



MASSEY FERGUSON

9222VE Planter

9222 VE

North America
4205 River Green Parkway, Duluth GA 30096 USA
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English

9222VE Planter

| | | |
|------------|-------------------------------------|------|
| 1 | General | 1-1 |
| 1.1 | General information | 1-3 |
| 1.1.1 | Introduction to this service manual | 1-3 |
| 1.1.2 | Units of measurement | 1-3 |
| 1.1.3 | Table of contents | 1-3 |
| 1.1.4 | Page numbers | 1-3 |
| 1.1.5 | Intended use | 1-3 |
| 1.1.6 | Proper disposal of waste | 1-3 |
| 1.2 | Safety | 1-5 |
| 1.2.1 | Safety symbol | 1-5 |
| 1.2.2 | Safety messages | 1-5 |
| 1.2.3 | Information messages | 1-5 |
| 1.2.4 | Safety signs | 1-5 |
| 1.2.5 | A word to the operator | 1-6 |
| 1.2.6 | The service manual | 1-7 |
| 1.2.7 | Operation | 1-7 |
| 1.2.7.1 | Prepare for operation | 1-7 |
| 1.2.7.2 | General information | 1-7 |
| 1.2.7.3 | Personal protective equipment | 1-8 |
| 1.2.7.4 | Seat instructions | 1-9 |
| 1.2.7.5 | Shield and guards | 1-9 |
| 1.2.7.6 | Exhaust warning | 1-10 |
| 1.2.7.7 | Flying debris | 1-10 |
| 1.2.7.8 | Handrails | 1-10 |
| 1.2.7.9 | Agricultural chemicals | 1-10 |
| 1.2.8 | Travel on public roads | 1-11 |
| 1.2.9 | Maintenance | 1-12 |
| 1.2.9.1 | General maintenance information | 1-12 |
| 1.2.9.2 | Fire prevention and first aid | 1-13 |
| 1.2.9.3 | High pressure leaks | 1-14 |
| 1.2.9.4 | Tire safety | 1-15 |
| 1.2.9.5 | Replacement parts | 1-15 |
| 1.3 | Cylinder stops | 1-16 |
| 1.3.1 | Wheel lift cylinder stops | 1-16 |
| 1.4 | Transport locks | 1-17 |
| 1.4.1 | Wing latches | 1-17 |
| 1.4.2 | Marker lockup valves | 1-17 |
| 1.4.3 | Transport pins | 1-18 |
| 1.4.4 | Top link for the flex frame | 1-18 |
| 1.5 | Machine identification | 1-19 |
| 1.5.1 | Serial number plate | 1-19 |
| 1.5.2 | Serial number description | 1-19 |
| 1.6 | Main machine components | 1-21 |
| 1.7 | Specifications | 1-22 |
| 1.7.1 | Frame specifications | 1-22 |
| 1.7.2 | Tire specifications | 1-22 |
| 1.7.3 | Machine dimensions | 1-22 |
| 1.7.4 | Marker specifications | 1-23 |
| 1.7.5 | Row unit specifications | 1-23 |
| 1.7.6 | Air system specifications | 1-23 |
| 1.7.7 | Hydraulic system specifications | 1-23 |

| | | |
|------------|---|-------------|
| 1.7.8 | Hydraulic flow requirements | 1-24 |
| 1.7.9 | Special bolt torques | 1-24 |
| 1.7.10 | Approximate shipping weights | 1-24 |
| 1.7.11 | Tractor requirements | 1-24 |
| 1.7.12 | 20/20 seedsense terminal specifications | 1-25 |
| 1.8 | Bolt torque values | 1-26 |
| 2 | Frame | 2-1 |
| 2.1 | Planter troubleshooting | 2-3 |
| 2.2 | Inner wing | 2-5 |
| 2.2.1 | Remove the inner wing | 2-5 |
| 2.2.2 | Install the inner wing | 2-6 |
| 2.3 | Outer wing | 2-7 |
| 2.3.1 | Remove the outer wing | 2-7 |
| 2.3.2 | Install the outer wing | 2-8 |
| 2.4 | Install the hitch | 2-9 |
| 2.4.1 | Remove the hitch | 2-10 |
| 2.5 | Lift wheel arm | 2-11 |
| 2.5.1 | Remove a lift wheel arm | 2-11 |
| 2.5.2 | Install a lift wheel arm | 2-11 |
| 2.6 | Marker | 2-12 |
| 2.6.1 | Remove the lower marker arm | 2-12 |
| 2.6.2 | Install the lower marker arm | 2-12 |
| 2.6.3 | Marker arm length | 2-13 |
| 2.6.4 | Remove the top marker arm | 2-13 |
| 2.6.5 | Install the top marker arm | 2-15 |
| 2.6.6 | Remove the marker disc | 2-17 |
| 2.6.7 | Install the marker disc | 2-17 |
| 2.6.8 | Disassemble the marker disc | 2-18 |
| 2.6.9 | Assemble the marker disc | 2-19 |
| 2.6.10 | Adjust the marker disc | 2-20 |
| 3 | Hydraulic system | 3-1 |
| 3.1 | Hydraulic troubleshooting | 3-3 |
| 3.2 | Hydraulic system description | 3-4 |
| 3.2.1 | Lift and lower circuit | 3-4 |
| 3.2.2 | Wing fold circuit | 3-5 |
| 3.2.3 | Markers schematic | 3-6 |
| 3.2.4 | Marker sequence valve circuit | 3-7 |
| 3.3 | Seed meter blower motor - VE | 3-8 |
| 3.3.1 | Vacuum settings | 3-8 |
| 3.3.2 | Vacuum motor operation | 3-8 |
| 3.3.3 | Remove the motor | 3-8 |
| 3.3.4 | Install the motor | 3-10 |
| 3.3.5 | Test the pressure to the motor | 3-11 |
| 3.3.6 | Check the case drain | 3-12 |
| 3.4 | Fold Cylinders | 3-13 |
| 3.4.1 | Cylinder components | 3-13 |
| 3.4.2 | Cylinder specifications | 3-13 |
| 3.4.3 | Remove the cylinder | 3-13 |
| 3.4.4 | Install the cylinder | 3-14 |
| 3.4.5 | Disassemble the cylinder | 3-14 |
| 3.4.6 | Inspect the cylinder assembly | 3-15 |
| 3.4.7 | Assemble the cylinder | 3-15 |
| 3.5 | Marker cylinder | 3-17 |
| 3.5.1 | 12 row marker cylinder | 3-17 |

