

**Workshop Service Manual**



# **Large Square Baler**

**1290 UD**

# TABLE OF CONTENT

- General ..... 1
- Main frame ..... 2
- Drive system ..... 3
- Hydraulic system ..... 4
- Electrical system ..... 5
- Bale feed system ..... 6
- Bale forming system ..... 7
- Roller bale chute system ..... 8
- Diagrams ..... 9
- Index ..... 10

# 1. General

<b>1.1 Safety</b>	<b>1-5</b>
1.1.1 Safety symbol	1-5
1.1.2 Safety messages	1-5
1.1.3 Information messages	1-5
1.1.4 Safety signs	1-5
1.1.5 Safety warnings	1-6
1.1.6 A word to the technician	1-6
1.1.7 The service manual	1-7
1.1.8 The operator manual	1-7
1.1.9 Tool box	1-8
1.1.10 Operation	1-8
1.1.10.1 General information	1-8
1.1.10.2 Prepare for operation	1-9
1.1.10.3 Personal protective equipment	1-10
1.1.10.4 Seat instructions	1-10
1.1.10.5 Shield and guards	1-10
1.1.10.6 Exhaust warning	1-11
1.1.10.7 Flying debris	1-11
1.1.10.8 Handrails	1-12
1.1.10.9 Agricultural chemicals	1-12
1.1.11 Travel on public roads	1-12
1.1.12 Maintenance	1-14
1.1.12.1 General maintenance information	1-14
1.1.12.2 Fire prevention and first aid	1-16
1.1.12.3 High pressure leaks	1-17
1.1.12.4 Tire safety	1-17
<b>1.2 General information</b>	<b>1-19</b>
1.2.1 Introduction to this service manual	1-19
1.2.2 Units of measurement	1-19
1.2.3 Table of contents	1-19
1.2.4 Page numbers	1-19
1.2.5 Remove a gib key	1-19
1.2.6 Install a gib key	1-20
1.2.7 Remove a lock collar	1-21
1.2.8 Install a lock collar	1-21
<b>1.3 Specifications</b>	<b>1-22</b>
1.3.1 Specifications	1-22
1.3.1.1 Dimensions and weights	1-22
1.3.1.2 Drive system specifications	1-22
1.3.1.3 Shearbolt specifications	1-23
1.3.1.4 Hydraulic specifications	1-23
1.3.1.5 Pickup specifications	1-23
1.3.1.6 Packer specifications	1-24
1.3.1.7 Stuffer specifications	1-24
1.3.1.8 Plunger specifications	1-24
1.3.1.9 Twine specifications	1-25
1.3.1.10 Knotter and needle specifications	1-25
1.3.1.11 Bale chamber tension specifications	1-25
1.3.1.12 Ejector specifications	1-25
1.3.1.13 Roller bale chute specifications	1-26
1.3.1.14 Lamp specifications	1-26

