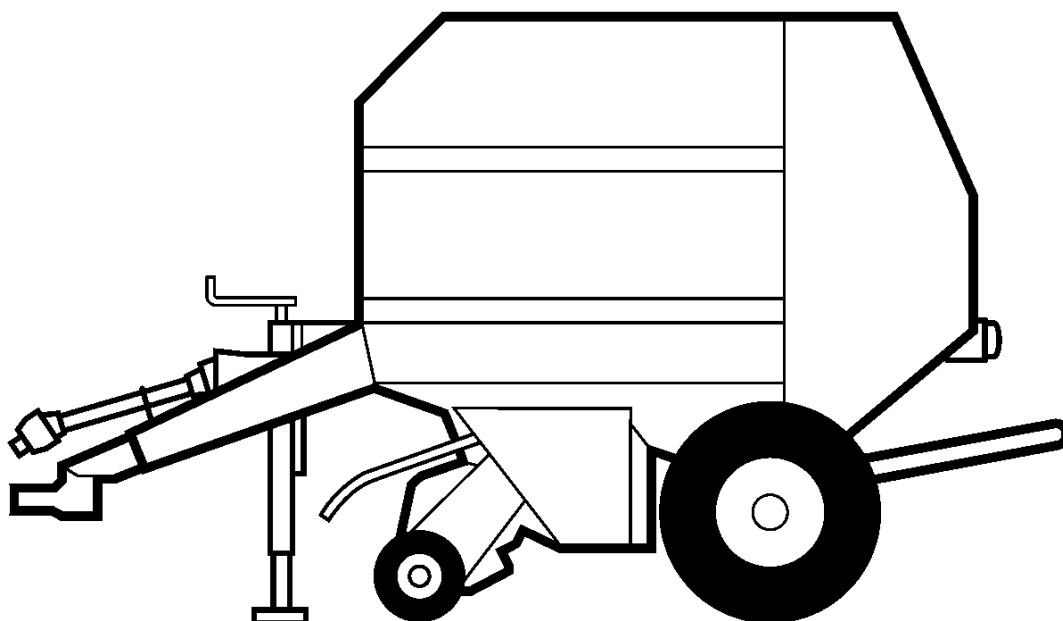




## OPERATOR'S MANUAL



**BR6080**

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# 1 - GENERAL INFORMATION

## Foreword [25722765]

This manual has been prepared to assist you in the correct procedure for running in, driving, operating, adjusting and maintaining your new machine.

This machine has been designed and built to give maximum performance, economy and ease of operation under a wide variety of crops and conditions.

Prior to delivery, your machine was carefully inspected both at the factory and by your dealer to ensure that it reaches you in optimum condition. To maintain this condition and ensure trouble-free operation it is important that routine services, as specified in this manual, are carried out at the recommended intervals.

Before attempting to drive or operate your machine, read this manual carefully (especially chapter covering the Safety Precautions) and keep it in a convenient place for future reference.

"Left" and "right" used throughout this manual are determined from the rear, facing in the direction of travel of the machine during operation.

If at any time you require advice concerning your machine, do not hesitate to contact your authorised dealer. Who has factory-trained personnel, genuine service parts and the necessary equipment to carry out your service requirements.

**NOTICE:** *This machine has been designed and built according to the European Directive 2006/42/EC.*

*Always use genuine New Holland Service Parts when servicing and repairing your machine and do not modify your machine without a written permission of the manufacturer. Failure to do so will void the responsibility of the manufacturer.*

*An EC Declaration of Conformity is separately delivered with your machine. Store this EC Declaration into the storage space for your Operator's Manual.*

Check local road legislation before driving the baler on public roads.

When operating interchangeable New Holland built equipment, ensure the equipment is CE approved.

As this publication is distributed throughout our international network, the equipment illustrated, either as stan-

dard or as an accessory, may vary according to the country in which the equipment is to be used. Low cost configurations, as chosen by the customer, may deviate from specifications given.

Several illustrations in this manual show the safety guarding or the additional guards, legally required by certain countries, open or removed to illustrate better a particular feature or adjustment.

The machine must not be used in this condition. For your own safety, ensure that all guards are closed or replaced before operating the machine.

## Owner assistance

We at New Holland and your New Holland Dealer want you to be completely satisfied with your investment. Normally your dealer's Service Department will handle any problems with your equipment. Sometimes, however, misunderstanding can occur. If your problem has not been handled to your satisfaction, we suggest contacting the owner or General Manager of the dealership, explaining the problem, and requesting assistance. When additional assistance is needed, your dealer has direct access to our branch office.

## Improvements and changes

The company is continually striving to improve its products, and therefore reserves the right to make improvements and changes when it comes practical and possible to do so, without incurring any obligation to make changes or additions to the equipment sold previously.

All data given in this manual is subject to production variations.

**NOTICE:** *Operating and service messages displayed on the electronic operating panel may vary from what is shown in the Operator's Manual. Should this occur adhere to the latest instruction on the electronic operating panel.*

*Dimensions and weights are approximate only and the illustrations do not necessarily show balers in standard condition. For exact information about any particular machine please consult your Dealer.*

## Accessories

Your machine has been designed to operate in a wide variety of crops and conditions. Nevertheless Additional equipment may, in certain cases, be required to improve the machine performance. A list of this additional equipment is given in the "Accessories" section in this manual.

## Service parts and accessories

Genuine service parts and accessories have been specially designed for your machine.

We would like to point out that "non-genuine" parts and accessories have not been examined and released by the Company. The installation and/or use of such products could thus have negative effects upon the design characteristics of your machine and thereby affect its safety. The Company is not liable for any damage caused by the use of "non-genuine" parts and accessories.

Rely on your authorised dealer to supply you with genuine New Holland parts only. These parts are covered by our warranty and will give you the best performance.

When ordering service parts, always quote the model and serial number as well as the year of manufacture which is printed on the manufacturer's identification plate.

## Warranty

Your machine is warranted according to legal rights in your country and the contractual agreement with the selling dealer. No warranty shall, however, apply if the machine has not been used, adjusted and maintained according to the instructions given in this Operator's Manual.

It is prohibited to carry out any modifications to the machine unless specifically authorised, in writing, by a New Holland representative.

## Lubricants

Your dealer sells a selection of specially formulated lubricants based on own engineering specifications.

Recommended lubricants for your machine are listed in the Maintenance section of this manual.

## Cleaning your machine

Your machine is a state-of-the-art machine with sophisticated, electronic controls. Even though every precaution has been taken to safeguard electronic components and connections, the pressure generated by some pressure washers is such that complete protection against water ingress cannot be guaranteed.

When using a high pressure washer, do not stand too close to the machine and avoid directing the jet at electronic components, electrical connections, breathers, seals, filler caps, etc.

## Important environmental considerations

Soil, air and water are vital factors of agriculture and of life in general. Where legislation does not yet rule the treatment of some of the substances, which are required by advanced technology, common sense should govern the use and the disposal of the products of a chemical and a petrochemical nature.

The following are recommendations, which may be of assistance:

Become acquainted with and respect the relative legislation applicable in your country.

Where no legislation exists, obtain information from suppliers of oils, fuels, antifreeze, cleaning agents, etc. for their effect on man and nature and for safe ways of storage, usage and disposal. Agricultural consultants will, in many cases, be able to help you as well.

## Helpful hints

Avoid filling fuel tanks using jerrycans or inappropriate pressurized fuel delivery systems which may cause considerable spillage.

In general, avoid skin contact with all oils, acids, solvents, etc. Most of them contain substances which can be harmful to your health.

Use biodegradable oils for chain lubrication where oils cannot be recuperated. In many countries rapeseed oils or other agricultural lubricants have become available.

Modern oils contain additives. Do not burn contaminated fuels and/or waste oils in ordinary heating systems.

Avoid spillage when draining off used engine coolant mixtures, engine, gearbox and hydraulic oils, brake fluids, etc. Do not mix drained brake fluids, fuels or coolant mixtures with lubricants. Store them safely until they can be disposed of in a proper way to comply with local legislation and available resources. They should not be allowed to get into the soil but should be collected and disposed of safely.

Do not open the air-conditioning system yourself; it contains gases, which should not be released into the air. Your dealer has a special extractor for this purpose and will have to do the recharging of the system anyway.

Repair any leaks or defects in the engine cooling or the hydraulic system immediately.

Do not increase the pressure in a pressurized circuit as this may lead to bursting of the components.

Protect hoses during welding as penetrating weld splatter may burn a hole or weaken them, causing the loss of oils, coolant, etc.

## **Battery recycling**

Batteries and electric accumulators contain various components which can damage the environment if they are not properly recycled after usage. New Holland strongly recommends that you return all used batteries (starting

batteries and small "dry" batteries which may be used in electric or electronic systems) to your New Holland Dealer who will ensure proper disposal or recycling. In certain countries this is a legal requirement.

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## Note to the Owner [25657939]

### Intended use

This Round Baler is designed to be towed by an agricultural tractor and powered by the tractor's power take off. It is intended to be used to pick up and bale forage and straw crops including, but not limited to, mixed hay/grass and lucerne, for agricultural purposes on cultivated land. ALL OTHER PURPOSES ARE PROHIBITED.

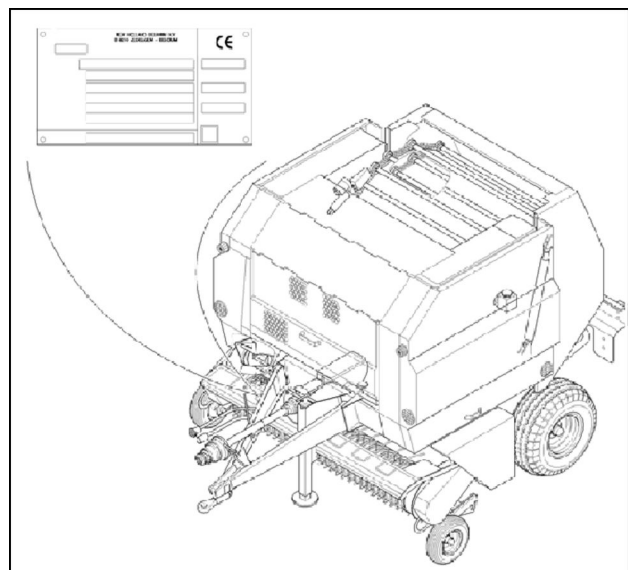
### Product improvements

We are continually striving to improve its products. We reserve the right to make improvements or changes when it becomes practical and possible to do so, without incurring any obligation to make changes or additions to the equipment sold previously.

### Product identification PIN plates

The model, serial number and year of manufacture are stamped on a manufacturer's identification plate which is located on the frame front cross beam, on the right of the baler tongue.

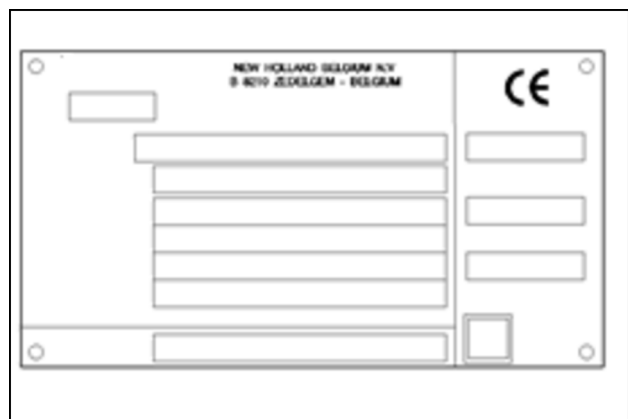
The serial number is also stamped in the frame cross beam just above the identification plate.



P1 1

Record below your machine serial number and year of manufacture for quick reference:

|                         |       |
|-------------------------|-------|
| Baler type              | _____ |
| Baler serial n°         | _____ |
| Year of manufacture     | _____ |
| Date machine first used | _____ |
| Dealer's telephone n°   | _____ |



P2 2

## Machine serial number 9 and 17 digit.

The machine is identified using currently a 9 digit serial number which could look like 351720001, and can be found on the PIN (Product Identification Number) plate.

The new serial number (where applied) will consist of 17 (alpha/numeric) digits which will be similar to the example: HAF35100L0072000.

This includes the current 9 digit number as shown in the following table.

|                  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |
|------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|
| 9 D-<br>igit     |   |   |   | 3 | 5 | 1 |   |   |   |    |    | 7  | 2  | 0  | 0  | 0  | 1  |
| 17<br>Dig-<br>it | H | A | F | 3 | 5 | 1 | 0 | 0 | L | 0  | 0  | 7  | 2  | 0  | 0  | 0  | 1  |
|                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |

This new serial number can then be read and explained as follows using example: HAF35100L00720001

Position one to three represents the World Manufacturer Code (WMC).

(HAF) is the WMC for the Zedelgem - Belgium plant.

Position four to eight form the Machine Descriptor Section alpha/numeric.

Position four and five are the identification of the model within the product line (35) machine.

Position six (1) indicates the production assembly line number, 1 = Zedelgem machine assembly line.

Position seven and eight (00) are used for specific homologation indications.

Position nine (L) is used as a check digit (Only characters). The calculation of this character is based on the other sixteen digits from the serial number.

Position ten to seventeen (00720001) form the Machine Indicator Section. alpha/numeric.

Position ten and eleven are not used (value is zero)

Position twelve up to fourteen (720) represents the batch in which the machine was made.

Position fifteen to seventeen (001) represents the sequential number for each machine made within a batch.

001 = first machine built in batch 720.

## Legal obligations [25660187]

### EC Declaration of Conformity

The manufacturer delivers the machine with a document called "EC Declaration of Conformity" which guarantees that the machine complies with the European Machinery Safety Directives.

This document will usually be found on the machine when the machine is originally supplied to you.

If not, it should be obtained from your dealer.

The owner must carefully preserve this document to be able to present it to Safety Inspection Authorities when requested.

The document as well as the operator's manual should also stay with the machine if it is traded again.

This baler has also been built to comply with additional related European standards which include:

EN 15811:2009 Guard locks

EN 12965 PTO drive shafts and guards

EN ISO 5674 Guards PTO drive shafts

EN ISO 13849 Safety electronic systems

EN ISO 12100 Machinery safety general

### EC Declaration of Conformity

According to Directives 2006/42/EC & 2004/108/EC

We, CNH Belgium N.V. Leon Claeyssstraat 3A B - 8210 ZEDELGEM (Belgium)

represented by Antoon Vermeulen,

Leon Claeyssstraat 3A B - 8210 ZEDELGEM (Belgium)

declare under our sole responsibility, that the product:

Agricultural machine

Commercial Name and Model: New Holland BR6080

Denomination: BALER

Type: 544/1 or 1604

Serial Number: .....

to which this declaration relates, fulfills all the relevant provisions of Directives 2006/42/EC & 2004/108/EC, amended by: .....

For the relevant implementation of the provisions of the Directives, the following (harmonized) standards have been applied:

- EN ISO 4254-1:2009
- EN ISO 14982:2009
- EN ISO 4254-11:2010

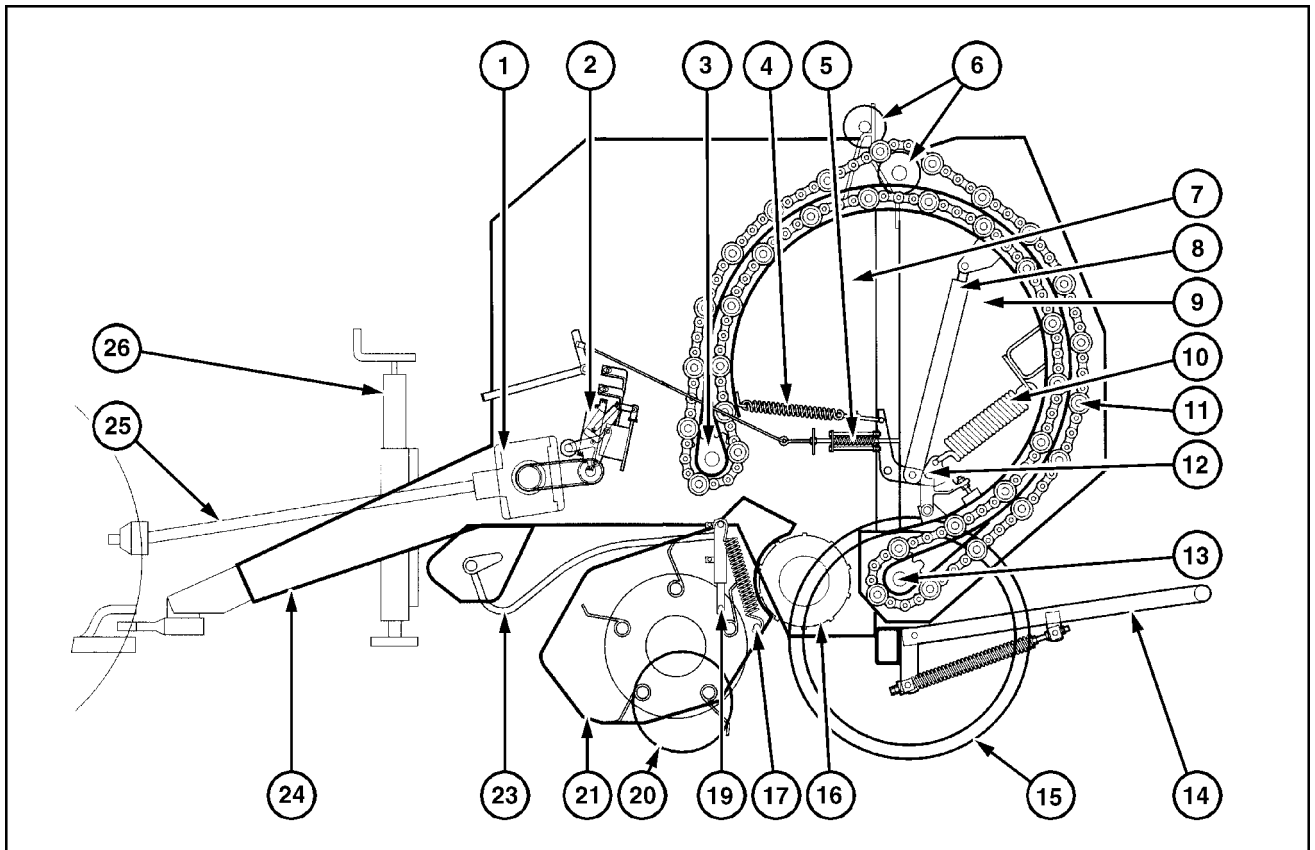
Place and date of the declaration: Zedelgem .....

Name and signature of authorized person:

Antoon Vermeulen

## Twine Wrapper [25762101]

### Basic components

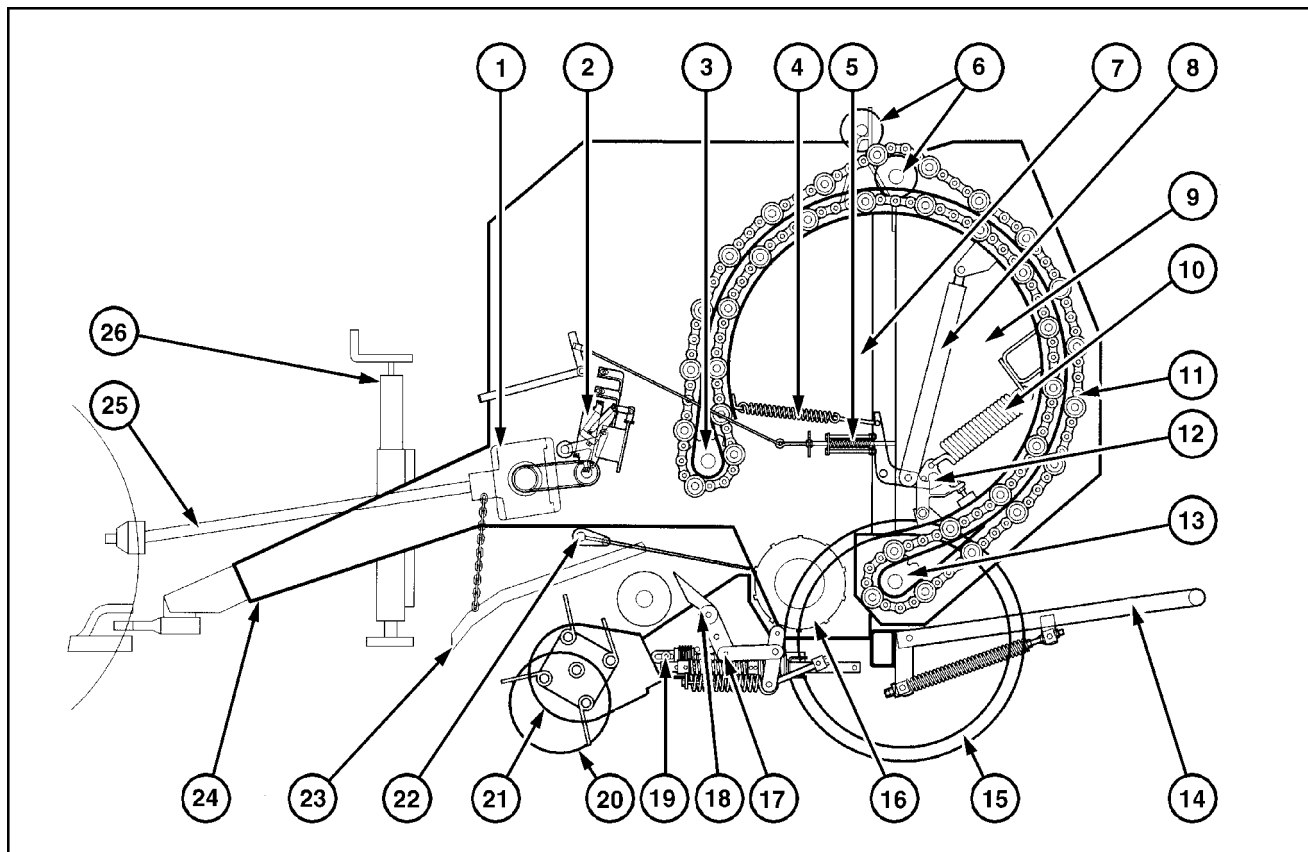


ZIL10FCRB051FAA 1

### Standard pickup models

- |                                |                                           |
|--------------------------------|-------------------------------------------|
| 1. Gearbox                     | 14. Bale ejector [accessory]              |
| 2. Twine wrap mechanism        | 15. Ground wheel                          |
| 3. Conveyor drive shaft        | 16. Floor roll                            |
| 4. Tailgate latch spring       | 17. Pickup flotation spring               |
| 5. Density indicator mechanism | 18. -                                     |
| 6. Conveyor idler rollers      | 19. Pickup lift cylinder [accessory]      |
| 7. Bale chamber                | 20. Pickup gauge wheel [accessory]        |
| 8. Tailgate cylinder           | 21. Pickup assembly                       |
| 9. Tailgate                    | 22. -                                     |
| 10. Density spring             | 23. Windguard                             |
| 11. Conveyor chain and bars    | 24. Reversible hitch                      |
| 12. Tailgate latch             | 25. Drive shaft with shearbolt protection |
| 13. Conveyor tensioner idler   | 26. Jack                                  |

## Basic components

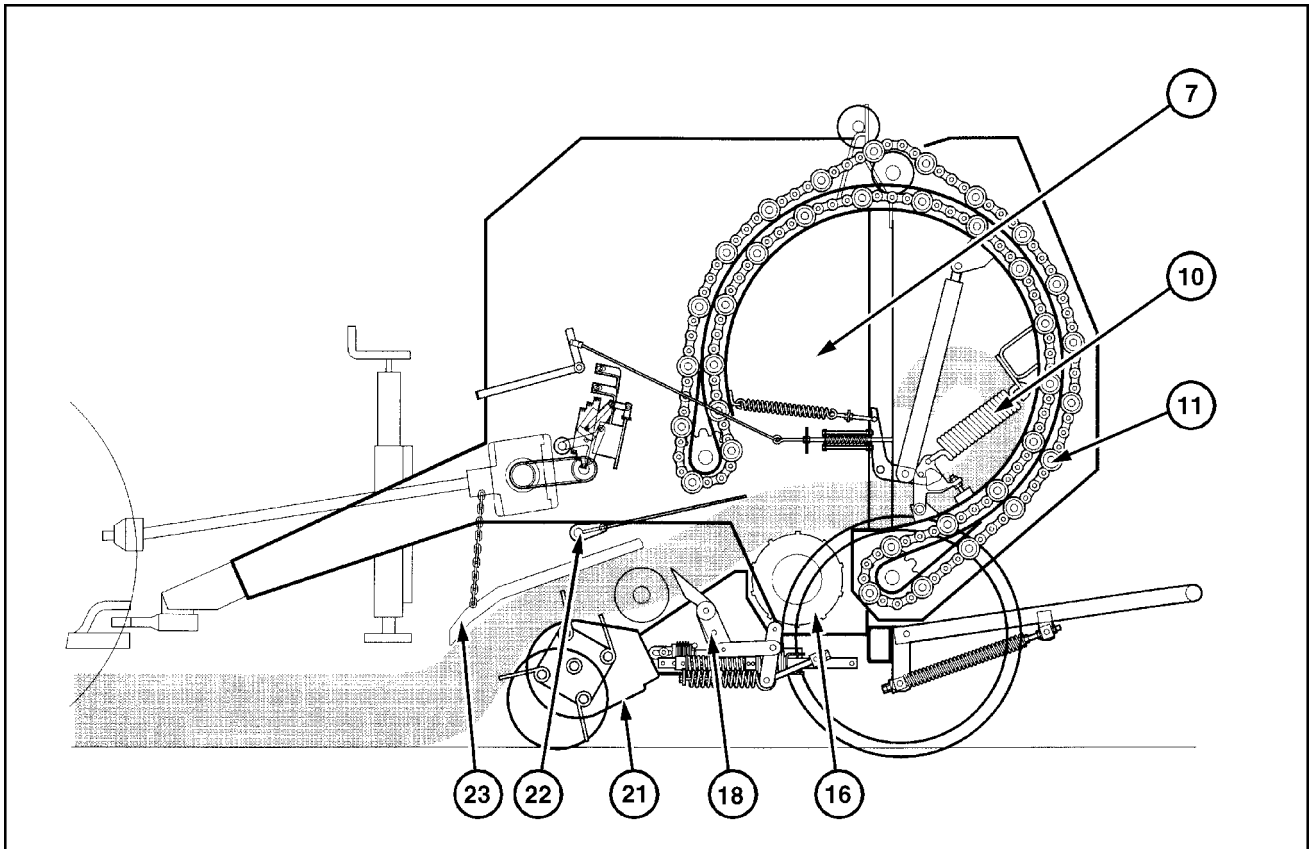


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### Wide pickup models

- |                                |                                           |
|--------------------------------|-------------------------------------------|
| 1. Gearbox                     | 14. Bale ejector [accessory]              |
| 2. Twine wrap mechanism        | 15. Ground wheel                          |
| 3. Conveyor drive shaft        | 16. Floor roll                            |
| 4. Tailgate latch spring       | 17. Pickup flotation spring               |
| 5. Density indicator mechanism | 18. Crank-type packer                     |
| 6. Conveyor idler rollers      | 19. Pickup lift cylinder [accessory]      |
| 7. Bale chamber                | 20. Pickup gauge wheel [accessory]        |
| 8. Tailgate cylinder           | 21. Pickup assembly                       |
| 9. Tailgate                    | 22. Second windguard                      |
| 10. Density spring             | 23. Windguard                             |
| 11. Conveyor chain and bars    | 24. Reversible hitch                      |
| 12. Tailgate latch             | 25. Drive shaft with shearbolt protection |
| 13. Conveyor tensioner idler   | 26. Jack                                  |

## How the baler functions



ZIL10FCRB041FAA 3

On wide pickup models, the pickup **(21)** equipped with cross conveying augers, feeds the crop to the packer feeder **(18)**.

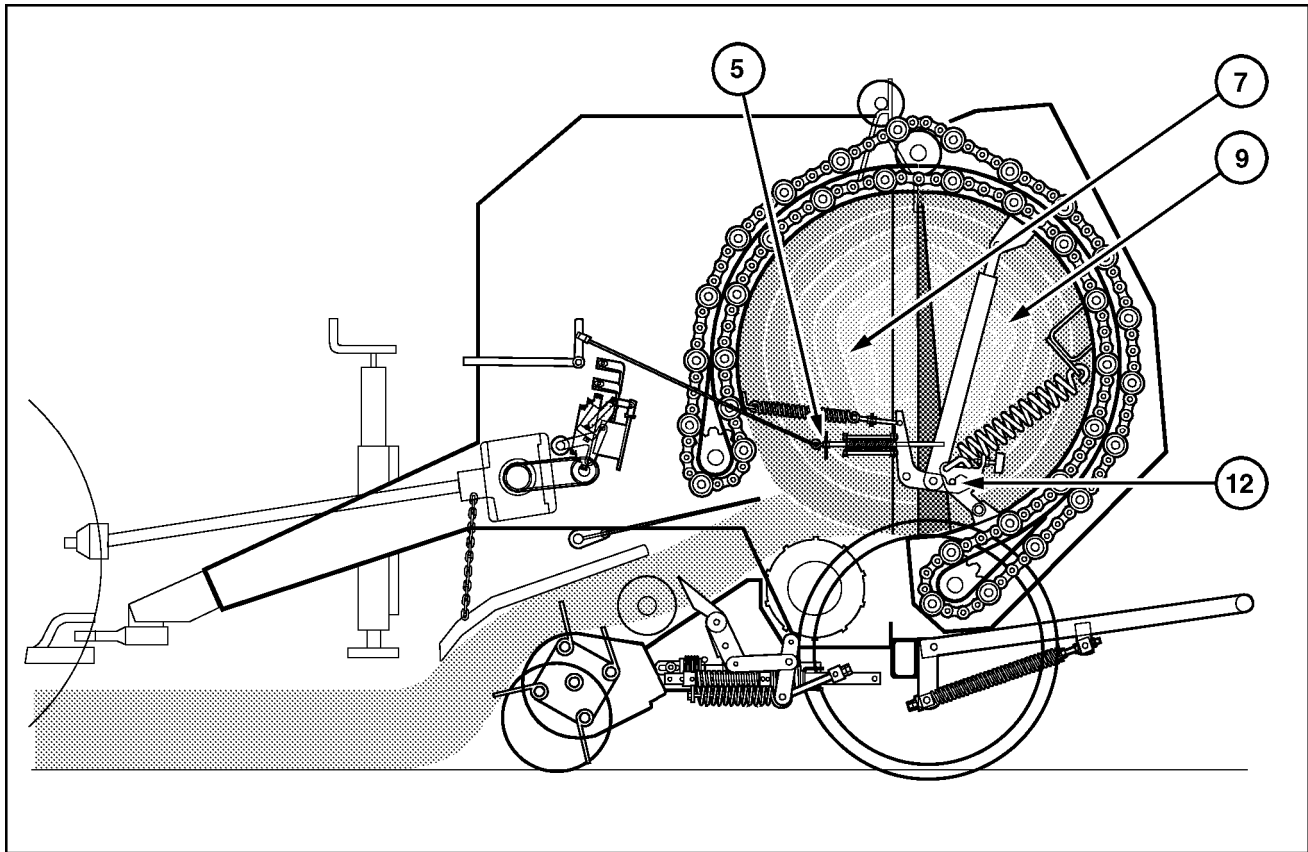
The first and second windguard **(22)** and **(23)** are floating to hold the crop firmly above the pickup for positive feeding.

On the standard pickup models, the pickup feeds the crop directly into the bale chamber. The floating windguard is adjustable in height to hold the crop firmly above the pickup for positive feeding.

The floor roll **(16)** feeds the crop to the conveyor chain **(11)**. Together they begin to form the bale inside the bale chamber **(7)**.

At this time, the tailgate is closed and latched. The density springs **(10)** are retracted against their rubber stops.

The bale chamber **(7)** is filling up as crop feeds in. The crop layer starts rolling packs loosely by its own weight and structure.



ZIL10FCRB042FAA 4

The bale chamber (7) is filled up with loosely packed crop. As more crop is fed in, the floor roll and conveyor chain begin to compact the bale until the desired density is reached. Most of the bale weight is carried by the floor roll.

Contrarily, the compacting bale exerts pressure on the tailgate (9) and tends to push the tailgate open. The tailgate is hooked up by the latch (12) attached to the main frame and the density spring (10) attached to the tailgate.

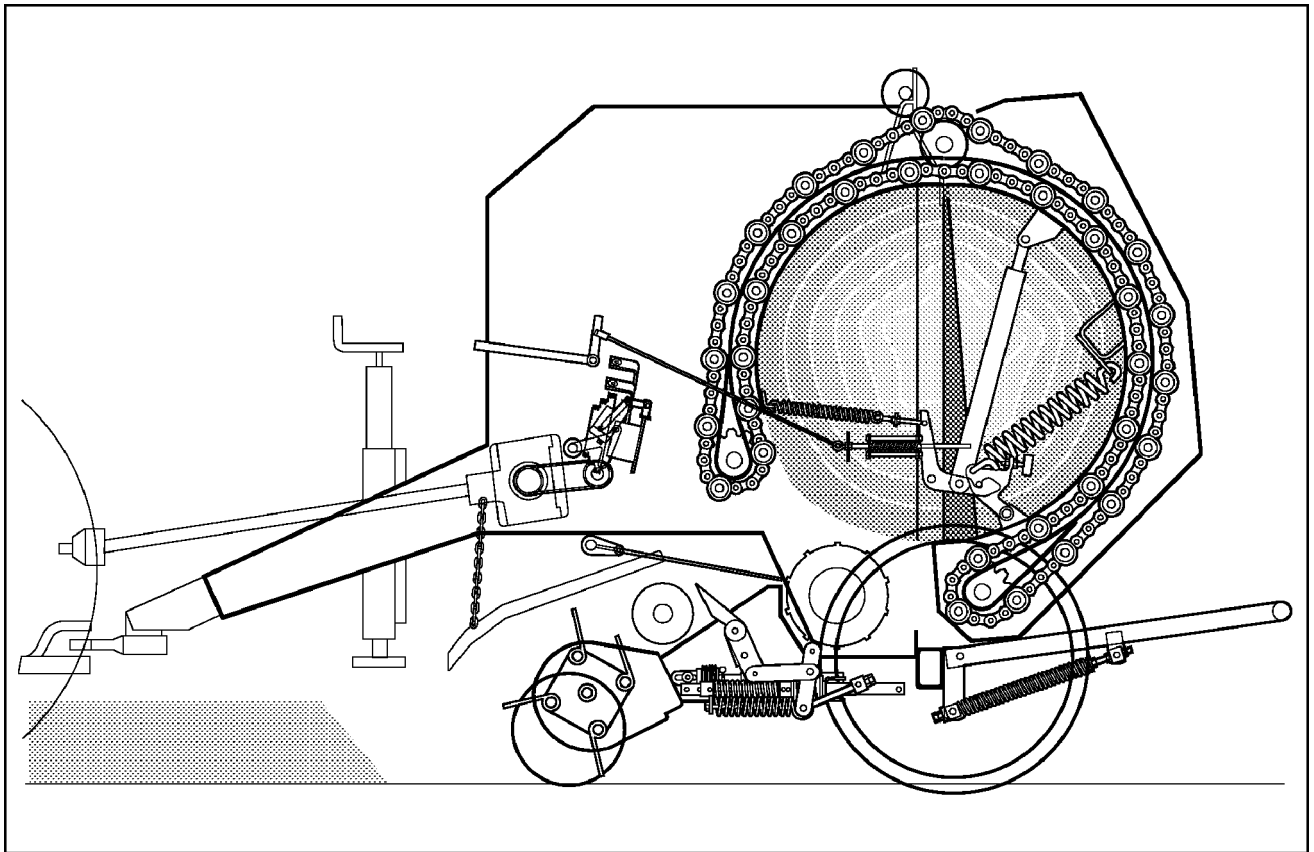
The tailgate will slightly open, thereby pulling on both the left and right density springs (10).

The more the tailgate will open, the more the density springs will be pulled and the higher the density of the bale will be.

The density indicator mechanism (23) will measure the amount of tailgate opening and is linked to mechanical density indicators left and right in front of the machine. The operator has to watch these indicators to see when the desired density is reached.

As there is a density indicator mechanism on both sides, they also assist the operator in filling the bale evenly on both sides.

At this moment, the tailgate is slightly open but still held in the latch (12) on both sides of the machine.

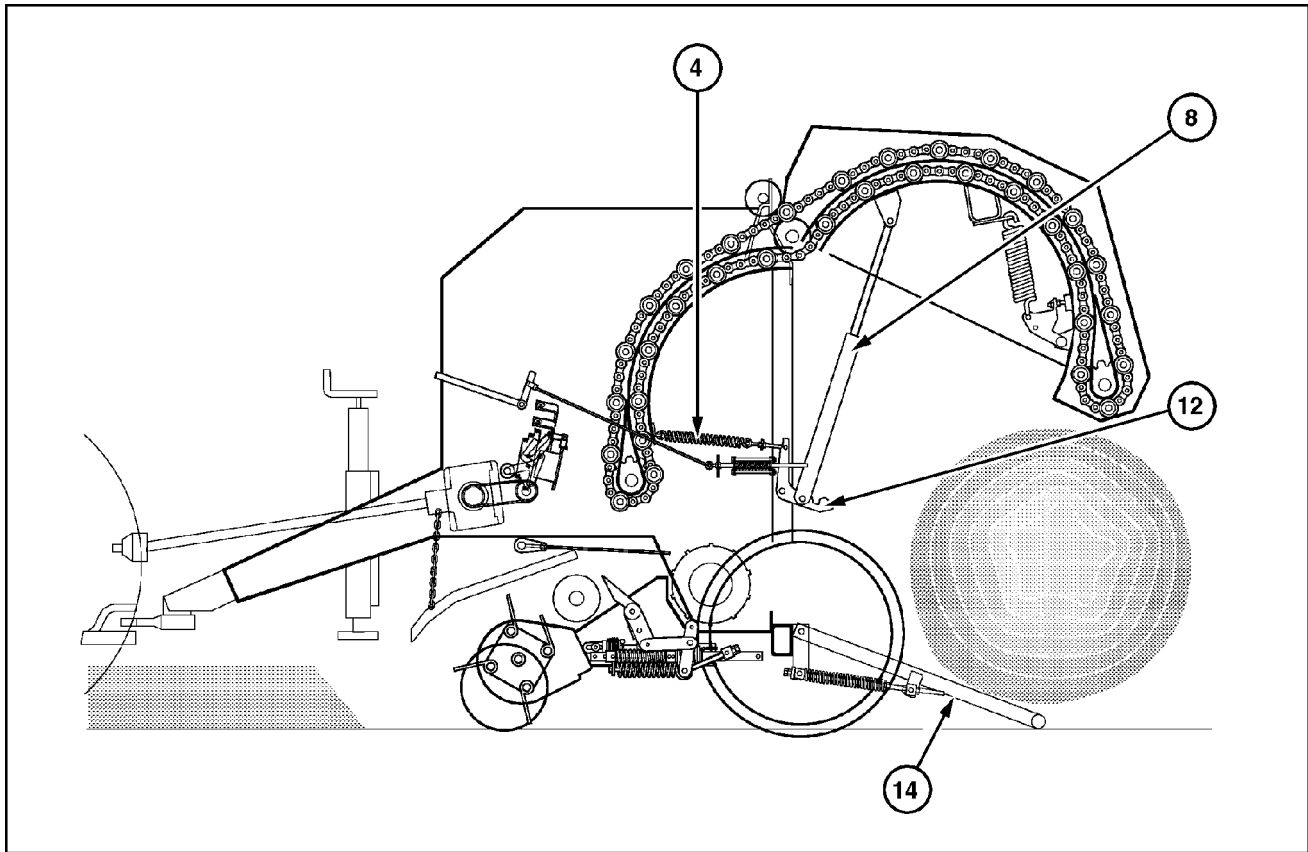


ZIL10FCRB043FAA 5

The bale has reached the desired density.

The twine wrap cycle is started manually, electrically optional or mechanically. During standstill, the bale is wrapped with twine.

At the wrap cycle start, the twines are ejected in the pickup area and picked up between the rotating bale and the floor roll. Twine spreaders will move back and forth to place the different wraps on the bale. At the end of the wrap cycle, the twines are cut and the wrapper components are in the home position again. The bale is ready to be ejected.



ZIL10FCRB044FAA 6

The bale is wrapped and ready to be ejected. The operator opens the tailgate by means of the tractor hydraulics.

During bale ejection, the PTO. remains engaged.

The extending tailgate cylinder (8) first releases the tailgate latch (12) then lifts the tailgate. The density indicators shoot up to "full bale density" as the tailgate opens.

The bale rolls out of the bale chamber, over the bale ejector (14) optional, clear of the baler. With the bale ejector, the bale can be ejected and the tailgate closed without moving the baler back and forth on flat ground.

On machines without bale ejector, the operator first has to reverse a few meters before ejecting the bale. Then, after the bale has been ejected, he has to move forward again before closing the tailgate.

The operator closes the tailgate by means of the tractor hydraulics, the tailgate comes down by its own weight. When the tailgate is closed, the latch spring (4) reengages the latch (12). The density indicators drop down to 0 density to confirm the tailgate is closed and latched.

The operator must hold and lock the tractor valve lever in the "lower" position:

- in the "lower" position in the case of a single-acting valve
- or the "float" position in case of a double-acting valve,

for the tailgate to close, for the latch to engage and for the tailgate cylinder to float.

The baler is now ready to start the next bale.

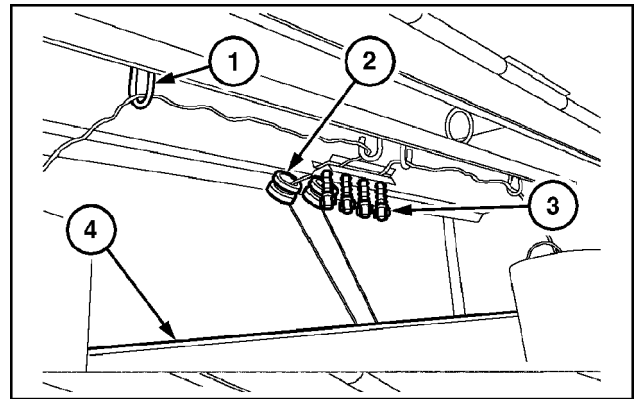
## Twine Wrapper [25663647]

### Twine wrapper mechanism components

The twine wrapper is mounted above the pickup, with the twine being pulled into the chamber by the crop. When the bale density indicators in front of the machine show the required bale density, the operator starts the twine wrapping cycle, manually or electrically (option).