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| | | |
|-------------|---|-------------|
| 3.5.2 | Marker cylinder specifications | 3-17 |
| 3.5.3 | Remove the marker cylinder | 3-17 |
| 3.5.4 | Install the marker cylinder | 3-18 |
| 3.5.5 | Examine the cylinder assembly | 3-19 |
| 3.6 | Lift cylinders | 3-20 |
| 3.6.1 | Lift cylinder specifications | 3-20 |
| 3.6.2 | Remove the lift cylinders | 3-20 |
| 3.6.3 | Install the lift cylinders | 3-21 |
| 3.6.4 | Disassemble the lift cylinder | 3-21 |
| 3.6.5 | Inspect the cylinder | 3-22 |
| 3.6.6 | Assemble the lift cylinder | 3-22 |
| 3.7 | Leveling cylinder | 3-24 |
| 3.7.1 | Leveling cylinder components | 3-24 |
| 3.7.2 | Leveling cylinder specifications | 3-24 |
| 3.7.3 | Remove the levelling cylinder | 3-25 |
| 3.7.4 | Disassemble the leveling cylinder | 3-25 |
| 3.7.5 | Inspect the cylinder | 3-26 |
| 3.7.6 | Assemble the leveling cylinder | 3-26 |
| 3.8 | Marker and fold selector valve block | 3-27 |
| 3.8.1 | Remove the marker and fold valve block | 3-27 |
| 3.8.2 | Install the marker and fold valve block | 3-28 |
| 3.9 | Marker sequence valve | 3-29 |
| 3.9.1 | Remove the sequence valve | 3-29 |
| 3.9.2 | Install the sequence valve | 3-31 |
| 3.9.3 | Disassemble the sequence valve | 3-32 |
| 3.9.4 | Examine the sequence valve | 3-33 |
| 3.9.5 | Assemble the sequence valve | 3-33 |
| 3.10 | DeltaForce | 3-35 |
| 3.10.1 | Hydraulic system overview | 3-36 |
| 3.10.2 | Remove the load pin | 3-37 |
| 3.10.3 | Install the load pin | 3-37 |
| 3.10.4 | Remove a DeltaForce cylinder | 3-38 |
| 3.10.5 | Install a DeltaForce cylinder | 3-38 |
| 3.10.6 | Remove a DeltaForce cylinder valve | 3-39 |
| 3.10.7 | Install a DeltaForce cylinder valve | 3-39 |
| 3.10.8 | Remove/install the DeltaForce valve | 3-39 |
| 3.10.9 | Replace the filter in the DeltaForce valve | 3-40 |
| 4 | Electrical system | 4-1 |
| 4.1 | Basic troubleshooting information | 4-3 |
| 4.1.1 | Basic troubleshooting procedures | 4-3 |
| 4.1.2 | Tools | 4-4 |
| 4.1.3 | Continuity check | 4-4 |
| 4.1.4 | Voltage check | 4-5 |
| 4.1.5 | Examine a connector | 4-6 |
| 4.1.6 | Test for open circuits | 4-6 |
| 4.1.7 | Find open circuit | 4-7 |
| 4.1.8 | Test for short circuits | 4-7 |
| 4.1.9 | Test for high resistance | 4-8 |
| 4.1.10 | Terminal numbers | 4-8 |
| 4.1.11 | Dielectric grease | 4-8 |
| 4.1.12 | Pins and sockets | 4-8 |
| 4.1.13 | Replace a Packard connector | 4-9 |
| 4.1.14 | Replace an AMP connector | 4-10 |
| 4.2 | Transport lamps - non CE | 4-11 |
| 4.2.1 | Lamp harness | 4-11 |
| 4.2.2 | Examine the lighting | 4-14 |