**<https://www.ebooklibonline.com>**

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

**<https://www.ebooklibonline.com>**

1.3.1.15	Knotter lubrication pump specifications	1-26
1.3.1.16	Chain lubrication pump specifications	1-26
1.3.1.17	Lubricants and capacities	1-26
1.3.1.18	Tire specifications	1-27
1.3.1.19	Brake specifications	1-28
1.3.1.20	Maximum speed	1-28
1.3.1.21	Tractor requirements	1-28
1.3.1.22	Noise level	1-28
1.3.2	Bolt torque values	1-28
<b>1.4</b>	<b>Machine identification</b>	<b>1-31</b>
1.4.1	Location of the serial number plates and the statutory plates - if necessary	1-31
1.4.2	Serial number description	1-32
<b>1.5</b>	<b>Machine component views</b>	<b>1-33</b>
1.5.1	Outside view - left side	1-33
1.5.2	Outside view - right side	1-34
1.5.3	Inner view - left side	1-35
1.5.4	Inner view - right side	1-36
1.5.5	Outside view - top	1-37
1.5.6	Outside view - bottom	1-38
<b>1.6</b>	<b>Service and lubrication schedule</b>	<b>1-39</b>
1.6.1	Service schedule	1-39
1.6.2	Lubrication procedures and general information	1-42
1.6.2.1	Drive chains	1-42
1.6.2.2	Driveline lubrication and maintenance	1-43
1.6.2.3	Lubricate the hitch ball, if equipped	1-45
1.6.2.4	Do not lubricate the overrunning clutch	1-45
1.6.2.5	Do not lubricate the slip clutch for the main drive	1-46
1.6.2.6	Lubricate the connecting rods	1-46
1.6.2.7	Examine the packer crank bearings	1-46
1.6.2.8	Lubricate the bearing for the main drive sprocket	1-47
1.6.2.9	Lubricate the stuffer drive	1-47
1.6.2.10	Lubricate the knotter/needle clutch arm and the clutch arm roller	1-47
1.6.2.11	Lubricate the brake linkages	1-48
1.6.2.12	Lubricate the steering axle pivots and the steering axle tie-rods	1-48
1.6.2.13	Lubricate the pivot bushings for the tandem axle springs	1-49
1.6.2.14	Lubricate the center fitting for the six twine knotter	1-49
1.6.2.15	Lubricate the linkages for the bale density cylinders	1-49
1.6.2.16	Lubricate the packer clutch bushing and the splines	1-50
<b>1.7</b>	<b>Connect to the tractor - CE</b>	<b>1-51</b>
1.7.1	Hitch component identification	1-51
1.7.2	Set the tongue height	1-51
1.7.3	Tractor setup dimensions with an 80 mm (3.15 in) ball hitch, a CE spherical ball hitch, or a 50 mm (2 in) ring hitch	1-52
1.7.4	Connect a 50 mm (2 in) ring hitch to the tractor	1-52
1.7.5	Connect an 80 mm (3.15 in) ball hitch to the tractor	1-53
1.7.6	Operate a manual jack installed on the tongue	1-53
1.7.7	Operate a hydraulic jack installed on the tongue	1-54
1.7.8	Install the safety transport chain	1-55
1.7.9	Constant velocity implement driveline, if equipped	1-55
1.7.9.1	Check the constant velocity implement driveline for correct length	1-55
1.7.9.2	Connect a constant velocity implement driveline to a power take-off (PTO)	1-57
1.7.9.3	Adjust the pedestal gearbox	1-58
<b>1.8</b>	<b>Checklists</b>	<b>1-59</b>
1.8.1	Daily checklist	1-59
1.8.2	Examine after the first hour of operation	1-59
<b>1.9</b>	<b>Lamps and Reflectors</b>	<b>1-61</b>
1.9.1	Lamps and reflectors	1-61

---

1.9.2	Lamps and reflectors . . . . .	1-63
<b>1.10</b>	<b>Baler operation . . . . .</b>	<b>1-67</b>
1.10.1	Description of operation . . . . .	1-67
1.10.2	General terminal information . . . . .	1-67
1.10.3	Prepare to bale . . . . .	1-67
1.10.4	Plunger position indication . . . . .	1-68
1.10.5	Start the machine . . . . .	1-68
1.10.5.1	Start the machine: determine the direction of plunger travel . . . . .	1-68
1.10.5.2	Start the machine: plunger on the retraction (green) stroke . . . . .	1-70
1.10.5.3	Start the machine: plunger on the compression (red) stroke . . . . .	1-71
1.10.5.4	Start the machine: machine does not start after four attempts . . . . .	1-71
1.10.6	Make the first bale . . . . .	1-72
1.10.7	Make bales . . . . .	1-73
1.10.8	Stop the machine . . . . .	1-73
1.10.9	Stuffer cycle . . . . .	1-74
<b>1.11</b>	<b>Prepare to road the machine or move the machine on a trailer . . . . .</b>	<b>1-75</b>
<b>1.12</b>	<b>Tie down points, jack points, and lift points . . . . .</b>	<b>1-77</b>
1.12.1	Tie down points . . . . .	1-77
1.12.2	Jack points . . . . .	1-78
1.12.3	Lift points . . . . .	1-78
1.12.4	Lift and move a machine correctly . . . . .	1-78
<b>1.13</b>	<b>Disconnect the tractor . . . . .</b>	<b>1-80</b>



## 1.1 Safety

### 1.1.1 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

### 1.1.2 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

### 1.1.3 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.

### 1.1.4 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.

## 1. General

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.