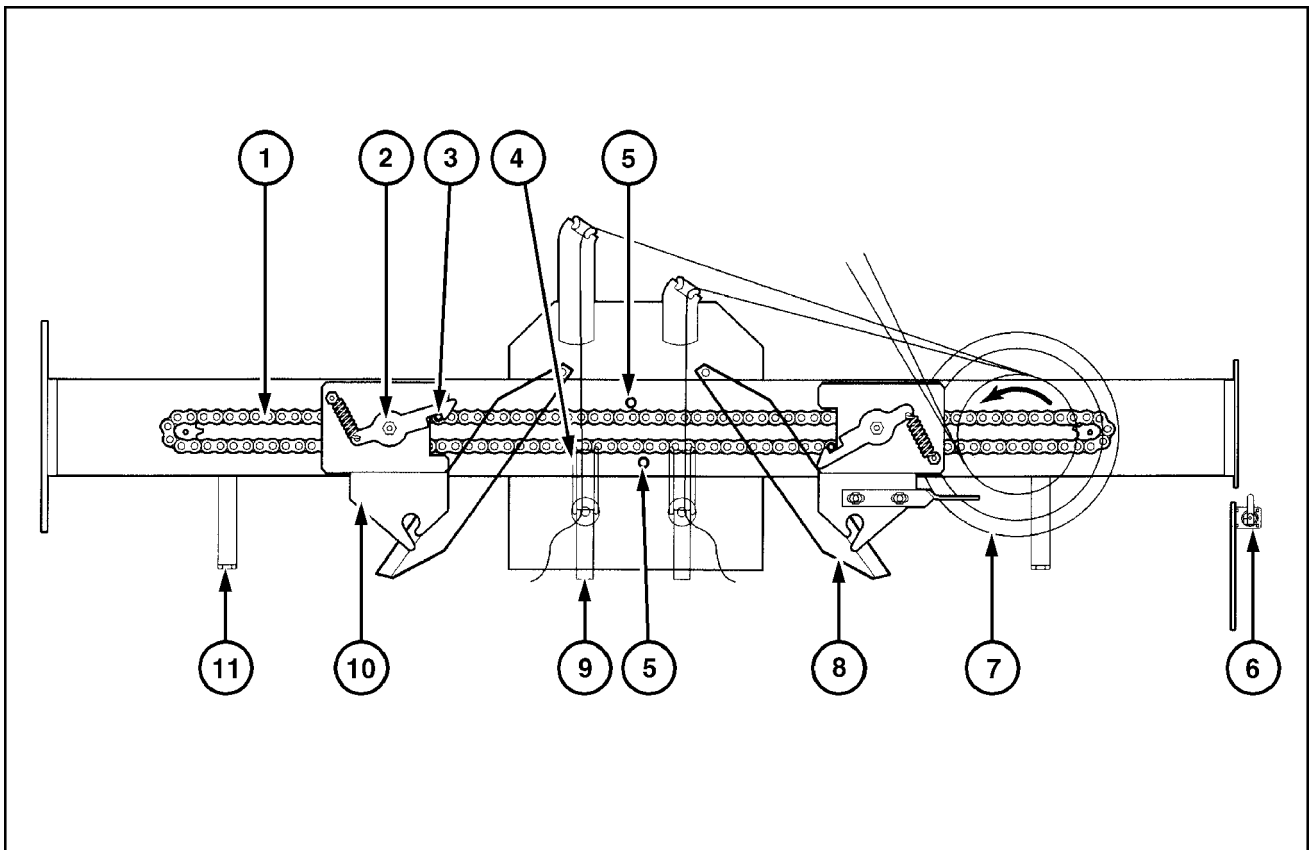
The twine wrapper mechanism consists of the following components in the twine box compartment

1. Metal twine guides
2. Porcelain twine guides
3. Twine tensioner
4. Twine box



ZIL10FCRB746AAA 1

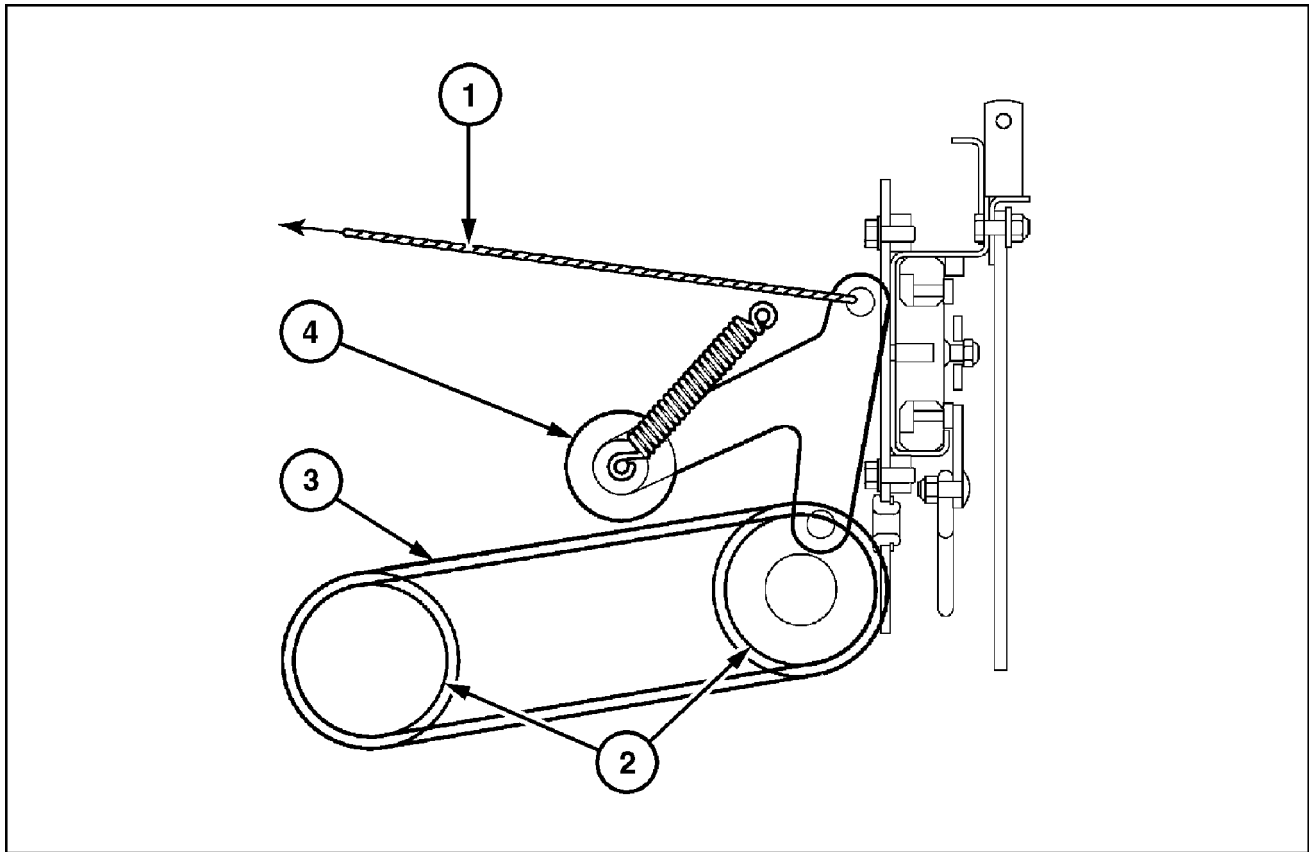
### Twine wrapper unit



ZIL10FCRB045FAA 2

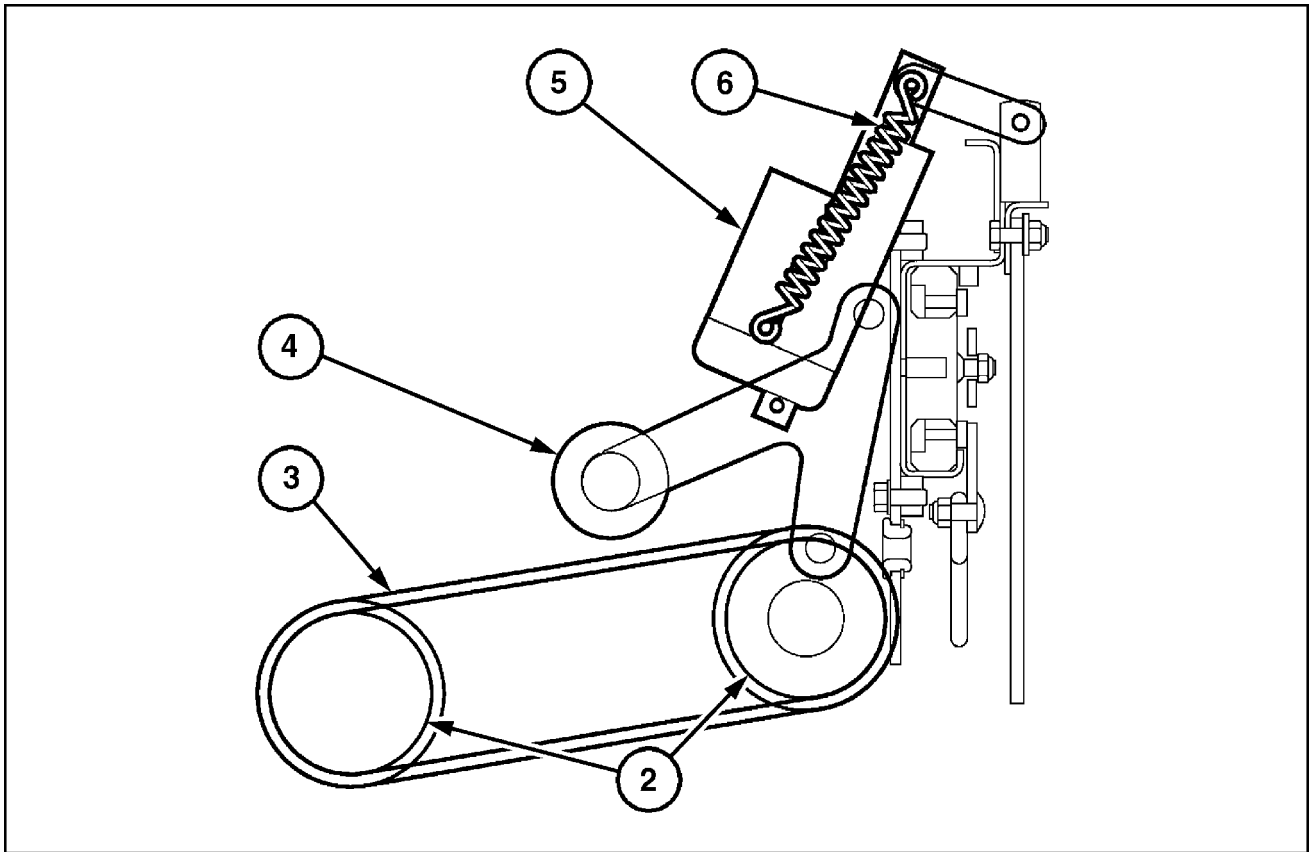
- |                         |                         |
|-------------------------|-------------------------|
| 1. Spreader drive chain | 7. Twine pattern pulley |
| 2. Pawl hook            | 8. Twine knives         |
| 3. Chain pawl           | 9. Feed Roll            |
| 4. Upper feeder roll    | 10. Twine spreader      |
| 5. Fixed pawl           | 11. Twine stop          |
| 6. Bale counter         |                         |

## Twine start mechanism



ZIL10FCRB052FAA 3

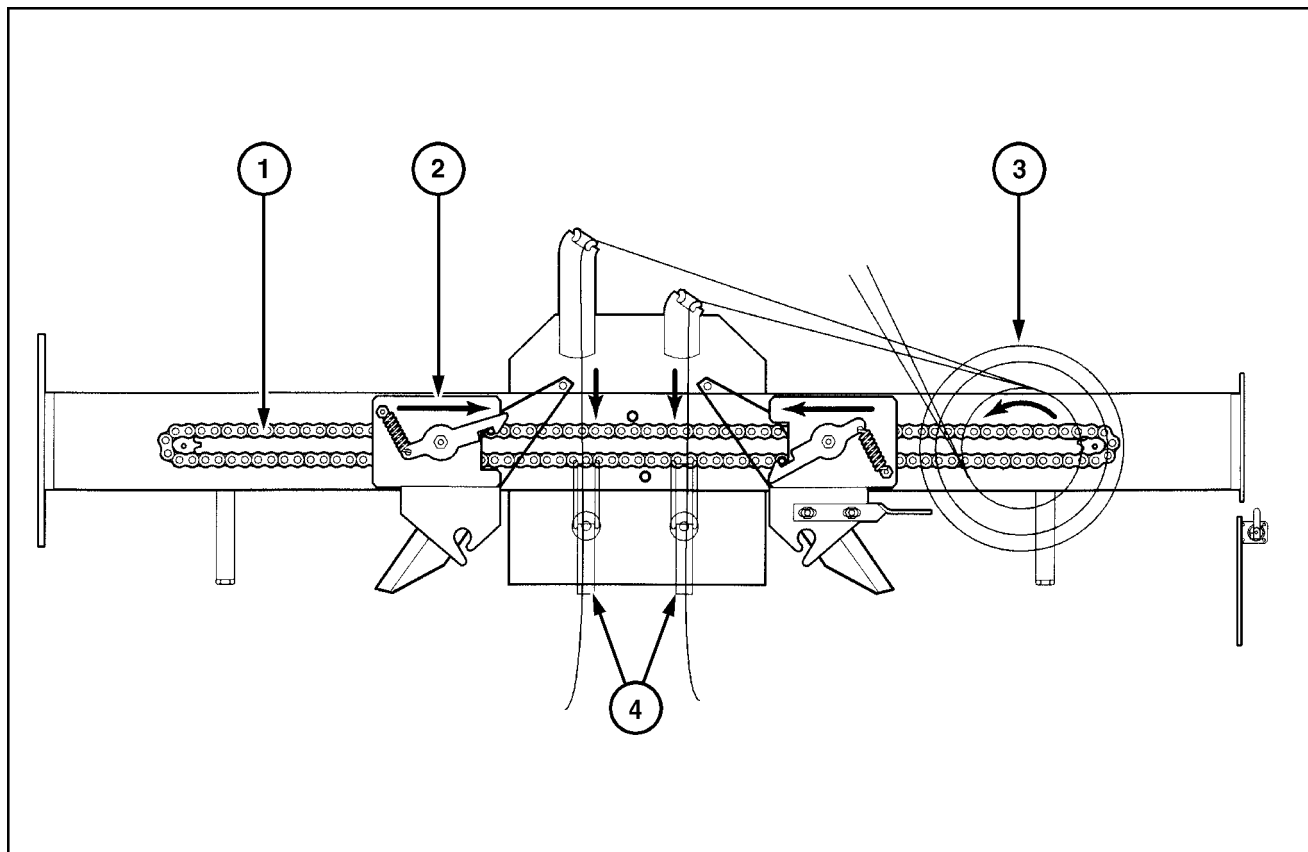
- |                                   |                            |
|-----------------------------------|----------------------------|
| 1. Twine starting cord (standard) | 4. Belt tensioner          |
| 2. Drive pulleys                  | 5. Twine actuator (option) |
| 3. Drive belt                     | 6. Actuator spring         |



ZIL10FCRB053FAA 4

- |                                   |                            |
|-----------------------------------|----------------------------|
| 1. Twine starting cord (standard) | 4. Belt tensioner          |
| 2. Drive pulleys                  | 5. Twine actuator (option) |
| 3. Drive belt                     | 6. Actuator spring         |

## How the twine wrapper functions



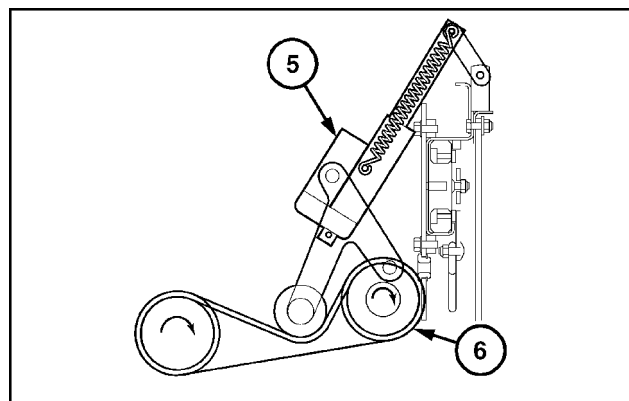
ZIL10FCRB046FAA 5

With reference to Figure 2 and Figure 3:

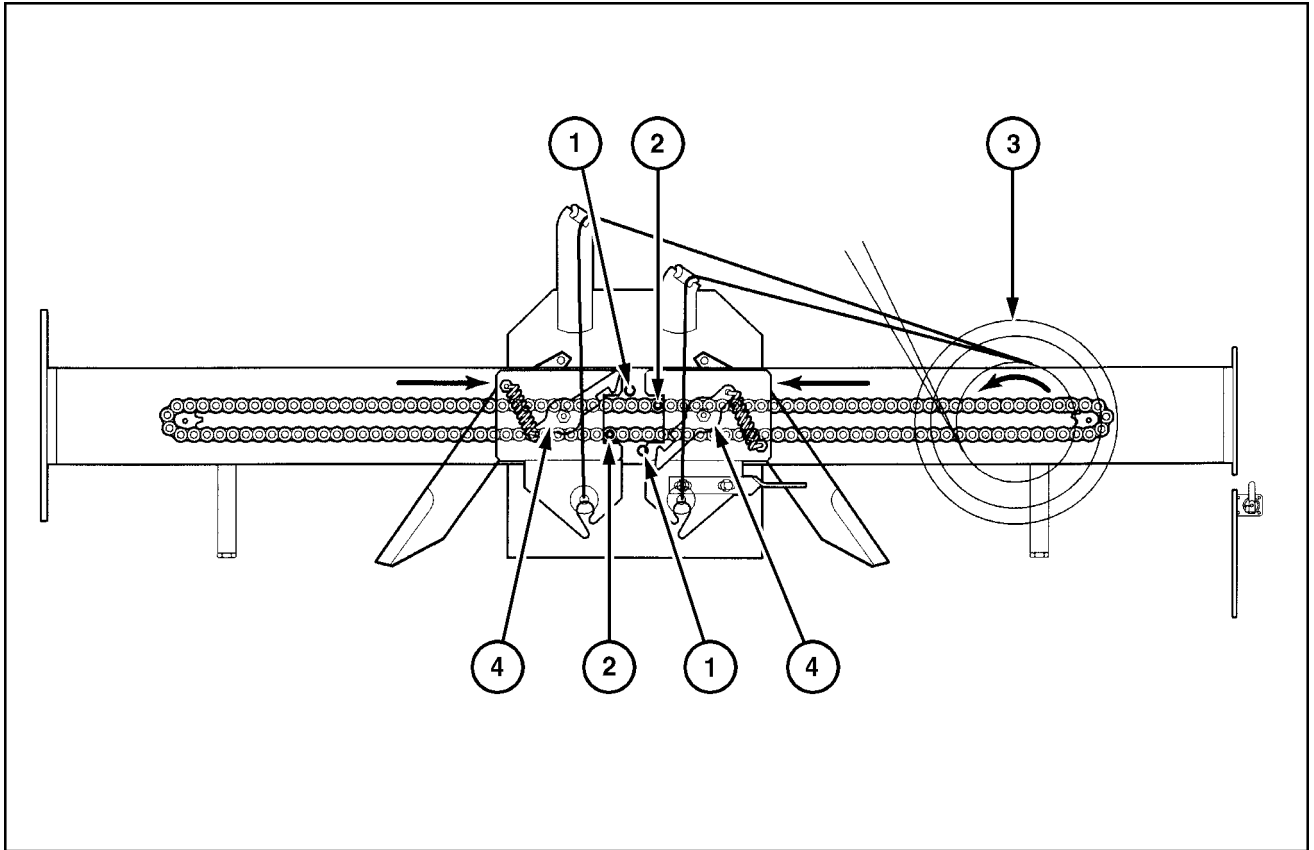
A bale is being formed in the bale chamber. The wrapper components are in the home position. When the bale reaches the desired density, the operator extends the electric actuator (5) or pulls the starting cord (1) in Figure 3 on 1-13, which will tension the drive belt (6) through the belt tensioner. As a result of this, the twine feed rolls (4) eject the twines in the pickup area.

Once the twine is picked up by the bale, the operator releases the twine start button on the electric control box, and the actuator will retract automatically. In the other case, the operator releases the twine starting cord to take tension off the drive belt.

Now the twine drives the feed rolls and the pattern pulley (3), which in turn will drive the spreader chain (1) and spreaders (2). The twines dwell in the middle of the bale to lay the starting wraps.



ZIL10FCRB725AAA 6

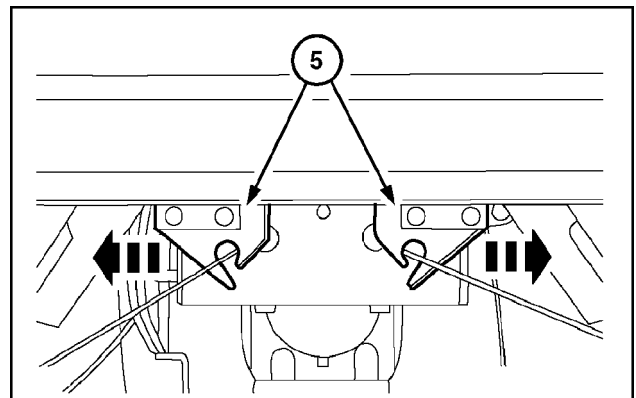


ZIL10FCRB047FAA 7

With reference to Figure 4 and Figure 8:

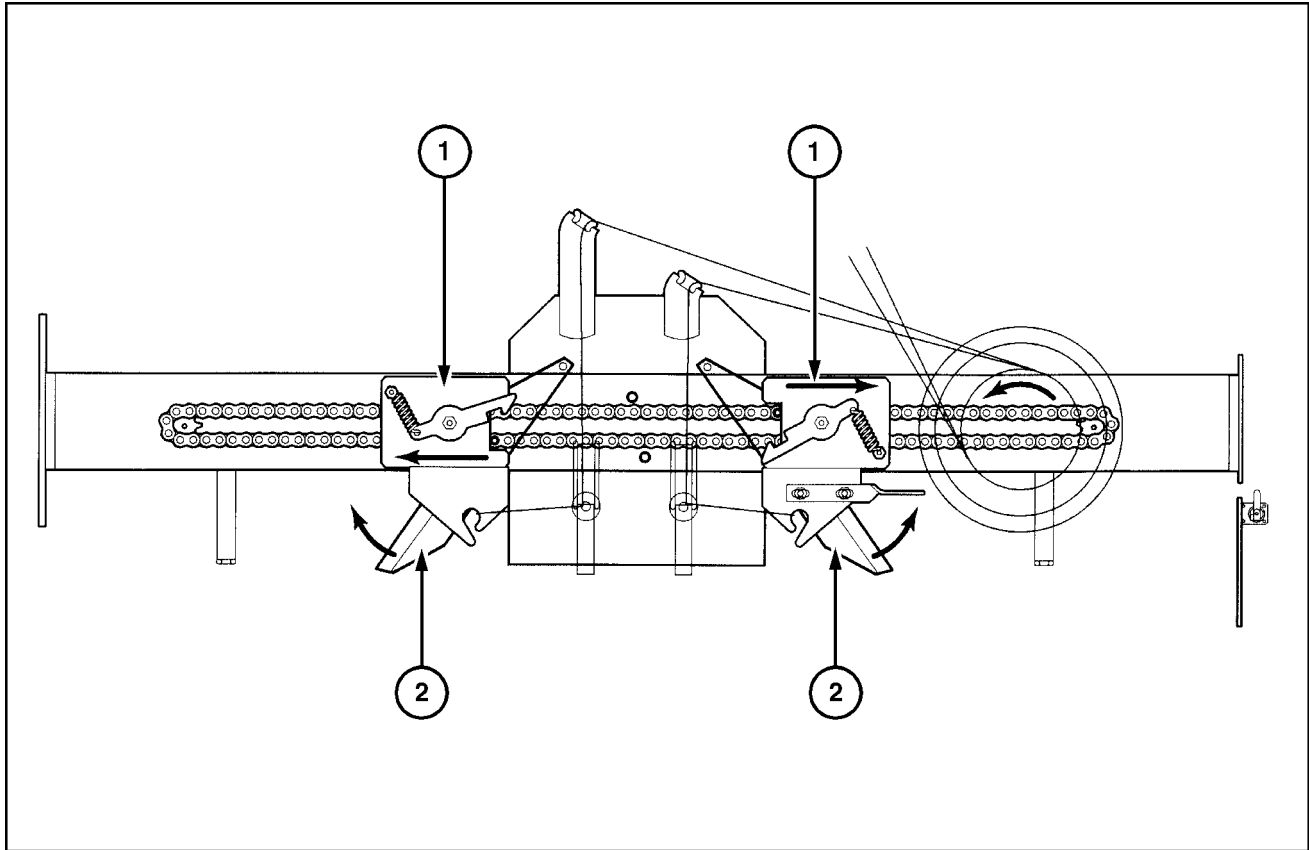
The twines drive the pattern pulley (3). Thereby, the spreaders (5), attached to the chain pawls (2) by means of the pawl hooks (4), will move to the middle to pick up the twine. At this point, the spreaders change direction. To obtain this, the fixed pawls (1) will disengage the spring-loaded pawl hooks from the chain pawls as they pass by.

The chain pawl that pulled and then released the left spreader hook, will now push the right spreader hook to move it to the outside. The chain pawl that pulled and then released the right twine spreader will push the left spreader to move it to the outside.



ZIL10FCRB747AAA 8

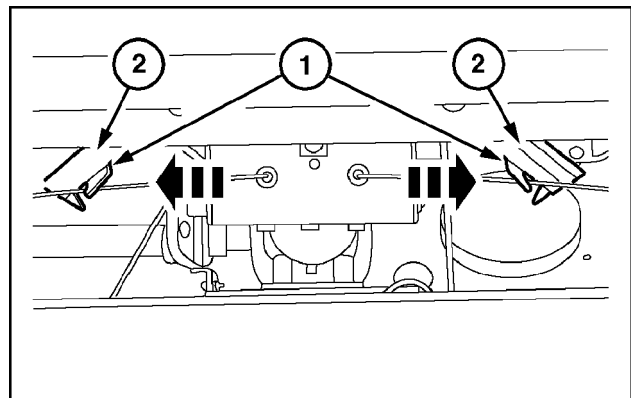
View from the inside of the bale chamber



ZIL10FCRB048FAA 9

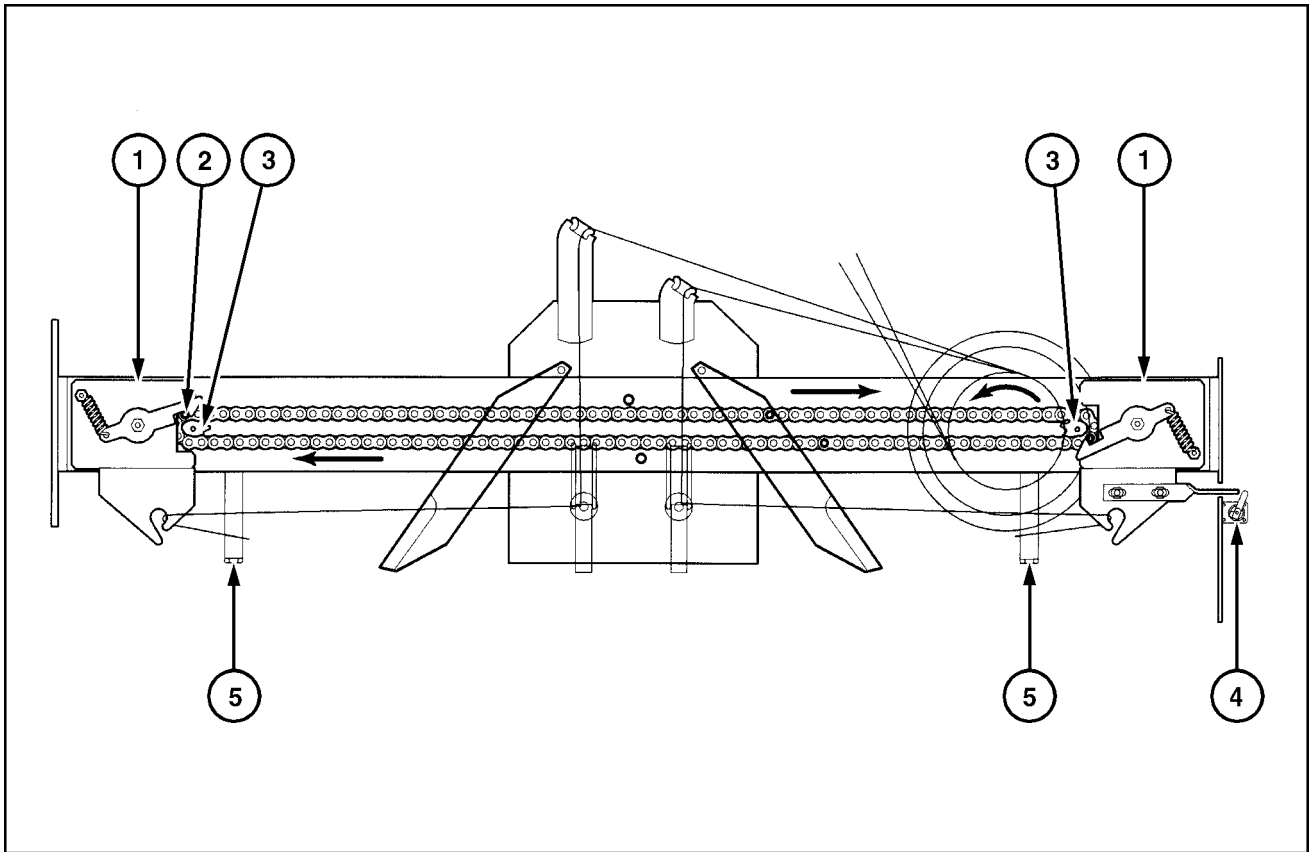
With reference to Figure 9 and Figure 10:

Once they have picked up the twine, the spreaders (1) move to the outside of the bale in a continuous way. The running twines will approach the knives (2) from the flat side. As the spreaders pass by, the knives will be lifted by the twine tension, without cutting the twines.



ZIL10FCRB748AAA 10

View from the inside of the bale chamber



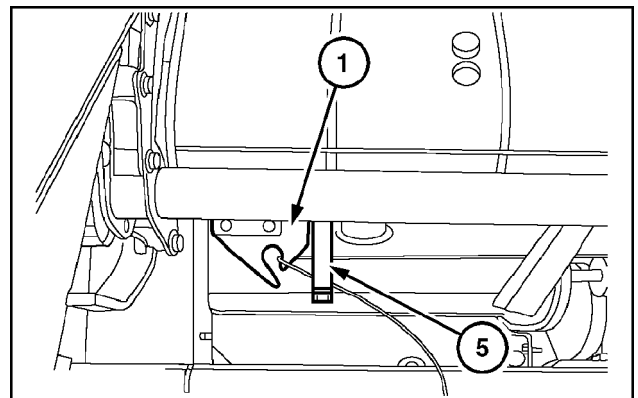
ZIL10FCRB049FAA 11

With reference to Figure 11 and Figure 12:

As the twine spreaders (1) reach the bale edges, the twines will be guided by the twine stops (5) to lay the end wraps on the bale.

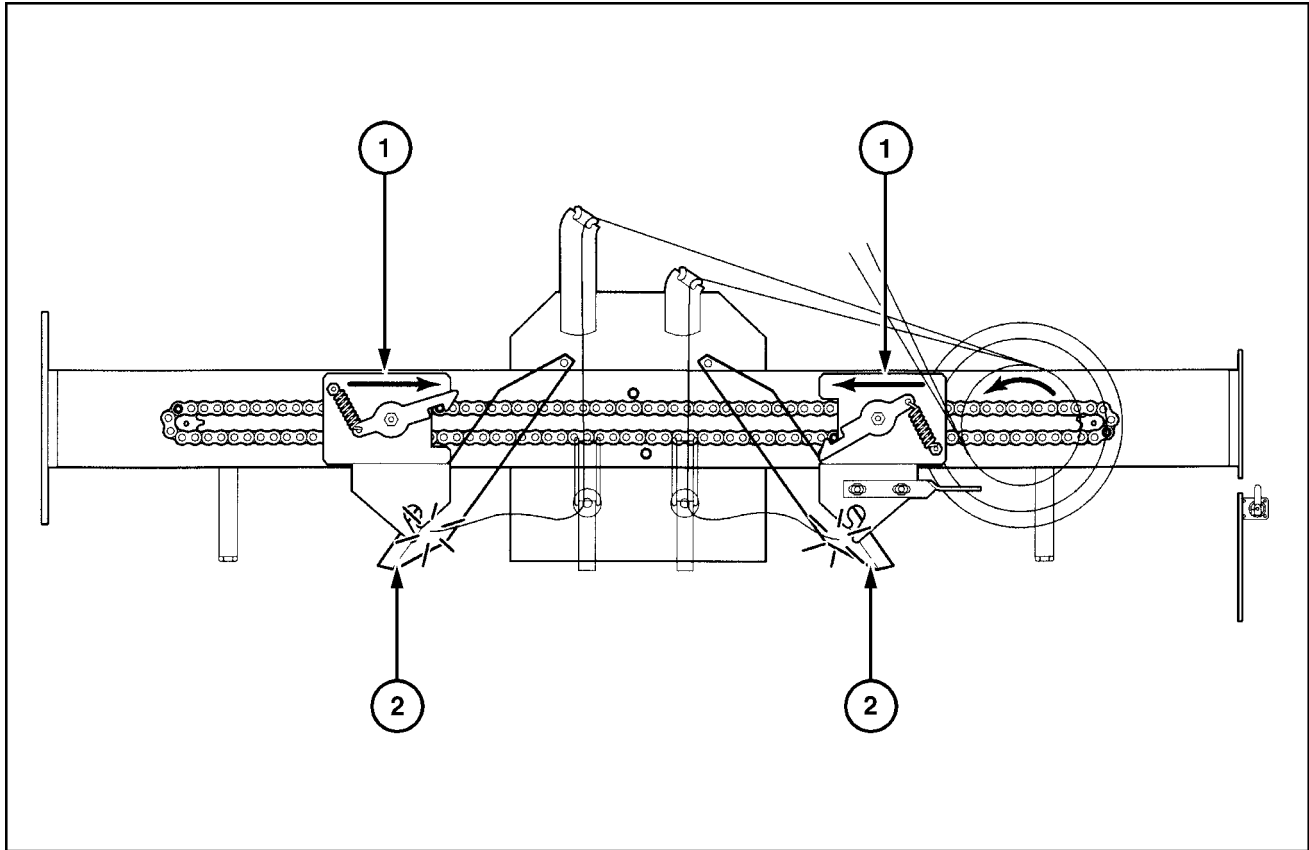
Here again, the spreaders change direction. As the chain pawls (2) pass over the sprockets (3), they change from pushing the spreaders to the outside, to pulling the spreaders by engaging in the pawl hooks. This will move the spreaders back to the middle.

Meanwhile, the right spreader will activate the mechanical bale counter (4) to increase the bale count by one.



ZIL10FCRB749AAA 12

View from the inside of the bale chamber



ZIL10FCRB050FAA 13

With reference to Figure 13:

As the spreaders **(1)** move back to the middle, the running twines will approach the knives **(2)** from the sharp side. This will cut the twines as the spreaders pass in front of the knives.

As the twines have been cut, the spreaders will stop moving. Now all wrapper components are in the home position again, ready to start the next wrapping cycle.

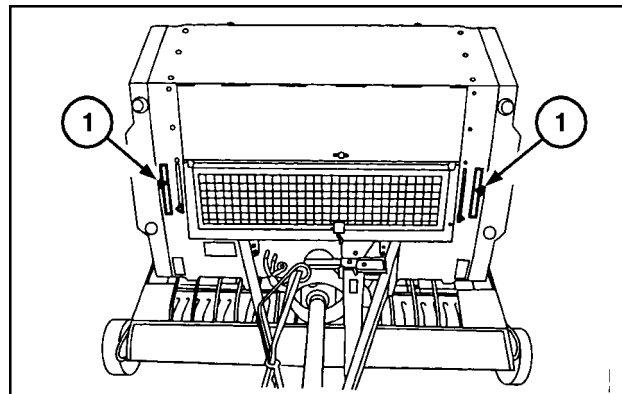
The bale inside the bale chamber is ready to be ejected.

## Bale density system [25767091]

### Bale density indicators

The mechanical bale density indicators **(1)** on the front left and right of the machine serve several functions.

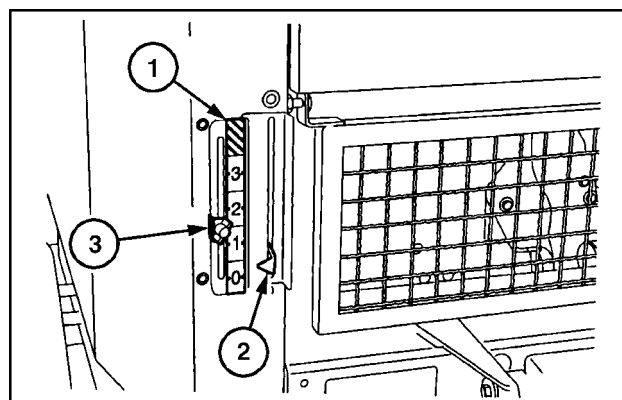
- Tailgate open/closed, latched/unlatched.
- Bale shape and density indication.
- Full bale density indication.



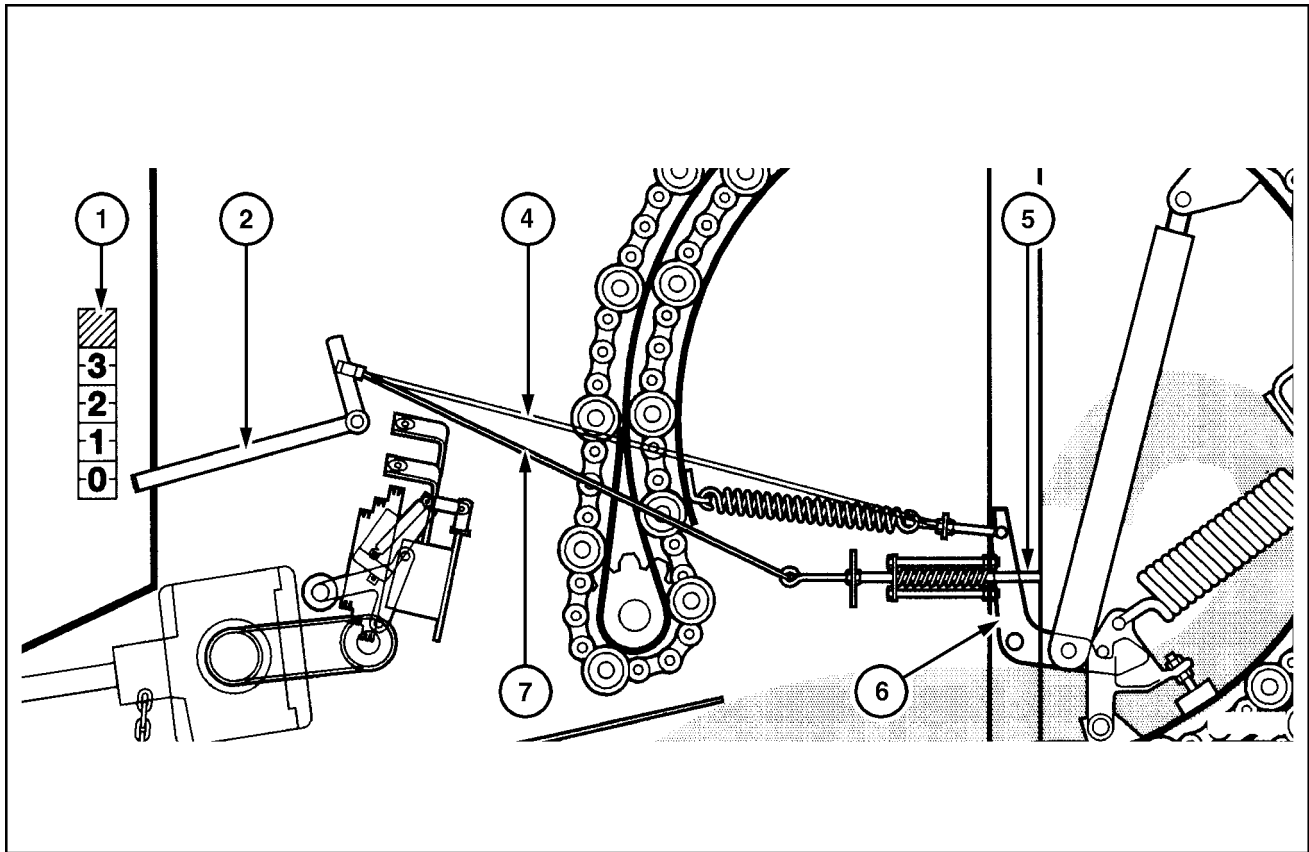
ZIL10FCRB758AAA 1

The bale density indicator system with reference to **2** and **3** consists of the following components:

1. Density scale
2. Indicator
3. Full density pointer
4. Tailgate latch cable
5. Density feeler rod
6. Tailgate latch
7. Density cable

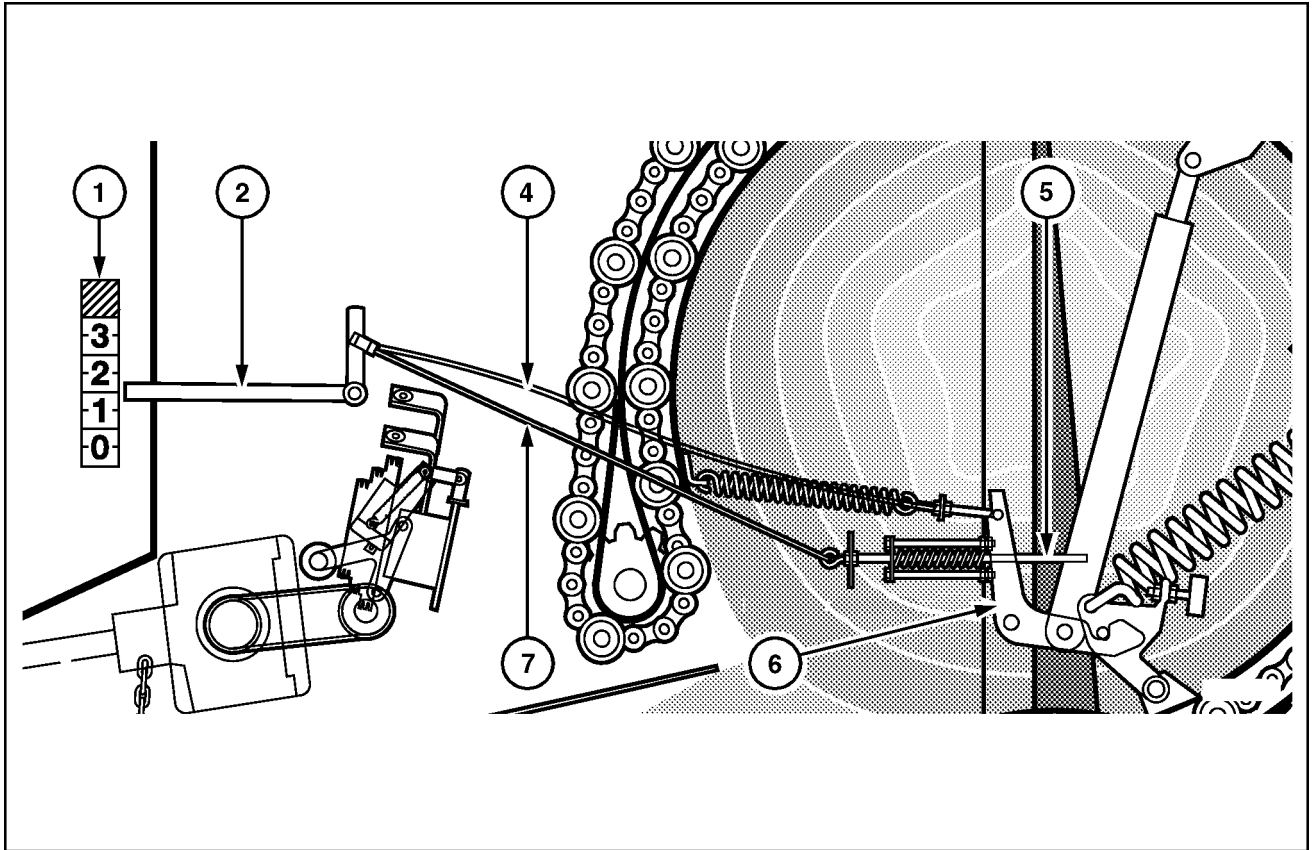


ZIL10FCRB759AAA 2



ZIL10FCRB054FAA 3

As long as the tailgate is closed and latched, the density indicators (2) will point at zero density on the density scale (1).