| | | |
|------------|--|-------------|
| 4.2.3 | Machine lamp plug - non CE | 4-15 |
| 4.2.4 | Turn signal module | 4-15 |
| 4.2.4.1 | Remove the turn signal module | 4-16 |
| 4.2.4.2 | Install the turn signal module | 4-17 |
| 4.2.5 | Change a bulb | 4-17 |
| 4.3 | Lift switch - VE | 4-18 |
| 4.3.1 | Remove the lift switch - VE | 4-18 |
| 4.3.2 | Install the lift switch - VE | 4-19 |
| 4.4 | Modules and sensors | 4-20 |
| 4.4.1 | Remove the seed tubes | 4-20 |
| 4.4.2 | Install the seed tubes | 4-20 |
| 4.4.3 | Clean the seed sensors | 4-21 |
| 4.4.4 | Test the seed sensors | 4-21 |
| 4.4.5 | Test with a seed sensor tester | 4-22 |
| 4.4.6 | Test the seed monitor | 4-22 |
| 4.5 | Vacuum system | 4-24 |
| 4.5.1 | Tractor components | 4-24 |
| 4.5.2 | Status lamp for the single row module and vDrive module - VE | 4-25 |
| 4.5.3 | SeedSense error list - VE | 4-26 |
| 4.5.4 | Troubleshooting - no power to SRM(s) - VE | 4-29 |
| 4.5.5 | Troubleshooting - SRM(s) are red - VE | 4-30 |
| 4.5.6 | Troubleshooting - SRM(s) are yellow - VE | 4-31 |
| 4.6 | Power distribution module - VE | 4-33 |
| 5 | Product containment | 5-1 |
| 5.1 | Seed meter blower - vacuum | 5-3 |
| 5.1.1 | Remove the seed meter blower | 5-3 |
| 5.1.2 | Install the seed meter blower | 5-4 |
| 5.1.3 | Disassemble the seed meter blower - VE | 5-5 |
| 5.1.4 | Assemble the seed meter blower - VE | 5-6 |
| 5.2 | Air tubes | 5-7 |
| 5.2.1 | Clean the air tubes | 5-7 |
| 6 | Row units | 6-1 |
| 6.1 | Gauge wheels | 6-3 |
| 6.1.1 | Adjust the gauge wheel to opener clearance | 6-3 |
| 6.1.2 | Calibrate the gauge wheel depth | 6-3 |
| 6.1.3 | Remove the gauge wheels | 6-4 |
| 6.1.4 | Install the gauge wheels | 6-4 |
| 6.1.5 | Gauge wheel arm components | 6-6 |
| 6.1.6 | Disassemble the pivot for the gauge wheel arm | 6-7 |
| 6.1.7 | Assemble the pivot for the gauge wheel arm | 6-10 |
| 6.1.8 | Replace a gauge wheel tire | 6-13 |
| 6.2 | Opener discs | 6-14 |
| 6.2.1 | Replace the opener disc bearings | 6-14 |
| 6.2.2 | Replace the opener discs | 6-15 |
| 6.2.3 | Set the opener disc contact | 6-16 |
| 6.3 | Scraper | 6-18 |
| 6.3.1 | Replace a flat scraper - late production | 6-18 |
| 6.4 | Seed tubes | 6-19 |
| 6.4.1 | Remove the seed tubes | 6-19 |
| 6.4.2 | Install the seed tubes | 6-19 |
| 6.4.3 | Replace the tube guard | 6-19 |
| 6.4.4 | Adjust the tube clip - VE | 6-20 |
| 6.4.5 | Clean the seed sensors | 6-20 |
| 6.5 | Depth gauge | 6-22 |

| | | |
|------------|---|-------------|
| 6.5.1 | Remove the depth gauge | 6-22 |
| 6.5.2 | Install the depth gauge | 6-23 |
| 6.5.3 | Disassemble the depth gauge | 6-25 |
| 6.5.4 | Assemble the depth gauge | 6-26 |
| 6.6 | Single closing wheel | 6-28 |
| 6.6.1 | Remove the single closing wheel | 6-28 |
| 6.6.2 | Install the single closing wheel | 6-28 |
| 6.6.3 | Disassemble the single closing wheel | 6-28 |
| 6.6.4 | Assemble the single closing wheel | 6-29 |
| 6.7 | Dual closing wheels | 6-30 |
| 6.7.1 | Remove a dual closing wheel | 6-30 |
| 6.7.2 | Install a dual closing wheel | 6-31 |
| 6.7.3 | Replace the bearing in a cast iron closing wheel | 6-31 |
| 6.7.4 | Closing wheel spacing and offset | 6-31 |
| | 6.7.4.1 Adjust the closing wheel spacing and offset | 6-31 |
| 6.7.5 | Center the closing wheels | 6-32 |
| 6.8 | Row unit linkage | 6-33 |
| 6.8.1 | Remove the row unit linkage | 6-33 |
| 6.8.2 | Install the row unit linkage | 6-34 |
| 6.9 | Seed meter - VE | 6-35 |
| 6.9.1 | Seed meter | 6-35 |
| 6.9.2 | Seed meter components | 6-35 |
| 6.9.3 | Crop kits | 6-36 |
| | 6.9.3.1 Crop setup guide | 6-36 |
| | 6.9.3.2 Replace a crop kit | 6-40 |
| 6.9.4 | Check the disc shims | 6-44 |
| 6.9.5 | Remove a seed meter | 6-46 |
| 6.9.6 | Install a seed meter | 6-47 |
| 6.9.7 | Assemble the meter to the hopper | 6-49 |
| 6.9.8 | Yearly maintenance | 6-50 |
| 6.9.9 | Replace the vacuum seal | 6-50 |
| 6.9.10 | Remove the drive motor | 6-51 |
| 6.9.11 | Install the drive motor | 6-53 |
| 6.9.12 | vSet 2 troubleshooting | 6-55 |
| 7 | Application system | 7-1 |
| 7.1 | Fertilizer piston pump | 7-3 |
| 7.1.1 | Single piston pump lubrication | 7-3 |
| 7.1.2 | Single piston pump components | 7-4 |
| 7.1.3 | Remove the piston pump | 7-5 |
| 7.1.4 | Install the piston pump | 7-6 |
| 7.1.5 | Disassemble the piston pump | 7-6 |
| | 7.1.5.1 Disassemble the check valves | 7-6 |
| | 7.1.5.2 Disassemble the piston | 7-7 |
| | 7.1.5.3 Disassemble the rod packing | 7-8 |
| | 7.1.5.4 Disassemble the outboard crankcase | 7-9 |
| | 7.1.5.5 Disassemble the inboard components | 7-10 |
| | 7.1.5.6 Disassemble the internal crankcase | 7-11 |
| 7.1.6 | Assemble the piston pump | 7-11 |
| | 7.1.6.1 Assemble the internal crankcase | 7-12 |
| | 7.1.6.2 Assemble the inboard components | 7-13 |
| | 7.1.6.3 Assemble the outboard crankcase | 7-14 |
| | 7.1.6.4 Assemble the rod packing | 7-15 |
| | 7.1.6.5 Assemble the piston | 7-16 |
| | 7.1.6.6 Assemble the check valves | 7-17 |
| 7.1.7 | Pump drive | 7-18 |
| | 7.1.7.1 Remove the roller chains | 7-18 |