### 1.1.5 Safety warnings

Before doing any unplugging, lubricating, servicing, cleaning, or adjusting:

- Park the machine on a solid level surface.
- Disengage the tractor power take-off (PTO).
- Put the tractor transmission in PARK and apply the tractor park brake.
- Turn off the terminal.
- Stop the tractor engine and take the key with you.
- Apply the baler flywheel brake.
- Apply the baler park brake, if equipped.
- Look and listen! Make sure all moving parts have stopped.
- Put blocks in front of and behind the wheels of the machine and the tractor before working on or under the machine.



**WARNING:**

**After lubrication, servicing, or adjusting the machine, make sure all tools and equipment have been removed.**



**WARNING:**

**All shields and guards must be in position before operating the machine.**

### 1.1.6 A word to the technician

Read and understand the safety section in this service manual before operating or servicing the machine. Read and understand the safety sections in the manuals for all attachments before operating or servicing attachments. The technician has the key to safety. Good safety practices protect everyone.

Study the safety information in this service manual. Make the safety information a working part of the safety program. The safety information in this service manual applies specifically to this type of machine. Always do all other usual and customary safe working precautions. Remember - The technician has the responsibility for safety. Good safety practices can prevent serious injury or death.

The safety section points out some basic safety situations that can occur during the operation and maintenance of the machine. The safety section also suggests possible ways to deal with these situations. The safety section does not replace safety practices in other parts of this service manual.

Practice good safety to help prevent injury or death.

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

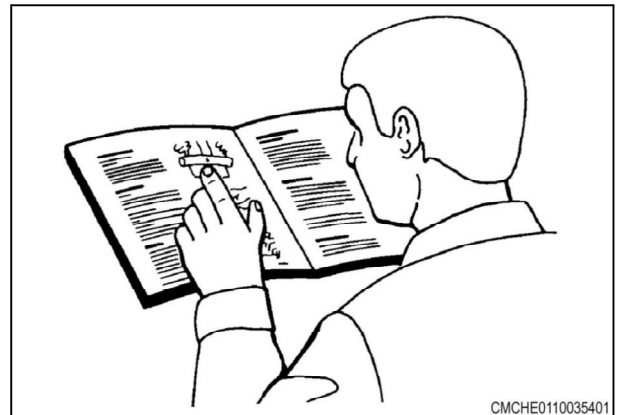


Fig. 3

Do not let other persons operate the machine without instruction and training.

Follow all safety precautions and instructions in the manuals and on safety signs affixed to the machine and all attachments.

Use only approved attachments and equipment.

Make sure the machine has the correct equipment needed by the local regulations.



**WARNING:**

**An operator should not use alcohol or drugs which can affect their alertness or coordination. An operator on prescription or 'over the counter' drugs needs medical advice on whether or not they can properly operate machines. If any attachments used on this equipment have a separate Operator Manual, see that manual for other important safety information.**

---

## 1.1.7 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.**

---

## 1.1.8 The operator manual

---

Always keep the operator manual with the machine.

Store the operator manual in the container (1) located on the left-hand side of the machine.

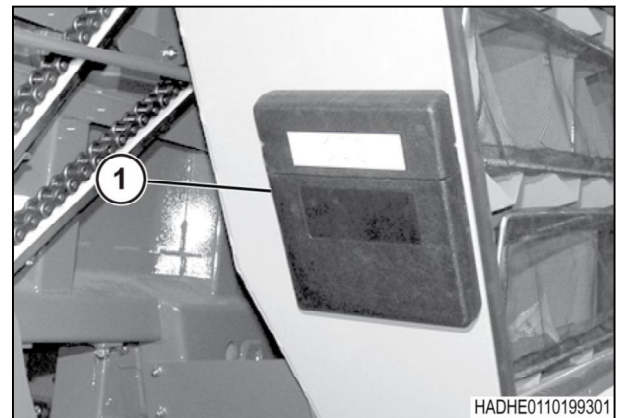


Fig. 4

### 1.1.9 Tool box

The machine has a toolbox (1) on the top of the machine on the right side. Keep service parts and the shear bolts in the tool box.