ZIL10FCRB055FAA 4

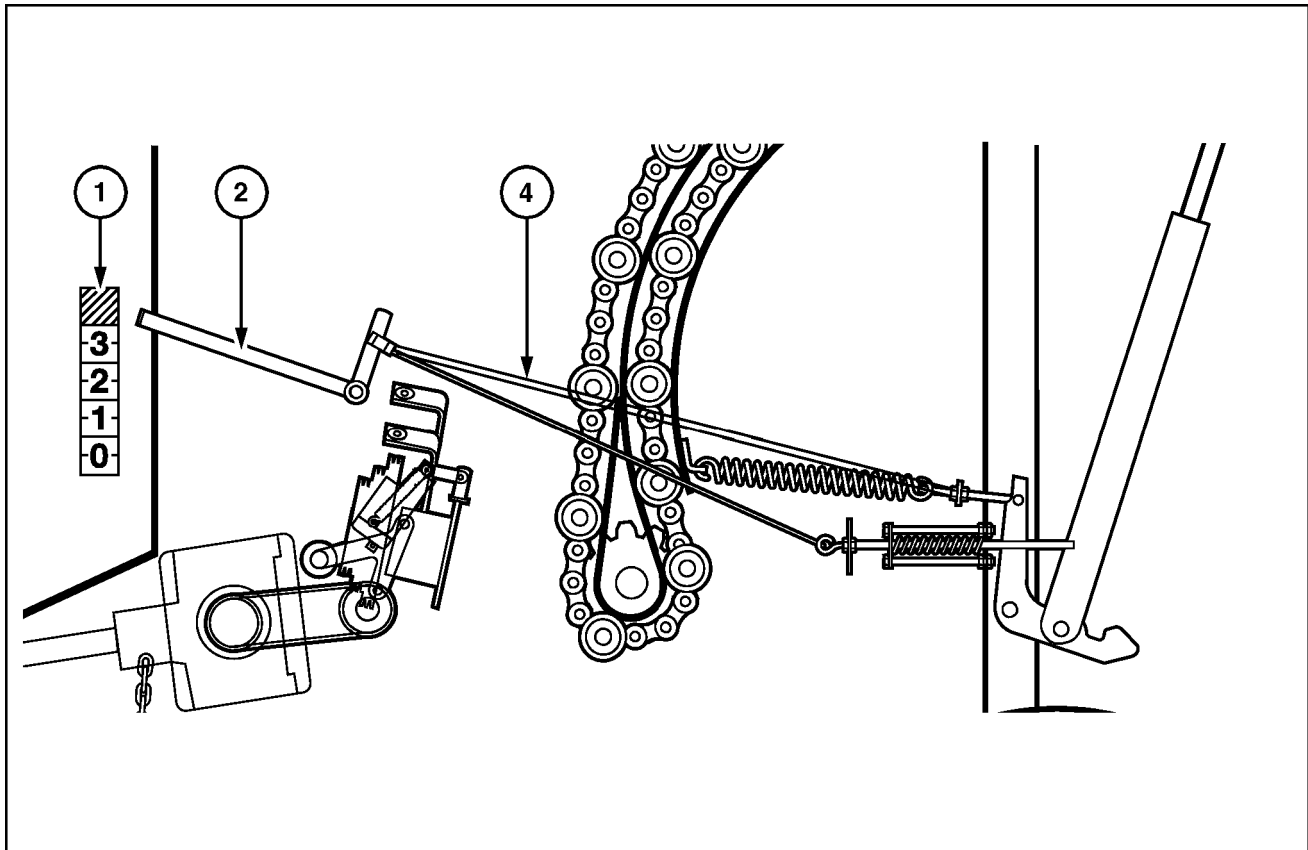
With reference to Figure 4, once the bale chamber is filled up and the tailgate starts opening under the bale pressure, the spring-loaded density feeler rod (5) will move and stay in contact with the opening tailgate. This will pull the density cable (7) and lift the indicator (2) gradually.

Now the operator should drive left/right over the windrow to keep the left and right density indicators balanced and produce an evenly shaped bale.

During bale formation, and with the tailgate latches (6) still engaged, the tailgate latch cable (4) will slacken a little as bale density increases.

When the density indicators reach the desired density, which can be set with the density pointers (Figure 2) the operator has to start the wrapping cycle.

**NOTE:** The bale density pointers only serve as a visual reference to full bale density. They are not connected to any alarm and/or flashing light. On machines equipped with the electric control box (optional), the operator will hear an audible alarm when full bale density is reached. For more details, refer to the following paragraph.



ZIL10FCRB056FAA 5

With reference to Figure 5, whenever the tailgate is opened or unlatched, the tailgate latch cable (4) will pull the density indicators (2) fully up in the screened area of the density scale (1).

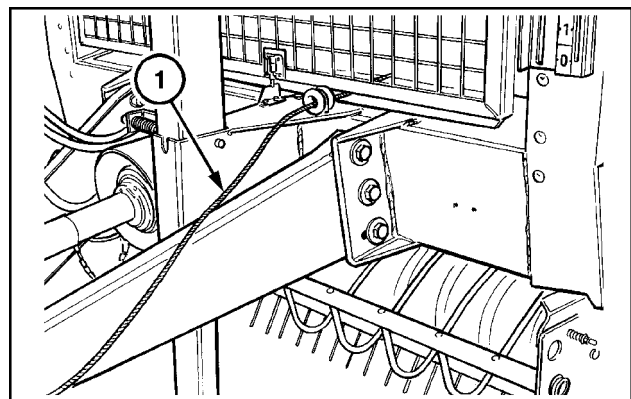
When the tailgate is closed and latched again (tailgate latches pulled up completely), the density indicators fall back to zero density.

## Twine wrapper controls

### Manual starting cord

The wrapping cycle is manually initiated using the starting cord (1). When the bale reaches full density, the operator pulls and holds the starting cord to tension the drive belt of the twine feed rolls.

For more details, refer to twine wrap mechanism.



ZIL10FCRB829AAA 6

## Tractor Requirements [25762580]

### Tractor Horse power requirements

The baler requires a tractor with an output, available at the PTO to drive the baler:

Select a tractor with additional power for tractive effort in accordance with terrain conditions (i.e. **10 kW (13.6 Hp)** on flat land or more as required on sloping land).

|              | Minimum                | Recommended            |
|--------------|------------------------|------------------------|
| Model BR6080 | <b>37 kW (50.3 Hp)</b> | <b>52 kW (70.7 Hp)</b> |

### Tractor wheel setting

As the tractor has to straddle the windrow, ensure the tractor selected has adequate clearance under the frame to avoid bunching of the material. If required, attach a canvas under the tractor body, rear axle and hitch to deflect the crop down.

Adjust the tractor wheels for **140 - 160 cm (55.1 - 63.0 in)** clearance between the rear tires, if possible.

## Power take off (PTO) [25765238]

The PTO control on the tractor is used to start and stop the baler. Less shock is transmitted to the driveline if the tractor engine is set at a low to medium idle speed before engagement. After the unit is running, adjust the tractor throttle to deliver a full **540 RPM** to the PTO

**NOTICE:** *Never allow the PTO speed to exceed 540 RPM or machine damage and short life may result.*

## Tailgate hydraulic control

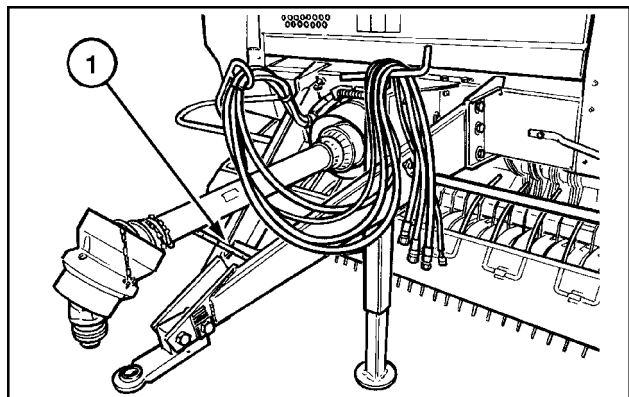
The tractor hydraulic control is used to open and close the tailgate on the baler. Refer to "Hydraulic outlets" for more details on how to operate the tractor hydraulics to open and close the tailgate.

## PTO support

When detaching the baler from the tractor, rest the PTO onto the PTO support (1).

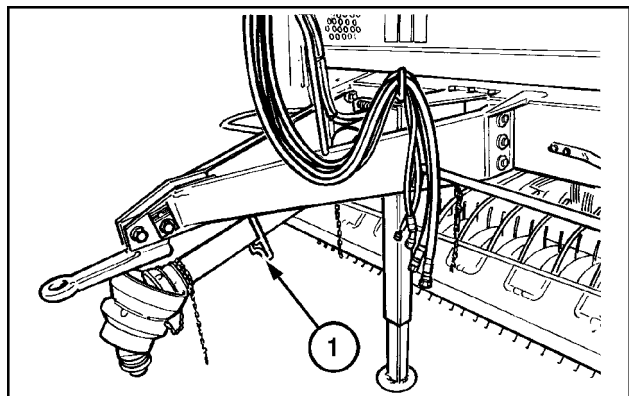
When the baler hitch is fitted in the high position, the PTO hangs in the support (1).

When attaching the baler to the tractor, swing the support rearward to a horizontal position.



ZIL10FCRB093AAA 1

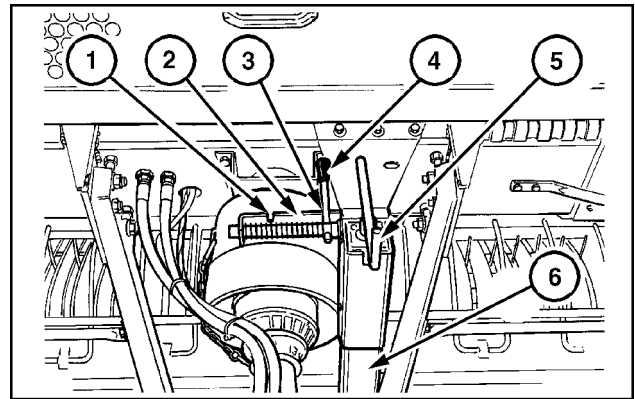
**NOTICE:** *To transport the baler, the PTO must be coupled to the tractor, and the PTO support swung to its horizontal position. Do not transport the baler with the PTO resting on the support.*



ZIL10FCRB063AAA 2

## Jack stand [25765689]

Winding the jack crank (5) will raise or lower the baler tongue to attach/detach the baler from the tractor. The complete jack stand (6) can be moved down to the storage position, and moved up to the transport position. Grab the jack at the crank (5) and/or the grab handle (7) Refer Figure, 3.



ZIL10FCRB110AAA 1

The spring-loaded jack stand latch (4) has three positions to be used:

- Latch (4) engaged in notch (3) secures the jack stand in either storage or transport position. Make sure the latch is securely engaged in notch (3) at all times in either the transport or storage position of the jack. In the transport position, wind the crank (5) to lift the jack fully up.
- Latch (4) disengaged and riding along the edge (2) allows the jack stand to be moved up or down. It snaps engaged automatically when the desired position is reached.
- Notch (1) allows the latch (4) to be mechanically locked out temporarily during the manipulation process, or permanently should special situations require so.

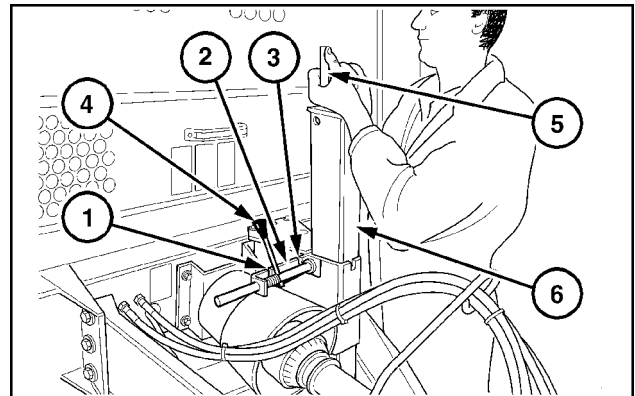
### ⚠ WARNING

#### Crushing hazard!

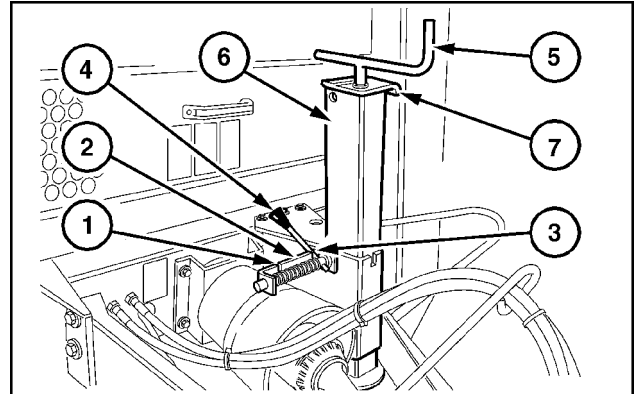
Equipment could fall if not properly supported. Position suitable jack stands under the feeder housing and secure in place before servicing.

Failure to comply could result in death or serious injury.

W0008B



ZIL10FCRB144AAA 2



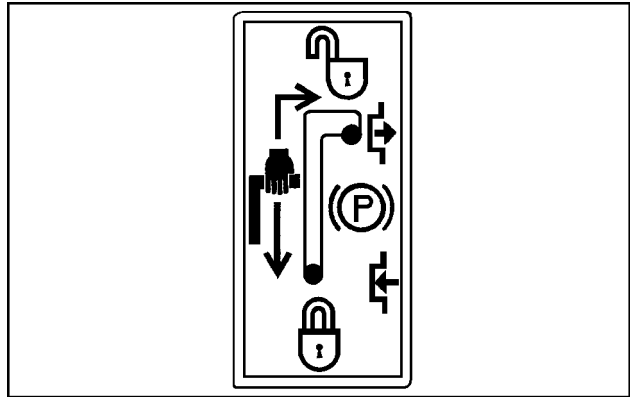
ZIL10FCRB103AAA 3

**ATTENTION:** Be cautious when operating the jack stand. There is risk of injury by pinching or shearing points. Grab the jack crank with both hands as illustrated to lift and lower the jack stand.

## Parking Brake [25765751]

For some countries a wheel lock may be fitted to these machines, and must be engaged when the machine is parked.

An instruction decal is provided on the left hand side of the machine above the wheel.

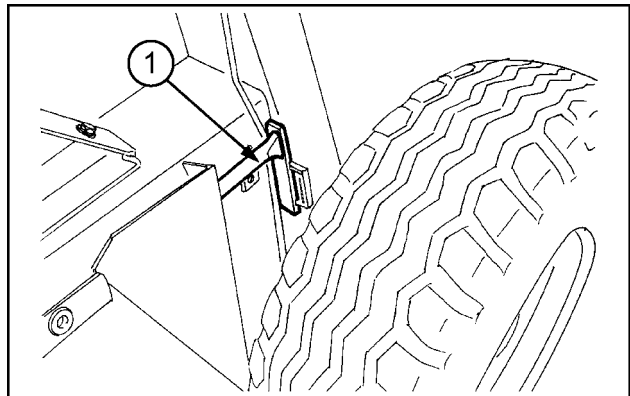


ZIL10FCRB161AAA 1

The lever **(1)** operates a wheel lock pin which engages in the wheel hub, preventing the wheel from rotating.

**NOTE:** The wheel lock pin is disengaged when the lever is in the position shown opposite, when towing the baler behind the tractor.

When the tractor is parked engage the wheel lock by moving the lever **(1)** out and downwards.



ZIL10FCRB724AAA 2

## 2 - SAFETY INFORMATION

### Safety rules [25658997]

Farm accidents can be prevented with your help, no accident prevention programme can be successful without the wholehearted cooperation of the person who is directly responsible for the operation of the equipment.

To read of accident reports from all over the world is to be convinced that a large number of accidents can be prevented only by the operator anticipating the result before the accident is caused and doing something about it.

It is said that "The best kind of safety device is a careful operator who with care and mature consideration can save more lives and limbs than any accident prevention programme which is not adhered to".

### Safety statements

Throughout this manual and on machine decals, you will find precautionary statements ("CAUTION", "WARNING", AND "DANGER") followed by specific instructions. These precautions are intended for the personal safety of you and those working with you. Please take the time to read them.

**CAUTION:** The word "CAUTION" is used where a safe behavioral practice according to operating and maintenance instructions and common safety practices will protect the operator and others from accident involvement.

**WARNING:** The word "WARNING" denotes a potential or hidden hazard which could possibly cause serious injury. It is used to warn operators and others to exercise due care and attention to avoid a surprise accident with machinery.

**DANGER:** The word "DANGER" denotes a forbidden practice in connection with a serious hazard which could result in death.

FAILURE TO FOLLOW THE "CAUTION", "WARNING", AND "DANGER" INSTRUCTIONS MAY RESULT IN SERIOUS BODILY INJURY OR DEATH.

### Safety reminders

#### **DANGER**

**Unexpected movement!**

**Make sure parking brake is applied. Secure machine with wheel chocks.**

**Failure to comply will result in death or serious injury.**

D0013A

#### **DANGER**

**Entanglement hazard!**

**Make sure the Power Take-Off (PTO) safety chain is properly hooked in position before operating the machine.**

**Failure to comply will result in death or serious injury.**

D0040A

#### **DANGER**

**Crushing hazard!**

**Make sure the area surrounding the tailgate is clear of all persons and domestic animals before opening or closing the tailgate.**

**Failure to comply will result in death or serious injury.**

D0034A

#### **DANGER**

**Crush hazard! The tailgate may close faster than you can move away.**

**ALWAYS make sure the tailgate lockout valves are in the OFF (locked) position before working under a raised tailgate. In the event of a sudden loss of hydraulic pressure, the tailgate will fall if the lockout valves are not engaged. Stand clear of the tailgate before disengaging the lockout valves.**

**Failure to comply will result in death or serious injury.**

D0002A

**⚠ WARNING**

**Entanglement hazard!**

Disengage the Power Take-Off (PTO), turn off the engine, and remove the key. Wait for all movement to stop before leaving the operator's position. Never adjust, lubricate, clean, or unplug machine with the engine running.

Failure to comply could result in death or serious injury.

W0227A

**⚠ WARNING**

**Moving parts!**

Make sure all entry and mechanical access doors are properly closed before operating the machine.

Failure to comply could result in death or serious injury.

W0238A

**⚠ WARNING**

**Burn hazard!**

Stop baling immediately if you notice a scorched odor, an unusual sound, or the sight of smoke or flames. Do not attempt to extinguish a fire that is too far advanced.

Failure to comply could result in death or serious injury.

W0186A

**⚠ WARNING**

**Fire hazard! Crop materials are flammable and present a high risk of fire.**

Frequently remove accumulated crop or wrapping material from the machine. Inspect the machine for oil leaks and overheated bearings or other moving parts. Immediately service the machine when required; DO NOT continue to use machine until service is complete.

Failure to comply could result in death or serious injury.

W0392A

**⚠ WARNING**

**Personal Protective Equipment (PPE) required.**

When assembling, operating, or servicing the machine, wear protective clothing and PPE necessary for the particular procedure. Some PPE that may be necessary includes protective shoes, eye and/or face protection, hard hat, heavy gloves, filter mask, and hearing protection.

Failure to comply could result in death or serious injury.

W0353A

**⚠ WARNING**

**Pressurized fluid can penetrate the skin and cause severe injuries.**

Keep hands and body away from any pressurized leak. DO NOT use your hand to check for leaks. Use a piece of cardboard or paper. If fluid penetrates the skin, seek medical attention immediately.

Failure to comply could result in death or serious injury.

W0158A

**⚠ WARNING**

**Crushing hazard!**

Use caution when backing the towing unit up to the hitch. Have all persons in clear view before you start to back up. Always take the towing unit out of gear and set the parking brake before anyone goes behind the towing unit to check the hitch alignment.

Failure to comply could result in death or serious injury.

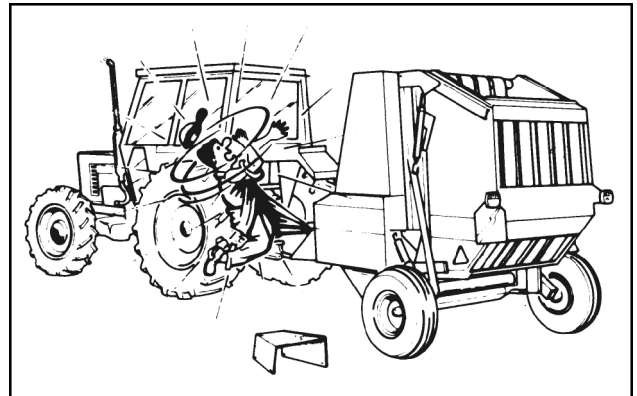
W0961A

## Machine safety

Additional precautionary statements (ATTENTION, NOTE, and NOTICE) are followed by specific instructions. These statements are also intended for your safety and avoidance of machine damage.

## General recommendations

- Your round baler was designed with safety very much in mind. However, there is no real substitute for caution and attention in preventing accidents. Once an accident has happened it is too late to think about what you should have done!
- Remember that the machine has been designed exclusively for agricultural use. Any other application must first be authorised by the manufacturer.
- Read this manual thoroughly before starting off, operating, servicing or carrying out any other operation on the machine. A few minutes reading will save you time and hassle later.
- Read all the safety decals adhered to the machine and follow the instructions. Immediately replace any decals that are missing or damaged. Place orders for these with your local dealer.
- The machine should only be operated, maintained and repaired by responsible persons instructed on how to operate the machine and authorised to do so.
- Always keep a first aid kit handy.
- Do not work around the machine wearing loose garments that could get caught in any of the moving parts.
- Keep persons clear of the area between tractor and implement if the baler is not secured against unintentional movement.
- Use wheel chocks to immobilize the implement when parking. They are delivered with the baler.
- Check that all rotating parts connected to the PTO shaft are properly guarded.

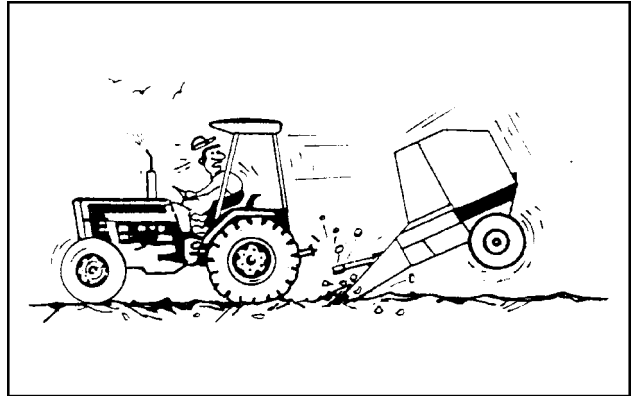


ZIL10FCRB732AAA 1

- Avoid using the machine in unsuitable crop and weather conditions. It is better to stop work temporarily rather than operating in such conditions.
- Check that all guards and covers provided are properly fitted and secured.
- It is highly recommended to equip the machine with a fire extinguisher that should be located in an accessible location. Remember that a fire extinguisher must be checked regularly and refilled or replaced when necessary.

## Preparing for operation

- Before attaching the machine to the tractor, ensure that the tractor is in good working order and that the brakes are efficient, particularly if operating on hilly ground. Also, ensure that the hydraulic system is compatible with that of the baler.
- Ensure that the PTO lock pin is properly engaged in the tractor power takeoff shaft. An incorrectly locked PTO shaft could work loose and cause accidents or damage to the machine.
- Make sure that the tractor drawbar hitch pin is not worn and that it is securely locked to prevent the pin from bouncing out.

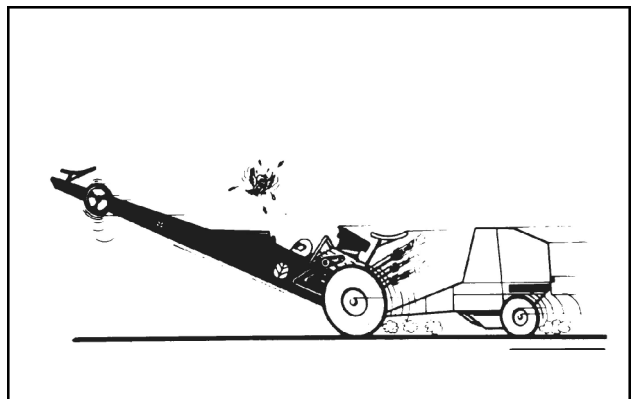


ZIL10FCRB742AAA 2

- Check that the electrical system is working correctly, as well as the direction indicator lights.

## Travelling on public roads

- Before transporting the baler on public roads, raise and mechanically secure the pickup in the highest position, per instructions in this manual.
- Ensure that tires are in good condition and properly inflated.
- Keep the towing speed down to **30 km/h** (unless local speed regulations restrict to a lower speed).



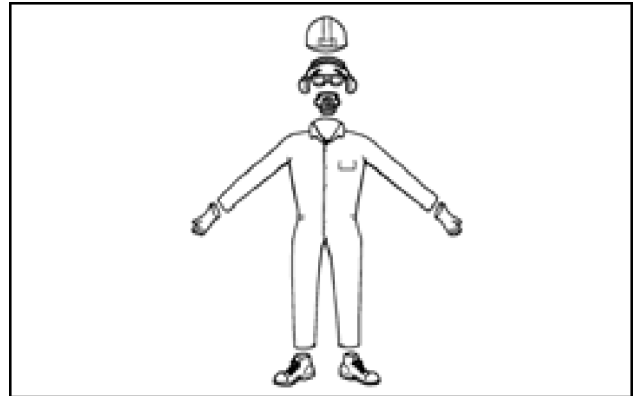
ZIL10FCRB735AAA 3

- Use flashing beacons and/or reflector signs on the machine and/or the tractor when travelling on public roads to indicate the vehicle is slow-moving and thus prevent accidents. Check local regulations.
- Ensure the machine is equipped with all obligatory lighting before driving on public roads and they are functioning correctly.
- When manoeuvring the baler, always be conscious of its size.
- Avoid taking corners at high speed.
- Never travel at speed in crowded areas.
- Always observe road regulations.
- Do not carry a bale nor crop in the bale chamber when travelling on the road.
- Do not tow the machine with the tailgate open.

### Operating the baler

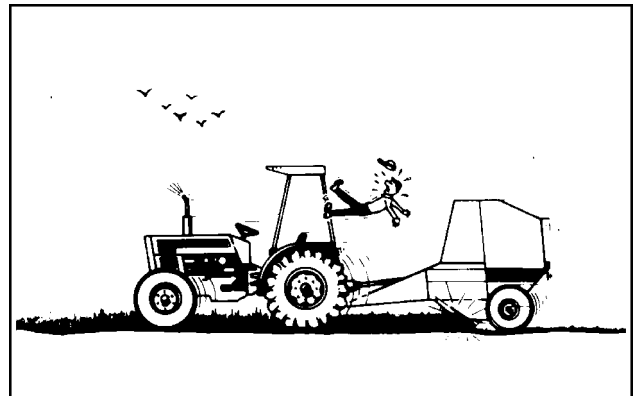
**WARNING:** Before any person/s operate the baler ensure they have the ability to operate machinery, and have been specifically trained to operate the baler.

**NOTICE:** Wear suitable personal protective equipment (PPE) and clothing to suit the conditions, and regulations in your country. This equates but not limited to protection of eyes, lungs, ears, head, hands and feet when operating, servicing or repairing the equipment. Always keep hands, feet, hair and clothing away from moving parts. Do not wear loose clothing, jewelry or other items that could entangle with levers and/or linkages.



ZIL10FCRB843AAA 4

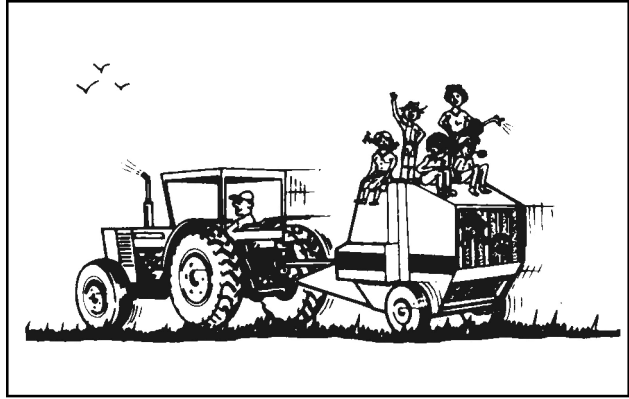
- Before operating the machine ensure that all safety guards are installed. Ensure all PTO. guards are correctly installed and are restrained with all chains provided.
- Do not attempt to operate or manoeuvre the baler, unless sitting in the tractor seat.



ZIL10FCRB733AAA 5

## 2 - SAFETY INFORMATION

- Never allow anyone to ride on the machine or the tractor.

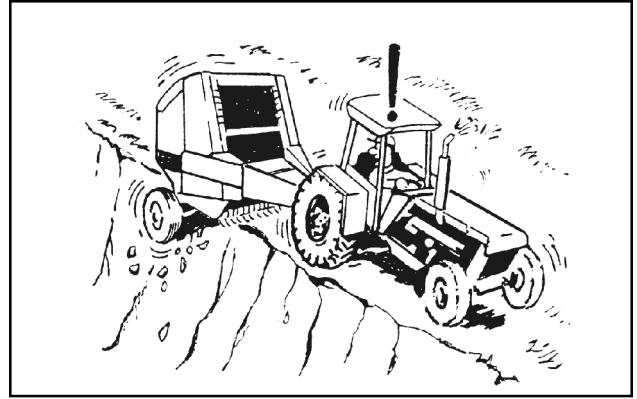


ZIL10FCRB734AAA 6

- Always stop the tractor engine and wait until the machine has stopped completely before attempting to clean, lubricate or carry out adjustments. To prevent accidental starting of the machine, disengage the PTO, drive, remove the tractor ignition key and apply the handbrake before getting off the tractor. Turn the power off on control instruments in the tractor affecting the baler operation.
- Do not enter the area between the tractor wheels and the machine when the tractor engine is running.
- Never attempt to clear crop or other foreign matter from the pickup or other parts of the machine whilst the machine is running. Such an imprudence could cost you your life or limb. In the event of a blockage, always disengage the PTO, switch off the tractor engine and apply the handbrake first.  
Typical hazard areas are the driveline, the pickup, the bale chamber bar and chain conveyor, and the twine and roll wrapper mechanisms.
- When towing a loaded machine in the field or on farm roads, keep the towing speed down to **10 km/h**.
- Before transporting the machine, raise the pickup to the high position and support it mechanically per instructions in this manual.
- Do not make tight turns with the PTO, under a heavy load to avoid damaging the PTO, joints and transmission shaft.
- Avoid taking corners at high speed.
- Always operate the baler at safe speed in accordance with the type of ground. On uneven ground, proceed with the utmost caution to ensure proper stability.
- When operating on gradients do not drive too fast, especially when turning.

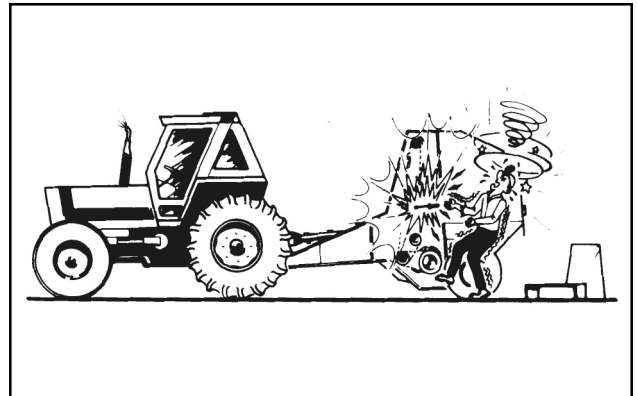
## 2 - SAFETY INFORMATION

- Use extreme caution when operating with the wheels close to the edge of a ditch or a steeply dropping embankment.



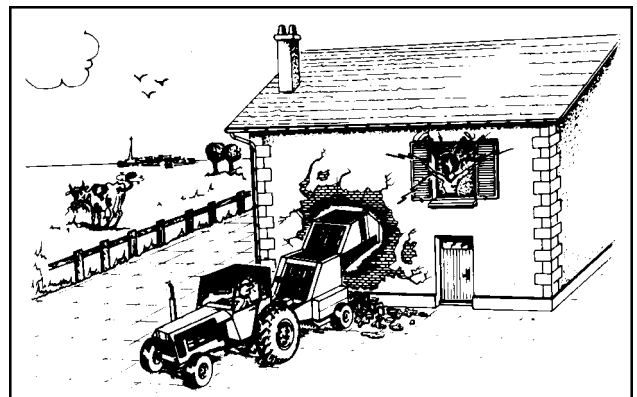
ZIL10FCRB743AAA 7

- Keep hands, feet and/or garments away from moving parts. Check that all transmission parts are correctly guarded.



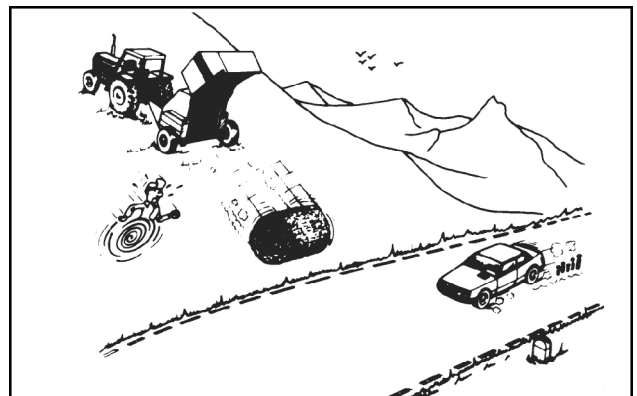
ZIL10FCRB737AAA 8

- Never travel at speed in crowded areas.
- Always remove the ignition key from the tractor when leaving it unattended.
- Always make sure that the area behind the machine is clear before opening the tailgate.



ZIL10FCRB736AAA 9

- Make sure that the baler is in good working condition and regularly maintained.
- Never unload or store bales where they could roll down a slope.
- If the bale starts rolling downhill, do not try to stop it.
- Never work with a tractor equipped with a front loader which is not fitted with safety grapple. Such a grapple is designed to prevent the bale from running down the loader lift arms and falling onto the operator. If using a front loader, always keep the load close to the ground to prevent tractor instability.

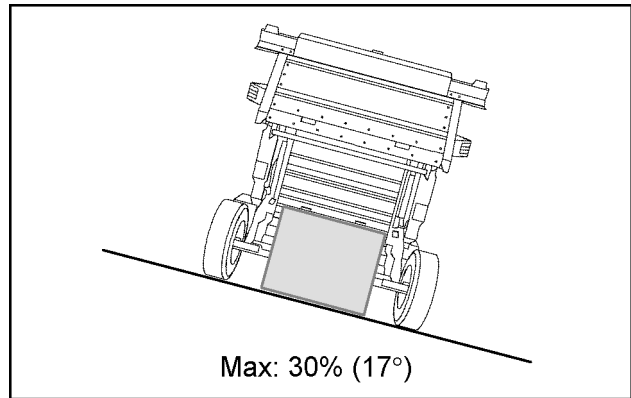


ZIL10FCRB738AAA 10

## Angle of operation

The baler must only be used by a skilled operator familiar with all the controls and harvesting techniques on cultivated land. The baler should not be operated on inclines exceeding **30 % 17 °**.

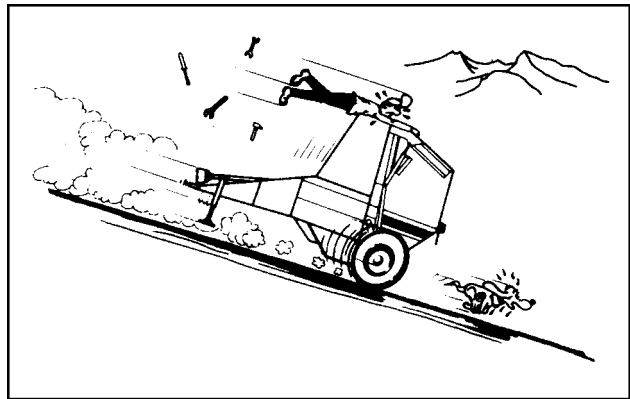
**WARNING:** Round bales are heavy and may roll on inclines, do not try to stop a rolling bale.



ZIL10FCRB837AAA 11

## Baler maintenance

- Follow the maintenance schedule with regard to the machine servicing intervals. Remember that the machine requires attention from time to time. Also remember that the time taken on maintenance will greatly extend the life of your machine.
- Replace stiff or worn bearings before they fail. Keep the conveyor bars straight at all times. Replace or straighten bent bars immediately.
- Always chock wheels when parking the baler and before working on or under the machine.



ZIL10FCRB740AAA 12

- When working on the hydraulic system, always ensure that the system is not under pressure before disconnecting pipes and/or hoses.
- Whenever working on the machine with the tailgate open, always engage the tailgate lock-out valve lever.
- Oil escaping under pressure could cause serious injury. When tracing oil leaks, always protect yourself from accidents by wearing shields, goggles and gloves.
- To protect the alternator and the battery of the tractor, always detach the baler from the tractor before carrying out any welding work on the machine or working on electrical components.

## Fire extinguisher

### **⚠ DANGER**

**Fire hazard!**

**Always have a fire extinguisher on or near the machine. Keep the fire extinguisher in good condition through routine maintenance and service according to the manufacturer's instructions.**

**Failure to comply will result in death or serious injury.**

D0006A

**ATTENTION:** Avoid a fire hazard by keeping the machine perfectly clean. Cleaning of chains and rollers must be performed at least once a day or after each period of use.

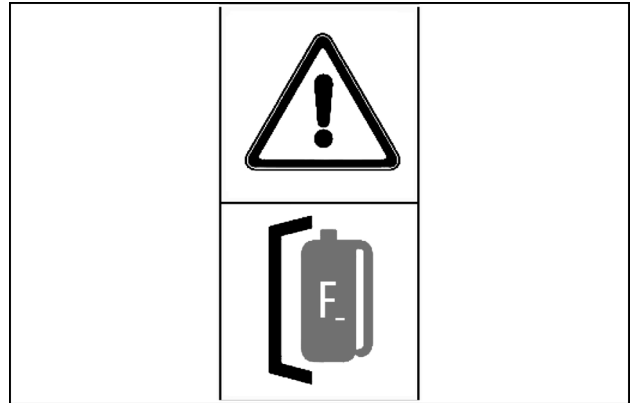
### **⚠ WARNING**

**Fire hazard! Crop materials are flammable and present a high risk of fire.**

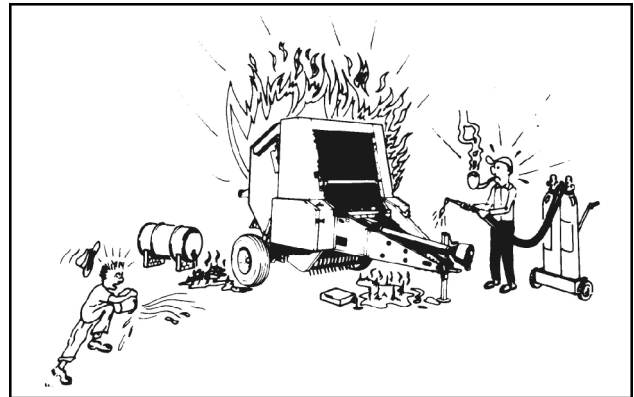
**Frequently remove accumulated crop or wrapping material from the machine. Inspect the machine for oil leaks and overheated bearings or other moving parts. Immediately service the machine when required; DO NOT continue to use machine until service is complete.**

**Failure to comply could result in death or serious injury.**

W0392A



FIRE 13



ZIL10FCRB741AAA 14

Should a fire occur, then first observe your personal safety and that of other people. Only if it is safe to do so, try to extinguish the fire.

Proceed as follows:

1. Move tractor and baler upwind as far as possible from flammable material.
2. Eject the bale immediately, making sure the bale will not roll away.
3. Close the tailgate. Never stand under the raised tailgate, even not when it is locked with the tailgate lock-out valve.
4. Use the fire extinguisher or pressurized water supply to put out any fire.

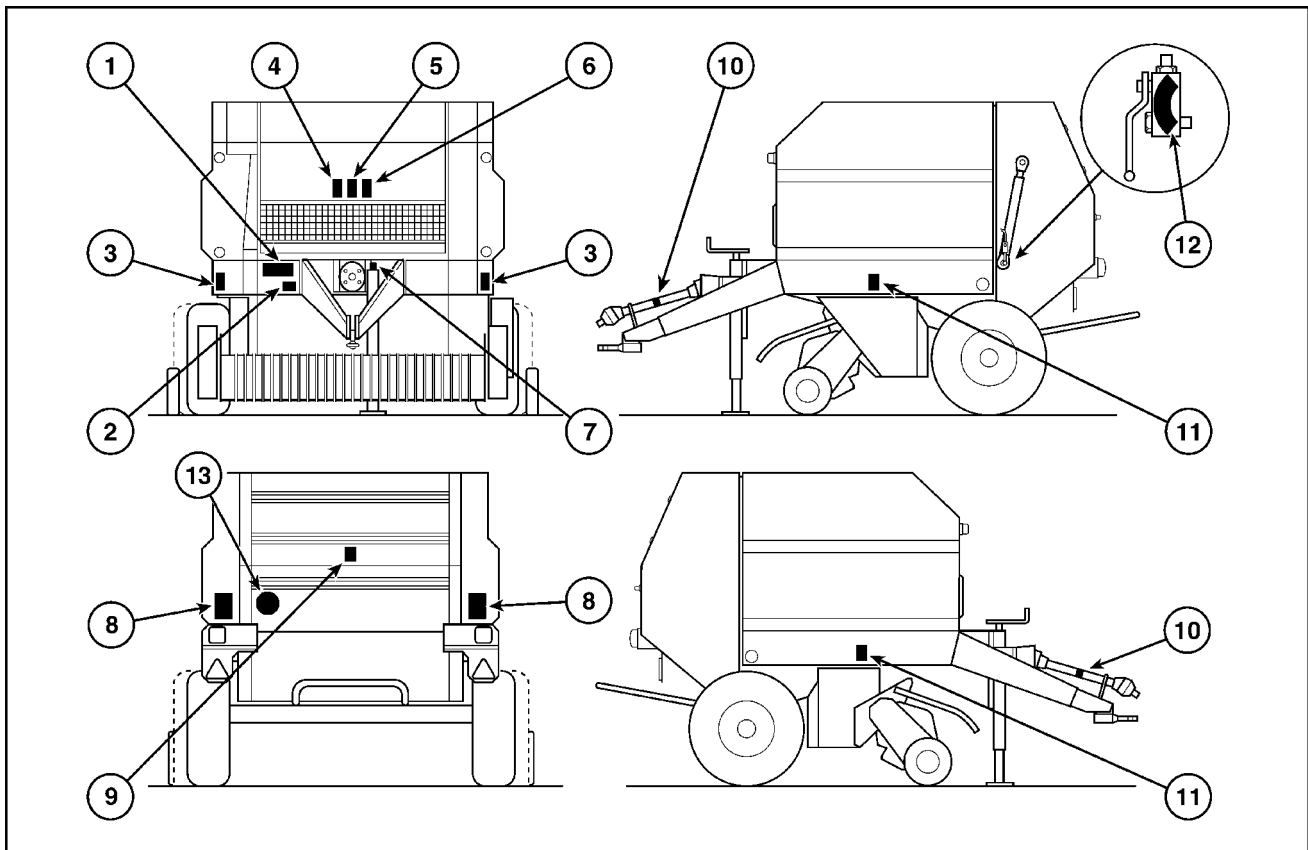
## Safety decals [25659953]

Safety decals are placed on your machine as a guide for your safety. Walk around the machine and note the content and location of these decals before operating your machine.