| | | |
|------------|---|----------------|
| 7.1.7.2 | Install the roller chains | 7-19 |
| 7.1.7.3 | Remove the pump drive assembly | 7-20 |
| 7.1.7.4 | Install the pump drive assembly | 7-21 |
| 7.1.7.5 | Disassemble the pump drive assembly | 7-22 |
| 7.1.7.6 | Assemble the pump drive assembly | 7-23 |
| 7.1.8 | Ball valves | 7-24 |
| 7.1.8.1 | Remove the 1.25 inch ball valve | 7-25 |
| 7.1.8.2 | Remove the 1.5 inch ball valve | 7-26 |
| 7.1.8.3 | Remove the 2 inch full port ball valve | 7-26 |
| 7.1.8.4 | Install the 1.25 inch ball valve | 7-27 |
| 7.1.8.5 | Install the 1.5 inch ball valve | 7-28 |
| 7.1.8.6 | Install the 2 inch full port ball valve | 7-28 |
| 7.2 | Flow divider valve | 7-29 |
| 7.2.1 | Flow divider troubleshooting | 7-29 |
| 7.2.2 | Remove the flow divider | 7-29 |
| 7.2.3 | Install the flow divider | 7-30 |
| 7.2.4 | Disassemble the flow divider | 7-31 |
| 7.2.5 | Assemble the flow divider | 7-31 |
| 7.3 | Double disc openers | 7-32 |
| 7.3.1 | Adjust the double disc opener | 7-32 |
| 7.3.2 | Remove the double disc opener | 7-32 |
| 7.3.3 | Install the double disc opener | 7-33 |
| 7.3.4 | Disassemble the double disc opener | 7-34 |
| 7.3.5 | Assemble the double disc opener | 7-34 |
| 7.4 | Single disc opener | 7-35 |
| 7.4.1 | Adjust the single disc opener depth | 7-35 |
| 7.4.2 | Single disc fertilizer opener troubleshooting | 7-35 |
| 7.4.3 | Adjust the single opener disc swivel | 7-37 |
| 7.4.4 | Adjust the single spring tension | 7-37 |
| 7.4.5 | Remove the single disc opener | 7-38 |
| 7.4.6 | Install the single disc opener | 7-39 |
| 7.4.7 | Disassemble the single disc opener | 7-39 |
| 7.4.8 | Assemble the single disc opener | 7-41 |
| 7.5 | Opener mount location | 7-43 |
| 7.5.1 | Opener mount location - 12 row | 7-43 |
| 8 | Spindles and wheels | 8-1 |
| 8.1 | Lift wheels | 8-3 |
| 8.1.1 | Remove a wheel | 8-3 |
| 8.1.2 | Install a wheel | 8-3 |
| 8.2 | Wheel bearings | 8-5 |
| 8.2.1 | Lubricate the wheel bearings | 8-5 |
| 8.2.2 | Replace the wheel bearings | 8-5 |
| 9 | Diagrams | 9-1 |
| 9.1 | Hydraulic | 9-3 |
| 9.1.1 | Lift and lower circuit | 9-3 |
| 9.1.2 | Tractor remote with DeltaForce option | 9-5 |
| 9.1.3 | Master tractor remotes - Precision Planting | 9-7 |
| 9.2 | Electrical | 9-9 |
| 9.2.1 | Electrical schematic - vacuum | 9-11 |
| 9.2.2 | 20/20 SeedSense | 9-13 |
| 9.2.2.1 | Tractor components | 9-13 |
| 10 | Index | Index-1 |