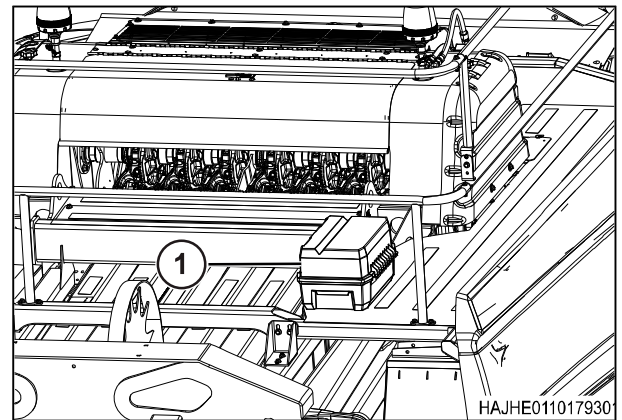


Fig. 5

### 1.1.10 Operation

#### 1.1.10.1 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.

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.

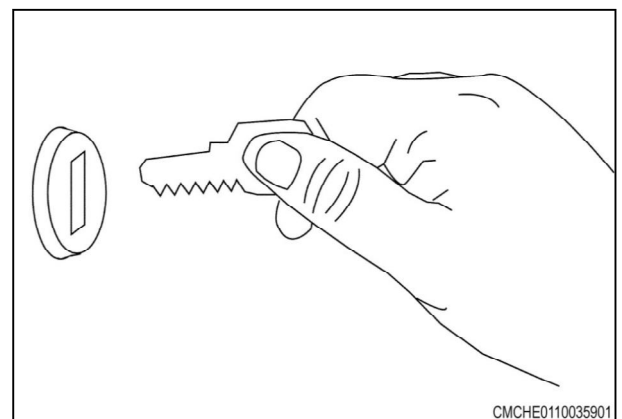


Fig. 6

Make sure all persons are clear of the rear of the bale chute when raising and lowering the chute, ejecting or dumping a bale.

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.