Following is a listing of Safety Decals and locations with part numbers. Read and understand them before operating the machine.

### Decal Inspection and Maintenance

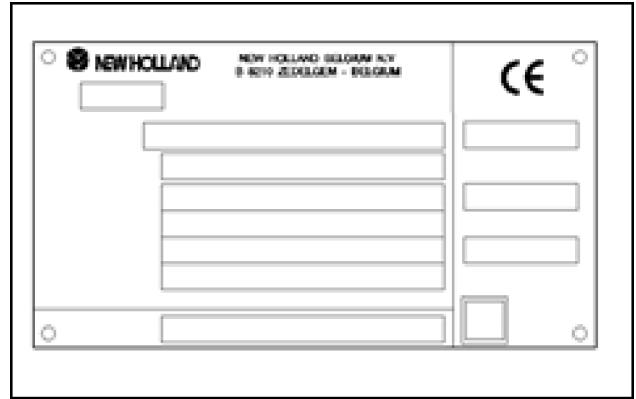
1. Cleaning decals.
  - Keep decals clean and legible.
  - Use a soft cloth, water, and a gentle detergent.
  - Do not use solvent, gasoline, and other harsh chemicals which may damage or remove the decals.
2. Replace all decals that are damaged, missing, painted over or illegible. Refer to your dealer for replacement decals.
3. If a decal is on a part that is replaced, make sure the decal is installed on the new part.



ZIL10FCRB063FAA 1

## Decal 1

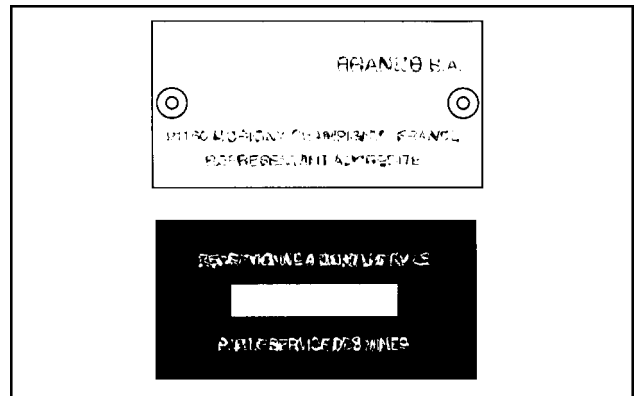
Identification plate identifying the manufacturer and the machine (model, serial number, weights). It also carries the CE mark (certification of conformity to European Directives on machine safety).



ZIL10FCRB716AAA 2

## Decal 2

Optional homologation plates, as required for only some countries.



ZIL10FCRB836AAA 3

## Decal 3

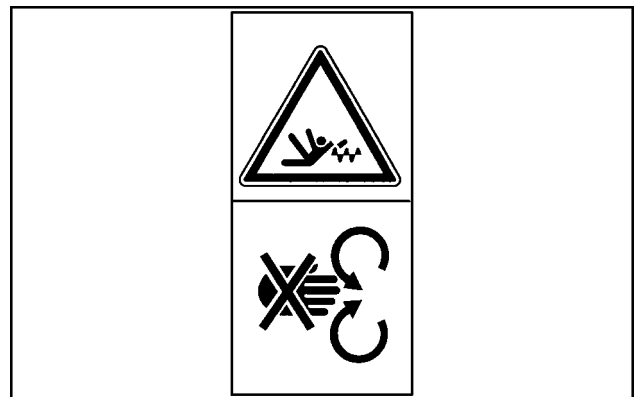
### ⚠ WARNING

#### Entanglement hazard!

Disengage the Power Take-Off (PTO), turn off the engine, and remove the key. Wait for all movement to stop before leaving the operator's position. Never adjust, lubricate, clean, or unplug machine with the engine running. Failure to comply could result in death or serious injury.

W0227A

- Never reach into the rotating auger.
- Never attempt to unplug the pickup while the tractor engine is running.



ZIL10FCRB157AAA 4

## Decal 4

### ⚠ WARNING

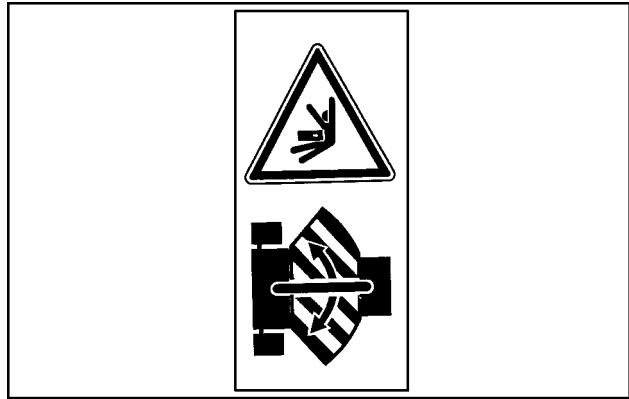
#### Crushing hazard!

Use caution when backing the towing unit up to the hitch. Have all persons in clear view before you start to back up. Always take the towing unit out of gear and set the parking brake before anyone goes behind the towing unit to check the hitch alignment.

Failure to comply could result in death or serious injury.

W0961A

- Make sure the baler hitch articulation area is free of people and animals when moving and or during hitch connection.
- Use wheel chocks to immobilize the baler when parked.



ZIL10FCRB160AAA 5

## Decal 5

### ⚠ WARNING

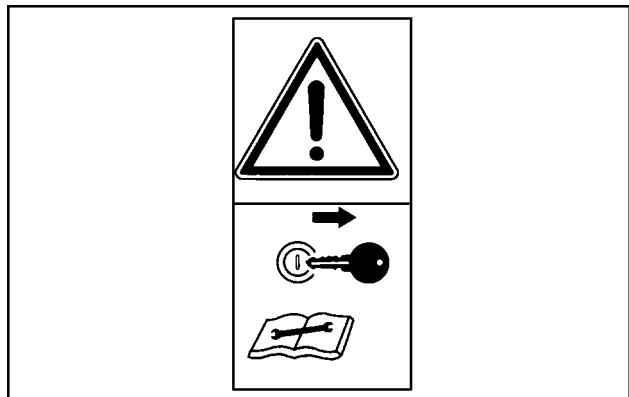
#### Entanglement hazard!

Disengage the Power Take-Off (PTO), turn off the engine, and remove the key. Wait for all movement to stop before leaving the operator's position. Never adjust, lubricate, clean, or unplug machine with the engine running.

Failure to comply could result in death or serious injury.

W0227A

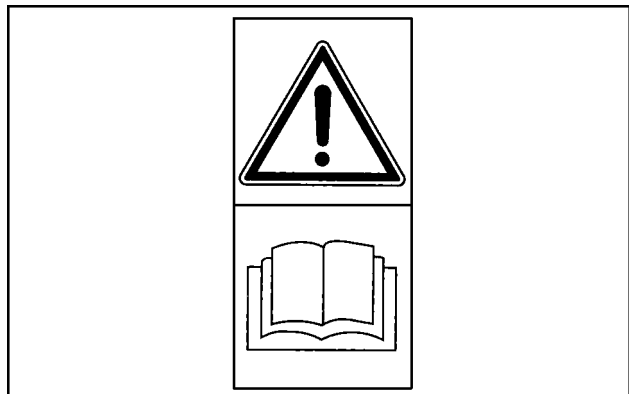
Apply the handbrake and block the wheels before performing maintenance or repair work.



ZIL10FCRB158AAA 6

## Decal 6

Carefully read the Operator's Manual before operating the machine. Observe instructions and safety rules when operating.



ZIL10FCRB155AAA 7

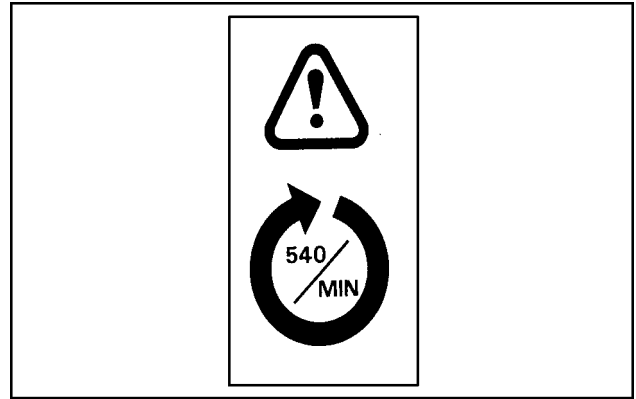
### Decal 7

#### ⚠ WARNING

**Entanglement hazard!**  
Power Take-Off (PTO) driven machinery can cause serious injury. Before working on or near the PTO shaft, or servicing or clearing the driven machine, put the PTO switch in the disengage position and stop the engine. Failure to comply could result in death or serious injury.

W0321A

This machine is designed to run only at **540 RPM**.



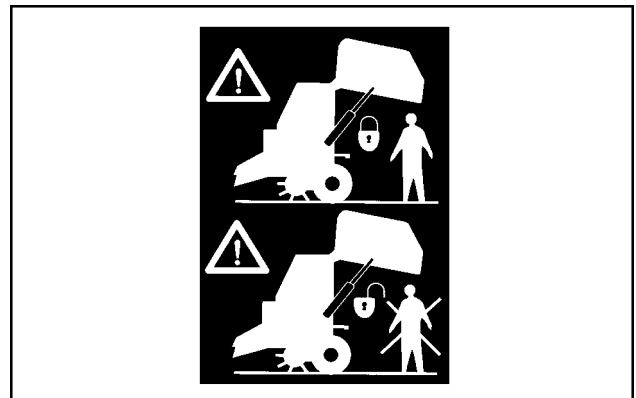
ZIL10FCRB185AAA 8

### Decal 8

#### ⚠ DANGER

**Crush hazard!** The tailgate may close faster than you can move away. **ALWAYS** make sure the tailgate lockout valves are in the OFF (locked) position before working under a raised tailgate. In the event of a sudden loss of hydraulic pressure, the tailgate will fall if the lockout valves are not engaged. Stand clear of the tailgate before disengaging the lockout valves. Failure to comply will result in death or serious injury.

D0002A



ZIL10FCRB169AAA 9

Always apply the hydraulic lock when near an open tailgate.

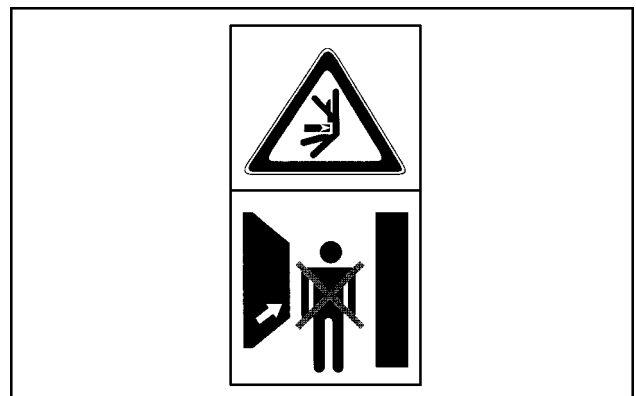
### Decal 9

#### ⚠ DANGER

**Crushing hazard!**  
Make sure the area surrounding the tailgate is clear of all persons and domestic animals before opening or closing the tailgate. Failure to comply will result in death or serious injury.

D0034A

Be aware potential crushing / pinching hazard.



ZIL10FCRB167AAA 10

## Decal 10

### ⚠ WARNING

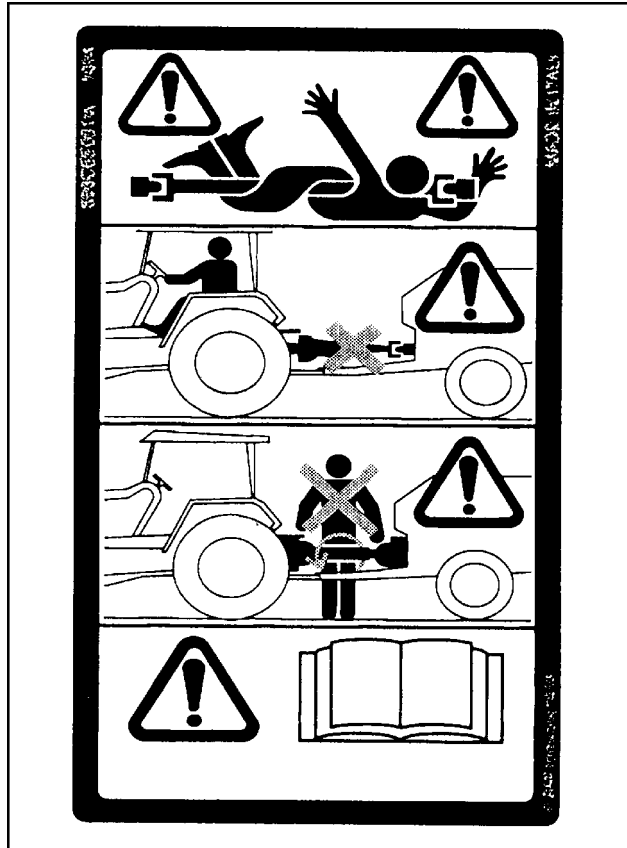
#### Entanglement hazard!

The Power Take-Off (PTO) guard must be in place for most operations to prevent death or injury while the PTO is operating. When attachments like pumps are attached to the PTO – where the guard is moved upward or removed – shielding equal to the PTO guard must be installed with the attachment.

Failure to comply could result in death or serious injury.

W0319A

This decal is located on the PTO. telescoping shafts, outside and inside the PTO. guards. The inside decal is exposed when the guard is missing. It warns the operator not to operate the baler with the PTO. shaft guard missing.



ZIL10FCRB009BAA 11

## Decal 11

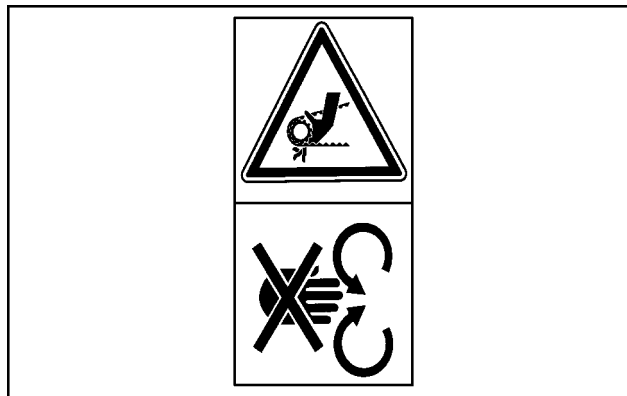
### ⚠ WARNING

#### Entanglement hazard!

Disengage the Power Take-Off (PTO), turn off the engine, and remove the key. Wait for all movement to stop before leaving the operator's position. Never adjust, lubricate, clean, or unplug machine with the engine running. Failure to comply could result in death or serious injury.

W0227A

- Keep all safety guards in place.
- Do not open or remove safety guards while the tractor engine is running.
- Do not reach through inspection doors while the tractor is running.
- Wait until all parts have stopped before carrying out any maintenance work on the baler.
- Stand clear from all moving parts.



ZIL10FCRB156AAA 12

## Decal 12

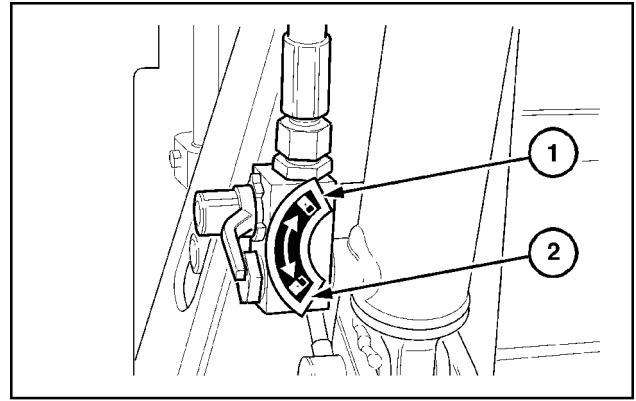
### ⚠ DANGER

**Crush hazard! The tailgate may close faster than you can move away.**

**ALWAYS** make sure the tailgate lockout valves are in the OFF (locked) position before working under a raised tailgate. In the event of a sudden loss of hydraulic pressure, the tailgate will fall if the lockout valves are not engaged. Stand clear of the tailgate before disengaging the lockout valves.

**Failure to comply will result in death or serious injury.**

D0002A



ZIL10FCRB150AAA 13

Position 1: Lever horizontal tailgate is locked.

Position 2: Lever vertical tailgate is unlocked.

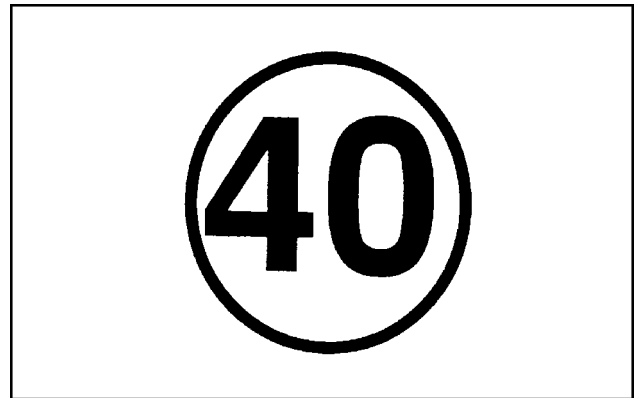
## Decal 13

For machines delivered ex-factory with high hitch Germany only: **40 kPa** with brakes, **30 kPa** brakes.

This decal indicates that the machine axle and wheel assembly is designed for a maximum of **40 km/h** transport speed on good public road.

This decal is not a substitute for the speed regulations signs imposed by law.

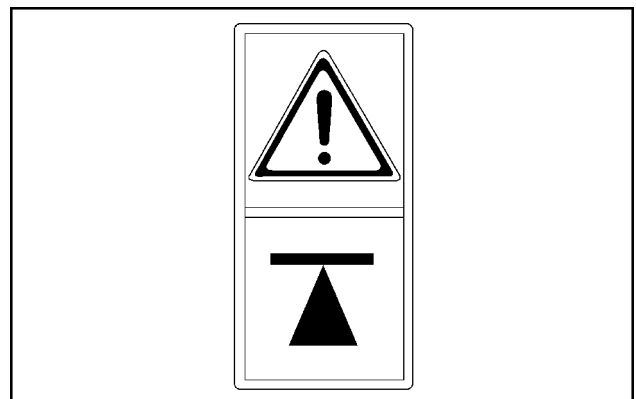
Check with your dealer to equip your machine with the appropriate additional speed regulation signs in accordance with road traffic regulations in your country.



ZIL10FCRB201AAA 14

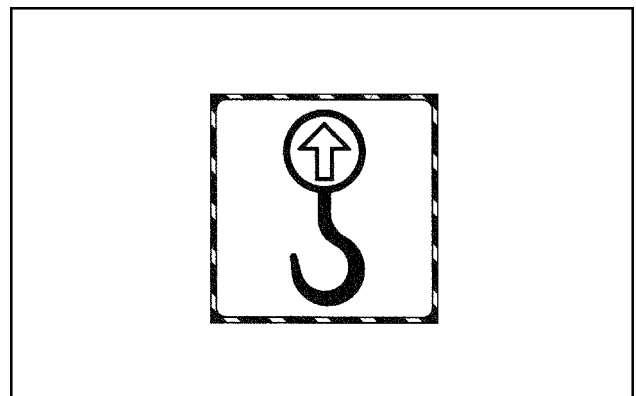
Only use the indicated places on the baler axle(s) to lift up the machine using a lifting jack.

Use only lifting equipment capable to take the weight of the baler, refer to Specifications section.



ZIL10FCRB250AAA 15

For moving the baler with heavy handling equipment, sling the cables on the top of the baler where the decals are located.



ZIL10FCRB002AAA 16

## 2 - SAFETY INFORMATION

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Ensure the tire pressures are maintained as per the tire inflation decal.

|                                                                                   |                   |                   |                     |                     |                 |
|-----------------------------------------------------------------------------------|-------------------|-------------------|---------------------|---------------------|-----------------|
|  | <b>19.0/45-17</b> | <b>15.0/55-17</b> | <b>11.5/80-15.3</b> | <b>10.0/75-15.3</b> | <b>4.00 X 6</b> |
|                                                                                   | <b>10PR</b>       | <b>10 PR</b>      | <b>8 PR</b>         | <b>8 PR</b>         | <b>4 PR</b>     |
|                                                                                   | <b>1.5 bar</b>    | <b>1.5 bar</b>    | <b>2.1 bar</b>      | <b>2.3 bar</b>      | <b>3 bar</b>    |

ZIL10FCRB835AAA 17

## Safety Features [25716851]

### Safety guards

#### ⚠ WARNING

Illustrations in this manual may show protective shielding open or removed to better illustrate a particular feature or adjustment. Replace all shields before operating the machine. Failure to comply could result in death or serious injury.

W0012A

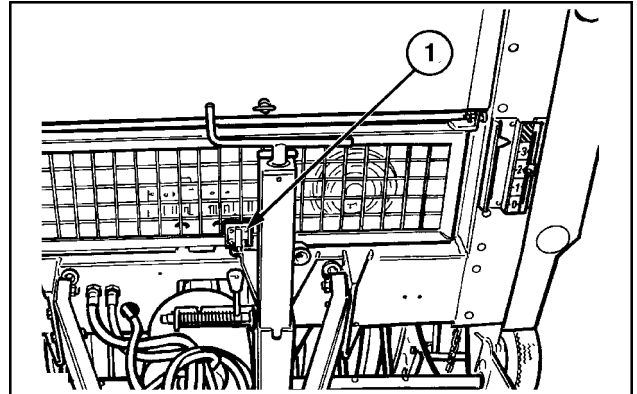
#### ⚠ WARNING

**Moving parts!**  
Make sure all entry and mechanical access doors are properly closed before operating the machine. Failure to comply could result in death or serious injury.

W0238A

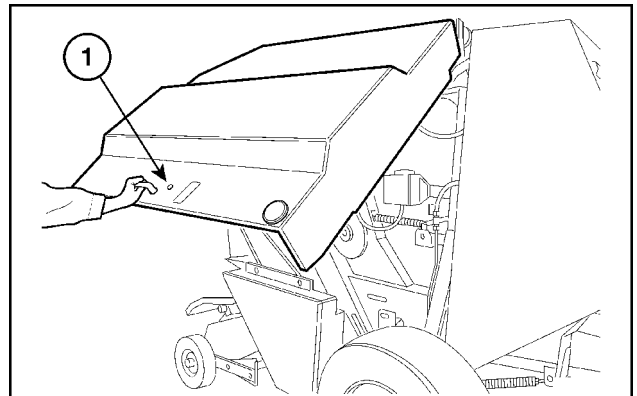
### Safety guards

The lower front guard is locked with a manual latch (1). When unlatched, the guard swings open to the inside of the baler and can be locked in open position. Keep the guard closed during operation.



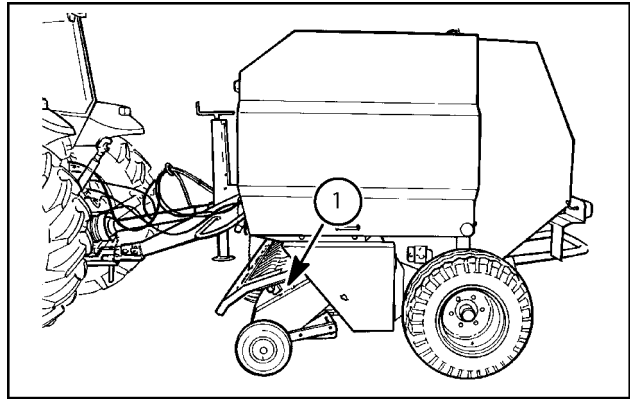
ZIL10FCRB827AAA 1

The main side guards are provided with an automatic latch (1). They swing open. Stand clear, they have spring-load assist to open.



ZIL10FCRB805AAA 2

Pick-up guards have a half twist locking device (where fitted) for access.

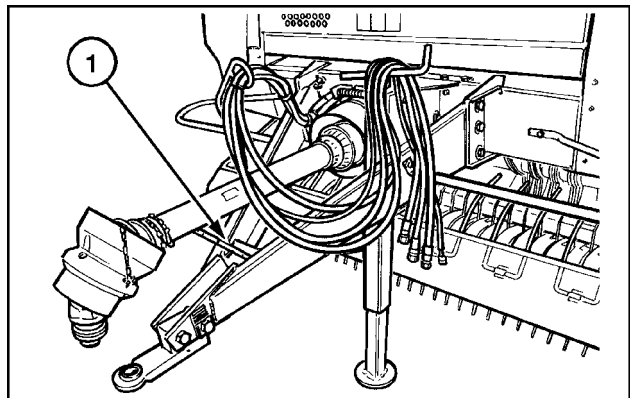


ZIL10FCRB717AAA 3

## PTO shaft support

The PTO shaft support (1) is designed to support the PTO shaft when the baler is parked.

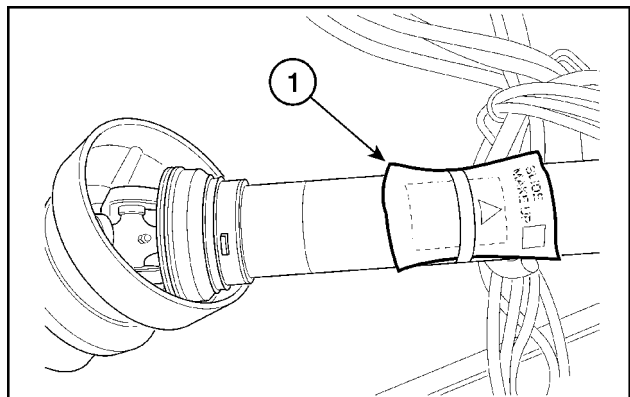
**ATTENTION:** The baler must not be operated or transported with the PTO shaft resting on the support.



ZIL10FCRB093AAA 4

## PTO instruction booklet

A booklet (1) with specific PTO safety instructions is attached to the PTO shaft when the baler is originally supplied to you. Retrieve the booklet, read, understand and keep it with this manual for future reference.



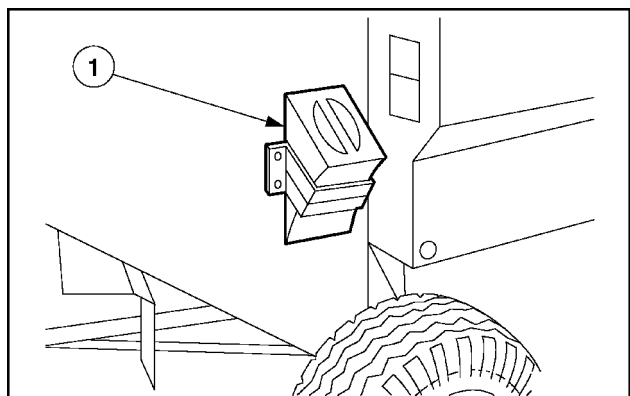
ZIL10FCRB804AAA 5

## Wheel chocks (where fitted)

The baler maybe equipped with wheel chocks (1) stored on the tailgate side panels. Use these wheel chocks whenever the machine is parked or uncoupled from the tractor.

Place them at the lower side of the left and right tyre to immobilize your baler if it is left on sloping ground.

Place a wheel chock on both sides of one tyre if the ground is flat.



ZIL10FCRB718AAA 6

## Service steps

**NOTICE:** The machine has no service steps, there will normally be no need to step onto the machine. Should any situation require to get up to upper machine components, use safe and stable steps or a ladder structure.

## Tailgate [26071003]

### Tailgate lock

#### **⚠ DANGER**

**Crush hazard!** The tailgate may close faster than you can move away.

**ALWAYS** make sure the tailgate lockout valves are in the OFF (locked) position before working under a raised tailgate. In the event of a sudden loss of hydraulic pressure, the tailgate will fall if the lockout valves are not engaged. Stand clear of the tailgate before disengaging the lockout valves.

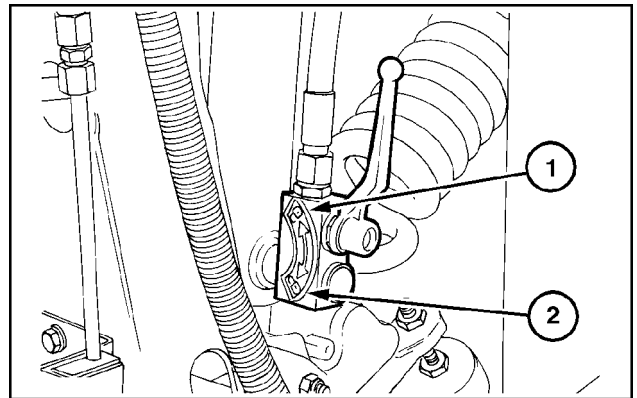
**Failure to comply will result in death or serious injury.**

D0002A

Engage the tailgate lock before working under or around the tailgate in the raised position. Stand clear before unlocking the tailgate lock.

1: Lever vertical: tailgate is unlocked.

2: Lever horizontal: tailgate is locked.



ZIL10FCRB638AAA 1

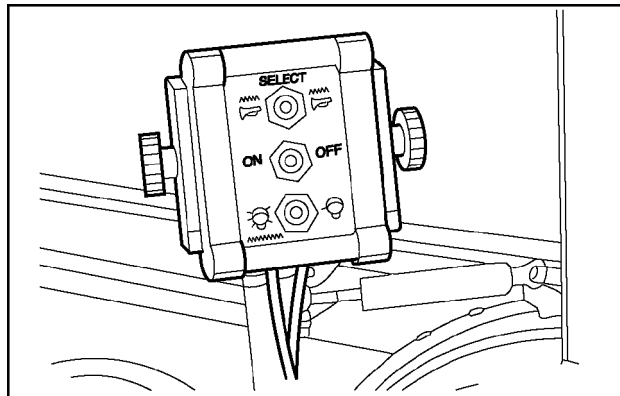


## 3 - CONTROLS/INSTRUMENTS

### Monitor Operation

#### Baler Operator Controls Control box (Optional) [31613027]

Install the control box on a support inside the tractor cab or on the fender in a comfortable reach field from the tractor seat.

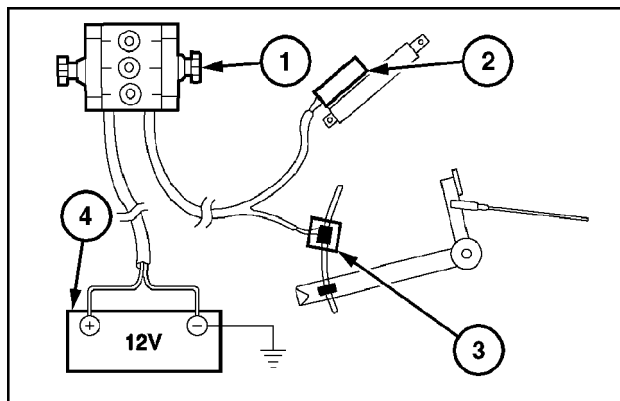


ZIL10FCRB750AAA 1

Connect the power cable to a **12 V** power source in the tractor cab, capable of supplying **15 A** peak load, or directly to the battery.

**ATTENTION:** Connect the red wire to the plus pole of the battery. If not, the actuator will extend automatically to full extend position whenever the control box is turned on. This will result in malfunction of the twine wrapper.

1. Control box.
2. Actuator.
3. Magnetic full bale switch.
4. **12 V** power source.



ZIL10FCRB751AAA 2

The system provides the following features to the operator:

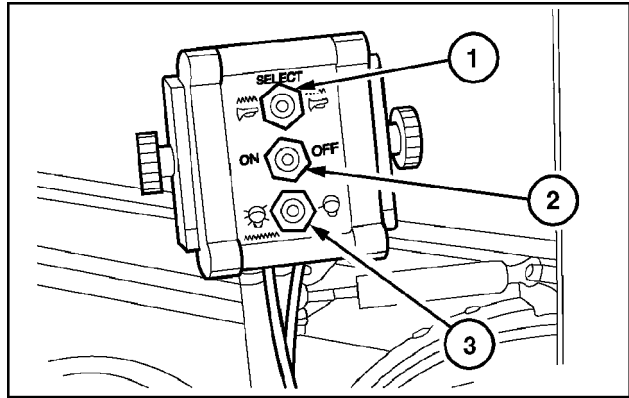
- Manual electric control over twine wrap start
- Audible alarm at full bale density
- Acoustic signal when the tailgate latches

The electric control box system consists of the following components:

### Control box (Where fitted)

1. ALARM level switch: to set the sound level of the audible alarm.
2. ON/OFF switch: to turn the system on or off.
3. WRAP switch: to initiate a wrap cycle.

**NOTE:** The WRAP switch is a rocker type switch. This means that it will always come back to its original position when it is released.



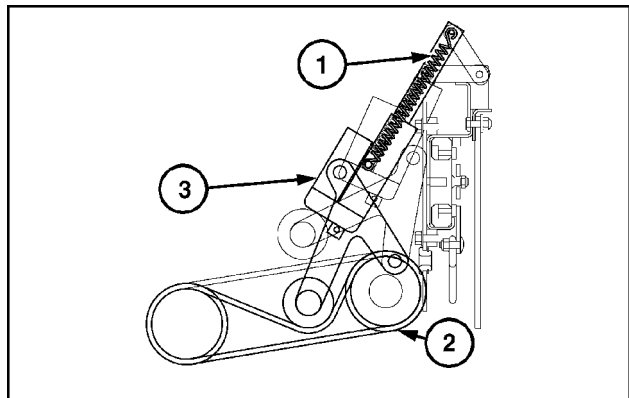
ZIL10FCRB803AAA 3

### Electric actuator (Only with control box)

Toggling the WRAP switch will extend the electric actuator (3) to apply tension on the wrapper drive belt (2). As soon as the switch is released, the actuator will automatically retract to the home position.

The overload spring (1) prevents the drive belt from being over tensioned.

The actuator has an internal circuit with end-of-stroke contacts. They will shut off power when the actuator reaches the minimum or maximum position.

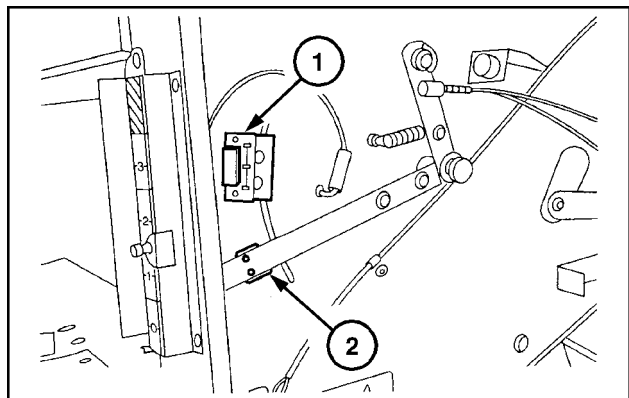


ZIL10FCRB726AAA 4

### Full bale alarm switch (Only with control box)

An adjustable magnetic switch (1) connected to the buzzer is located on the baler frame left-hand side sheet. A magnet (2) on the left density indicator will activate the switch when the set full bale density is reached. Then the operator has to start the wrap cycle with the WRAP key.

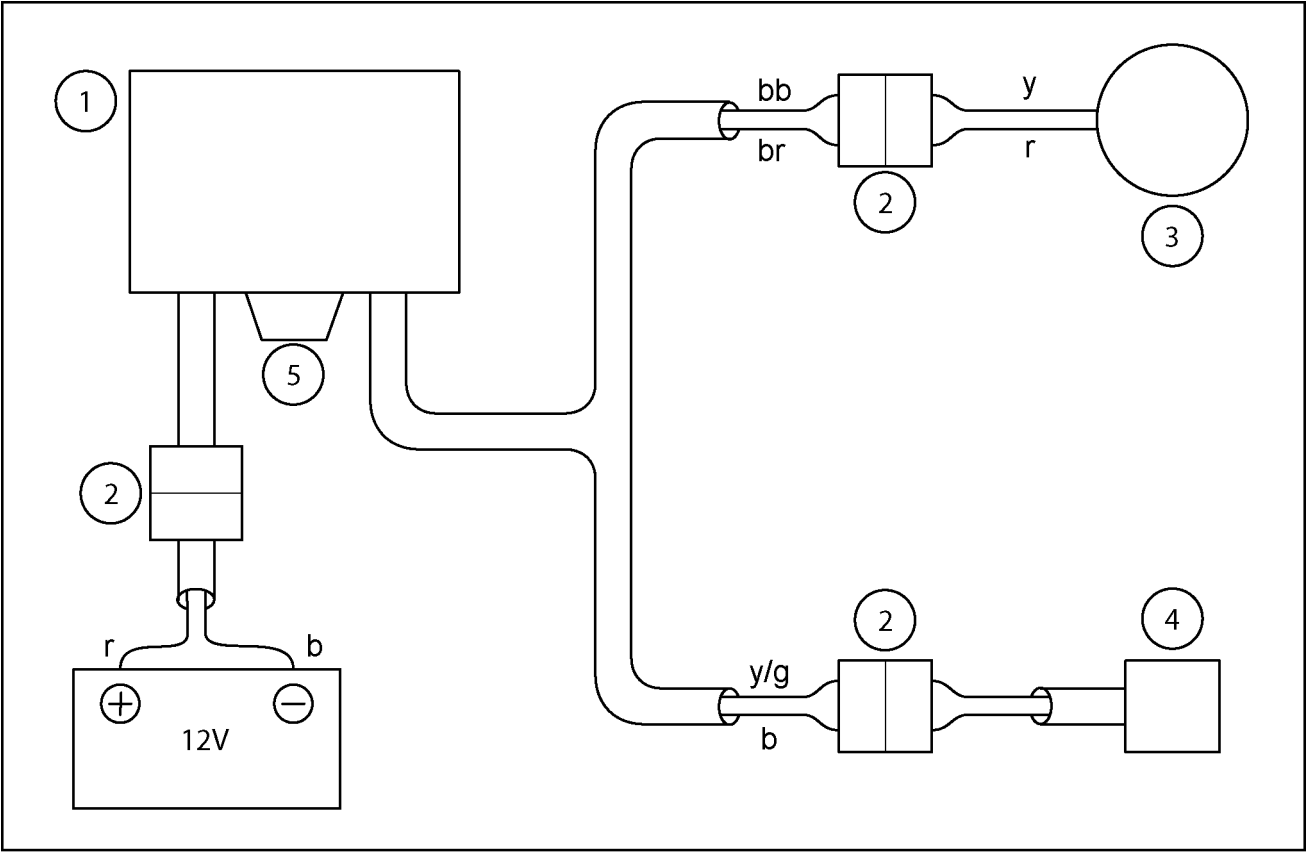
After the wrap cycle has ended and the bale has been ejected, the operator will hear a short beep as the tailgate closes and latches.



ZIL10FCRB760AAA 5

Wiring diagram

Electric control box system.



ZIL10FCRB059FAA 6

| Components            | Colour code                  |
|-----------------------|------------------------------|
| 1. Control box        | b black                      |
| 2. Connector          | bl blue                      |
| 3. Actuator           | br brown                     |
| 4. Magnetic switch    | y yellow<br>y/g yellow/green |
| 5. Fuse, <b>6.3 A</b> | r red                        |



## 4 - OPERATING INSTRUCTIONS

### COMMISSIONING THE UNIT

#### Machine safety [25785854]

##### Safety - Shut down tractor

It is of the utmost importance to shut down the tractor PTO and engine, when doing an intervention on the baler.

This is by far the safest practice. If and despite of this warning, you will proceed without shutting off the tractor PTO. and/or the tractor engine, it is of vital interest to lock out the automatic triggered devices on your baler.

There are locking systems on the baler, refer to Safety section.

Failing to use these locking devices while intervening on a running baler, may cause fatal injury when above systems are inadvertently triggered (e.g. when the system is at the point of being triggered).

**ATTENTION:** *The following statements are identified to draw the attention of the operators to their machine and surroundings, read these statements before starting any baler operations.*

##### 1. Intended use and reasonable foreseeable misuse

Your baler is designed and made to work in a variety of crops and conditions and within some physical limits. The feed rate and performance may depend on a number of limitative parameters, such as weather and terrain conditions, crop variety and humidity. Though the machine is designed to perform in most crops and conditions, there may be a number of combinations of above parameters, for which there is severe degradation of performance of the machine or systems thereof. If you notice degradation of performance, contact your dealer for assistance. He may have useful information for improvements, or a kit may be available to enhance the performance.

Do not use your machine for another purpose than intended by the manufacturer and within its limits (\*).

- \* limits of the machine:
- \* side slope: %
- \* tractor properties: power, traction performance
- \* maximum throughput: variable, depending of crop, variety, maturity, humidity
- \* maximum baling speed: variable, depending of crop, variety, maturity, humidity, grain losses, tractor engine power and power transmission
- \* mobility: variable, soil condition.

##### 2. Software

Some functions of your baler are controlled by software and some of them are safety related. Do not attempt to modify or download software from spurious sources. Settings and logics may be destroyed and affect seriously the function of the machine. This may result in unpredictable and unsafe behaviour of the machine. Only your dealer is entitled to intervene on the software of the machine. He has the appropriate tools and data sets for it and owns the officially released software versions and updates for your machine.

##### 3. Safety functions

Your baler is equipped with a number of sensors to control safety functions.

Do not attempt to bypass any function. You will be exposed to serious hazards, and moreover, the behaviour of the machine may become unpredictable when messing up wires.

##### 4. Bystanders

You shall take the necessary precautions (e.g. assistance) to always be aware of the possible presence of bystanders, certainly when manoeuvring in confined areas, such as the farm yard and sheds.

Keep people away from the baler during field work. Ask bystanders to leave the field. There is the risk to be overrun by the machine, in particular when reversing.

Do not allow riders on the machine; do not allow people standing on the machine when baling. A rider risks to fall from the machine during unforeseen or abrupt movements of the combination tractor - baler.

##### 5. Other requirements: scope of this manual

Clear distinction between the different phases of machine use (and the corresponding level of training needed) shall be part of the introduction:

This manual gives information for use of this baler, as intended and under the conditions foreseen by the manufacturer during normal operation and routine service and maintenance.