1 General

| | | |
|------------|-------------------------------------|-------------|
| 1.1 | General information | 1-3 |
| 1.1.1 | Introduction to this service manual | 1-3 |
| 1.1.2 | Units of measurement | 1-3 |
| 1.1.3 | Table of contents | 1-3 |
| 1.1.4 | Page numbers | 1-3 |
| 1.1.5 | Intended use | 1-3 |
| 1.1.6 | Proper disposal of waste | 1-3 |
| 1.2 | Safety | 1-5 |
| 1.2.1 | Safety symbol | 1-5 |
| 1.2.2 | Safety messages | 1-5 |
| 1.2.3 | Information messages | 1-5 |
| 1.2.4 | Safety signs | 1-5 |
| 1.2.5 | A word to the operator | 1-6 |
| 1.2.6 | The service manual | 1-7 |
| 1.2.7 | Operation | 1-7 |
| 1.2.7.1 | Prepare for operation | 1-7 |
| 1.2.7.2 | General information | 1-7 |
| 1.2.7.3 | Personal protective equipment | 1-8 |
| 1.2.7.4 | Seat instructions | 1-9 |
| 1.2.7.5 | Shield and guards | 1-9 |
| 1.2.7.6 | Exhaust warning | 1-10 |
| 1.2.7.7 | Flying debris | 1-10 |
| 1.2.7.8 | Handrails | 1-10 |
| 1.2.7.9 | Agricultural chemicals | 1-10 |
| 1.2.8 | Travel on public roads | 1-11 |
| 1.2.9 | Maintenance | 1-12 |
| 1.2.9.1 | General maintenance information | 1-12 |
| 1.2.9.2 | Fire prevention and first aid | 1-13 |
| 1.2.9.3 | High pressure leaks | 1-14 |
| 1.2.9.4 | Tire safety | 1-15 |
| 1.2.9.5 | Replacement parts | 1-15 |
| 1.3 | Cylinder stops | 1-16 |
| 1.3.1 | Wheel lift cylinder stops | 1-16 |
| 1.4 | Transport locks | 1-17 |
| 1.4.1 | Wing latches | 1-17 |
| 1.4.2 | Marker lockup valves | 1-17 |
| 1.4.3 | Transport pins | 1-18 |
| 1.4.4 | Top link for the flex frame | 1-18 |
| 1.5 | Machine identification | 1-19 |
| 1.5.1 | Serial number plate | 1-19 |
| 1.5.2 | Serial number description | 1-19 |
| 1.6 | Main machine components | 1-21 |
| 1.7 | Specifications | 1-22 |
| 1.7.1 | Frame specifications | 1-22 |
| 1.7.2 | Tire specifications | 1-22 |
| 1.7.3 | Machine dimensions | 1-22 |
| 1.7.4 | Marker specifications | 1-23 |
| 1.7.5 | Row unit specifications | 1-23 |
| 1.7.6 | Air system specifications | 1-23 |
| 1.7.7 | Hydraulic system specifications | 1-23 |

| | | |
|------------|---|-------------|
| 1.7.8 | Hydraulic flow requirements | 1-24 |
| 1.7.9 | Special bolt torques | 1-24 |
| 1.7.10 | Approximate shipping weights | 1-24 |
| 1.7.11 | Tractor requirements | 1-24 |
| 1.7.12 | 20/20 seedsense terminal specifications | 1-25 |
| 1.8 | Bolt torque values | 1-26 |

1.1 General information

1.1.1 Introduction to this service manual

This service manual gives information from engineering tests, operating data, and the latest service techniques at the time of publication. Read this service manual carefully before doing any service on the machine.

The photos and illustrations used in this service manual were current at the time of publication. Production changes can cause machines to vary from the photos and the illustrations. The manufacturer reserves the right to redesign and change machines as necessary without notification.



WARNING:

Some pictures in this manual show the machine with shields or guards removed to permit for a better view of the subject of the picture. All shields and guards must be in position before operating the machine.

Machine movement when in normal use determines right-hand and left-hand.

1.1.2 Units of measurement

Measurements are given in metric units followed by the equivalent in US units. Hardware sizes are given in millimeters for metric hardware and inches for US hardware.

1.1.3 Table of contents

This manual has a table of contents at the front. The table of contents shows the divisions. The individual divisions also have a table of contents.

1.1.4 Page numbers

All pages have two numbers, such as 01-25. The first number shows the division. The second number shows the page in the division.

Page numbers occur on the lower right-hand or lower left-hand corner of each page.

1.1.5 Intended use

This machine is designed solely for use in customary agricultural operations.

Do not use this machine for any application or purpose other than those described in this manual. The manufacturer accepts no liability for damage or injury resulting from misuse of this machine.

Compliance with the conditions of operation, service and repair as specified by the manufacturer constitute essential elements for the intended use of this machine.

This machine should be operated, serviced and repaired only by qualified persons familiar with its characteristics and familiar with the relevant safety rules and procedures.

All generally recognized safety regulations and road traffic regulations must be obeyed at all times.

Any unauthorized modifications performed on this machine will relieve the manufacturer of all liability for any resulting damage or injury.

1.1.6 Proper disposal of waste

Improper disposal of waste can pollute the environment and ecology. A few examples of potentially harmful equipment waste can include, but not limited to, items such as oil, fuel, coolant, brake fluid, filters, battery chemicals, tires, etc.

Use leak proof containers when draining fluids. Do not use food or beverage containers to collect waste fluids, as food or beverage container(s) may mislead someone into drinking from them.

1. General

Do not pour or spill waste onto the ground, down a drain, or into any water source.

Air conditioning refrigerants escaping into the air can damage the Earth's atmosphere. Government regulations may require a certified air conditioning service center to recover and recycle used air conditioning refrigerants.

Inquire with local environmental or recycling center on the proper way to recycle or dispose waste.

1.2 Safety

1.2.1 Safety symbol

The safety symbol tells you about a potentially hazardous area!

Look for the safety symbol in this manual and on the machine. The safety symbols tell you that there is important safety instructions in the manual.



Fig. 1

1.2.2 Safety messages

The words DANGER, WARNING or CAUTION are used with the safety symbol. Learn these safety messages and obey the recommended precautions and safety instructions.



DANGER:
If you do not obey the recommended precautions and safety instructions, DEATH OR INJURY will occur.



WARNING:
If you do not obey the recommended precautions and safety instructions, DEATH OR INJURY can occur.



CAUTION:
If you do not obey the recommended precautions and safety instructions, INJURY can possibly occur.