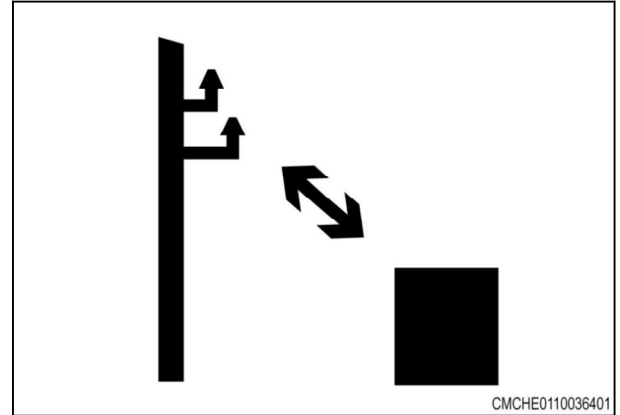


Fig. 7

### Related Links

[Tractor requirements](#) page 1-28

#### 1.1.10.2 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.

### 1.1.10.3 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.

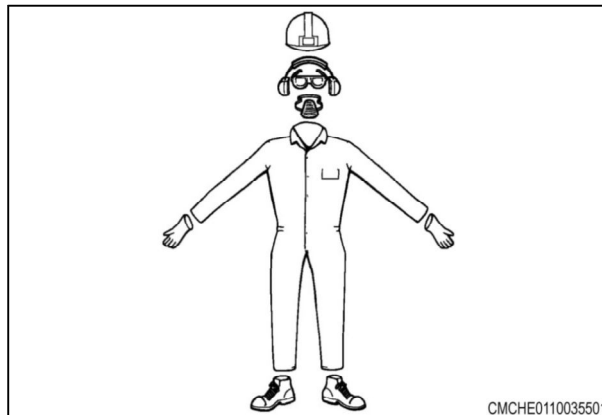


Fig. 8

### 1.1.10.4 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.

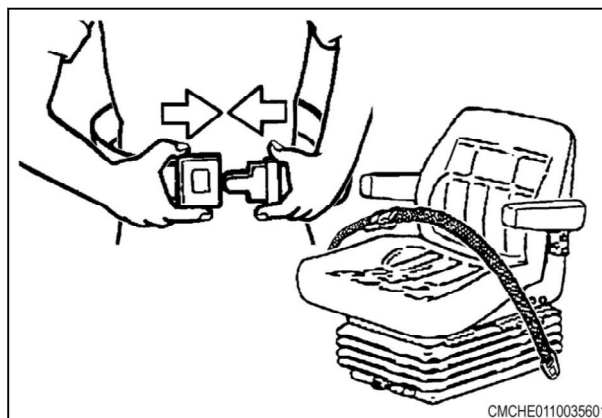


Fig. 9

### 1.1.10.5 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. 10



**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.



CMCHE0110036601

Fig. 11

### 1.1.10.6 Exhaust warning

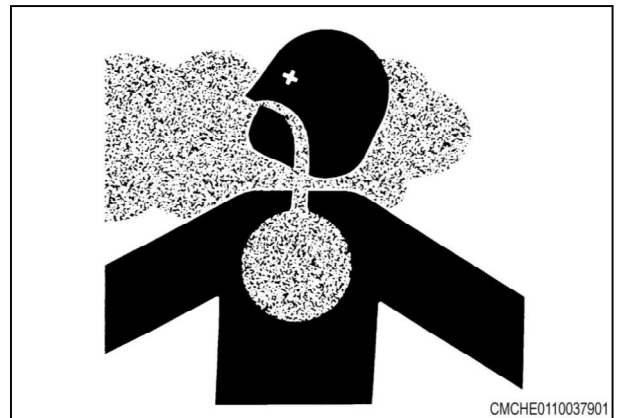


**WARNING: Inhalation hazard. Exhaust gases.**

**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. 12

### 1.1.10.7 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. 13

### 1.1.10.8 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.



Fig. 14

### 1.1.10.9 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.

### 1.1.11 Travel on public roads

Always raise the bale chute before:

- Taking the machine across a road.
- Rooding the machine.
- Moving the machine on a trailer.

See raising a bale chute for more information.

Make sure you understand the speed, brakes, steering, stability, and load characteristics of this machine and the tractor before you travel on public roads.

Use good judgement when traveling on public roads. Maintain complete control of the machine at all times. Never coast down hills.

The maximum speed of farm equipment is governed by local regulations. Adjust travel speed to maintain control at all times. See Specifications for the maximum speed for this machine.

Make sure the tractor is in the proper operating condition according to the tractor operator manual. Make sure the tractor brakes and the machine

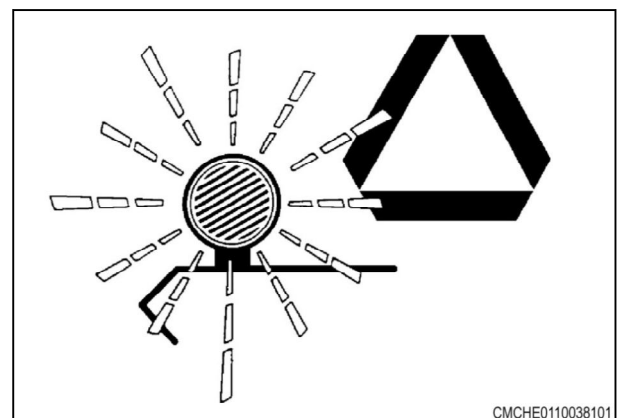


Fig. 15



**Suggest:**

**For more complete manuals. Please go to the home page.**

**<https://www.ebooklibonline.com>**

**If the above button click is invalid. Please download this document first, and then click the above link to download the complete manual.**

**Thank you so much for reading**

brakes, if equipped, are adjusted correctly. The tractor must have enough weight and braking capacity, especially when operating on roads and terrain that is not even. To achieve proper braking capacity, use tractor of recommended size and weight to tow the machine. See Specifications for the minimum tractor weight.

Familiarize yourself with and obey all road regulations that apply to your machine. Consult your local law enforcement agency for local regulations regarding movement of farm equipment on public roads. Use headlights, flashing warning lights, taillights and turn signals, day and night, unless prohibited by local law.