Normal operation means the use of the machine for the purpose intended by the manufacturer by an operator familiar with the machine characteristics and complying with the information for operation

and safe practices, as specified by the manufacturer in this manual and by the signs on the machine.

Normal operation includes the preparation and storage of the machine, swinging components into work position and vice versa, filling the baler with twine spools, routing twine and setting off the baler from a tractor.

Normal operation includes the adjustment and setting of the machine, for the specific condition of the field and/or the crop.

Routine service and maintenance means activities that must be done daily by an operator familiar with the machine characteristics and complying with the information for routine service and safe practices, as specified by the manufacturer in this manual and by signs on the machine, in order to maintain the proper function of the machine.

Routine service includes activities such as cleaning, washing, topping up fluid levels, greasing, adjusting belts and chains, replacement of consumable articles and fast wearing parts, such as twine guides.

This manual is not giving all the information related to periodical service, machine converting (rebuild) and repairs to be carried out by professional service personnel. For some of the latter activities, there may be a need for appropriate facilities, technical skills and tools which are not supplied with the machine. Failing one of these 3 prerequisites, makes that these activities shall be done by your dealer.

Periodical service means activities that must be done at defined intervals by trained personnel familiar with the machine characteristics and which are complying with the information for periodical service and safe practices, as specified by the manufacturer in this manual and in other Company literature, in order to maintain the expected life time of the baler.

Periodical service includes activities such as changing oil from the hydraulic circuit or gearboxes, or other substances or components that need periodical exchange.

Converting (rebuild) means activities that must be done by professional service personnel familiar with the machine characteristics and complying with the information for converting, as specified by the manufacturer in this manual, in assembly instructions or in other Company literature, in order to rebuild the machine to a configuration which is appropriate for a specific crop or soil condition.

Repair means activities that must be done by professional service personnel familiar with the machine characteristics and complying with the information for repair, as specified by the manufacturer in the dealer's workshop manual, in order to restore the proper function of the machine after a failure or degradation of performance.

The machine is a one man operated machine, i.e. the driver of the tractor. There is no need for other people on or around the machine during normal operation.

## Tractor attachment [31309693]

The tractor and baler when attached must meet all Road and Towing Legislation applicable to country where operated.

The tractor must also be suitable for the application, inclines will require a larger tractor than flat lands.

**IMPORTANT:** When attaching the baler wrapper to the tractor ensure that all the services are connected correctly and the following criteria are met:

1. Adjust the tow hitch settings.
2. Connect the baler to a remote valve on the tractor for correct operation,  
Hose identified Green = Baler pickup  
Hose identified blue = Rotor reverser (where fitted)

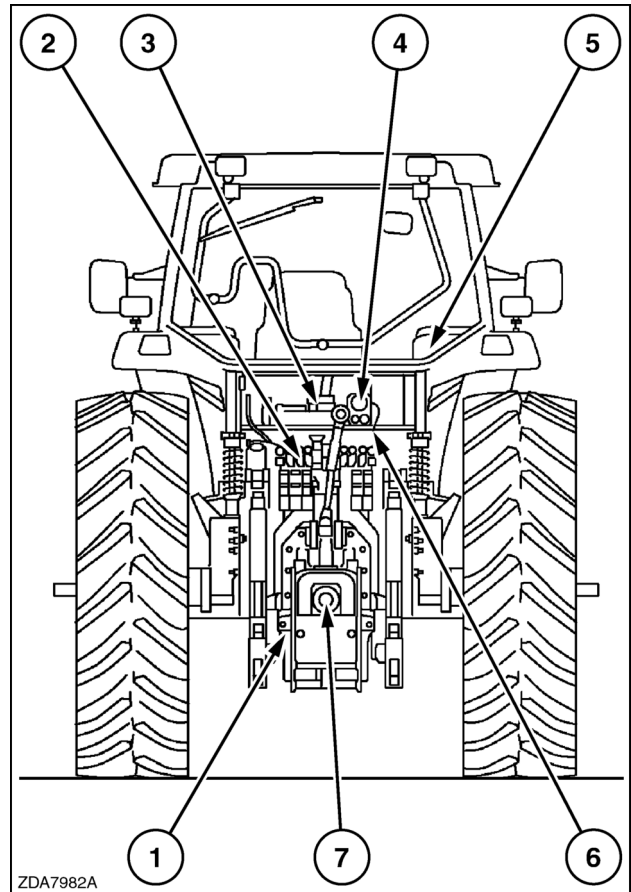
3 Where equipment requires a return of oil to tank, refer to the Tractor Operator's Manual for more information.

4. Connect the trailer socket if the baler wrapper is to be towed on public roads.

5. Connect the control panel which requires a **12 V** uninterrupted supply.

6. Connect the trailer brakes and test them.

7. Connect to the Power Take Off **540 RPM**.

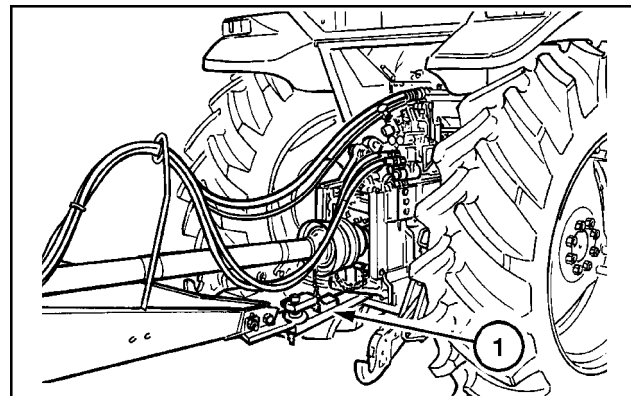


ZDA7982A 1

## Tractor attachment [25662727]

### Power Take Off shaft

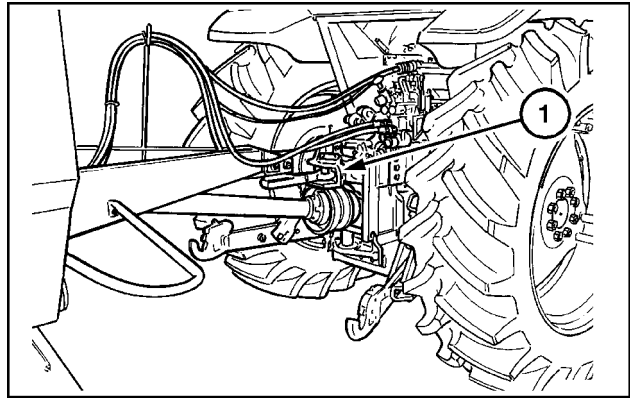
The baler is equipped with a PTO drive shaft with front yoke for attaching to a **35 mm** diameter, 6-splines PTO tractor shaft and is designed to operate at **540 RPM** PTO speed.



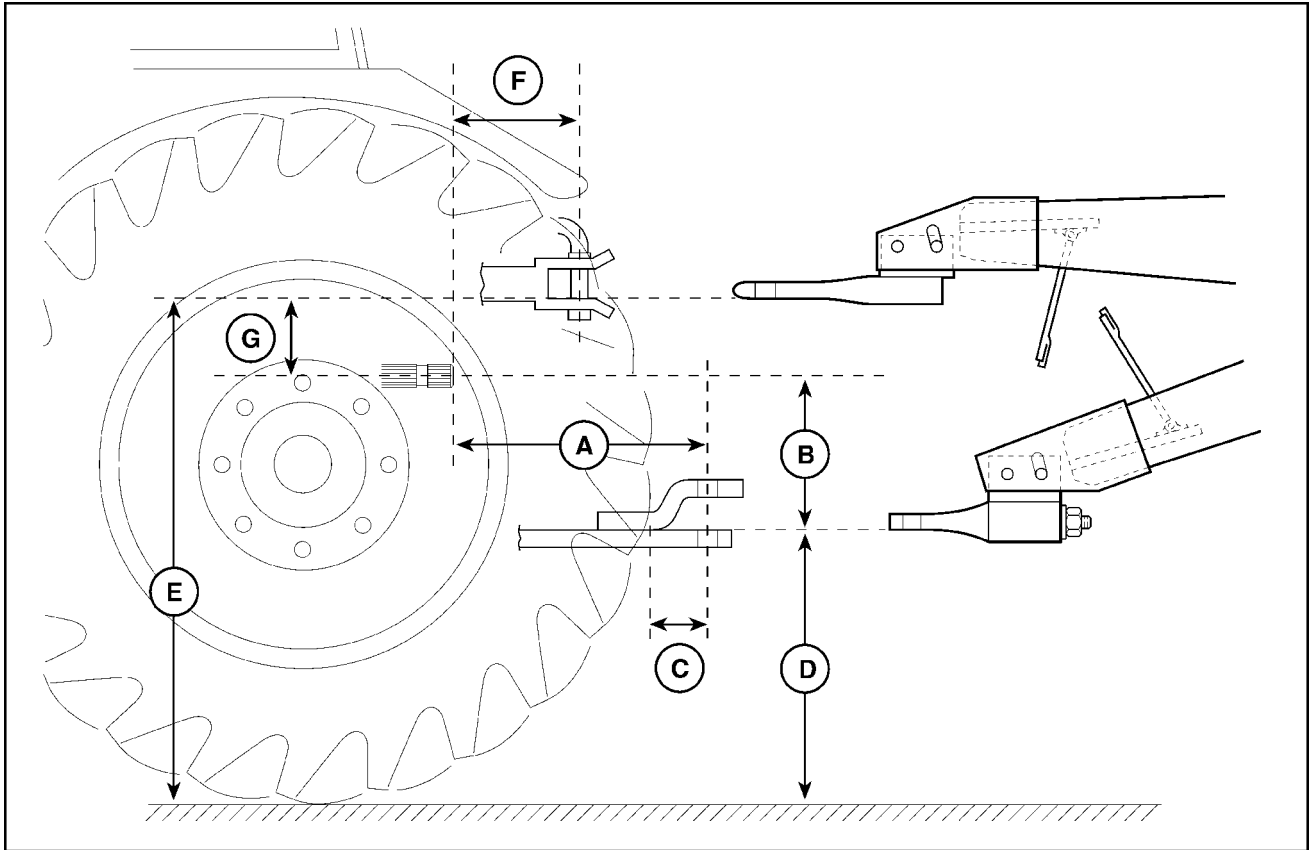
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## Tractor drawbar

The drawbar tongue on the baler is adjustable in height and is reversible, so the baler can be attached either to a clevis-type swinging drawbar (1) Figure 1, or a rear tow hook (1) Figure 2, on the tractor.



ZIL10FCRB086AAA 2



ZIL10FCRB001FAA 3

Ensure the tractor drawbar is adjusted to meet the standard specifications:

- Swinging drawbar:

- A. **35 cm**
- B. **Between 15 cm and 30 cm**
- C. **Minimum 10 cm**
- D. **Between 45 cm and 50 cm**

Secure the tractor drawbar so the hitch pin hole is directly below the power driveline.

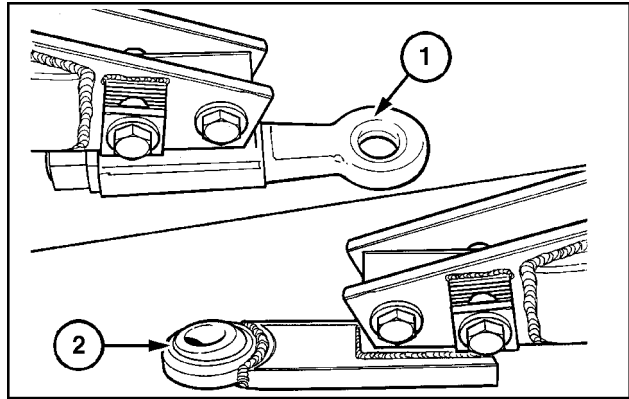
- Rear tow hook:

- E. **75 cm to 100 cm**
- F. **18 cm**
- G. **20 cm**

To fit to the swinging drawbar (low tongue position on the baler), depending on country-bound legal regulations the baler tongue is equipped with either Figure 4:

- A pivotable ring hitch (1)
- A swivel ball hitch (2)

**NOTE:** The swivel ball hitch will also fit to the rear tow hook, if legally allowed.



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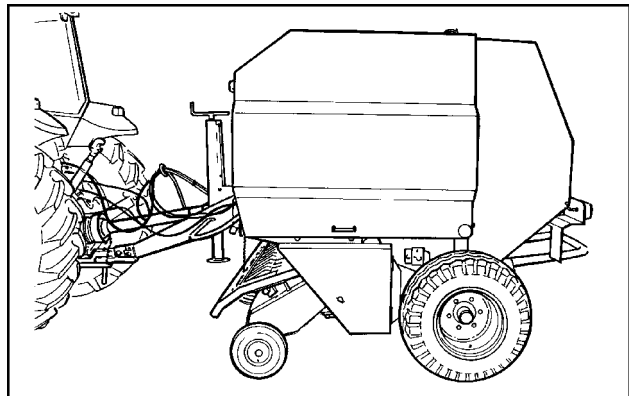
To fit to the rear tow hook (high tongue position on the baler), the baler tongue is equipped with a fixed ring hitch.

Make sure the tractor hitch pin matches the bore in the baler hitch:

- Swivel ball hitch: **33 mm** pin hole for a **30 mm to 32 mm** pin
- Pivotable ring hitch: **35 mm** pin hole for a **25 mm to 27 mm** pin
- Fixed ring hitch: **40 mm** pin hole for a **30 mm to 32 mm** pin.

## Levelling the Baler

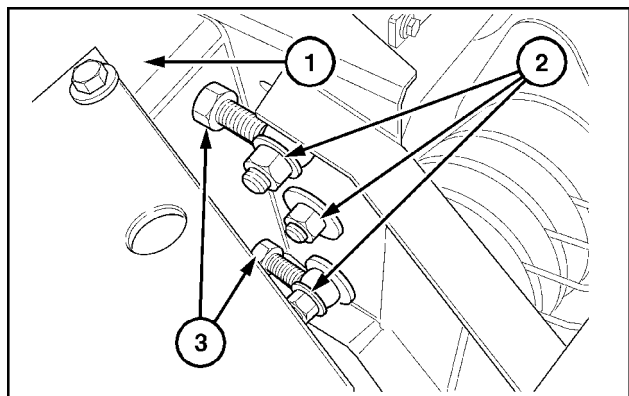
Adjust the baler tongue to suit the tractor hitch height so that the baler's coach-work is parallel or slightly higher at the front, in relation to the ground.



ZIL10FCRB047AAA 5

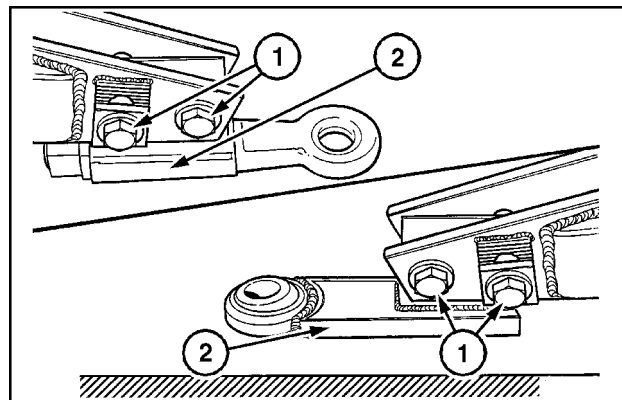
Proceed as follows:

1. Let the jack stand down to support the baler. Do not detach the baler from the tractor as shown in Figure 17 and Figure 18.
2. Slacken the three bolts (2) on both sides of the baler tongue, Figure 6.
3. Alternately loosen and tighten the jam nuts (3) nuts both inside and outside of the cross beam (1) to move the tongue to the desired height. Turn the jack handle to adjust the inclination of the baler.



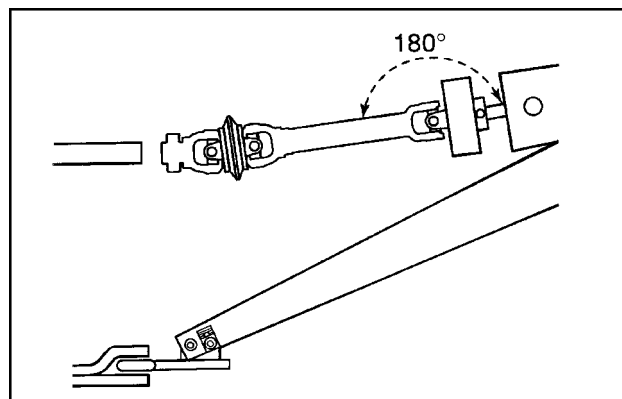
ZIL10FCRB090AAA 6

4. Tighten the jam nuts **(3)** Figure 6.
5. Torque the bolts **(2)** to **240 N·m (177.0 lb ft)** Figure 6.
6. Fine-adjust the inclination of the hitch plate **(2)** to be parallel to slightly lower at the front in relation to the ground.  
Torque the bolts **(1)** to **485 N·m (357.7 lb ft)** Figure 7.
7. Raise and lock the jack stand in the highest position and wind the jack handle until the foot is jammed under the tongue as shown in Figure 17 and Figure 18.



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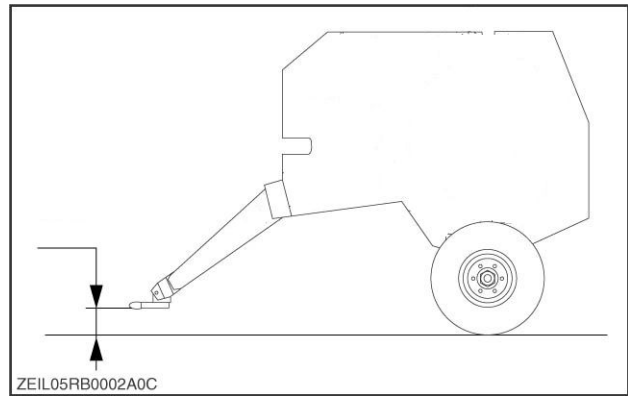
**NOTICE:** In adjusting tractor and baler hitch height, also strive to line up the PTO drive shaft with the gearbox input shaft as straight as possible for smooth running of the baler drive lines.



ZIL10FCRB082AAA 8

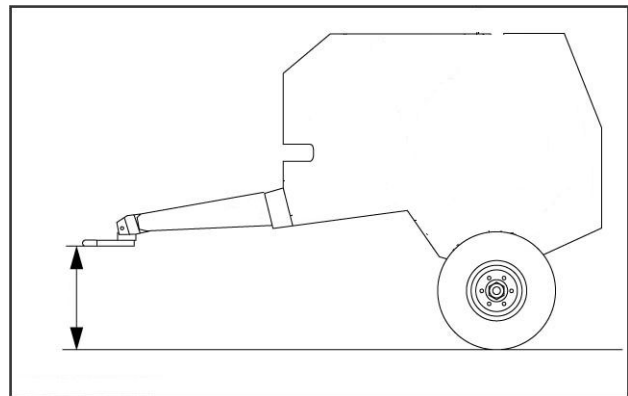
## Possible hitch heights

Ball hitch height low setting is: **220 mm (8.7 in)**.



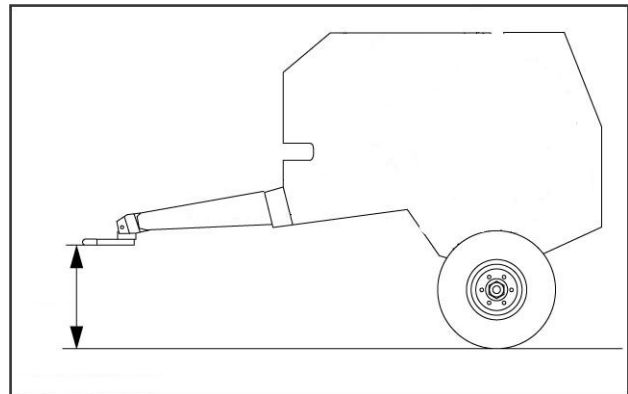
HH1 9

Ball hitch height high setting is: **625 mm (24.6 in)**.



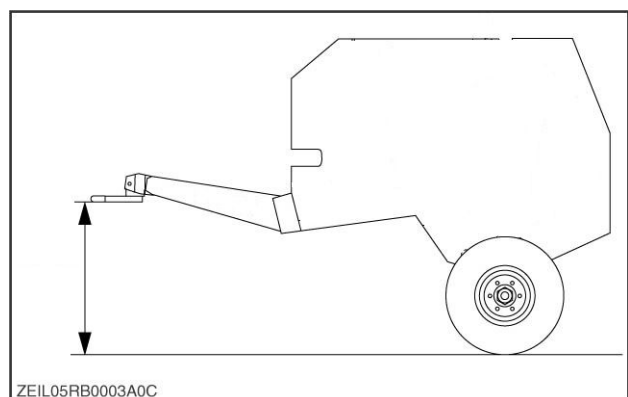
HH2 10

Fixed hitch height low setting is: **685 mm (27.0 in)**.



HH3 11

Fixed hitch height high setting is: **1120 mm (44.1 in)**.



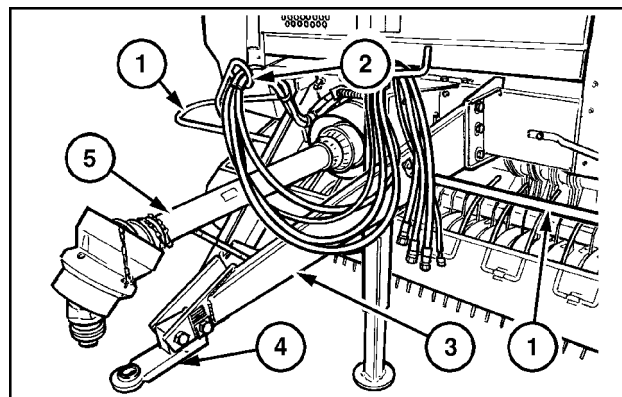
HH4 12

### Hitch reversal - high to low

Depending on customer preference, the tongue can be reversed from low to high position, or vice versa.

Proceed as follows:

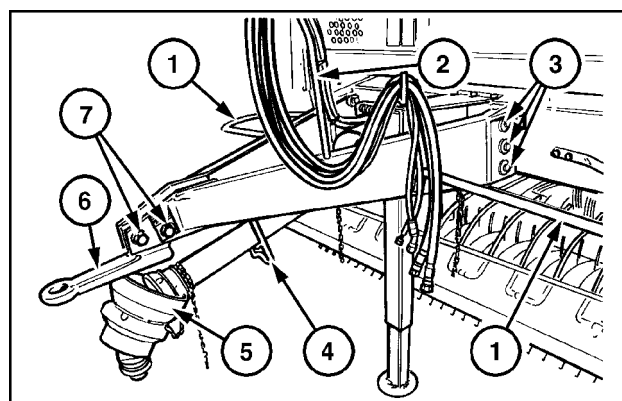
1. Support the baler on the jack stand.
2. Remove the PTO front half (5).
3. Remove hitch (4) and support (2) from tongue (3).
4. Detach safety rails (1) from the tongue and the baler frame.
5. Remove tongue (3) from the baler, turn it upside down and reinstall it to the baler.



ZIL10FCRB061AAA 13

### Hitch reversal - low to high

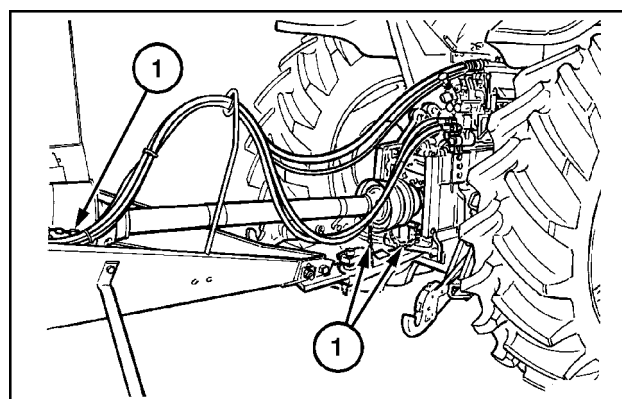
1. Reinstall hitch (6) on the low side of the tongue.
2. Adjust tongue and hitch for proper height to level the baler as explained in the previous paragraph.
3. Tighten:  
bolts (3): **240 N·m (177.0 lb ft)**.  
bolts (7): **485 N·m (357.7 lb ft)**.
4. Reinstall support (2).
5. Reinstall the rails (1) to the opposite sides of removal.
6. Reinstall the PTO front half (5) and place it into support (4).



ZIL10FCRB062AAA 14

### Hitch and PTO

1. Secure the hitch to the tractor drawbar. Use a pin of proper size, quality and length. Secure the pin with a spring clip.  
The pin must not protrude below the drawbar more than necessary to install the spring clip. If not, the pin may catch and bunch up material under the drawbar and possibly plug the pickup when the material breaks loose.



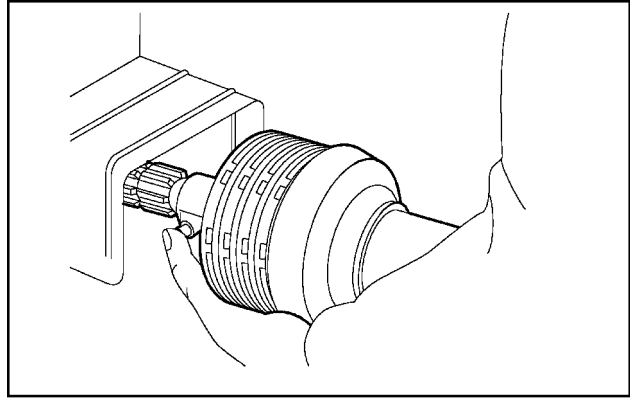
ZIL10FCRB063AAA 15

## 4 - OPERATING INSTRUCTIONS

2. Connect the PTO to the tractor.  
The front PTO yoke is equipped with a push pin. Press the spring-loaded pin and simultaneously glide the PTO on the tractor shaft until the pin engages. With the pin engaged, try to move the PTO back and forth to ensure it is locked on the tractor shaft.

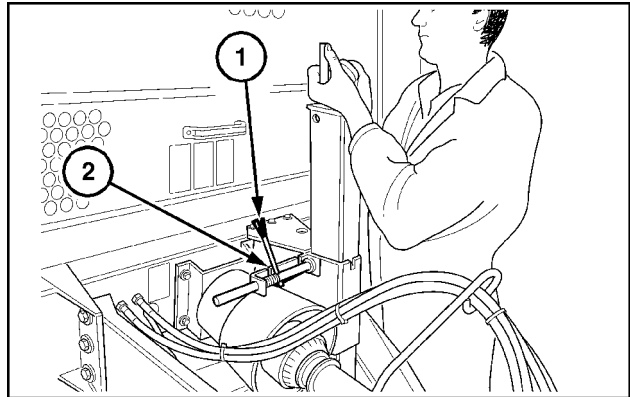
**ATTENTION:** Stop the tractor engine! This should also release the tractor PTO stub shaft and allow it to rotate freely.

**NOTE:** Keep the push pin and splines well oiled at all times to operate and slide easily onto the tractor shaft.



ZIL10FCRB045AAA 16

3. Attach the PTO guard retaining chains (1) Figure 15 to a convenient location with sufficient slack to allow free movement, yet preventing the guards from rotating during baler operation. Swing the PTO away.

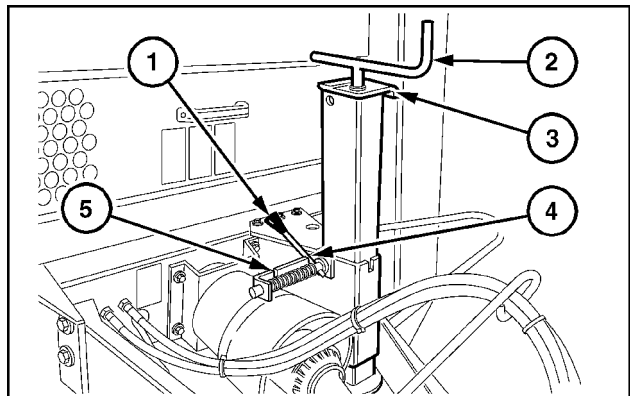


ZIL10FCRB102AAA 17

4. Remove the weight from the jack stand. Disengage latch (1) and locate it in notch (5). Grab the jack crank with both hands and lift up the jack. Release latch (1) from notch (5). Lift the jack all the way up until the spring-loaded latch (1) snaps engaged in the lower hole in the jack stand. Grab the jack at the crank (2) and/or the grab handle (3) Figure 18.

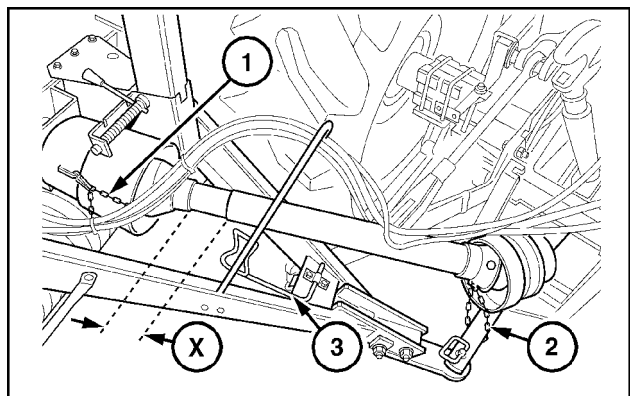
**ATTENTION:** Be cautious when operating the jack stand. There is risk of injury by pinching or shearing points.

5. Securely engage latch (1) in notch (4). Wind the jack completely up.
6. Raise or lower the tractor lower draft arms so that they cannot damage the PTO shaft and/or PTO guards when making turns. It may be necessary to remove them on some tractors.



ZIL10FCRB142AAA 18

7. Check proper length of the PTO shaft with the tractor in straight line to ensure sufficient overlap of the telescoping shafts (maintain a minimum overlap of one third of the length of the telescoping shafts at all times.)  
Make maximum possible turns to the left and to the right and check proper length in the shortest working position to avoid bottoming out of the telescoping shafts.



ZIL10FCRB087AAA 19

If distance (X) gets below **20 mm**, either:

- Increase the tractor drawbar length (e.g. from **35 cm** to **41 cm**) in case the baler tongue is fitted in the low position and attached to the tractor swinging drawbar.  
OR
- Shorten the PTO shaft in case the baler is fitted in the high position and attached to the tractor rear tow hook, see next paragraph.

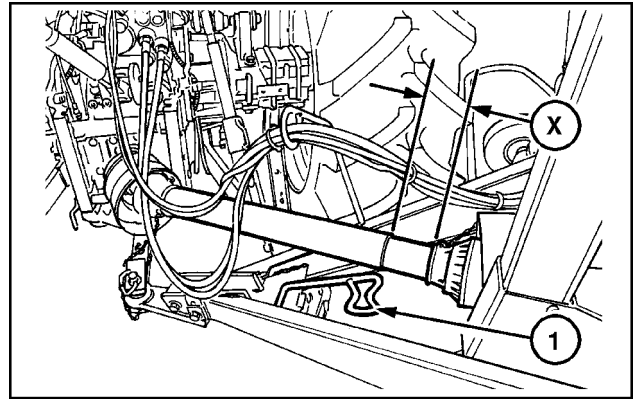
Check for possible interferences with baler tongue components, hydraulic hoses and electric cables.

**NOTE:** It is preferable to have a positive limitation on the turning angle (i.e. tires contacting the baler tongue), rather than having the possibility to exceed the PTO shaft design capabilities. To avoid interferences and excessive PTO angles, attach the baler closer to the tractor.

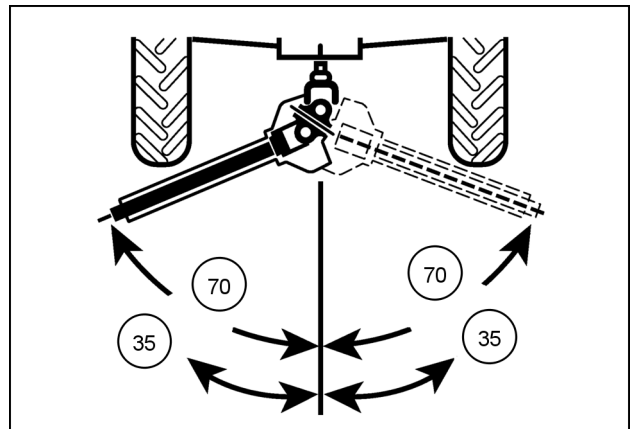
**NOTICE:** Disengage the tractor PTO when making extremely tight turns.

Restrict the PTO angle to:

- Maximum **70 °** when disengaged or running idle.
- Maximum **35 °** for continuous operation under heavy load.



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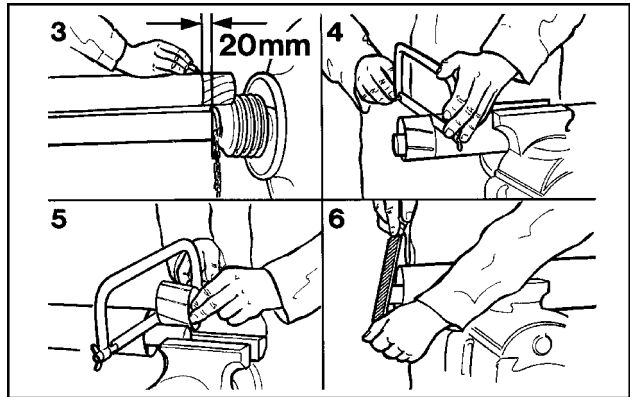


3571 21

## Shortening the PTO shaft - high hitch position

Should the PTO shaft need shortening, proceed as follows:

1. Remove the front half of the PTO shaft from the baler.  
Place the rear half in the PTO support.
2. Attach the baler to the tractor and make the sharpest possible turn left or right as illustrated in Figure 19 and Figure 20.  
Shut the tractor down. Attach the front half of the PTO shaft to the tractor.
3. Hold both PTO halves alongside each other and mark the length to be cut off the front half guard.
4. Cut the plastic guard.
5. Cut the telescoping tube by the same amount as the guard.
6. File down sharp edges from the tube, remove any swarf and thoroughly grease the telescoping tube.
7. Also shorten the rear half guard and tube by the same amount.  
Further modifications to the PTO shaft and guards are not allowed.



ZIL10FCRB112AAA 22

## Hydraulic connections [25663731]

### Hydraulic system

#### **⚠ WARNING**

Pressurized hydraulic fluid can penetrate the skin and cause severe injuries.

Tighten all of the connections before starting the engine. If hydraulic fluid has penetrated the skin, seek medical assistance immediately.

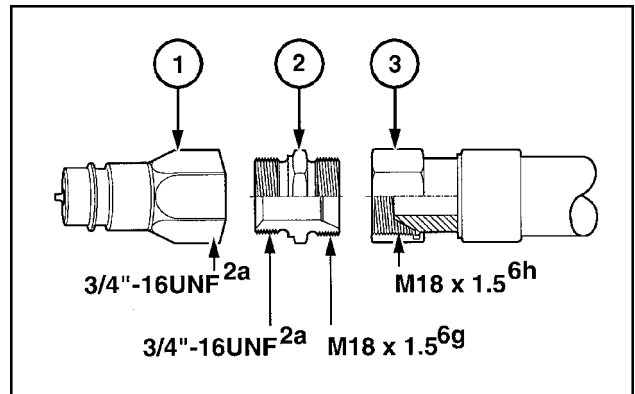
Failure to comply could result in death or serious injury.

W0117A

1. The supply hoses (3) on the baler to operate the tailgate and the hydraulic pickup lift have a tractor-end male coupler (1) complying with FIEI standard dimensions.

An adaptor (2) joins the hose to the coupler. This coupler will fit most of our tractors, as well as the majority of other brands of tractors. If this is not the case, obtain the appropriate quick-coupler for the tractor that will be used, and possibly another adaptor that will fit the hose (3).

Install the couplers using Teflon tape or a similar material on the threads to prevent joint leakage.



ZIL10FCRB143AAA 1

Couplers are provided with a colored cap for suggested usage:

| Color      | Function                      | Control Valve                                                                                                                |
|------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Green      | Pick-up (where fitted)        | Single acting.<br>If using Double acting valve - connect at lift port to operate and use float to lower and relieve pressure |
| Blue       | Tailgate                      | Single acting.<br>If using Double acting valve - connect at lift port to operate and use float to lower and relieve pressure |
| Black, Red | Rotor reverser (where fitted) | Single acting.<br>If using Double acting valve - connect at lift port to operate and use float to lower and relieve pressure |

**ATTENTION:** Check with your tractor dealer to be certain your tractor hydraulic fluid is compatible with the baler oil. If there is any question about the oil compatibility, purge all oil from the baler hydraulic system, otherwise damage to the tractor hydraulic system could result.

**NOTE:** The tailgate and rotor reverser supply hoses and cylinders contain approximately 1 l of oil.

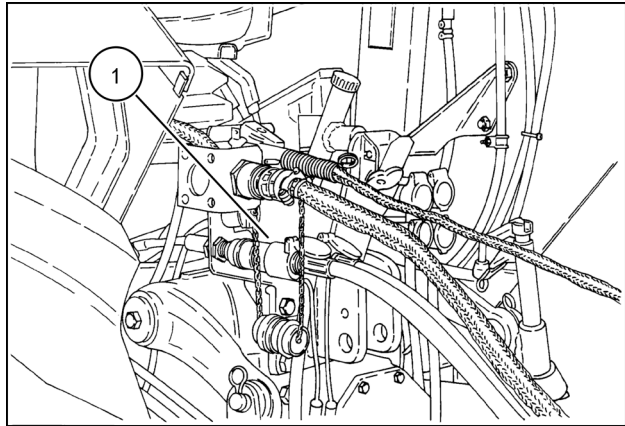
Keep the hose ends and fittings free from contamination during installation and hook up, or damage to the tractor and/or baler hydraulic system may result.

## 4 - OPERATING INSTRUCTIONS

2. Securely install the hydraulic hose quick-disconnect couplings **(1)** into the tractor remote control hydraulic outlets so the baler tailgate and pickup will function properly in both directions. Raise and lower the tailgate several times with the tractor hydraulics. This will purge air from the hydraulic system and fill the system with oil.

**NOTE:** As the baler will retain a portion of the hydraulic oil from the tractor, check the tractor hydraulic system for correct oil level after purging and add oil if necessary.

3. Check all hose and tubing connections for hydraulic leaks and tighten where necessary.
4. Make sure the hydraulic lines do not rub the PTO, and there is enough slack to permit sharp turns.



20021693 2

## Pick up [25766056]

A pickup suspension chain is provided to:

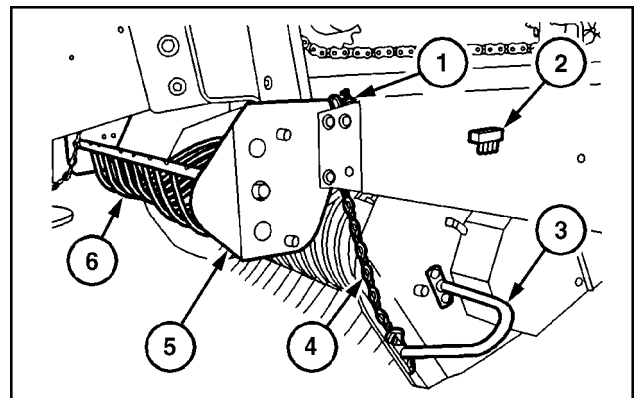
- Carry the pickup off the ground during transport on the ground.
- Adjust the pickup height on machines without pickup wheels, the pickup wheel kit is an accessory.
- Work with the pickup wheels off the ground in rough fields.

To bring the pickup in the desired position, proceed as follows:

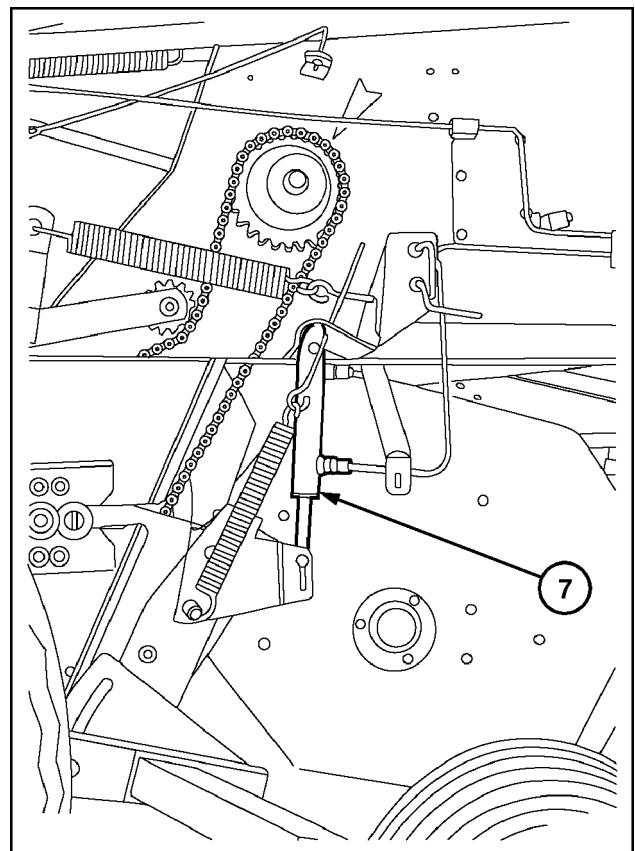
1. Grab the lift handle (3) and lift the pickup manually.
2. Engage the suspension chain (4) in the notch (1) in the frame.  
The quick-attach floating windguard (6) can be re-located in two positions in plate (5) to suit different windrow sizes.

**NOTE:** Spare pickup drive line shear bolts are located at (2).

The pickup hydraulic lift control (7) Figure 2 is available as an accessory.



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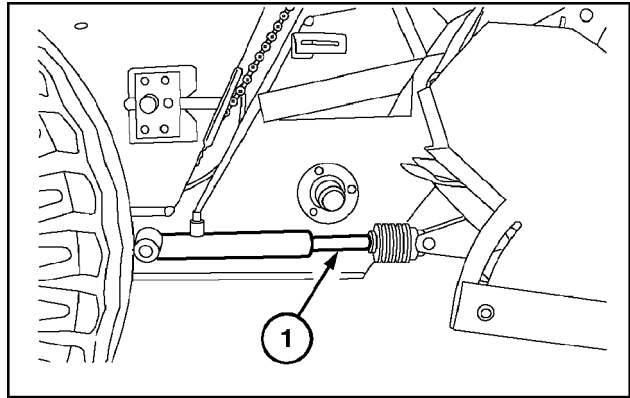
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Guards removed for clarity

## Wide pickup

### Pickup lift control

The pickup can be lifted and lowered hydraulically from the tractor by means of the cylinder (1).



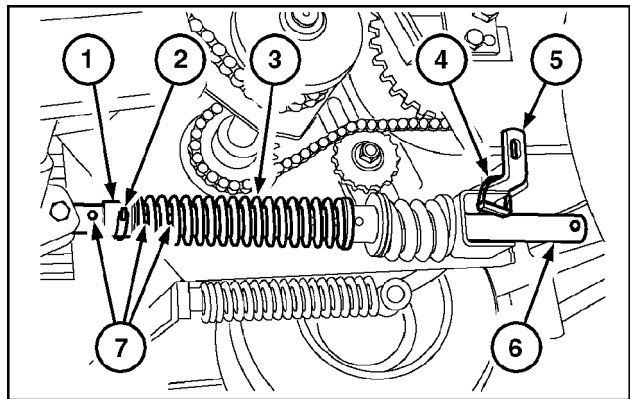
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### Pickup flotation

The pickup flotation rod serves several functions:

- Figure 4: Pickup float position for field operation, requiring the pickup wheels to run on the ground.