Fig. 2

1.2.3 Information messages

The words important and note are not related to personal safety, and are used to give information about the operation and servicing of the machine.

IMPORTANT: Identifies special instructions or procedures which, if not followed, can cause damage to the machine, the process, or the area around the machine.

NOTE: Information to make procedures easier.

1.2.4 Safety signs



WARNING:
Do not remove the safety signs. Replace safety signs that you cannot read, are damaged, or are missing.

Clean the machine surface with a weak soap and water solution before you replace the safety signs. Replacement safety signs are available from your dealer.

Always make sure that safety signs are in the correct locations and that you can read the safety signs. Illustrations of safety sign locations are at in this section.

Keep the safety signs clean. If necessary, use a weak soap and water solution.

1.2.5 A word to the operator

It is your responsibility to read and understand the safety section in this manual and the manual for all implements before you operate this machine. You are responsible for your safety. Good safety procedures prevent injury to you and the persons around you.

Make the information in the safety section of this manual a part of your safety procedure. This safety section is written only for this type of machine. Safety is your responsibility. You can prevent injury and death.

This safety section gives basic safety examples that can occur during the operation and maintenance of your machine. This safety section is not a replacement for safety instruction in other sections of this manual.

Injury or death can occur if the safety instruction is not obeyed.

Learn how to operate the machine and how to use the controls correctly.

Do not operate the machine if you do not know how to operate the machine. Do not let persons operate the machine that do not know how to operate the machine.

Follow all safety instructions in the manuals and on the safety signs on the machine, the implements, and the attachments.

Use only approved attachments and implements.

Make sure that your machine has the correct equipment that is necessary by the local regulations.

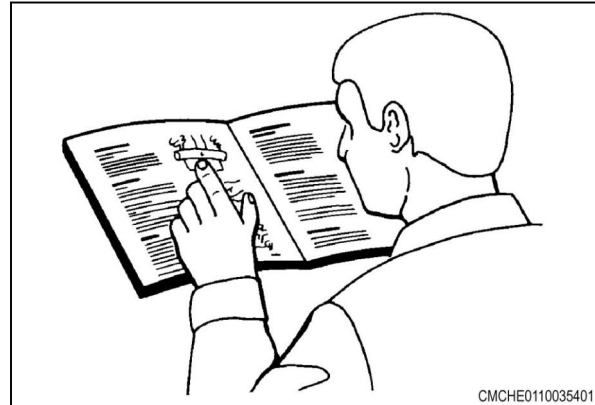


Fig. 3



WARNING:

Do not use alcohol or drugs that can have an effect on alertness or coordination. If you use prescription or 'over the counter' drugs, get medical advice about the safe operation of machines.



CAUTION:

If attachments or implements used with this machine have a different operator manual, see that operator manual for other important safety instructions.

1.2.6 The service manual

Read the table of contents and basic layout. Become familiar with all parts of this service manual. This service manual gives the technician very important information.

Machine movement when in normal use determines right-hand and left-hand.

This manual covers general safety practices for this machine.

The photos, illustrations, and data used in this manual were current at the time of printing. Inline production changes can make machines vary from the information in the service manual. The manufacturer reserves the right to redesign and change the machine as necessary without notification.



WARNING:

In some of the illustrations and photos used in this manual, shields or guards may have been removed for clarity. Never operate the machine with any shields or guards removed. If the removal of shields or guards is necessary to make a repair, they must be replaced before operation.

1.2.7 Operation

1.2.7.1 Prepare for operation

Read and understand all operation instructions and precautions in this manual before you operate the machine or do the servicing.

Make sure that you know and understand the positions and operations of all controls. Make sure that all controls are in neutral and that the parking brake is applied before you start the machine.

Make sure that all persons are away from your area of work before you start and operate the machine. Examine and learn the controls in an area that is clear of persons and obstacles before you start work. Know the machine dimensions and make sure that you have sufficient space available to operate the machine. Do not operate the machine at high speeds in crowded areas.

It is important to know and use the correct procedures when you do work around and operate the machine. Do not let children or unqualified persons operate the machine. Keep others, especially children, away from your area of work. Do not let others to ride on the machine.

Make sure that the machine is in good condition for operation. Refer to the operator manual. Make sure that the machine has the correct equipment required by local regulations.

All equipment has a limit. Make sure you understand the speed, brakes, steering, stability and load characteristics of this machine and the tractor before you start.

1.2.7.2 General information

When parking, park the machine and the tractor on a solid level surface. put all controls in neutral and apply the tractor park brake. Stop the tractor engine and take the key with you.

Make sure the tractor and implement are in the proper operating condition according to the operator manuals. Make sure the tractor brakes and the machine brakes are adjusted correctly.

The tractor must have enough weight and braking capacity, especially when operating on roads and terrain that is not even. Use a tractor of recommended size and weight to tow the machine.

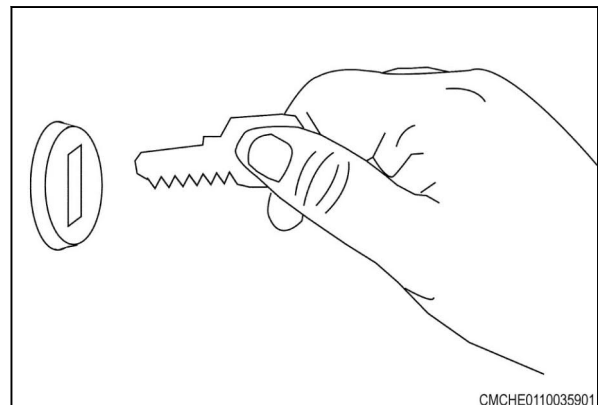


Fig. 4

Tractor must be equipped with rollover protective structure (ROPS) and a seat belt. Use seat belt during operation.