Make sure all the flashers are operating prior to driving on the road. Make sure reflectors are correctly installed, in good condition, and wiped clean. Make sure the Slow Moving Vehicle (SMV) emblem, if equipped, is clean, visible, and correctly mounted on the rear of the machine.

Do not operate the baler on the road with a bale in the chamber.

Be aware of other traffic on the road. Keep well over to your own side of the road and pull over, whenever possible, to let faster traffic pass.

Be aware of the overall width, length, height, and weight of the equipment. Be careful when transporting the machine on narrow roads and across narrow bridges.

Always install the safety transport chain between the implement and the tractor drawbar.

- Use a safety transport chain with a strength rating equal to or more than the gross weight of the towed machines.
- Connect the safety transport chain to the tractor drawbar and use a retainer on the hitch pin.
- Supply only enough slack in the safety transport chain to permit turning.
- Do not use the safety transport chain as a tow chain for towing.

Watch for overhead wires and other obstructions. Avoid contact with electrical power lines. Contact with electrical power lines can cause electrical shock, resulting in very serious injury or death.

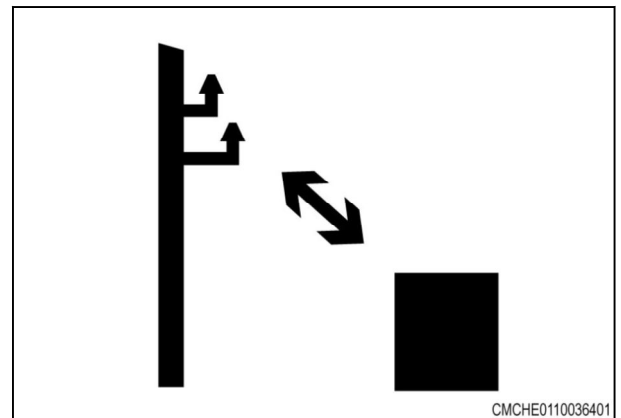


Fig. 16

## Related Links

[Tractor requirements](#) page 1-28

[Maximum speed](#) page 1-28

[Lift the roller bale chute](#) page 8-3

## 1.1.12 Maintenance

### 1.1.12.1 General maintenance information

Before you do maintenance, lubricate, do servicing, clean, or make adjustments:

- Park the machine on a solid, level surface.
- Disengage the tractor power take-off.
- Make sure that all the controls are in the neutral position and apply the parking brake.
- Make sure that the machine and the attachments are lowered to the ground.
- Stop the engine and take the key with you.
- Apply the baler flywheel brake.
- If the baler has a parking brake, apply the baler parking brake.
- Look and Listen! Make sure that all parts that move are stopped.
- Put chocks in front of and behind the wheels of the machine before you do work on or below the machine.

Stay near the machine when the tractor is in operation.

Know the dimensions and the weights of parts when you do the servicing. Do not stand below or near a part while it is moved with a hoist or other lift equipment.

After you do work on the machine, remove all tools from the machine.

Make sure that electrical connectors are clean before you connect them.

Do a check for loose, broken, missing, or damaged parts. Make sure that the machine is in good repair. Make sure that all guards and shields are in position.

Do not do the servicing, examine or adjust chains or belts while the engine is in operation.

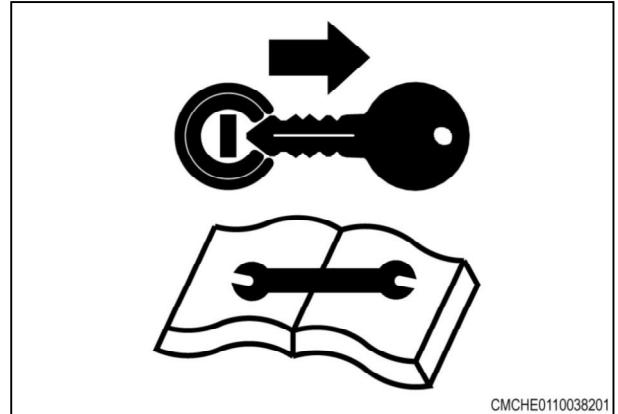


Fig. 17



Fig. 18

**<https://www.ebooklibonline.com>**

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

**<https://www.ebooklibonline.com>**