The rear pin (4) is removed from the rod and installed on the support (5). The front collar (1) is locked with the front pin (2) in one of the normal flotation holes (7) in the flotation rod (6). The weight of the pickup is carried by the spring (3) together with the pickup wheels.



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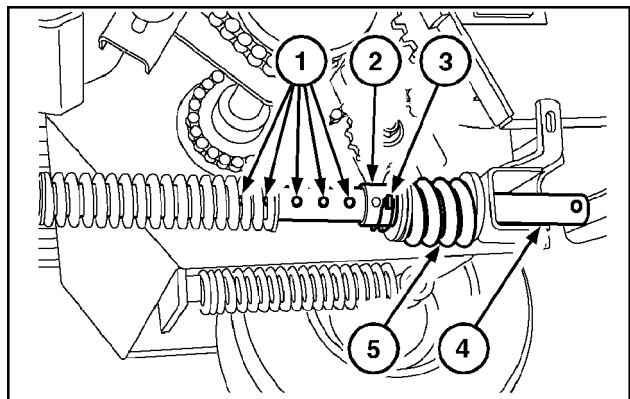
Guards removed for clarity

- Pickup fixed height position for operation in rough or high stubble fields, requiring the pickup wheels to be lifted off the ground.

The rear pin (3) secures the rear collar (2) in one of the fixed height position holes (1) in the flotation rod (4). The weight of the pickup is completely carried by the rear spring (5). The front spring, collar and pin are free of strain. To install the pin in the fixed height position, the pickup must first be lifted with the tractor hydraulics.

- Pickup transport position.

The rear pin secures the rear collar in the transport position hole of the flotation rod. The weight of the pickup is carried by the rear spring. To install the pin in the pickup transport position, the pickup must first be lifted completely with the tractor hydraulics.



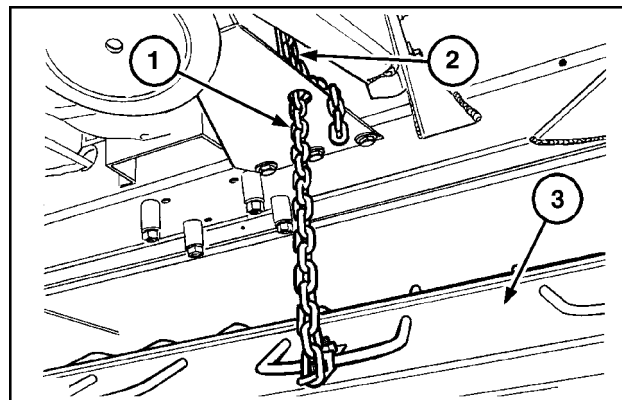
ZIL10FCRB755AAA 5

Guards removed for clarity

## Baffle plate control

The pickup baffle plate **(3)** holds the crop in contact with the pickup tines for positive feeding.

It is adjustable in height with the chain **(1)** to suit the volume of the windrow. A hook **(2)** is provided on the frame to attach the chain.



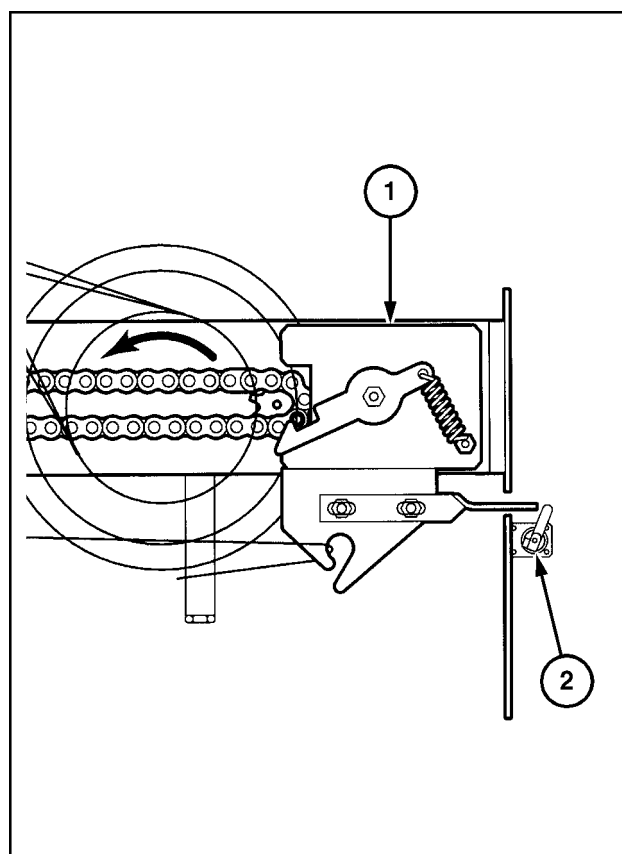
ZIL10FCRB828AAA 6

## Bale counter [25779184]

The Twin Twine models are equipped with a mechanical bale counter **(2)** on the frame right-hand side sheet.

Every time a wrap cycle takes place, the right-hand twine spreader **(1)** will increase the bale count by one.

The bale count can be reset to zero whenever wanted.



ZIL10FCRB010BAA 1

## Tailgate [25766723]

### Lock out valve

#### **⚠ DANGER**

**Crush hazard! The tailgate may close faster than you can move away.**

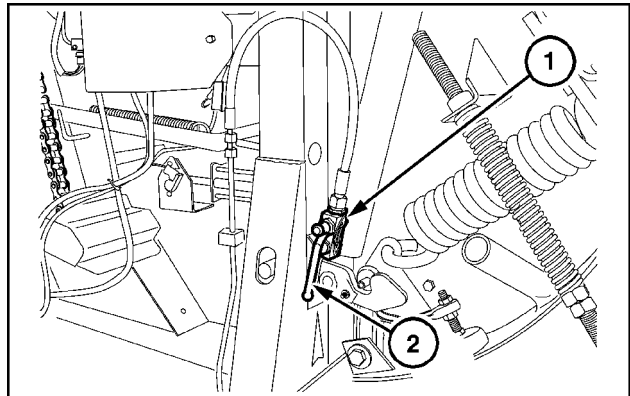
**ALWAYS** make sure the tailgate lockout valves are in the OFF (locked) position before working under a raised tailgate. In the event of a sudden loss of hydraulic pressure, the tailgate will fall if the lockout valves are not engaged. Stand clear of the tailgate before disengaging the lockout valves.

**Failure to comply will result in death or serious injury.**

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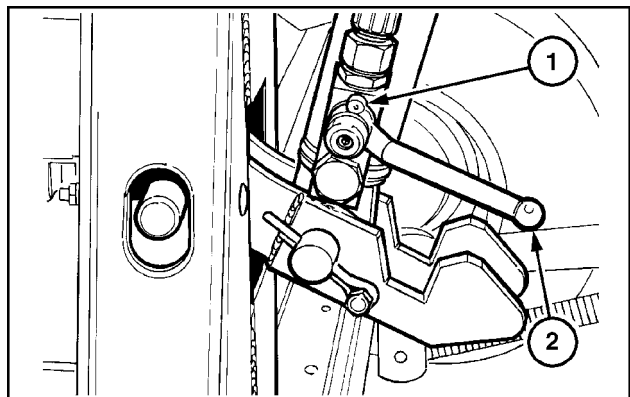
The tailgate lock out valve allows the operator to lock the tailgate in any position to allow for easy access for servicing. An instructional decal for valve control is located on the valve body.

With the handle in position **(1)**, the valve is closed, in the position **(2)**, the valve is open for normal operation.



ZIL10FCRB260AAA 1

With the handle in position **(1)** the lock is closed, in the position **(2)**, the valve is open for normal operation.



ZIL10FCRB079AAA 2

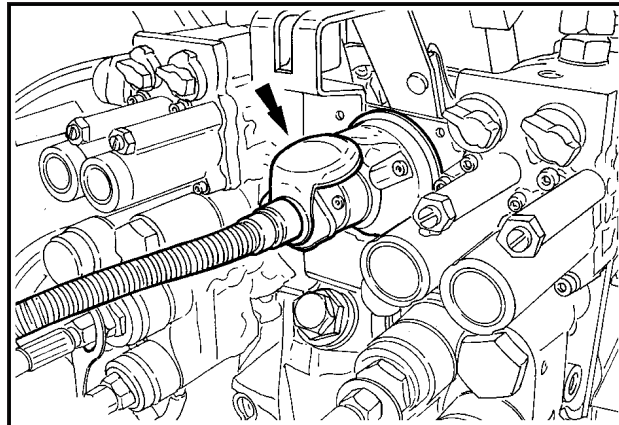
## Electrical connections [25763747]

### Road lights

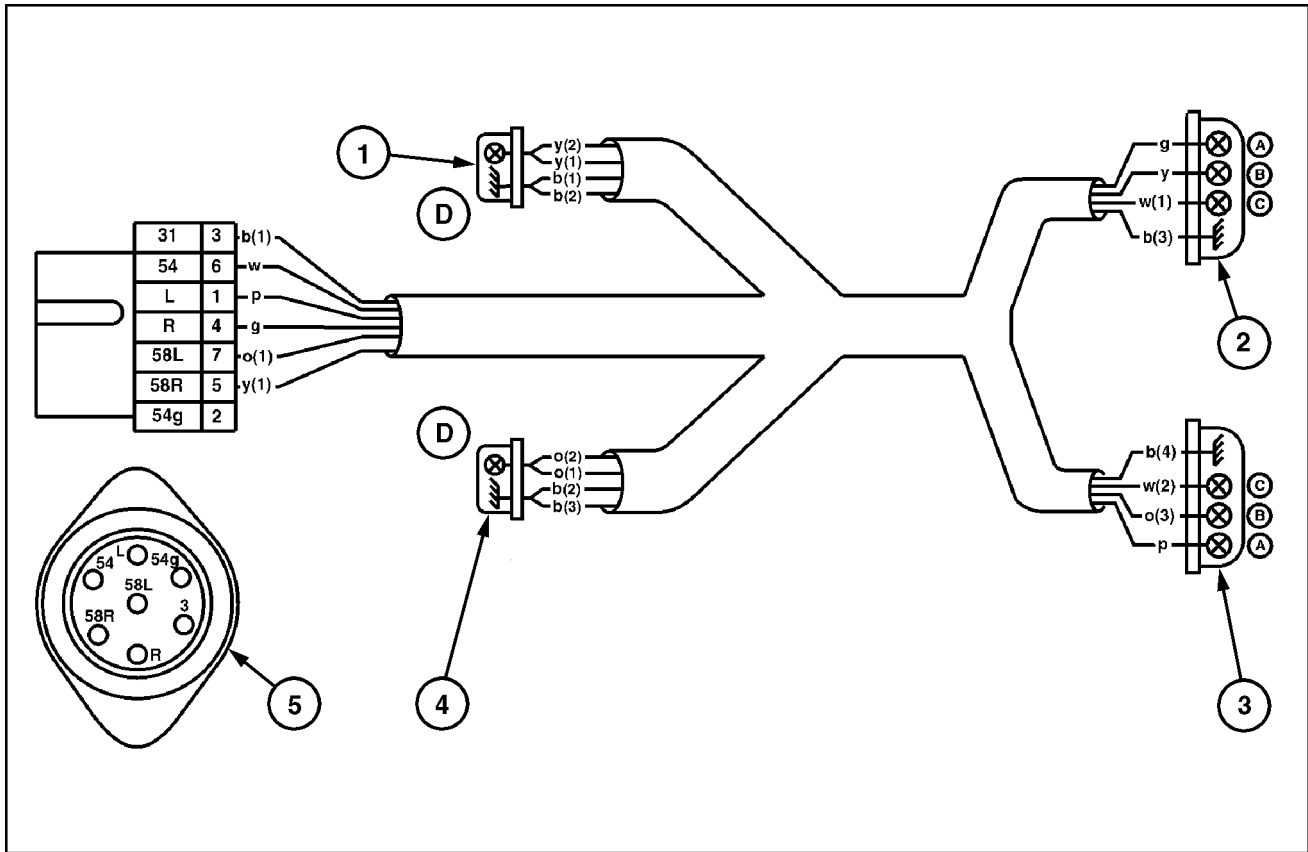
To connect the road light installation of your baler to the tractor, fit the baler plug in the tractor socket.

The road light equipment includes front and rear parking lights, stop lights, direction indicator lights and reflectors.

1. Verify the proper operation of the electrical equipment.
2. Refer to the wiring diagram if the light equipment causes problems, verify the compatibility of the tractor's and baler's electrical circuit.



ZIL10FCRB669AAA 1



ZIL10FCRB034FAA 2

#### Components

1. Right front parking light
2. Rear lights, right
3. Rear lights, left
4. Left front parking light
- 1 : Tractor connecting plug
- 31 : Earth
- 54 : Stop lights
- L : Direction indicator, left
- R : Direction indicator, right
- 58L : Parking lights, left
- 58R : Parking lights, right
- 54g : -

#### Color code

- b : Black  
w : White  
p : Purple  
g : Green  
o : Orange  
y : Yellow

#### Light bulbs

- A. Direction indicator light (P - 12 V - 21 W)
- B. Parking light, rear (R - 12 V - 10 W)
- C. Stop light (P - 12 V - 21 W)
- D. Parking light, front (K - 12 V - 10 W - DIN 72601)

## STARTING THE UNIT

### Machine preparation [32296915]

With the baler hitched to the tractor and all electrical and hydraulic connections made, prepare as follows.

Before starting the towing unit

1. Ensure PTO engagement is OFF

Check all road lights and indicators are operational if towing on the highway.

Start the towing vehicle and at fast idle

2. Check the hydraulic operation of the pick up (where fitted)

The tailgate raise and lower

The rotor reverser (where fitted)

Check electrical operation of the monitor

control box (where fitted)

#### PTO Engagement

3. Set the throttle at half speed and engage the PTO, this lower starting speed will reduce the shock load to the driveline.  
If all functions are okay the baler is now ready for its purpose, disengage the PTO and tow or transport the baler to the field:  
Transport Operations.  
When at the field and before operating the baler:  
Working Operations.

## PARKING THE UNIT

### Parking the machine [31337534]

1. Chock the wheels and or apply park brake (where applicable)
2. Place the jack, in the down position, and insert the pin. Turn the crank to remove the weight from the drawbar.
3. Remove the PTO, from the tractor and store it on top of the A frame.
4. Remove the hydraulic lines from the tractor, and place dust caps on the ends of the hydraulic lines.
5. Disconnect the cable for the wrapper and the tail-light connector, from the tractor to the baler. Install the dust caps, on the monitor harness.
6. Store the ends of the hydraulic hoses and wire harnesses in the A frame.



## 5 - TRANSPORT OPERATIONS

### ROAD TRANSPORT

#### Towing the machine [25782288]

##### Recommended Practice for Towing Agricultural Machines

**NOTE:** Always investigate and comply with local road regulations governing transporting, towing, equipment on public roads.

Make sure a safety chain is installed (where applicable), the pickup is in the raised position and all hoses and wire harnesses are secured before towing the baler.

Do not carry a bale in the chamber when travelling on the road.

Round Baler Maximum Permissible Towing Speeds On or Off Road, but is subject to your local legislation:

|                |                                                                 |
|----------------|-----------------------------------------------------------------|
| With Brakes    | <b>40 km/h (25 mph)</b> or local regulation, whichever is less. |
| Without Brakes | <b>32 km/h (20 mph)</b> or local regulation, whichever is less. |

Tow agriculture equipment with proper size and weight tractor.

Baler WITHOUT BRAKES the maximum allowed baler weight must be below the maximum allowed towed weight WITHOUT BRAKES found in the tractor documentation or on the tractor PIN plate.

OR

Weight of the baler WITHOUT BRAKES must not be more than 1.5 times the tractor weight, whichever is less.

Baler WITH BRAKES the maximum allowed baler weight must be below the maximum allowed towed weight WITH BRAKES found in the tractor documentation or on the tractor PIN plate.

OR

Weight of the baler WITH BRAKES must not be more than 4.5 times the tractor weight, whichever is less.

#### Towing

Do not tow the baler with a bale in the bale chamber.

Make sure the reflective decals, reflective tape, reflectors and lights are clean and clearly visible.

Lift the pickup all the way up and lock it .

Make sure the hitch pin is of adequate size and cannot come out.

Attach the tow chain (if so equipped).

Secure all of the hydraulic lines and electrical harnesses.

If the PTO drive shaft is not attached to the towing vehicle, use a secure strap to hold the PTO drive shaft on the A frame.

If the baler has brakes, attach the brake lines.

Attach a safety breakaway chain/cable to the back of the tow vehicle (where applicable).

## PREPARING FOR ROAD TRANSPORT

### Lifting the machine [25871025]

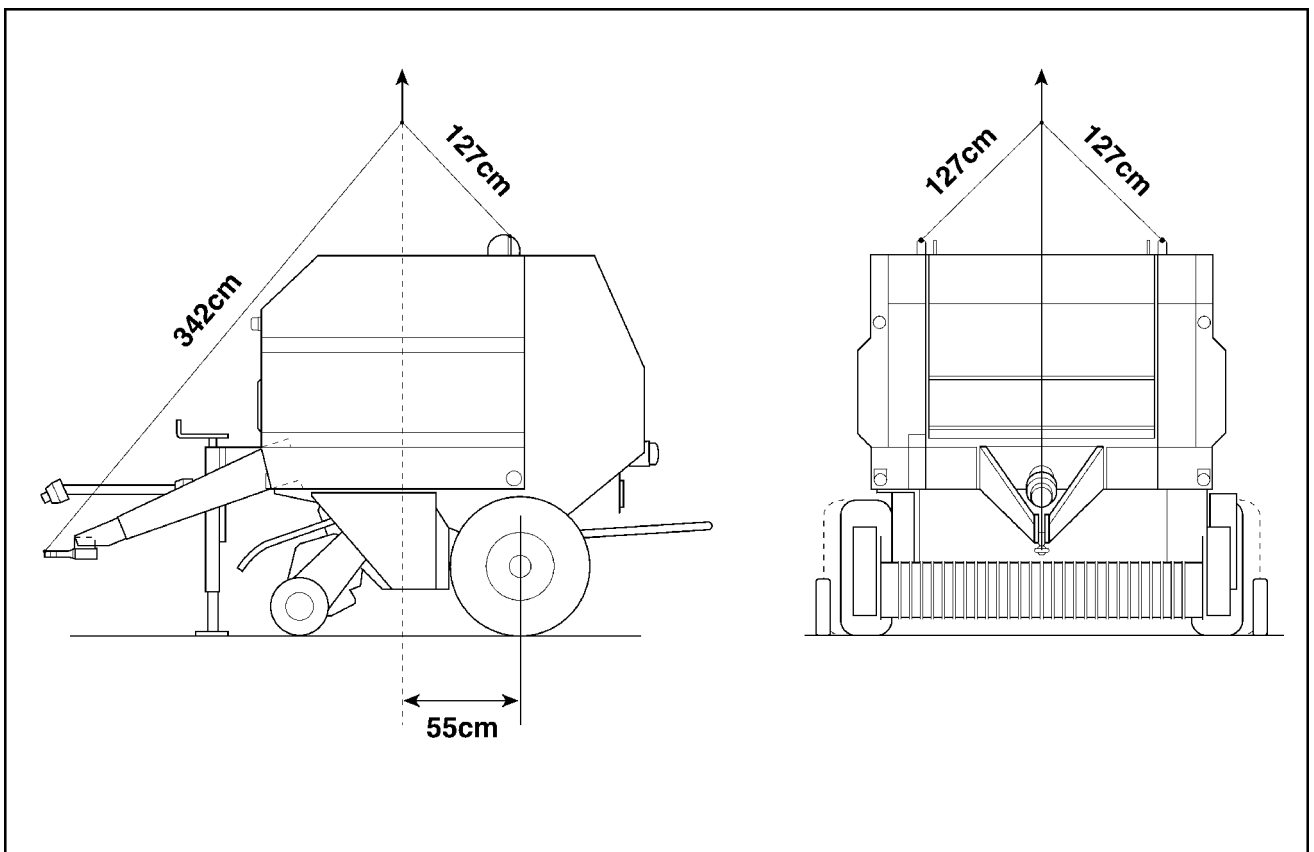
When lifting the baler, always make sure that all loose components are securely fastened to the machine:

- PTO front half
- Spare net roll basket
- Hydraulic hoses
- Monitor and road light wire harnesses
- Twine balls
- Net rolls
- Pickup wheels
- Tractor wire harness and battery cable
- Operator's manual

Close all guards and lock the pickup in the transport position.

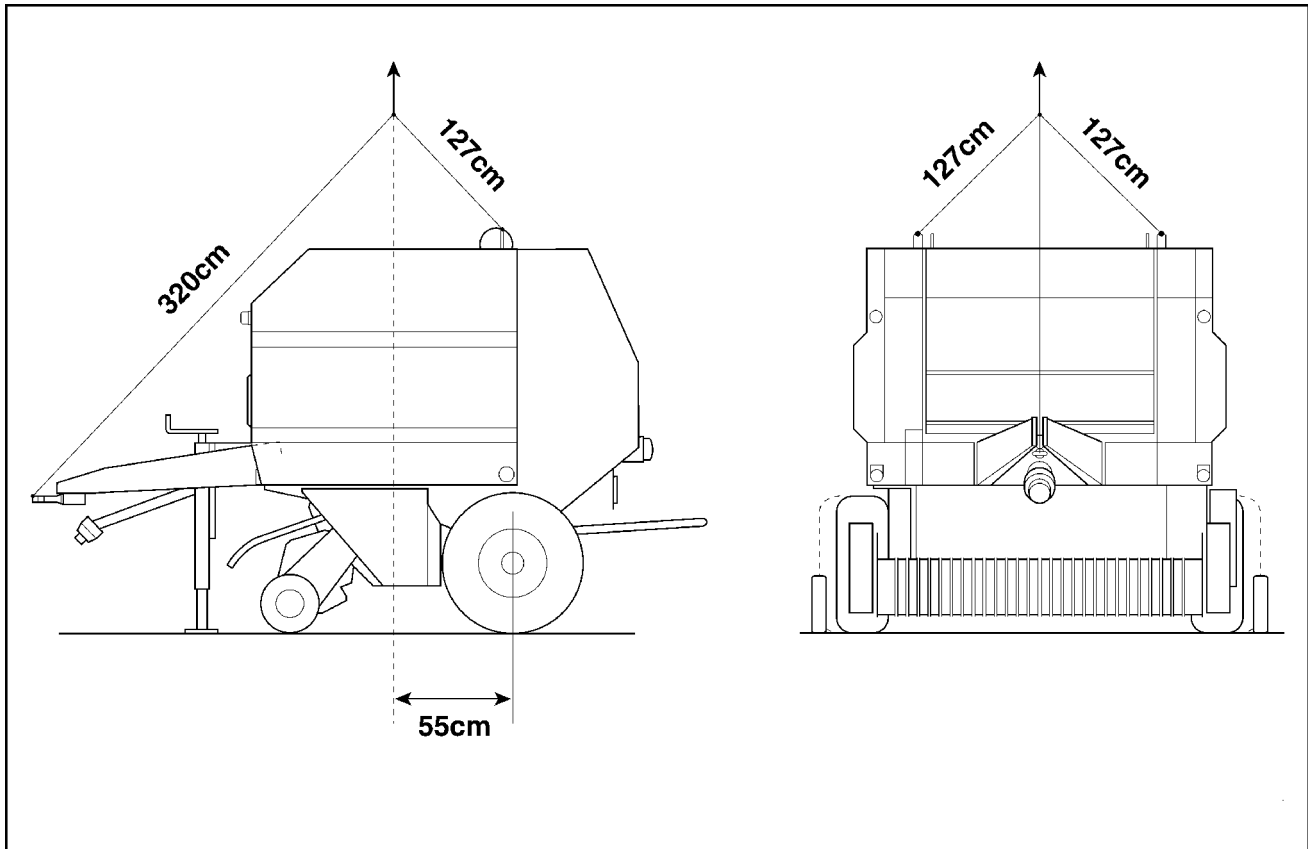
Use chains of adapted strength regarding the baler weight of **2600 - 2700 kg** (empty).

### Low hitch



ZIL10FCRB003FAA 1

## High hitch



ZIL10FCRB004FAA 2

## 6 - WORKING OPERATIONS

### GENERAL INFORMATION

#### Bale Formation Overview [25786363]

##### Bale makeup

The baler is designed to make cylindrically shaped bales not exceeding **800 kg (1763.7 lb)** composed of 3 distinct layers of varying density.

Level 1, the outer crop layer, is the most dense, providing good weathering characteristics to the bale.

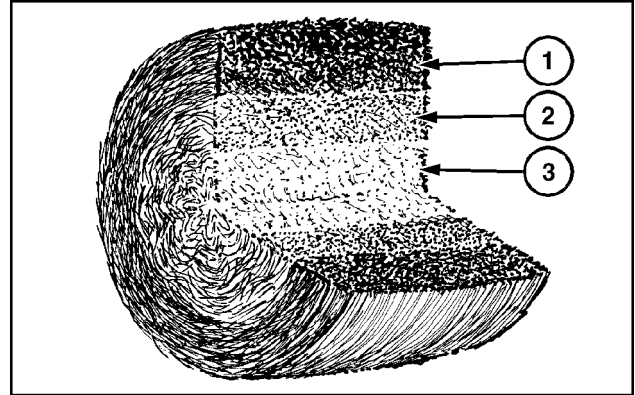
Level 2 consists of higher density layers, without damage to the crop.

Level 3 is a low density core, allowing the crop to breath.

The thickness of these layers compared to each other will be altered by changing the overall full bale density.

The quality of the bale is wholly dependent upon many variables, including the type and variety of crop, how the crop was prepared, size and shape of the windrow, moisture content, feeding rate and the operator driving technique, and selected bale density.

**NOTE:** The thickness of these layers compared to each other will be altered also by changing the overall full bale density on the monitor in the tractor.



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##### General

1. Always work in safe conditions, on flat, hard, dry ground.
2. Never stand on guards, neither in open, nor in closed position.
3. Never put hands or fingers through any holes or slots in the guarding or the chassis.
4. Do not climb on the baler. If certain areas cannot be reached from the ground, use a stable step or ladder to reach these areas.
5. Thoroughly read and understand this manual, in particular the safety instructions, before proceeding with operation, adjustments and maintenance, and repairs described in this manual.

##### Preparing the hay crop for baling

The crop to be baled can be prepared in a number of ways, depending on your preference and equipment available. The most desirable bales are produced when the crop is cut, conditioned and then raked into windrows of the proper size.

This allows the operator to weave and properly position the material in the baler, producing compact, uniform bales.

Moisture content requirements for the round bale technique is up to **18 %** maximum.

- If the moisture content is too high, spoilage can be expected.
- If the moisture content is too low, excessive leaf loss and shatter will occur.

Cut the crop as long as possible. In most crops, longer material is easier to bale and results in smoother finished, more weather-resistant bales.

Do not over condition the material, particularly legume-type crops such as lucerne and clover.

Over conditioning will cause the leaves to dry too quickly and break off where they are damaged, resulting in losses. If the bales are to be stored outside, excessive shattering of stems will invite moisture absorption.

Under conditioning can also cause spoilage, particularly when baling cane-type crops and other heavy stemmed materials.

Excessively dry, slippery materials sometimes encountered in maize stalks, certain grass types, and various types of grain straw can be successfully baled providing the material is of sufficient length to hold the bale together.

### Wilted grass for silage

The crop can be cut and prepared with the usual equipment such as a mower or a mower-conditioner and a tedder rake.

Produce uniform swaths. An even, full windrow is desirable. The best results for conservation are obtained when the crop is baled at a dry matter content between **40 - 60 %**.

### Straw crops

If at all possible, ensure at the time of combining a grain crop that the straw is not chopped excessively by the combine's threshing mechanism. Do not stir up the swath prior to baling if the straw is already very dry and short. A properly sized, full swath produced by a large combine will give better results than a very small swath. The width of the swath, as described below, can be controlled by adding deflectors in the combine straw hood.

### Important operating tips Straw / grass type crops

In voluminous straw windrows, make sure that the crop is not rolling under the tractor rear axle and baler hitch. When breaking loose, this may plug the baler pickup and throat.

In these conditions, try to pickup the windrows in the same direction as they were laid down by the combine in order to obtain a more even feed of the crop. When baling straw windrows in the same direction as they were laid down by the combine, they will have a shiny aspect. Looking in the opposite direction, the windrows will have a more dull appearance.

Fit a canvas underneath the tractor body and rearward under the hitch to deflect the crop down.

Adjust the windguard baffle plate high enough to prevent it from bulldozing the windrow.

In heavy, bunchy, uneven windrows, reduce the ground speed when necessary to allow the pickup to tear the bunches apart as they are fed into the machine. This will minimize plugging of the pickup and the feeder area.

### Light windrowed crops

In very small windrows, the incoming crop is crushed by the weight of the bale. As a result, pressure buildup is much slower which may result in too dense bales.

If problems are experienced with feeding small windrows, increase the ground speed or decrease the PTO speed.

Raking two windrows together under these conditions will also help baling efficiency and performance. Select a lower full bale density.

### Stalk-type crops

In baling long stalk crops such as sorghum or maize stalks, especially when the crop is extremely dry (less than **10 %** moisture content) or has been shredded with a rotary type cutter, baling difficulties may be experienced.

Under these conditions, the material is crushed easily and loses its form and shape. The bale will have tendency to disintegrate or not start rolling at all.

Slowing the PTO speed down to **350 - 450 RPM** while maintaining a normal feed rate will usually allow the baling operation to take place.

Other adjustments that will help are:

- Decrease the full bale density.
- Disengage the PTO when not feeding material, such as in field corners and when turning on the headlands or at the end of windrows.

### Short or brittle crops

Baling difficulties may be experienced when baling short, stalky crops (hay or straw), especially when the crop is extremely dry (less than **10 %** moisture content) or has been shredded with a rotary type mower or chopper.

Under these conditions, the material is crushed easily and loses its normal form and shape. The bale will have tendency to disintegrate or will not start rolling at all.

Slowing the PTO speed down to **350 - 450 RPM** while maintaining normal feed rate will usually allow the baling operation to take place. Sometimes it may only be necessary to slow down until the core is formed.

Other adjustments that will help are:

- Decrease the full bale density.
- Disengage the PTO when not feeding material, such as in field corners and when turning on the headlands or at the end of windrows.

### Bale density

Bale density is determined by many variables including type and condition of the crop, method of preparing the crop, moisture content, size and shape of the windrow and travel speed. Bale density can be controlled by increasing or decreasing the volume of the windrow and by altering the ground speed.

Mechanical bale density adjustment can be controlled from the tractor seat by altering the bale density at which the wrap cycle is initiated.

Experience has shown that the best quality bales (with regard to making, handling, storing and feeding) result if the operator keeps the following points in mind.

### Full bale density

Full bale density is determined by the amount of tailgate opening during bale formation and is controlled from the tractor seat by altering the bale density at which the wrap cycle is initiated.

Depending on crop conditions, recommended full bale density settings are:

- 1 maximum at first start-off.
- 1 for hay crops, to allow aeration and breathing of the bale core during conservation.
- 1.5 to 2 for straw and silage crops, to ensure maximum density of the bales.
- Very high densities can be achieved with higher settings, but this will result in higher power needs and maintenance costs, as well as increased shearbolt failures.

**ATTENTION:** Some crops (e.g. wet silage) can result in bales exceeding the maximum weight limit of **800 kg**. It is then extremely important to reduce full bale density to keep weight within this limitation.

*Continuously making overweight bales may appreciably reduce baler life.*

*At initial start-off with a new baler, select a lower full bale density for the first bales until the paint inside the bale chamber has become polished.*

The density springs in the tailgate are preloaded in the factory. This preload cannot be changed in the field.

### Feed rate

The amount of time the material spends in the bale chamber has an important effect on bale density. If large voluminous windrows are fed into the baler quickly, the density of the ejected bales will be lower than if a lower rate of feed is used.

A longer cycle time will result in denser bales, but crop loss and baling capacity will decrease. The operator should learn to adjust the ground speed in order to provide a feed rate consistent with optimum performance.

For well shaped and dense bales, reduce the forward speed near completion of bale formation.

This will allow some relaxation time for the incoming crop to be well compressed, resulting in a tight, waterproof outer layer with good conservation characteristics.

### Windrow size

Refer to "Windrow size - Feeding the windrow - Bale formation".

### Systematic procedure when starting to bale

The procedure below outlines the steps to be taken when starting off in a new field.

Special attention will be paid to precautions to be taken when making the first bales at initial start-off.

1. Check if the baler is properly loaded with twine. Refer to "Loading twine".
  2. Select the desired number of wraps on the pattern pulley. Refer to "Loading twine". Make sure the twine wrapper is in the home position.
  3. Lower the pickup and check for correct pickup height suitable for the field to be baled.
- NOTE:** On machines fitted with the pickup hydraulic lift feature (optional), lower the pickup hydraulically and place the valve lever in the float position.
4. Set the full bale density pointers. Set the full bale density alarm (optional).
  5. Make sure the tailgate is closed and latched. The tailgate hooks must be pulled up and engaged in the density spring pins, the density indicators point at "zero" density.
  6. Engage the PTO. Less shock is transmitted to the driveline if the tractor is set at low idle speed before engagement. After the baler is running, adjust the PTO speed up to **540 RPM**.
  7. Start baling. Closely watch the pickup performance and the left and right bale density indicators during bale formation.

## Windrow size - Feeding the windrow - Bale formation

### Windrow size

Good, uniform bales are made by feeding either full bale chamber width windrows of **110 - 130 cm (43.3 - 51.2 in)**, or narrow windrows of half or less the chamber width, **70 cm (27.6 in)** or less. Avoid medium sized windrows of **80 - 100 cm (31.5 - 39.4 in)**, which are between half and full chamber width. As the operator crosses this size windrow to alternately feed material into the side ends of the bale, material is continuously fed into the centre of the bale. This will result in barrel-shaped bales. On the other hand, oversized windrows of more than **140 cm (55.1 in)** wide will increase the risk of blockages in the pickup.

In order to avoid crop losses and ensure good bale formation, try to obtain flat, even windrows of **0.3 - 0.4 m (11.81 - 15.75 in)** high. This will result in higher density, lower power consumption and better conservation characteristics, compared to high irregular windrows.

### General operating tips

- For good bale starts, reduce the forward speed at the beginning of bale formation.
- For well shaped and dense bales, reduce the forward speed near completion of bale formation. This will allow some relaxation time for the incoming crop to be well compressed, resulting in a tight, water-proof outer layer with good conservation characteristics.
- Prevent stones, boards or other foreign materials from entering the baler to avoid damage to the machine components.
- Do not backup the baler over the windrow to prevent material from being wedged between the floor roll and the pickup frame.
- Avoid driving the pickup wheels over the windrow (especially when baling on the headlands), as this may cause blockages and wrapping around the pickup wheels and centering augers, as well as between the pickup side sheets and the windguard.
- On wide pickup models, keep in mind that the pickup centering augers only serve to take up irregularities in the windrow. So, when feeding the sides of the bale chamber, do not drive on the augers to avoid blockages in this area.

## Feeding the windrow

### Full bale chamber width windrows

**120 - 140 cm (47.2 - 55.1 in).**

Full width windrows are desirable since no weaving or crossing the windrow is needed. The windrow should be even and rather flat, without too much of a crown in the middle, as this will result in barrel shaped bales.

Drive straight over the centre of the windrow to obtain well-shaped cylindrical bales with properly filled and dense bale ends.

### Narrow windrows

**60 - 70 cm (23.6 - 27.6 in).**

When baling narrow windrows, start bale formation in the centre to enable rotation of the bale during its formation. Then start feeding the left and right side of the bale chamber alternately by running **6 - 8 s** on one side, then crossing over to the other side for another **6 - 8 s** and so forth, Figure 2. Watch the bale density indicators during bale formation to correct the weaving pattern, if needed.

When the bale is near completion, feed the windrow in the middle of the pickup before stopping the forward motion.

Do not weave continuously as shown in Figure 3. If the left/right shifting is too frequent, the ejected bale will be barrel-shaped, causing stability (twine end wraps falling off), transport and stacking problems. Furthermore, barrel-shaped bales put high loads on the middle of the conveyor bars and on the chain, and increased wear or even damage may result.

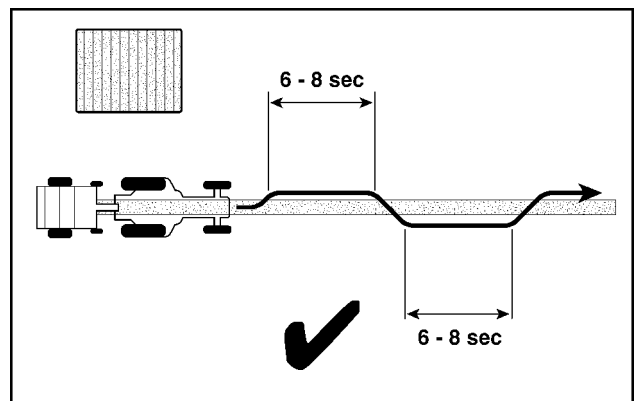
### Medium-sized windrows

**80 - 100 cm (31.5 - 39.4 in).**

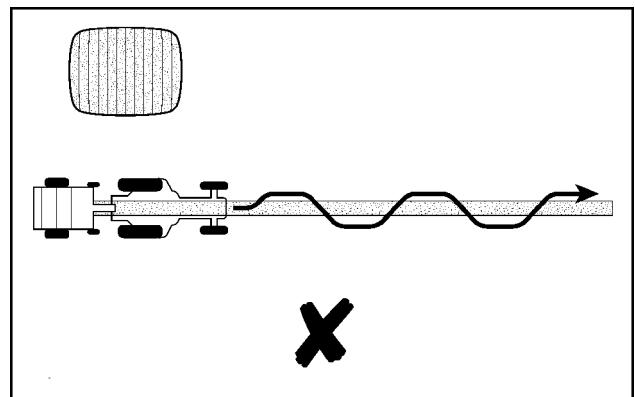
Avoid medium sized windrows! When crossing these windrows to fill the other side of the bale, material is continuously fed to the centre. At the end of bale formation, more material will be fed in the centre of the bale resulting in barrel-shaped bales (Figure 3), causing stability (twine end wraps falling off), transport and stacking problems. Furthermore, barrel-shaped bales put high loads on the middle of the conveyor bars and on the chain rollers, and increased wear or even damage may result.

**Oversized Windrows:** Wider than **140 cm (55.1 in)**.

Too wide a windrow may lead to blockages at the pickup sheets, the pickup centering augers and the feeder area, as well as to problems with bale ejection.



ZIL10FCRB814AAA 2



ZIL10FCRB815AAA 3

## **Safety hints for operational problem conditions**

### **Whenever leaving the tractor seat**

1. Stop the tractor PTO shut down the engine and apply the handbrake.
2. Verify that all rotating parts have stopped.
3. Cut electrical power to the implement, unless otherwise required.
4. Do not hurry, remain alert for machine components under pressure, tension, unbalance, heat, etc.
5. Mind the PTO shaft, and ensure all guards are in good condition.

## Pick up [32466429]

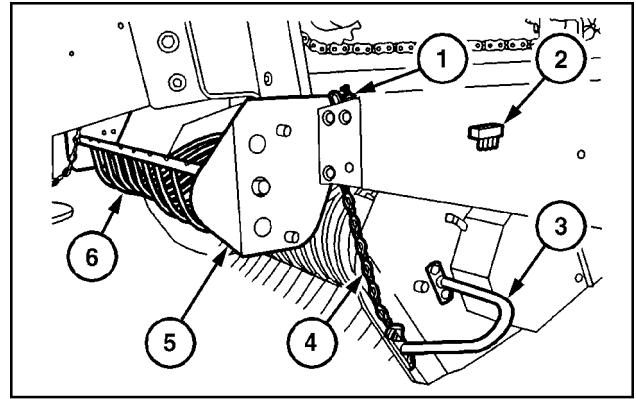
### Standard pickup

Windguard, Figure 1.

The windguard (6) is made quick-attach by means of a spring-loaded plate (5), to make clearing of blockages more easy.

Furthermore, the windguard can be located in 2 different positions:

- Lower hole for short crop, small windrows.
- Upper hole for big voluminous windrows.

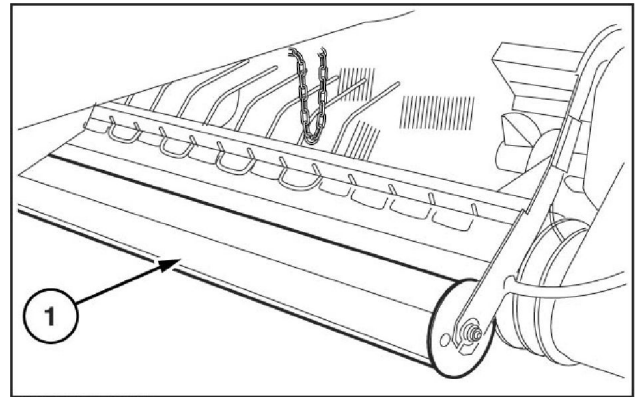


### Roller windguard (where fitted)

A roller windguard is available which aids crop flow into the rotor.

The windguard can be located in 2 different positions:

- Lower hole for short crop, small windrows.
- Upper hole for big voluminous windrows.



### Pickup height

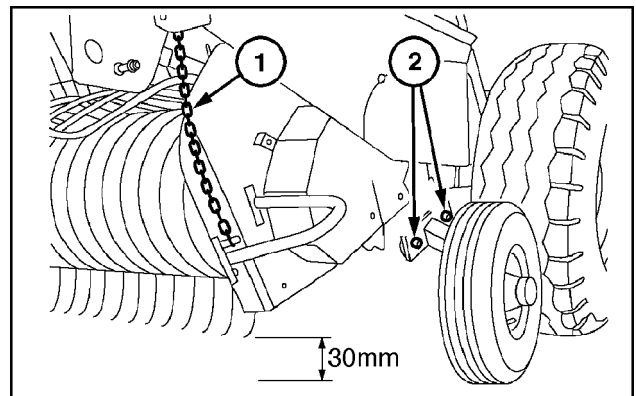
On machines fitted with the accessory pickup gauge wheels, adjust the gauge wheels with bolts (2) to obtain a minimum pickup tine to ground clearance of **30 mm (1.2 in)**. Increase the pickup height in stony or uneven field conditions.

Adjust suspension chain (1) with a little slack.

In extremely rough or high stubble conditions, it is even recommended to work with the pickup wheels off the ground. Lift the pickup completely and adjust the pickup height as explained below.

On machines without gauge wheels, adjust the pickup height with chain (1). To change the pickup height, grab the handle (3) (Figure 1) and lift the pickup manually to relocate the chain in the notch (1), Figure 1.

On machines equipped with the pickup hydraulic lift feature, the pickup can be lifted with the tractor hydraulics to adjust chain (1). For road transport, lift the pickup completely and engage the chain as high as possible. Then lower the pickup hydraulically and place the valve lever in the neutral position.