Do not dismount from moving machinery.

Always operate the machine with the terminal turned on.

Never start the tractor with the PTO engaged or terminal turned on.

Stay off slopes too steep for operation.

Where possible avoid operating the machine near ditches, embankments, and holes. Reduce ground speed when operating on rough, slippery, or muddy surfaces and when turning or crossing slopes.

Be aware of the size of the machine and have enough space available to allow for operation.

Always lower the machine when not in use and relieve the pressure in the hoses and cylinders.

Do not stand between the tractor and the implement to install the hitch pin when the tractor engine is running.

Avoid contact with electrical power lines. Contact with electrical power lines can cause electrical shock, resulting in very serious injury or death.

Watch for overhead wires or other obstructions when raising the markers, and when moving the machine with the markers raised.

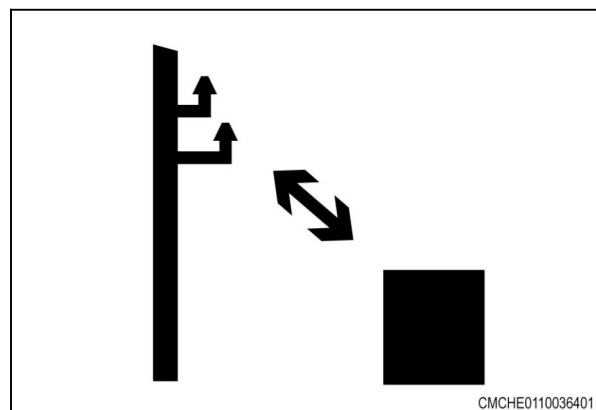


Fig. 5

1.2.7.3 Personal protective equipment

Put on all personal protective equipment (PPE) and protective clothes that are supplied to you or that are necessary for the conditions and by applicable laws. PPE includes equipment to prevent injury to your eyes, lungs, ears, head, hands and feet.

Always keep hands, feet, hair, and your clothes away from parts that move. Do not put on loose clothing, jewelry, watches, or other items that can tangle in parts that move. Tie up long hair that can also tangle in moving parts.

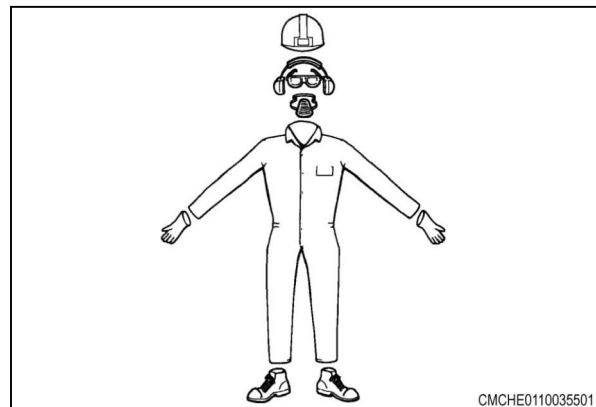


Fig. 6

1.2.74 Seat instructions

Put on the seat belt before you operate the machine. Always sit in the seat and have the seat belt on while you operate the machine. Replace the seat belts when they become worn or broken.

Do not use a seat belt loosely. Make sure that there is some tension on the seat belt. Do not wear the seat belt in a twisted condition or pinched between the structural parts of the seat.

Put on the seat belt if the instructional seat is used. Use the instructional seat only to train new operators or to find a problem. The instructional seat is only for short periods of use.

Do not let children use the instructional seat or be in the cab. Do not let other persons use the instructional seat or be in the cab.

Drive the machine at slower speed and on level ground when the instructional seat is used. Do not start, stop, or turn quickly when the instructional seat is used. Do not drive on highways or public roads when the instructional seat is used.

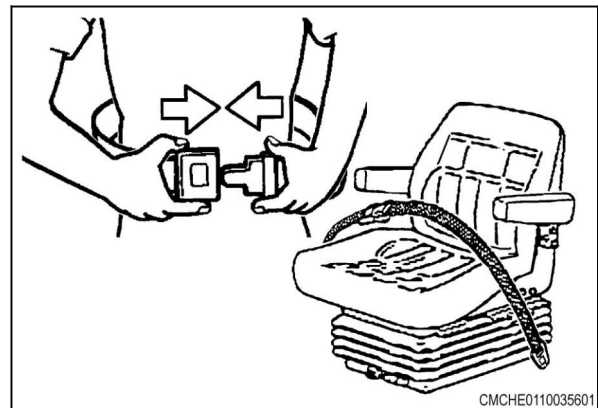


Fig. 7

1.2.75 Shield and guards



WARNING: Entanglement hazard. Belts and components that rotate.

Severe personal injury or death can occur.

Do not open, remove, or put your hand behind shields if the engine is running. Stop the machine before doing service to the machine.

All shields and guards must be in the correct position and in good condition. Keep away from the components that rotate.

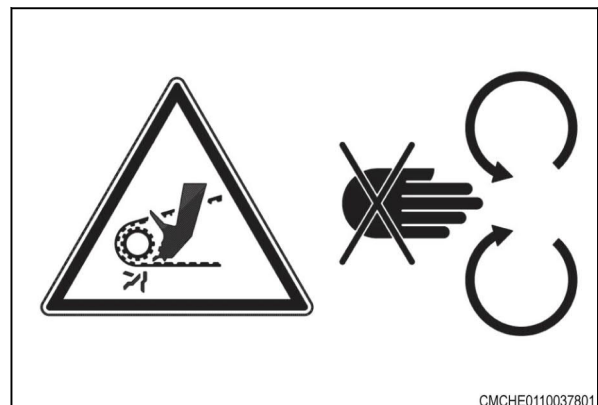


Fig. 8



DANGER: Entanglement hazard. Rotating components.