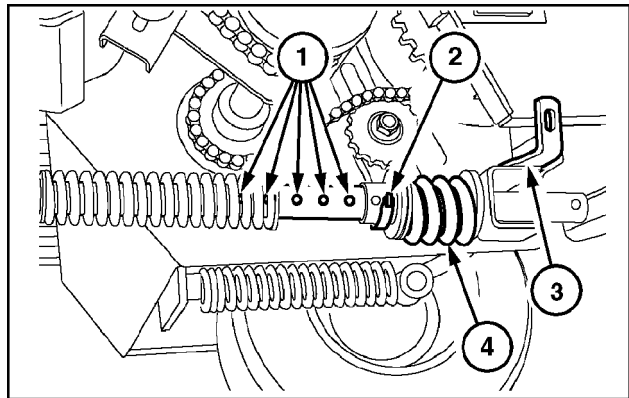


## Wide pickup

Remove the rear spring pin (2) from its transport position hole and relocate it to support (3).

With the pickup hydraulic lift attachment, lower the pickup and place the tractor valve lever in the float position.

The normal pickup tines to ground clearance is **30 mm (1.2 in)**. Adjust the ground clearance as described for the standard pickup.



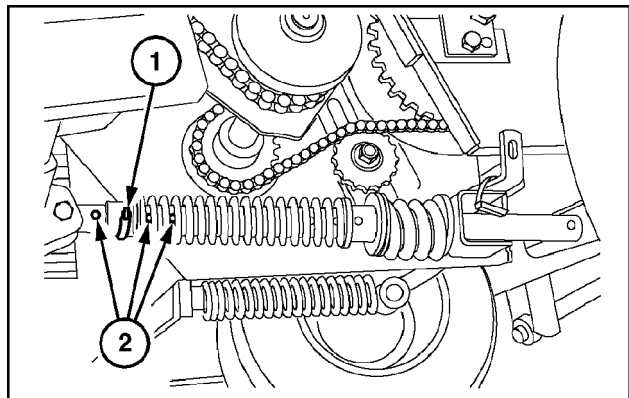
## Pickup fixed height position

For special conditions such as rough straw fields, the pickup flotation linkage provides the possibility to work with the gauge wheels off the ground.

To work with the gauge wheels off the ground, lift the pickup hydraulically and locate rear spring pin (2) in one of the holes for fixed height position (1).

Lower the pickup hydraulically. The pickup will now be suspended by rear spring (4).

Normal pickup flotation starts when a force of **300 N (67.4 lb)** is applied on the gauge wheel. If needed, lift the pickup again and relocate the front spring pin (1) in one of the holes (2) for pickup flotation.



## Baler Preparation [31337303]

Check that the twine tubes, net knife is in the home position, that the pickup is lowered and that the tailgate is latched.

Set the throttle at half speed.

Turn on the PTO.

The lower starting speed will reduce the chance of shearing the driveline shearbolt, on some units, and reduce peak loads on the driveline.

Increase the throttle to the rated speed.

Do not operate at more than the rated speed, less will save wear on the baler.

**ATTENTION:** Do not allow stones, boards or other foreign material to enter the baler. Damage to the baler may result.

Do not back over windrows. Crop could become wedged between the pickup frame and the floor roll.

## Driveline protection [25789250]

**NOTE:** The PTO Driveline protection on this baler varies between the pickup fitted and or optional Cut out clutch on the wide version and considered as:

1. Wide angle with optional cut-out clutch **1300 N·m**
2. Single joint PTO with shearbolt **1100 N·m**
3. Wide angle PTO with shearbolt **1100 N·m**

Where the baler driveline is protected from overload and damage by a shearbolt (1) in the PTO driveline, and the shearbolt breaks, the power transmission from the tractor to the baler will be interrupted and the machine will start bulldozing the crop in front of the pickup.

Then proceed as follows:

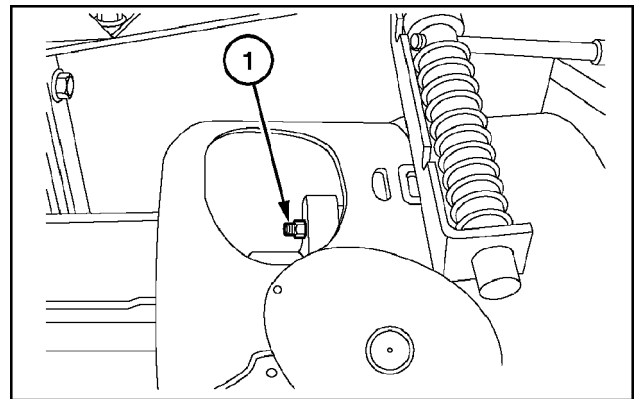
### **⚠ WARNING**

**Entanglement hazard!**

**Disengage the Power Take-Off (PTO), turn off the engine, and remove the key. Wait for all movement to stop before leaving the operator's position. Never adjust, lubricate, clean, or unplug machine with the engine running.**

**Failure to comply could result in death or serious injury.**

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## Shearbolt failed

Stop the tractor forward motion immediately. Reverse a few metres.

Disengage the PTO, shut off the tractor engine and apply the handbrake before leaving the tractor.

### WARNING

**Personal Protective Equipment (PPE) required.**

**When assembling, operating, or servicing the machine, wear protective clothing and PPE necessary for the particular procedure. Some PPE that may be necessary includes protective shoes, eye and/or face protection, hard hat, heavy gloves, filter mask, and hearing protection.**

**Failure to comply could result in death or serious injury.**

W0353A

Look for the cause of the problem and unplug the pickup, if necessary.

Replace the shearbolt through the access hole in the PTO guard. Should the shearbolt be difficult to access, then remove the complete PTO shaft from the gearbox input shaft. Securely reinstall the PTO shaft afterwards.

Main reasons for shearbolt failures are:

Big lumps entering the baler at the end of bale formation

Too high density bale in the bale chamber

Stones, branches or other foreign objects entering the baler and blocking the conveyor bars

Shearbolt fatigue

## PTO cut out clutch (Optional)

A two cam-type cut-out clutch in the PTO drive shaft, just in front of the gearbox in the cross beam of the baler, protects the driveline and the baler from overload.

The clutch is factory-set at **1300 N (292.3 lb)** torque and does not require adjustment or maintenance.

In case of overload, the clutch will automatically break loose and stop driving the baler.

A noise will be heard, the baler will stop operating and start bull dozing the windrow in front of the pickup.

This will mostly happen when a big lump is fed into the machine at the end of the bale formation process. Too high setting increases the chance of overloading the clutch.

When the clutch breaks loose proceed as follows:

1. Stop tractor forward motion immediately and reverse for a few metres.
2. Shut off the tractor PTO completely this will reset the cut-out clutch.
3. Reduce the engine speed to somewhere just above engine low idle speed.
4. Reengage the tractor PTO (at low engine speed) in a start stop manner, trying to clear the blockage.
5. Normally the blockage will clear itself after a few attempts. Increase the PTO speed back to **540 RPM** and continue baling.

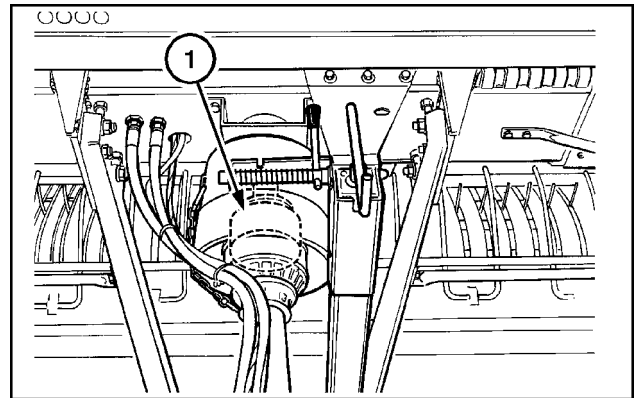
**NOTICE:** In case of heavy blockages (ex stones) the clutch may not fully reengage and continue hammering or the tractor may shut down. Do not continue to run the baler like this as fast wear or even damage to the driveline may result.

### ⚠ WARNING

#### Entanglement hazard!

**Disengage the Power Take-Off (PTO), turn off the engine, and remove the key. Wait for all movement to stop before leaving the operator's position. Never adjust, lubricate, clean, or unplug machine with the engine running. Failure to comply could result in death or serious injury.**

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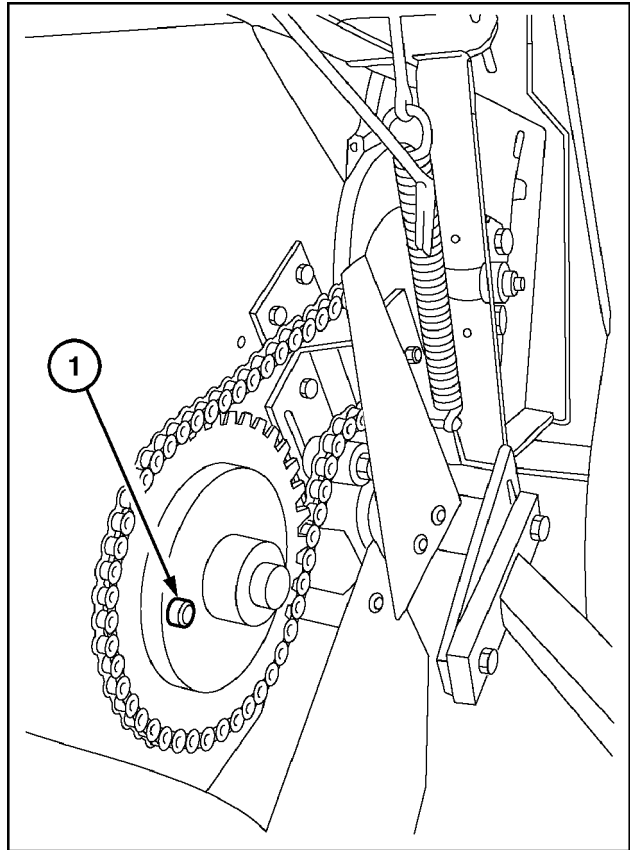
In the case of severe blockage and the clutch will not reset after a few short attempts proceed as follows:

1. Shut off the PTO and the tractor engine
2. Observe the problem
3. Clear the blockage by hand (ex eject the bale, pull out the excess to the front of the pickup etc)
4. Continue baling

### Pickup shearbolt (standard pickup models only)

The pickup driveline is protected from damage and overload by a shearbolt (1) in the pickup drive sprocket.

When the pickup shearbolt breaks, the pickup reel drive is stopped and the pickup will start bulldozing the windrow.



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Use genuine shearbolts at all times and keep spare shearbolts in the holder (1).

To ease the clearing of blockages, the pickup windguard is made quick-attach.

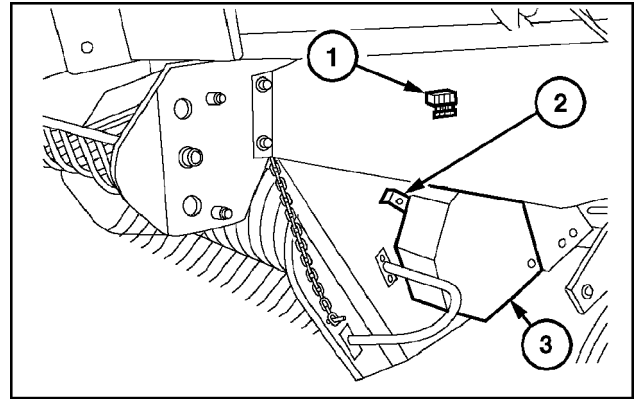
To gain access to the shearbolt, remove the bolt at (2) and pivot the guard (3) down. Guards removed for clarity

In case of a pickup shearbolt failure, proceed as follows:

1. Stop the tractor forward motion immediately. Reverse a few metres.
2. Disengage the PTO shut off the tractor engine and apply the handbrake before leaving the tractor.
3. Look for the cause of the problem and unplug the pickup, if necessary. Pull the crop out to the front.
4. Replace the pickup shearbolt.

Main reasons for shearbolt failures are:

- Big lumps of silage entering the pickup
- Unexpected pot holes in rough fields
- Pickup tine to ground clearance too small, pickup tines digging in the ground
- Stones, branches or other foreign objects entering the pickup
- Shearbolt fatigue



ZIL10FCRB784AAA 4

### Pickup shearbolt (wide pickup models only)

The pickup driveline is protected from damage and overload by a shearbolt **(2)** in the pickup drive sprocket. Guards opened for clarity

When the pickup shearbolt breaks, the pickup reel and auger drive is stopped and the pickup will start bulldozing the windrow.

Use genuine shearbolts at all times and keep spare shearbolts in the holder **(1)**.

To ease the clearing of blockages, both the first and second pickup windguard are made quick-attach.

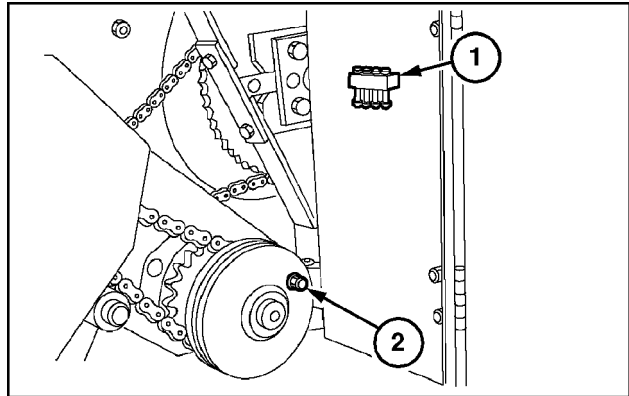
To gain access to the shearbolt, open the left-hand service door and the pickup access door.

In case of a pickup shearbolt failure, proceed as follows:

1. Stop the tractor forward motion immediately. Reverse a few meters.
2. Disengage the PTO shut off the tractor engine and apply the handbrake before leaving the tractor.
3. Look for the cause of the problem and unplug the pickup, if necessary. Pull the crop out to the front.
4. Replace the pickup shearbolt.

Main reasons for shearbolt failures are:

- Big lumps of silage entering the pickup and blocking the centering augers
- Unexpected pot holes in rough fields
- Pickup tine to ground clearance too small, pickup tines digging in the ground
- Stones, branches or other foreign objects entering the pickup
- Shearbolt fatigue



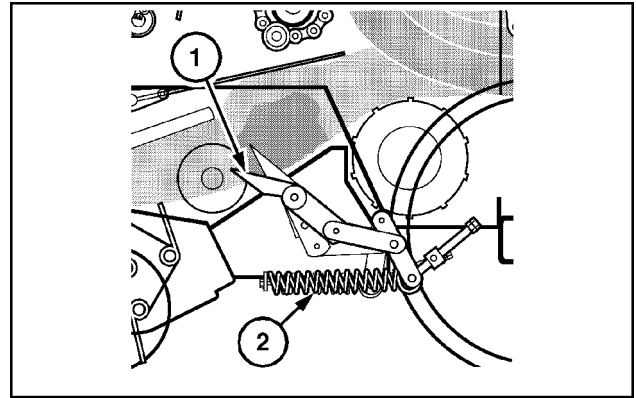
ZIL10FCRB785AAA 5

## Feeder overload spring (wide pickup models only)

The crank-type feeder of the wide pickup models is protected from overload and damage by a double breakaway spring (2) in the feeder drive linkage.

Should overload occur in the feeder area, the feeder tines (1) will break away against the blockage, but the feeder drive will not be interrupted.

1. Stop the tractor forward motion immediately. Reverse a few metres.
2. Disengage the PTO shut off the tractor engine and apply the handbrake before leaving the tractor.
3. Look for the cause of the problem and unplug the pickup and feeder, if necessary. Remove the first and second windguard. Pull the crop out to the front.



ZIL10FCRB727AAA 6

Main reasons for feeder tine breakaway are:

- Big lumps of silage entering the feeder and blocking the feeder tine slots between the feeder and the floor roll
- Foreign objects, such as stones, branches,
- Maladjusted breakaway springs. For more details, refer to Maintenance Section.

## Cleared blockage

### ⚠ WARNING

**Crush hazard resulting from entanglement!**  
**After clearing a blockage, re-distribute the crop material in a windrow. Never attempt to feed crop material into the machine with hands, feet, or other objects.**  
**Failure to comply could result in death or serious injury.**

W0036A

## Twine Wrapper [25787078]

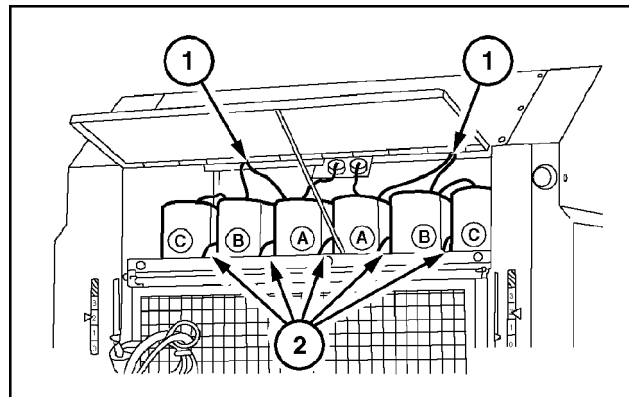
### Loading twine

Virtually any type of twine will suit the baler:

- Sisal twine from 250 m/kg up to 400 m/kg (the latter for low bale weight only, not for silage).
- Polypropylene twine from 350 m/kg up to 750 m/kg (the latter for low bale weight only, not for silage).

The twine storage box can carry up to 6 balls of twine, depending on twine ball size:

- 4 balls of **285 mm (11.2 in)** diameter
- 5 balls of **270 mm (10.6 in)** diameter
- 6 balls of **225 mm (8.9 in)** diameter



ZIL10FCRB777AAA 1

Open the front upper access door and place 2 to 6 twine balls in the storage box, as shown in Figure 1.

If 6 balls are used, tie the inside end of each outer ball C directly to the outside end of ball B. Tie the inside end of ball B to the outside end of ball A, after routing it through the metal eyelet (1) in the twine box roof. Tie the twine tails together with a small square knot and cut off the tails of this knot.

Twine ball divider plates (2) assist in keeping the twine balls in place. They can be removed and relocated in other holes to hold 6 or 5 twine balls in place. When 4 balls of **285 mm (11.2 in)** are used, only the middle divider plate can be used.

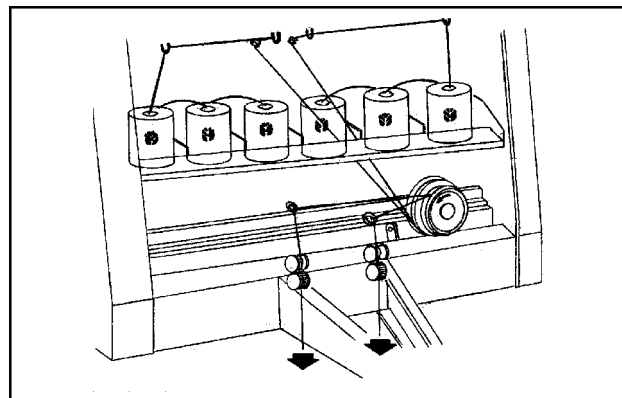
Figure 3 (only 2 balls are installed for clarity)

Route the end of each twine ball through their respective eyelet (1), through the twine tensioner (2) and through the porcelain guide (8).

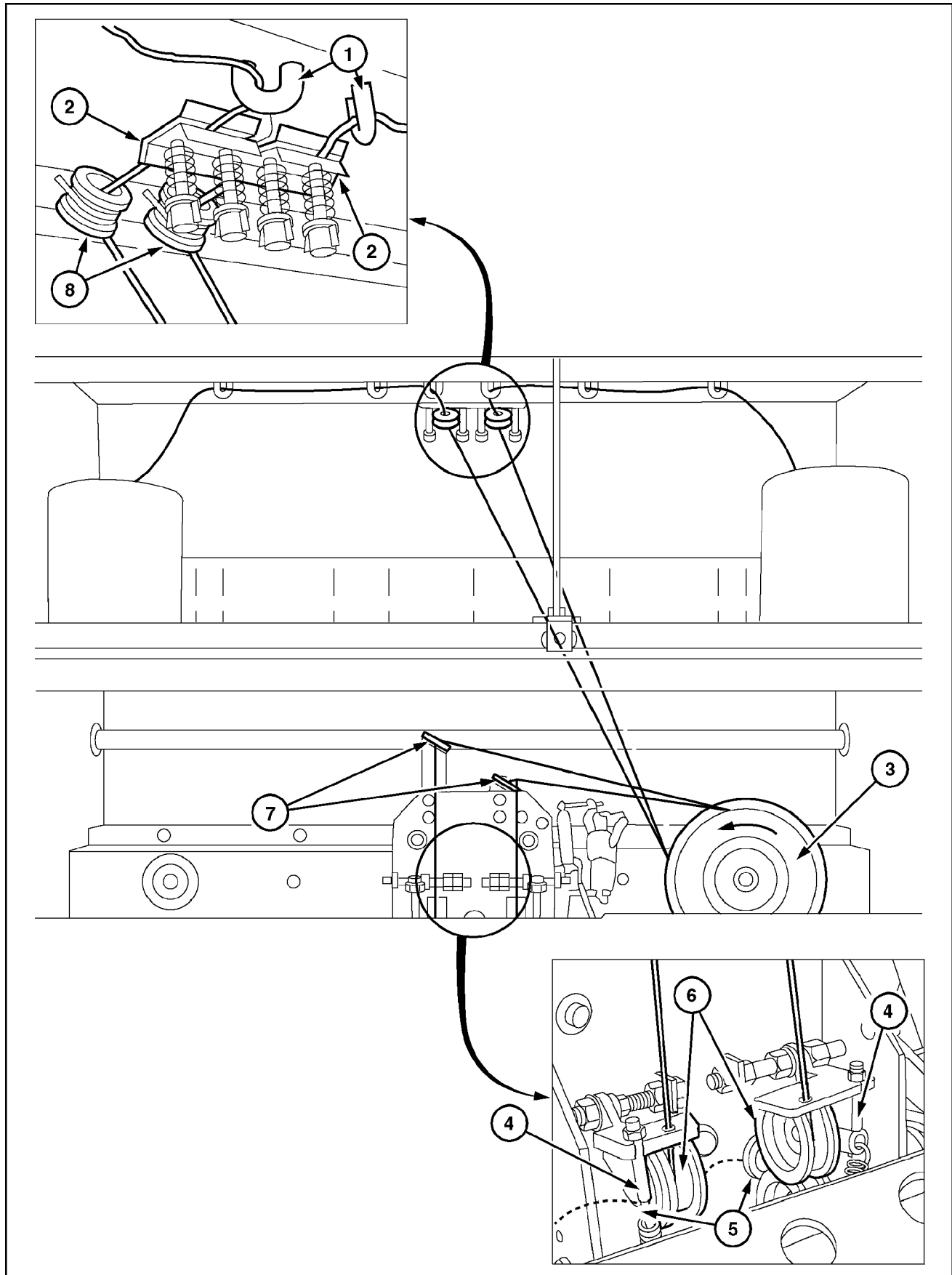
Then wrap the twine around the twine pattern pulley (3), route it through the eyelet (7), in between both feed rolls (6) and through the eyelet (5): the last part of this procedure is made easier by the possibility of turning the rolls (6) upwards, after shifting the threaded rod (4) forwards. Leave a tail of about **15 - 20 cm**.

**NOTE:** The pattern pulley has 6 twine grooves with 3 different diameters, 2 grooves per diameter. It is very important to always wrap both twines around the same diameter, but using different grooves. When wrapping the twines around the pattern pulley, make sure the left and right twines do not cross each other (risk of entanglement). After having routed the twines correctly, take up slack in the twine routing between the twine tensioners and the feed rolls.

Refer to the twine instruction decal fitted to the machine and following illustrations for correct the twine installation.



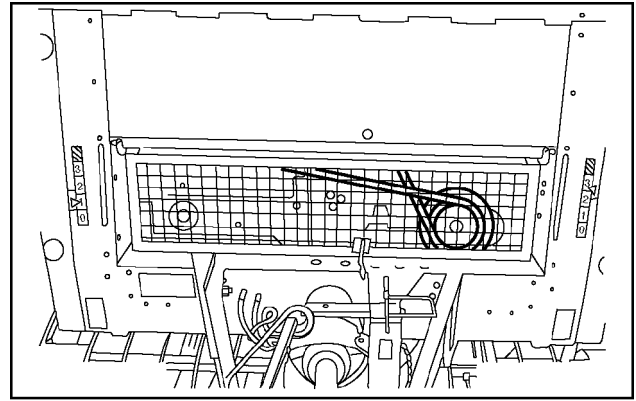
ZIL10FCRB834AAA 2



ZIL10FCRB001HAA 3

Figure 4

Close the front access doors and watch rotation and standstill of the twine pattern pulley through the grid guard.



ZIL10FCRB778AAA 4

### Number of twine wraps

The pattern pulley has a double twine groove at 3 different diameters.

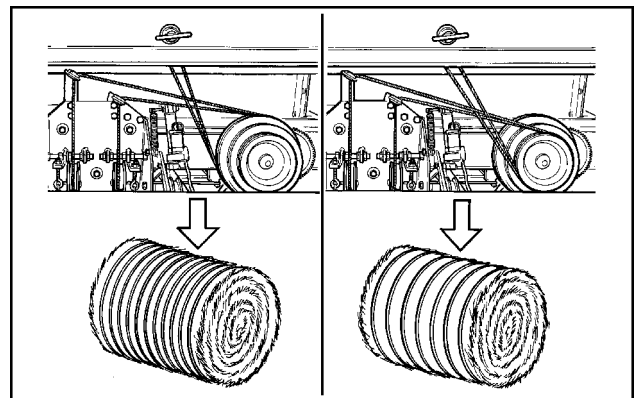
The larger the twine groove diameter, the higher the number of wraps that will be placed around the bale.

The smaller the diameter, the lower the number of twine wraps that will be placed around the bale.

Every groove roughly corresponds with a certain number of twine wraps:

- Small diameter groove = 14 wraps
- Middle diameter groove = 18 wraps
- Large diameter groove = 22 wraps

**NOTE:** The specified number of wraps only serves as a guidance. The real number of wraps will be determined by the amount of slip of the twines on the pattern pulley. This depends on a number of external factors such as temperature, type of twine used and twine tension. The number of wraps is independent of the PTO speed during wrapping, as the wrap cycle is driven by the running twines. Altering the PTO speed during wrapping will only change the duration of the wrap cycle. Therefore, it is advised to keep the PTO speed at **540 RPM**.

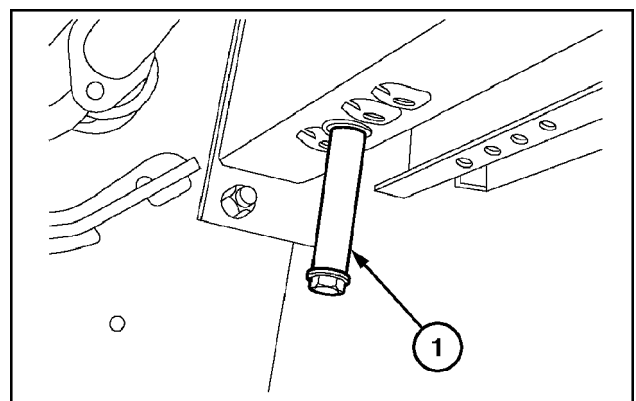


ZIL10FCRB832AAA 5

### TWINE PLACEMENT

To control twine placement at the bale's edges, adjustable twine stops (1) can be relocated in 4 different positions. This requires the use of a spanner.

Viewed from the inside



ZIL10FCRB780AAA 6

## TWINE WRAPPING PROCESS

1. After a bale has been formed in the bale chamber the full bale alarm will sound (optional). Engage the wrapping cycle manually (using the starting cord) or electrically (from the control box) and stop the tractor forward motion.  
DO NOT DISENGAGE THE PTO
2. Once the twine has been picked up by the rotating bale:  
Release the Starting cord or  
Action the Wrapper switch.  
From now on, the wrap cycle runs completely automatically.
3. Watch the spreader hooks move to the middle to pick up the running twines. Then they will move to the outside, lay the end wraps, change direction and move to the middle again where the twines will be cut by the twine knives. During the wrap cycle, watch for rotation of the pattern pulley and proper guidance of the running twine.

**NOTE:** If a twine is not picked up by the bale or by one of the spreader hooks, the bale will be wrapped only on one side. Do not eject the bale, but proceed as follows:

### WARNING

#### Entanglement hazard!

**Disengage the Power Take-Off (PTO), turn off the engine, and remove the key. Wait for all movement to stop before leaving the operator's position. Never adjust, lubricate, clean, or unplug machine with the engine running. Failure to comply could result in death or serious injury.**

W0227A

- A. Leave the tractor and cut the twines manually.
- B. Remove the twines from the pattern pulley and rotate the pulley manually and COUNTER CLOCKWISE to finish the cycle and bring the spreader hooks back to the home position (spreader hooks moving to the middle as the twine starts running). ALWAYS rotate the pulley counter-clockwise.
- C. Reroute the twines as described in "Loading twine".
- D. Get back in the tractor. Restart the tractor, reengage the PTO and restart the wrap cycle while feeding a little crop into the pickup.

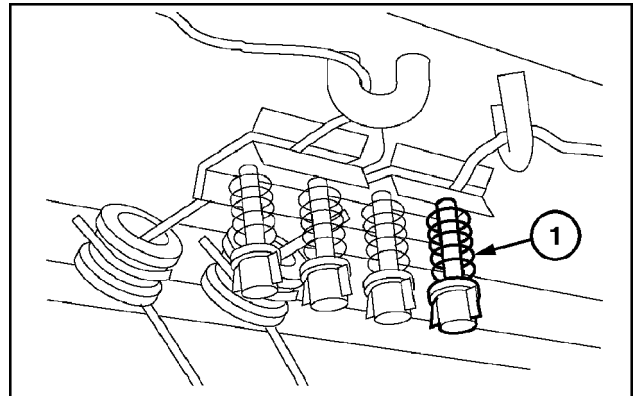
4. When wrapping is finished and the twines are cut, the pattern pulley will stop turning.
5. Open the tailgate to eject the bale. Do not disengage the PTO
6. Close and latch the tailgate. Watch the density indicators fall back to "zero" density. On machines equipped with the electric control box system (standard on wide pickup models, accessory on standard pickup models), a short "beep" will be heard as the tailgate latches.
7. Check the result for bale density and wrap pattern. If the wrap pattern is not acceptable, change the pattern on the pulley, or change the placement of the end wraps by relocating the twine stops. Continue baling.

## Twine Installation [25789153]

### Twine wrapping

In extreme conditions, such as very dry and slippery straw, the twine tails may have difficulties to start on the bale. In these conditions, do not stop immediately at the "full bale" signal (visual or audible), but keep feeding the windrow at reduced forward speed until the twines are picked up by the bale. Watch the start of both twines which is visible through the front guard. Then stop immediately to let the entire wrap cycle take place.

Too much twine tension will cause the twine to depress into the bale and may result in excess spoilage in those areas. In this case, release the tension on the twine tensioners (1).



ZIL10FCRB782AAA 1

### Twine fails to cut

#### **▲ WARNING**

##### **Knife hazard!**

**Use care handling sharp components. Always wear appropriate Personal Protective Equipment (PPE), including heavy gloves. Failure to comply could result in death or serious injury.**

W0274A

1. Ensure the spreader hooks are in or have passed the home position, and the tractor PTO is stopped.
2. Open the front grid guard and lock it in the open position.
3. Reach over the main frame cross beam and cut the twine with a pocket knife. Mind the twine wrapper knives.

## Bale shape

The final bale shape is completely controlled by the operator. Feeding the material as specified previously will reduce the number of odd-shaped bales. Barrel-shaped bales result when too much material is fed into the centre of the bale. Cone-shaped bales will result if less material is placed on one side of the bale, compared to the other side.

In both cases, a bale is produced with poor handling and weathering characteristics. Certain areas on the bale will not be dense enough to keep rain and snow from penetrating deep into the bale. Learn to feed the material equally into both ends of the bale.

To make tight weather-resistant bales, feed the material at a rate which allows the bale to pack uniformly. Weave on the windrow as necessary to fill the ends of the bale. Wrap the bale with a sufficient number of wraps to maintain bale integrity after ejection.

## Bale Storage

When storing bales outside, place the bales in an area which is higher than the surrounding ground level, relatively dry, with ample sun exposure and air movement. Allow **0.6 - 1.0 m (23.62 - 39.37 in)** space on all sides of the bale for air movement. Place the bales so prevailing winds blow against the round portion of the bale and not the ends.

Bales may also be stored in rows end to end, with **0.6 - 1.0 m (23.62 - 39.37 in)** between rows.

## Bale ejection [30275497]

### Bale ejection

When the twine wrap cycle is finished, the pattern pulley will stop turning as the twines are cut. At this time, operate the tractor hydraulics to open the tailgate and eject the bale.

The bale ejector **(1)** (accessory) rolls the bale out of the bale chamber far enough to allow closing of the tailgate without having to move the tractor forward.

If the bale does not roll far enough to allow the tailgate to be closed, increase the tension on the bale ejector springs. If the bale rolls too far, which may result in un-rolling of the twines, then decrease the tension on the bale ejector springs.

For machines not equipped with a bale ejector, back up the tractor a few metres prior to bale ejection. After ejecting the bale, move the tractor forward again, thus preventing the tailgate from closing on the ejected bale.

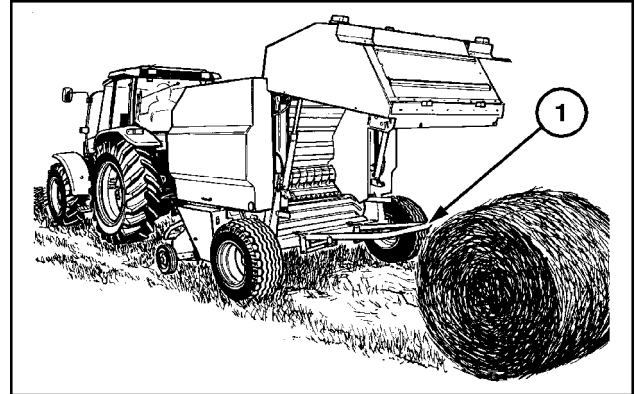
**ATTENTION:** *Never eject or store round bales where they could roll downhill. Make sure the handling equipment will not upset and will hold the bales in all operating conditions.*

In extreme cases (e.g. bale sticking in the bale chamber), it may be necessary to:

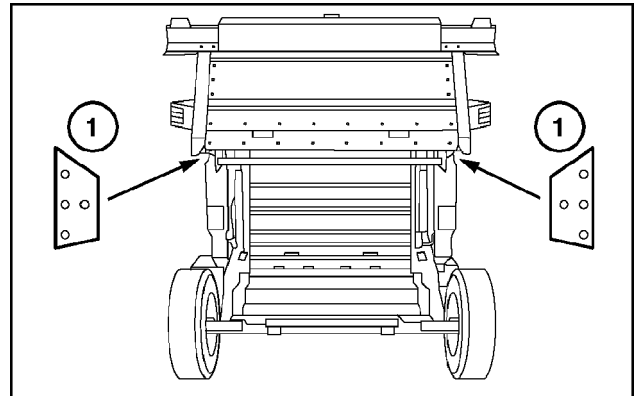
- Investigate if the tractor has sufficient hydraulic power to open the tailgate quickly enough.
- Decrease full bale density.
- Install extra wedging plates **(1)** underneath the existing plates left and right inside the tailgate (Figure 2).

Close and latch the tailgate and watch the density indicators fall back to "zero" density.

On machines equipped with the electric control box system (optional), a short "beep" will be heard as the tailgate latches.



ZIL10FCRB118AAA 1



ZIL10FCRB781AAA 2



## 7 - MAINTENANCE

### GENERAL INFORMATION

#### Lubrication [25790830]

Your baler is designed to require a minimum of lubrication. However, regular lubrication is the best insurance against delays and repairs and greatly increases the life of the machine.

All gearboxes and reservoirs should be checked for leakage daily.

Use only top grade lubricants stored in clean vessels.

Before greasing always wipe any dirt from the grease fittings and then apply a good grade of grease. Use General Purpose grease classified under NLGI Class 2. All points except those with special notations should be lubricated until the grease is forced out around the bearings, and then excess grease should be wiped off.

#### Lubrication chart

| Item                               | Servicing interval                             | Amount/unit (liters) | Brand name                                                                                    | Specification     | Lubricant grade | International specification                                 |
|------------------------------------|------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------|-------------------|-----------------|-------------------------------------------------------------|
| Grease fittings                    | 10 h: daily<br>50 h: weekly<br>400 h: annually | -<br>-<br>-          | NEW HOLLAND<br>AMBRA GR-9<br>MULTI-PURPOSE<br>GREASE                                          | NH710A.           | NLGI 2.         | -                                                           |
| Chains                             | 10 h: daily                                    |                      | NEW HOLLAND<br>AMBRA HYDROSYSTEM<br>46 BIO-S.                                                 | NH646BV<br>NH646. | MV 46.          | DIN 51524<br>part2 HV 46<br>ISO VG 46<br>API CE-MIL-L-2104E |
| Automatic chain oiler              | Daily check                                    | 3 l (0.8 US gal)     | NEW HOLLAND<br>AMBRA HYDROSYSTEM<br>46 BIO-S<br>NEW HOLLAND<br>AMBRA HYDROSYSTEM<br>46 BIO-S. | NH646BV<br>NH646. | MV 46.          | DIN 51524<br>part2 HV 46<br>ISO VG 46<br>API CE-MIL-L-2104E |
| Main drive gearbox                 | Annually                                       | 1 l (0.3 US gal)     | NEW HOLLAND<br>AMBRA<br>HYPOIDE 90.                                                           | NH520A.           | SAE 85W-140.    | API GL5M<br>MIL-L-2104 E                                    |
| Linkages, threaded rods and pivots | Monthly                                        | -                    | NEW HOLLAND<br>AMBRA<br>HYPOIDE 90.                                                           | NH520A.           | SAE 80W-90.     | API GL5<br>MIL-L-2105 D                                     |

## Adjustments and maintenance

### WARNING

#### Entanglement hazard!

Disengage the Power Take-Off (PTO), turn off the engine, and remove the key. Wait for all movement to stop before leaving the operator's position. Never adjust, lubricate, clean, or unplug machine with the engine running.

Failure to comply could result in death or serious injury.

W0227A

### DANGER

#### Unexpected movement!

Make sure parking brake is applied. Secure machine with wheel chocks.

Failure to comply will result in death or serious injury.

D0013A

### DANGER

#### Crush hazard! The tailgate may close faster than you can move away.

**ALWAYS** make sure the tailgate lockout valves are in the OFF (locked) position before working under a raised tailgate. In the event of a sudden loss of hydraulic pressure, the tailgate will fall if the lockout valves are not engaged. Stand clear of the tailgate before disengaging the lockout valves.

Failure to comply will result in death or serious injury.

D0002A

This section contains instructions needed to adjust the baler to meet varying crop and operating conditions. The procedures attempt to define the requirements imposed by the varying conditions and to give the adjustable limits.

A maintenance-quick reference chart is provided at the end of this section.

Very little actual maintenance is required to keep the baler in the field. By making a thorough inspection at the time your baler is lubricated, only minor adjustments will be required to keep the baler operating.

Periodically inspect all bolts, sprockets and bearing lock collars to make sure they are tight.

When tightening bolts, check for required torque values. Do not overtighten bolts as this may cause them to fail during operation.

Before making any adjustments or performing maintenance work on the baler, proceed as follows:

- Disengage the PTO drive
- Engage the tractor hand brake
- Stop the tractor engine
- Turn the monitor power OFF, unless instructed otherwise, to allow adjustments to be made.
- Ensure all rotating parts have come to a complete standstill.

After lubricating, servicing or adjusting the baler, make sure all tools and equipment have been removed before operating the baler.

Reinstall or close all guards after carrying out lubrication or maintenance work and before operating the baler.

## Hydraulic system maintenance

Hydraulic hoses are an important safety element in modern machinery. However, hose characteristics alter under pressure, thermal and UV light load over the years. Therefore, most hoses now have a production date printed on the metal clamp bushing which allows to determine the age.

Legislation in certain countries and good practice requires that the hydraulic hoses are replaced when they become 6 years old.

## Tailgate lift system hydraulic pickup lift system

Check for oil leaks or damaged hoses and tubes daily. Tighten fittings or replace components as necessary. Make sure the hoses are not near to or contacting any moving parts on the baler or tractor. Check the cylinders for leakage and replace the seals, if necessary.

## Torque charts - Minimum tightening torques for normal assembly [34433528]

### METRIC NON-FLANGED HARDWARE

| NOM.<br>SIZE | CLASS 8.8 BOLT and<br>CLASS 8 NUT |                        | CLASS 10.9 BOLT and<br>CLASS 10 NUT |                         | LOCKNUT<br>CL.8<br>W/CL8.8<br>BOLT | LOCKNUT<br>CL.10<br>W/CL10.9<br>BOLT |
|--------------|-----------------------------------|------------------------|-------------------------------------|-------------------------|------------------------------------|--------------------------------------|
|              | UNPLATED                          | PLATED<br>W/ZnCr       | UNPLATED                            | PLATED<br>W/ZnCr        |                                    |                                      |
| M4           | 2.2 N·m (19 lb<br>in)             | 2.9 N·m (26 lb<br>in)  | 3.2 N·m (28 lb<br>in)               | 4.2 N·m (37 lb<br>in)   | 2 N·m (18 lb in)                   | 2.9 N·m (26 lb<br>in)                |
| M5           | 4.5 N·m (40 lb<br>in)             | 5.9 N·m (52 lb<br>in)  | 6.4 N·m (57 lb<br>in)               | 8.5 N·m (75 lb<br>in)   | 4 N·m (36 lb in)                   | 5.8 N·m (51 lb<br>in)                |
| M6           | 7.5 N·m (66 lb<br>in)             | 10 N·m (89 lb<br>in)   | 11 N·m (96 lb<br>in)                | 15 N·m (128 lb<br>in)   | 6.8 N·m (60 lb<br>in)              | 10 N·m (89 lb<br>in)                 |
| M8           | 18 N·m (163 lb<br>in)             | 25 N·m (217 lb<br>in)  | 26 N·m (234 lb<br>in)               | 35 N·m (311 lb<br>in)   | 17 N·m (151 lb<br>in)              | 24 N·m (212 lb<br>in)                |
| M10          | 37 N·m (27 lb ft)                 | 49 N·m (36 lb<br>ft)   | 52 N·m (38 lb ft)                   | 70 N·m (51 lb<br>ft)    | 33 N·m (25 lb<br>ft)               | 48 N·m (35 lb<br>ft)                 |
| M12          | 64 N·m (47 lb ft)                 | 85 N·m (63 lb<br>ft)   | 91 N·m (67 lb ft)                   | 121 N·m (90 lb<br>ft)   | 58 N·m (43 lb<br>ft)               | 83 N·m (61 lb<br>ft)                 |
| M16          | 158 N·m (116 lb<br>ft)            | 210 N·m (155<br>lb ft) | 225 N·m (166 lb<br>ft)              | 301 N·m (222<br>lb ft)  | 143 N·m (106 lb<br>ft)             | 205 N·m (151 lb<br>ft)               |
| M20          | 319 N·m (235 lb<br>ft)            | 425 N·m (313<br>lb ft) | 440 N·m (325 lb<br>ft)              | 587 N·m (433<br>lb ft)  | 290 N·m (214 lb<br>ft)             | 400 N·m (295 lb<br>ft)               |
| M24          | 551 N·m (410 lb<br>ft)            | 735 N·m (500<br>lb ft) | 762 N·m (560 lb<br>ft)              | 1016 N·m (750<br>lb ft) | 501 N·m (370 lb<br>ft)             | 693 N·m (510 lb<br>ft)               |

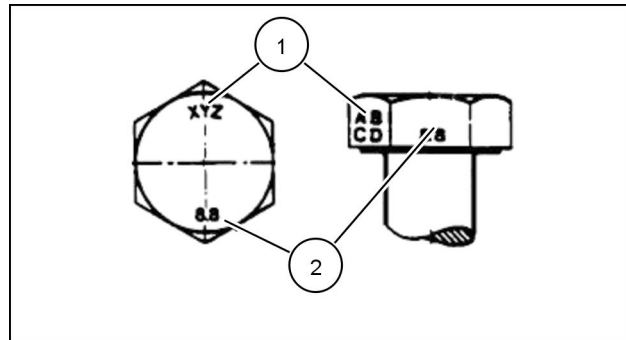
**NOTE:** M4 through M8 hardware torque specifications are shown in pound-inches. M10 through M24 hardware torque specifications are shown in pound-feet.