Severe personal injury or death can occur.

Do not make adjustments or repairs to components while they are moving. Stop the machine before doing service to the machine.

Do not operate the machine with the drive shaft shields open or removed.

Keep away from the components that turn.

Make sure guards that turn are free.



Fig. 9



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1.2.7.6 Exhaust warning

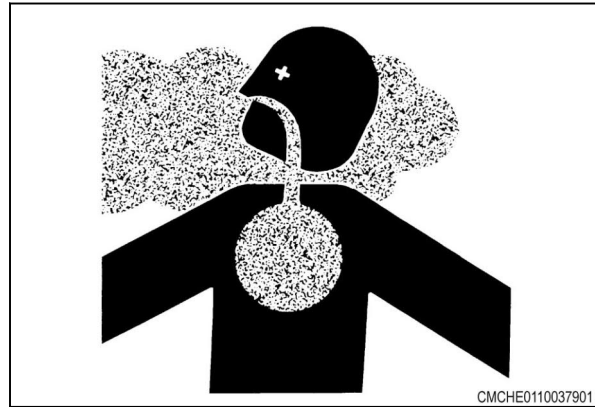


WARNING: Inhalation hazard. Exhaust gases.

Death or serious illness can occur.

Do not operate the engine in a closed building unless the exhaust is ventilated to the outside.

Do not tamper with or modify the exhaust system with unapproved extensions.



CMCHE0110037901

Fig. 10

1.2.7.7 Flying debris



WARNING: Be careful when you operate along the side of a road or structures. Rocks and other materials can be thrown from the machine during operation and can cause injury.

Stay away from the machine during operation. Some materials can be thrown from the machine during operation and cause injury.



CMCHE0110038001

Fig. 11

1.2.7.8 Handrails



WARNING: Falling hazard. Personal injury or death can occur. Use appropriate safety precautions when working off the ground.

Point your body in the direction of the ladder and use the handrails when you are on the machine ladders. Always keep three points of contact with the ladder.



CMCHE0110118601

Fig. 12

1.2.7.9 Agricultural chemicals

Agricultural chemicals are very dangerous. Incorrect procedures with fertilizer, fungicides, herbicides, insecticides and pesticides can cause injuries to plants, animals, soil and other persons property.

Always read and follow all manufacturers instructions before you open chemical containers.

Read and follow instructions each time you use a chemical.

Use the same precautions when you do adjustments, do servicing, clean or store the machine as used when you put chemicals into the hoppers or tanks.

Tell all persons who are near chemicals of the possible dangerous results and the safety precautions that are necessary.

Stay upwind and away from smoke from a chemical fire.

Keep or discard all chemicals that are not used as specified by the chemical manufacturer.

1.2.8 Travel on public roads

Make sure that you understand the speed, brakes, steering, load characteristics, and how to keep the machine stable before you operate on public roads.

Use good judgment when you operate the machine on public roads. Keep complete control of the machine at all times. Do not coast on downhill.

The maximum speed of farm equipment is set by local regulations. Adjust speed to keep control at all times.

Make sure that the machine is in good condition for operation. Refer to the operator manual.

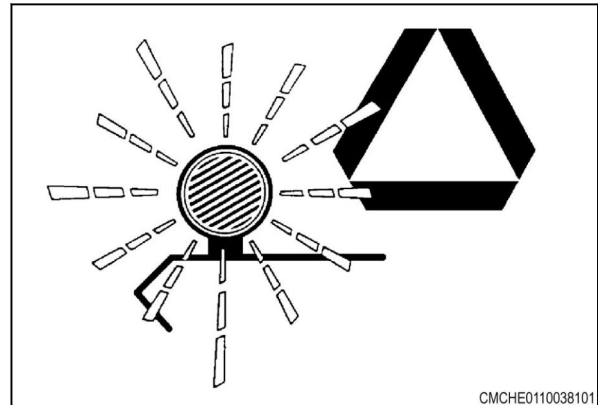


Fig. 13

The tractor must have sufficient weight and braking capacity, especially when you operate on roads and terrain that is not smooth. Use a tractor of sufficient dimensions and weight to tow the machine.

Make sure that you understand and obey all road regulations that apply to your machine. See your local law enforcement agency for local regulations about movement of farm equipment on public roads. Use head lamps, flashing warning lamps, rear lamps and turn signals, day and night, unless prohibited by local law.

Make sure that all the flashers are operate before you drive on the road. Make sure that reflectors are correctly installed, in good condition, and can be seen. Make sure that the Slow Moving Vehicle (SMV) emblem is clean, can be seen, and correctly installed on the rear of the machine.

Pay attention to other traffic on the road. Keep to your side of the road and pull to the side of the road whenever possible to let faster traffic pass.

Know the overall width, length, height, and weight of the machine. Be careful when you drive the machine on narrow roads and across narrow bridges.

If equipped, always install the safety transport chain between the implement and the tractor drawbar.

Install the marker lockup pins before transporting or parking the machine.

Install the wheel cylinder lockup channels before transporting or parking the machine.

Vertical fold models: Always install the wing lockup pins before transporting or parking the machine.

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