**METRIC FLANGED HARDWARE**

| NOM.<br>SIZE | CLASS 8.8 BOLT and<br>CLASS 8 NUT |                        | CLASS 10.9 BOLT and<br>CLASS 10 NUT |                         | LOCKNUT<br>CL.8<br>W/CL8.8<br>BOLT | LOCKNUT<br>CL.10<br>W/CL10.9<br>BOLT |
|--------------|-----------------------------------|------------------------|-------------------------------------|-------------------------|------------------------------------|--------------------------------------|
|              | UNPLATED                          | PLATED<br>W/ZnCr       | UNPLATED                            | PLATED<br>W/ZnCr        |                                    |                                      |
| M4           | 2.4 N·m (21 lb<br>in)             | 3.2 N·m (28 lb<br>in)  | 3.5 N·m (31 lb<br>in)               | 4.6 N·m (41 lb<br>in)   | 2.2 N·m (19 lb<br>in)              | 3.1 N·m (27 lb<br>in)                |
| M5           | 4.9 N·m (43 lb<br>in)             | 6.5 N·m (58 lb<br>in)  | 7.0 N·m (62 lb<br>in)               | 9.4 N·m (83 lb<br>in)   | 4.4 N·m (39 lb<br>in)              | 6.4 N·m (57 lb<br>in)                |
| M6           | 8.3 N·m (73 lb<br>in)             | 11 N·m (96 lb<br>in)   | 12 N·m (105 lb<br>in)               | 16 N·m (141 lb<br>in)   | 7.5 N·m (66 lb<br>in)              | 11 N·m (96 lb<br>in)                 |
| M8           | 20 N·m (179 lb<br>in)             | 27 N·m (240 lb<br>in)  | 29 N·m (257 lb<br>in)               | 39 N·m (343 lb<br>in)   | 18 N·m (163 lb<br>in)              | 27 N·m (240 lb<br>in)                |
| M10          | 40 N·m (30 lb ft)                 | 54 N·m (40 lb<br>ft)   | 57 N·m (42 lb ft)                   | 77 N·m (56 lb<br>ft)    | 37 N·m (27 lb ft)                  | 53 N·m (39 lb ft)                    |
| M12          | 70 N·m (52 lb ft)                 | 93 N·m (69 lb<br>ft)   | 100 N·m (74 lb<br>ft)               | 134 N·m (98 lb<br>ft)   | 63 N·m (47 lb ft)                  | 91 N·m (67 lb ft)                    |
| M16          | 174 N·m (128 lb<br>ft)            | 231 N·m (171<br>lb ft) | 248 N·m (183 lb<br>ft)              | 331 N·m (244<br>lb ft)  | 158 N·m (116 lb<br>ft)             | 226 N·m (167 lb<br>ft)               |
| M20          | 350 N·m (259 lb<br>ft)            | 467 N·m (345<br>lb ft) | 484 N·m (357 lb<br>ft)              | 645 N·m (476<br>lb ft)  | 318 N·m (235 lb<br>ft)             | 440 N·m (325 lb<br>ft)               |
| M24          | 607 N·m (447 lb<br>ft)            | 809 N·m (597<br>lb ft) | 838 N·m (618 lb<br>ft)              | 1118 N·m (824<br>lb ft) | 552 N·m (407 lb<br>ft)             |                                      |

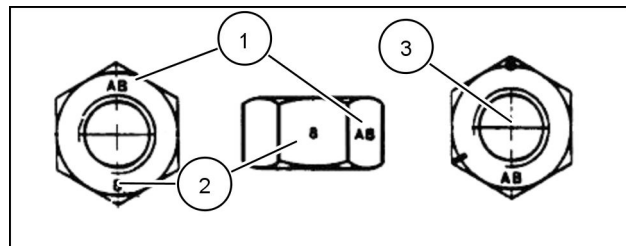
**IDENTIFICATION****Metric Hex head and carriage bolts, classes 5.6 and up.**

1. Manufacturer's Identification
2. Property Class



20083680 1

1. Manufacturer's Identification
2. Property Class
3. Clock Marking of Property Class and Manufacturer's Identification (Optional), i.e. marks **60°** apart indicate Class 10 properties, and marks **120°** apart indicate Class 8.



20083681 2

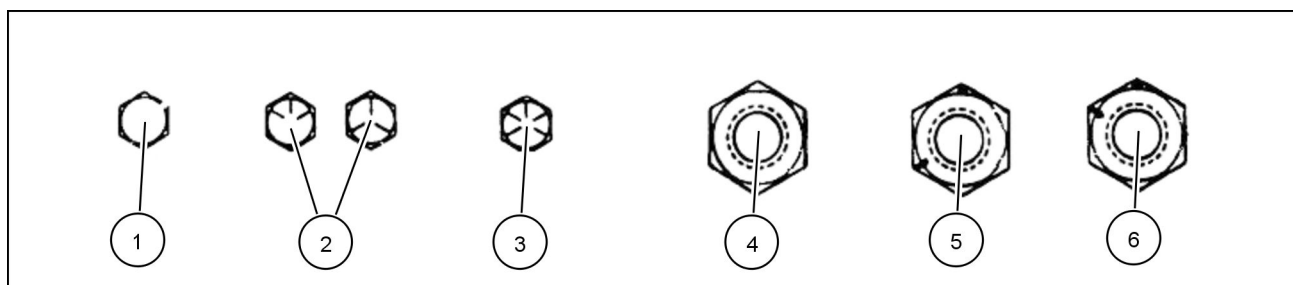
## INCH NON-FLANGED HARDWARE

| NOMINAL<br>SIZE | SAE GRADE 5 BOLT<br>and NUT             |                          | SAE GRADE 8 BOLT<br>and NUT          |                          | LOCKNUT<br>GrB W/ Gr5<br>BOLT | LOCKNUT<br>GrC W/ Gr8<br>BOLT |
|-----------------|-----------------------------------------|--------------------------|--------------------------------------|--------------------------|-------------------------------|-------------------------------|
|                 | UN-<br>PLATED<br>or<br>PLATED<br>SILVER | PLATED<br>W/ZnCr<br>GOLD | UN-<br>PLATED<br>or PLATED<br>SILVER | PLATED<br>W/ZnCr<br>GOLD |                               |                               |
| 1/4             | 8 N·m (71 lb in)                        | 11 N·m (97 lb in)        | 12 N·m (106 lb in)                   | 16 N·m (142 lb in)       | 8.5 N·m (75 lb in)            | 12.2 N·m (109 lb in)          |
| 5/16            | 17 N·m (150 lb in)                      | 23 N·m (204 lb in)       | 24 N·m (212 lb in)                   | 32 N·m (283 lb in)       | 17.5 N·m (155 lb in)          | 25 N·m (220 lb in)            |
| 3/8             | 30 N·m (22 lb ft)                       | 40 N·m (30 lb ft)        | 43 N·m (31 lb ft)                    | 57 N·m (42 lb ft)        | 31 N·m (23 lb ft)             | 44 N·m (33 lb ft)             |
| 7/16            | 48 N·m (36 lb ft)                       | 65 N·m (48 lb ft)        | 68 N·m (50 lb ft)                    | 91 N·m (67 lb ft)        | 50 N·m (37 lb ft)             | 71 N·m (53 lb ft)             |
| 1/2             | 74 N·m (54 lb ft)                       | 98 N·m (73 lb ft)        | 104 N·m (77 lb ft)                   | 139 N·m (103 lb ft)      | 76 N·m (56 lb ft)             | 108 N·m (80 lb ft)            |
| 9/16            | 107 N·m (79 lb ft)                      | 142 N·m (105 lb ft)      | 150 N·m (111 lb ft)                  | 201 N·m (148 lb ft)      | 111 N·m (82 lb ft)            | 156 N·m (115 lb ft)           |
| 5/8             | 147 N·m (108 lb ft)                     | 196 N·m (145 lb ft)      | 208 N·m (153 lb ft)                  | 277 N·m (204 lb ft)      | 153 N·m (113 lb ft)           | 215 N·m (159 lb ft)           |
| 3/4             | 261 N·m (193 lb ft)                     | 348 N·m (257 lb ft)      | 369 N·m (272 lb ft)                  | 491 N·m (362 lb ft)      | 271 N·m (200 lb ft)           | 383 N·m (282 lb ft)           |
| 7/8             | 420 N·m (310 lb ft)                     | 561 N·m (413 lb ft)      | 594 N·m (438 lb ft)                  | 791 N·m (584 lb ft)      | 437 N·m (323 lb ft)           | 617 N·m (455 lb ft)           |
| 1               | 630 N·m (465 lb ft)                     | 841 N·m (620 lb ft)      | 890 N·m (656 lb ft)                  | 1187 N·m (875 lb ft)     | 654 N·m (483 lb ft)           | 924 N·m (681 lb ft)           |

**NOTE:** For Imperial Units, 1/4 in and 5/16 in hardware torque specifications are shown in pound-inches. 3/8 in through 1 in hardware torque specifications are shown in pound-feet.

**INCH FLANGED HARDWARE**

| NOM-<br>INAL<br>SIZE | SAE GRADE 5 BOLT and<br>NUT     |                          | SAE GRADE 8 BOLT and<br>NUT     |                          | LOCKNUT<br>GrF W/ Gr5<br>BOLT | LOCKNUT<br>GrG W/ Gr8<br>BOLT |
|----------------------|---------------------------------|--------------------------|---------------------------------|--------------------------|-------------------------------|-------------------------------|
|                      | UNPLATED<br>or PLATED<br>SILVER | PLATED<br>W/ZnCr<br>GOLD | UNPLATED<br>or PLATED<br>SILVER | PLATED<br>W/ZnCr<br>GOLD |                               |                               |
| 1/4                  | 9 N·m (80 lb in)                | 12 N·m (106 lb in)       | 13 N·m (115 lb in)              | 17 N·m (150 lb in)       | 8 N·m (71 lb in)              | 12 N·m (106 lb in)            |
| 5/16                 | 19 N·m (168 lb in)              | 25 N·m (221 lb in)       | 26 N·m (230 lb in)              | 35 N·m (310 lb in)       | 17 N·m (150 lb in)            | 24 N·m (212 lb in)            |
| 3/8                  | 33 N·m (25 lb ft)               | 44 N·m (33 lb ft)        | 47 N·m (35 lb ft)               | 63 N·m (46 lb ft)        | 30 N·m (22 lb ft)             | 43 N·m (32 lb ft)             |
| 7/16                 | 53 N·m (39 lb ft)               | 71 N·m (52 lb ft)        | 75 N·m (55 lb ft)               | 100 N·m (74 lb ft)       | 48 N·m (35 lb ft)             | 68 N·m (50 lb ft)             |
| 1/2                  | 81 N·m (60 lb ft)               | 108 N·m (80 lb ft)       | 115 N·m (85 lb ft)              | 153 N·m (113 lb ft)      | 74 N·m (55 lb ft)             | 104 N·m (77 lb ft)            |
| 9/16                 | 117 N·m (86 lb ft)              | 156 N·m (115 lb ft)      | 165 N·m (122 lb ft)             | 221 N·m (163 lb ft)      | 106 N·m (78 lb ft)            | 157 N·m (116 lb ft)           |
| 5/8                  | 162 N·m (119 lb ft)             | 216 N·m (159 lb ft)      | 228 N·m (168 lb ft)             | 304 N·m (225 lb ft)      | 147 N·m (108 lb ft)           | 207 N·m (153 lb ft)           |
| 3/4                  | 287 N·m (212 lb ft)             | 383 N·m (282 lb ft)      | 405 N·m (299 lb ft)             | 541 N·m (399 lb ft)      | 261 N·m (193 lb ft)           | 369 N·m (272 lb ft)           |
| 7/8                  | 462 N·m (341 lb ft)             | 617 N·m (455 lb ft)      | 653 N·m (482 lb ft)             | 871 N·m (642 lb ft)      | 421 N·m (311 lb ft)           | 594 N·m (438 lb ft)           |
| 1                    | 693 N·m (512 lb ft)             | 925 N·m (682 lb ft)      | 979 N·m (722 lb ft)             | 1305 N·m (963 lb ft)     | 631 N·m (465 lb ft)           | 890 N·m (656 lb ft)           |

**IDENTIFICATION****Inch Bolts and free-spinning nuts**

20083682 3

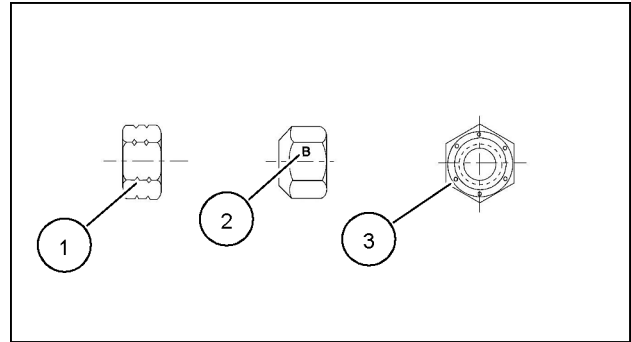
**Grade Marking Examples**

| SAE Grade Identification |                       |   |                                        |
|--------------------------|-----------------------|---|----------------------------------------|
| 1                        | Grade 2 - No Marks    | 4 | Grade 2 Nut - No Marks                 |
| 2                        | Grade 5 - Three Marks | 5 | Grade 5 Nut - Marks <b>120 °</b> Apart |
| 3                        | Grade 8 - Five Marks  | 6 | Grade 8 Nut - Marks <b>60 °</b> Apart  |

## Inch Lock Nuts, All Metal (Three optional methods)

### Grade Identification

| Grade   | Corner Marking Method (1)   | Flats Marking Method (2) | Clock Marking Method (3) |
|---------|-----------------------------|--------------------------|--------------------------|
| Grade A | No Notches                  | No Mark                  | No Marks                 |
| Grade B | One Circumferential Notch   | Letter B                 | Three Marks              |
| Grade C | Two Circumferential Notches | Letter C                 | Six Marks                |



20090268 4

## Cam adjustment Cam follower replacement [25802250]

### Pickup cam follower bearing replacement

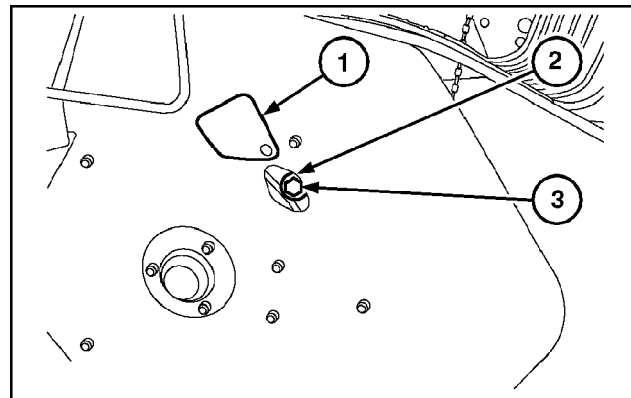
When pickup rotation becomes jerky, inspect the pickup for a failed pickup cam follower bearing. The pickup cam track is located on the right-hand side of the pickup.

To replace a cam bearing, proceed as follows:

1. Pivot cover (1) to gain access to the cam follower bearing (2) through the hole in the pickup frame.
2. Rotate the machine (with a bar through the PTO shaft yoke) until the bearing faces the access hole.
3. Remove nut (3) using a socket wrench.
4. Install a new bearing and tighten the nut to **72 N·m (637.3 lb in)** torque.

**NOTE:** When installing a cam follower bearing, always make sure the bearing is trailing the respective pickup tine bar in the direction of rotation of the pickup. If the bearing is leading or going ahead of the tine bar, severe damage may result.

**ATTENTION:** Inspect that the bearing carrier bolt shows no signs of damage or wear. If this is the case, replace the bolt as well. Remove the most right pickup tine guard to gain access to the bolt.



ZIL10FCRB730AAA 1

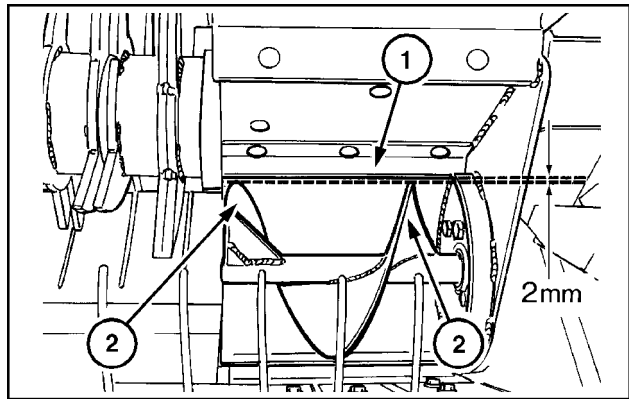
## Pick up Flotation - wide pickup [25802292]

### Wide pickup

For adjustment of the pickup gauge wheels, flotation and windguard, refer Working Operation Section.

### Pickup flotation

Adjust the auger stripper plate (1) (on both sides of the pickup) at **2 mm (0.1 in)** from the auger flights (2). Slide the plate back or forth in its mounting slots.

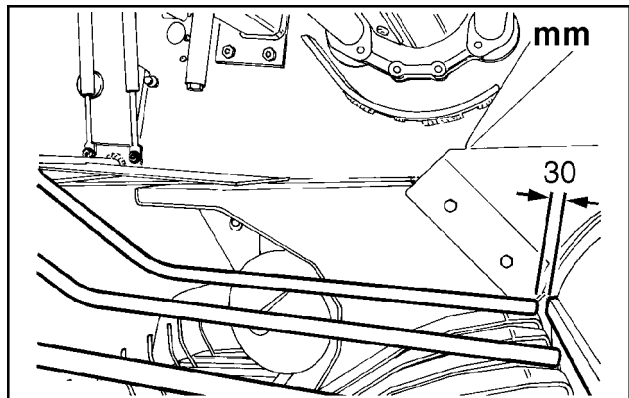


ZIL10FCRB582AAA 1

## Windguard [25802482]

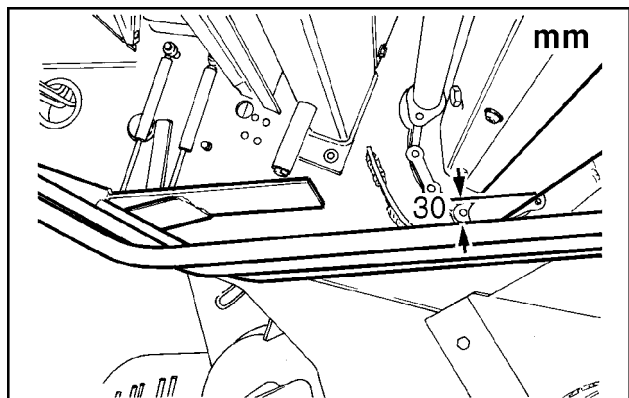
### Second windguard

With the windguard in the lower position adjust to obtain a clearance of **30 mm (1.2 in)** between the windguard tine edges and the feeder floor.



ZIL10FCRB841AAA 1

With the windguard in the uppermost position adjust the center to obtain a clearance of **30 mm (1.2 in)** between the windguard tines and the conveyor bars (conveyor bar in lowest position).



ZIL10FCRB840AAA 2

## Cam adjustment Cam follower bearing replacement [25802593]

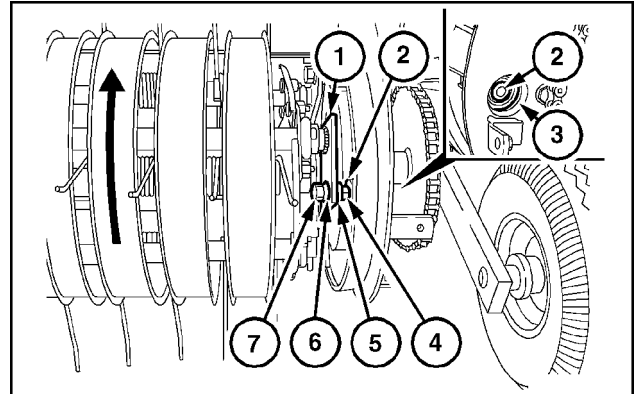
### Pickup cam follower bearing replacement

When the pickup rotation becomes jerky, inspect the pickup for a failed pickup cam follower bearing.

The pickup drive and cam are located on the left-hand side of the machine.

To replace a cam follower bearing, proceed as follows:

1. Remove the bolts from the guard. Slide the guard forwards to take it off. The pickup may have to be lifted a little for ground clearance.
2. A hole **(3)** is provided in the side of the pickup to allow for replacement of the cam follower bearing **(2)**.
3. Use the slug wrench on the feed rotor shaft to rotate the baler until the bearing faces the access hole.
4. Remove the wide pickup guard closest to the pickup side sheet. Remove the nut and extract the bearing through the access hole. Pay attention not to loose the washers on each side of the tine bar crank arm **(1)**:
  - Thick washer **(5)**
5. Reinstall the components in reverse order of disassembly.  
Securely tighten nut **(7)** whilst holding counter nut **(4)**.  
Minimum torque: **72 N·m (53.1 lb ft)**.



ZIL10FCRB822AAA 1

**NOTE:** When installing a cam follower bearing, always make sure the bearing is trailing the pickup tine bar in the direction of rotation of the pickup. If the bearing is leading or going ahead of the tine bar, severe damage may result.

## Twine Wrapper [25802796]

### Twine tension

Adjust the four compression springs (1) equally to an effective spring length  $A = 50 \text{ mm}$  (2.0 in) for polypropylene 750 m/kg twine. Decrease the twine tension with thicker twine, increase with thinner twine.

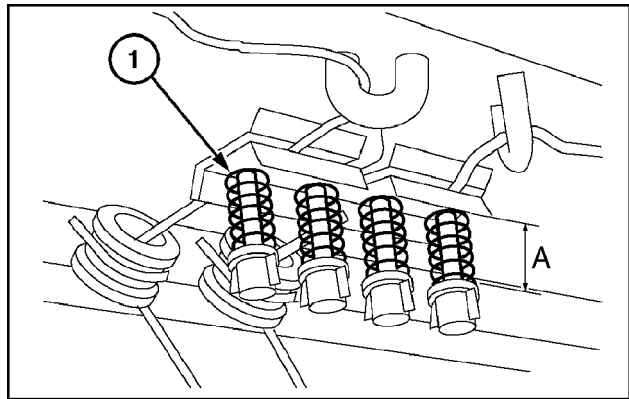
Correct twine clamp tension should result in a pull of **20 - 50 N (4.5 - 11.2 lb)** required to pull the twine from the end of the twine tubes with:

- The spreader hooks in the middle position.
- Pulling the twine through the twine feed opening, from the bale chamber (under the raised tailgate).

**NOTE:** The twine tension is too high when difficulty is experienced in starting the twine to wrap around the bale. It may be necessary to readjust the tension when changing twine, such as from plastic to sisal.

In case of troublesome twine starting, always check for correct twine routing first.

**NOTE:** The twine tension is too light when the twine starts slipping over the pattern pulley.



ZIL10FCRB793AAA 1

## Twine Installation [25802849]

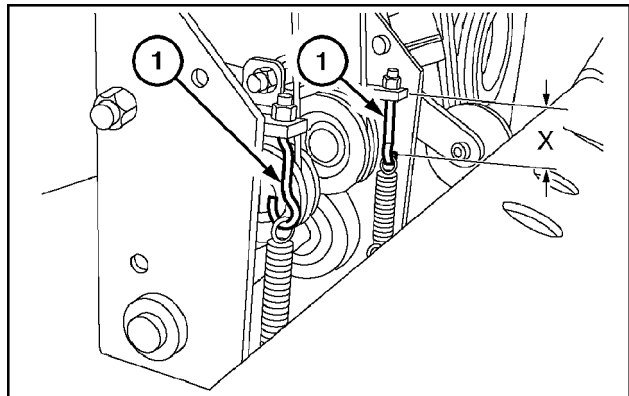
### Twine feed rolls

Adjust the tension spring bolts (1) to a length (from nut to eye) of:

$X = 62 - 64 \text{ mm}$  (2.4 - 2.5 in)

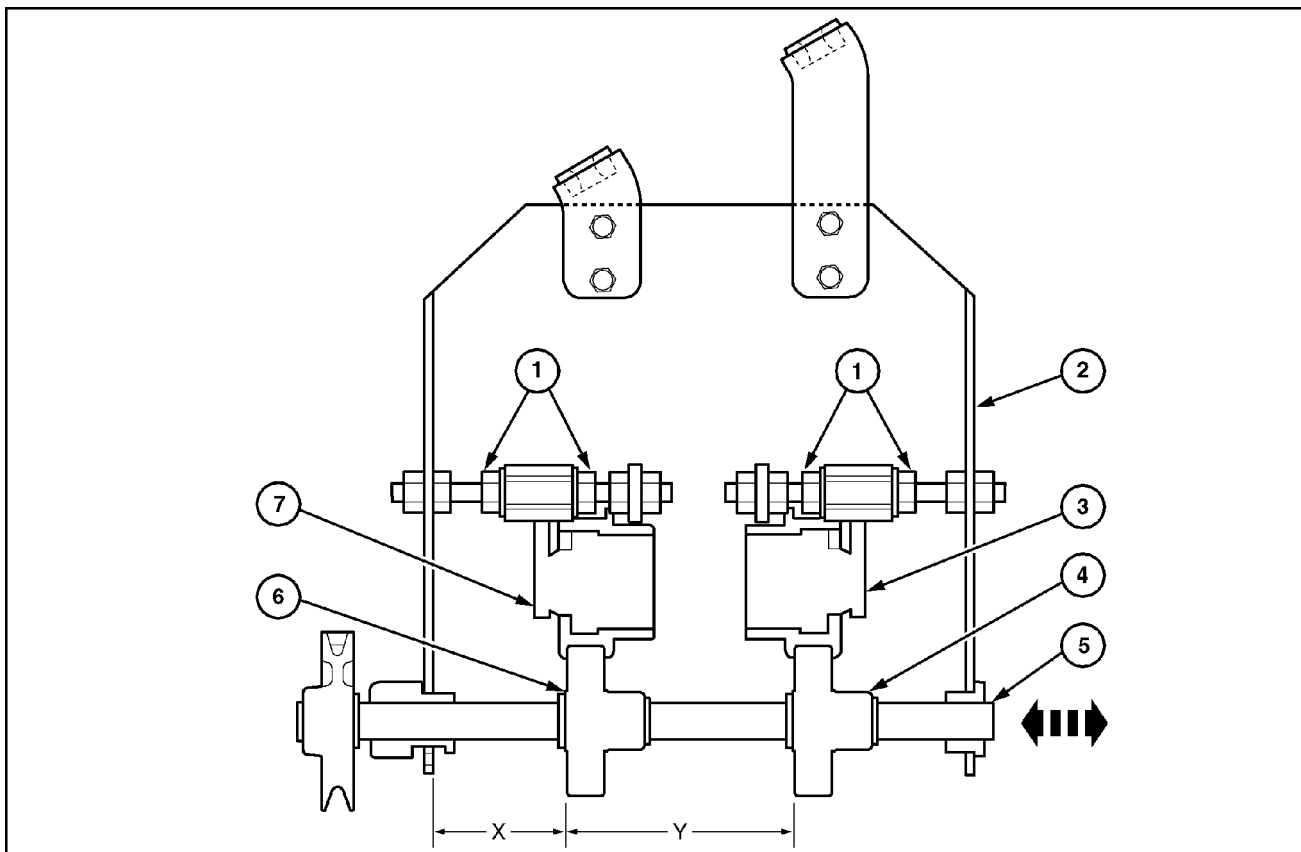
Excessive tension on the feed rolls may crush the twine and cause stiff rotation of the feed rolls.

Insufficient tension on the feed rolls will make the rolls slip on the twine at wrap cycle start. This could lead to twine breakage.



ZIL10FCRB794AAA 1

## Feed rolls



ZIL10FCRB060FAA 2

To align the upper feed rolls (3) and (7) over the lower feed rolls (4) and (6), proceed as follows:

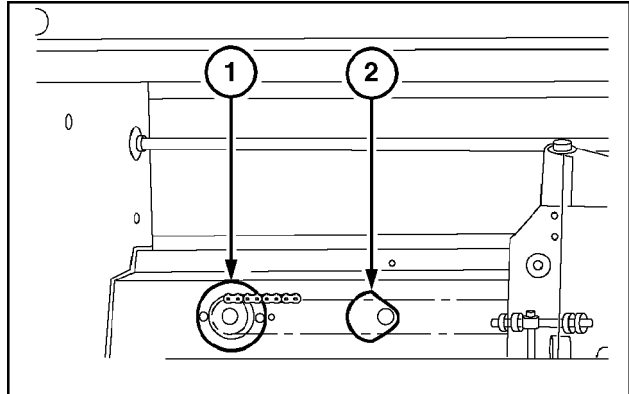
1. Adjust the left upper feed roll (7) (which is close to the drive belt) with nuts (1) to obtain a distance  $X = 69 - 71 \text{ mm} (2.7 - 2.8 \text{ in})$  between the wrapper support frame (2) and the left board of the feed roll.
2. Adjust the right upper feed roll (3) with nuts (1) to obtain a distance  $Y = 119 - 121 \text{ mm} (4.7 - 4.8 \text{ in})$  between the left board of the left upper roll race and the left board of the right upper roll race.
3. The lower feed rolls (4) and (6) are fixed on the drive shaft (5), which can be moved left-right a few millimeters to align the upper and lower feed rolls.

## Spreader plates [25802882]

### Spreader drive chain tension

1. Check the tension of the spreader drive chain through the access hole behind the spring-loaded cover (2).
2. Take up any slack of the spreader drive chain by moving the adjustable sprocket bearing carrier (1) to the outside.

Do not over tension the chain to prevent the wrapper drive from becoming stiff.

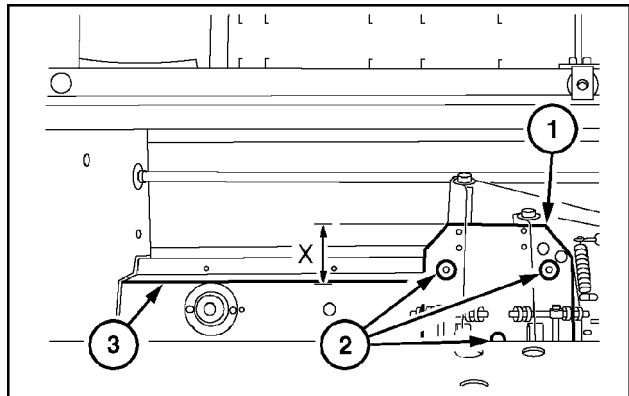


ZIL10FCRB795AAA 1

## Twine Installation [25802933]

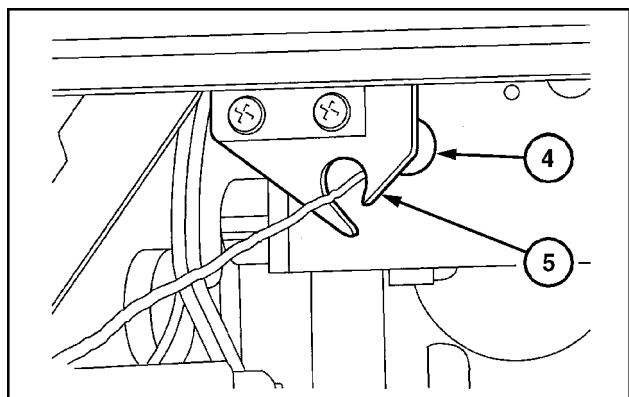
### Feed roll module height

To obtain correct picking up of the running twines by the spreader hooks (5) (Figure 2 in 1-28) as they pass in front of the metal eyelets (4) (Figure 2 in 1-28), adjust a distance  $X = 79 - 81 \text{ mm}$  (3.1 - 3.2 in) between the upper edge of the feed roll module (1) and the support beam (3). Loosen the bolts (2) and lower/lift the feed roll module. Adjust the module parallel to the support beam.



ZIL10FCRB796AAA 1

**NOTE:** View is from the inside.



ZIL10FCRB797AAA 2

## Twine Wrapper Knife [25802974]

### Twine cutting knives

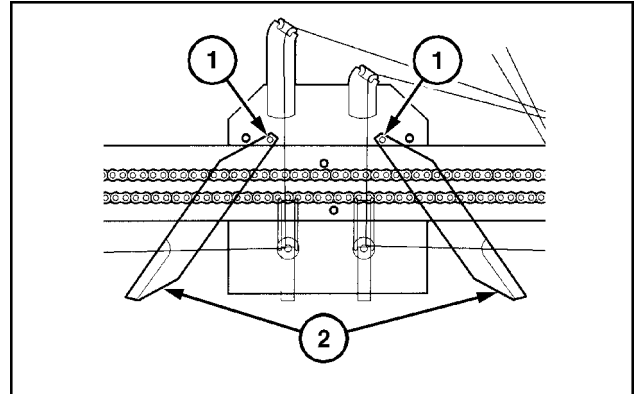
#### ⚠ WARNING

Personal Protective Equipment (PPE) required.

When assembling, operating, or servicing the machine, wear protective clothing and PPE necessary for the particular procedure. Some PPE that may be necessary includes protective shoes, eye and/or face protection, hard hat, heavy gloves, filter mask, and hearing protection.

Failure to comply could result in death or serious injury.

W0353A



ZIL10FCRB728AAA 1

Inspect and sharpen the twine cutting knives (2) every 1000 bales or whenever the twine tails become frayed.

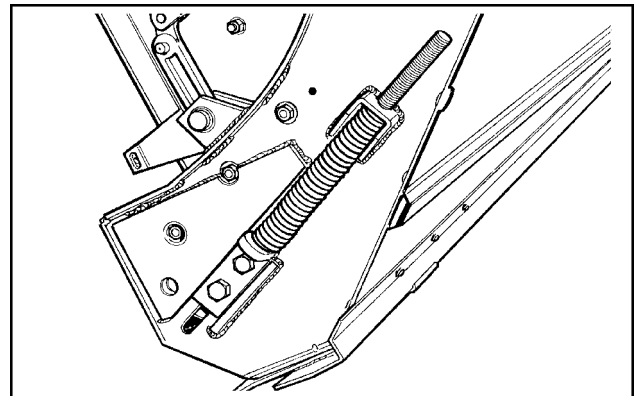
Sharpen the knives from the chamfered side with a whetting stone or a flexible emery cloth disc.

**NOTE:** When reinstalling the knives on the machine, make sure to locate them in the most centred holes (1), for good position and inclination of the cutting edge.

## Conveyor Adjustments [25803474]

### Conveyor chain tension

The bar and chain conveyor is spring-loaded to automatically keep it under correct tension at all times. Manual tensioning is not required.

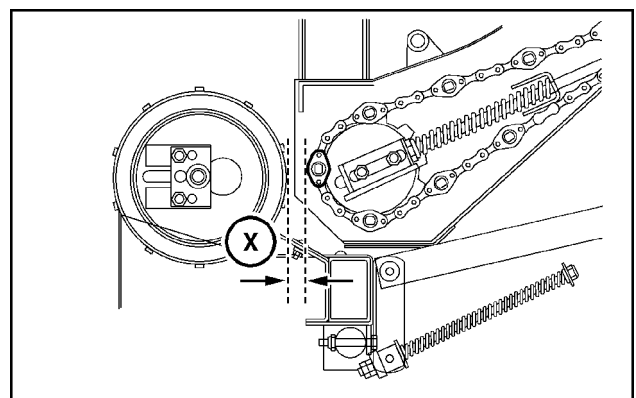


ZIL10FCRB817AAA 1

The stretch of the chain will gradually reduce the distance (X) between the conveyor bars and the floor roll. This distance should not be below (X) = 20 mm (0.8 in). A too big a distance will increase losses over the rear of the floor roller, particularly during the twine wrap cycle. Periodically check this distance, remove the plate on the axle behind the floor roller and observe from under the baler, tailgate closed:

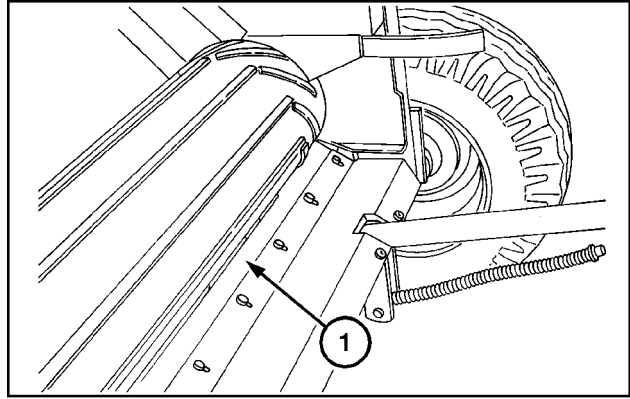
- After first 100 bales made
- Thereafter, every 500 bales.

Should distance (X) become less than 20 mm, then the floor roll has to be moved forward. Contact your dealer for assistance.



ZIL10FCRB823AAA 2

Keep scraper **(1)** close to the floor roller at all times to minimize losses.

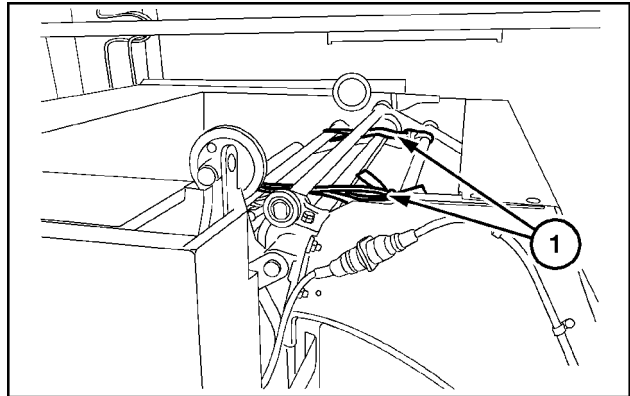


ZIL10FCRB833AAA 3

## Conveyor Adjustments [25803815]

### Conveyor bearings and bars

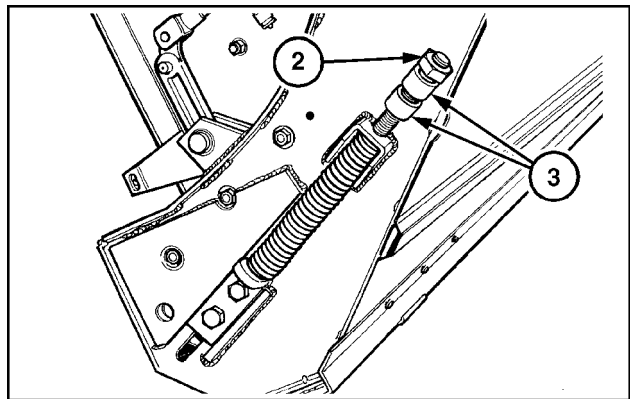
Inspect the bearings for wear or failure at regular intervals. Excessively bent bars (over **20 mm** deflection in the middle) should be straightened immediately.



ZIL10FCRB824AAA 1

To service the conveyor, such as opening the chains, replacing bearings or bars, proceed as follows:

1. Turn the baler by means of a bar through the PTO yoke to expose the selected component at the top of the baler, as shown in Figure 1. Do not forget to remove the bar.
2. Remove the tailgate guards on both sides.
3. Obtain appropriate length pieces of 1" tube **(3)** (Inside Diameter. **21 mm (0.8 in)**) and M20 nuts **(2)** to compress the tension springs on both sides so as to obtain slack on the conveyor, as shown in Figure 2.
4. Install straps **(1)** as illustrated in Figure 1 to hold the conveyor together in case the chains have to be opened.
5. The component can now be serviced:
  - To replace a bearing, remove the circlip. Mind the washers behind the bearing. They take up the end thrust between the bar holding chain link, the bearing and the circlip.
  - To remove or replace a bar, remove the circlip, the bearing and the washers. Now the chain link holding the bar can be removed as well, which opens the chain and frees the bar.



ZIL10FCRB818AAA 2

## Feeder [25804060]

### Breakaway springs

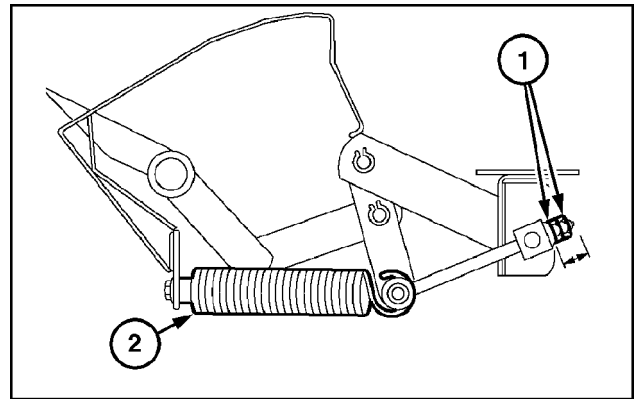
Figure 1

Adjust the feeder overload springs (2) with nut and counter nut (1) to obtain a distance of:

$$X = 41 - 45 \text{ mm (1.6 - 1.8 in)}$$

between the rear surface of the block and the threaded rod end.

Adjustment of feeder fork tines 3 - 4 mm (0.1 - 0.2 in) 3 - 4 mm from frame backbone.



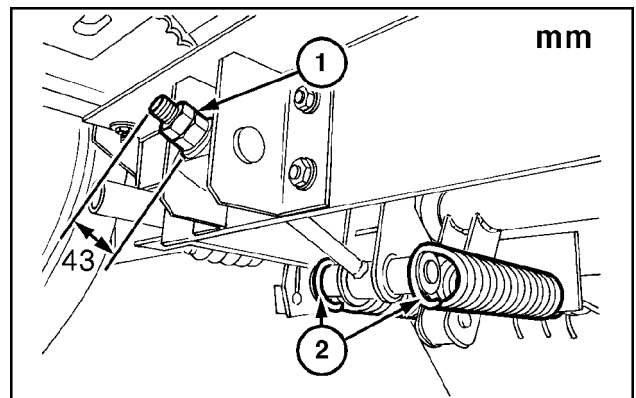
ZIL10FCRB802AAA 1

## Feeder [25804371]

### Breakaway springs

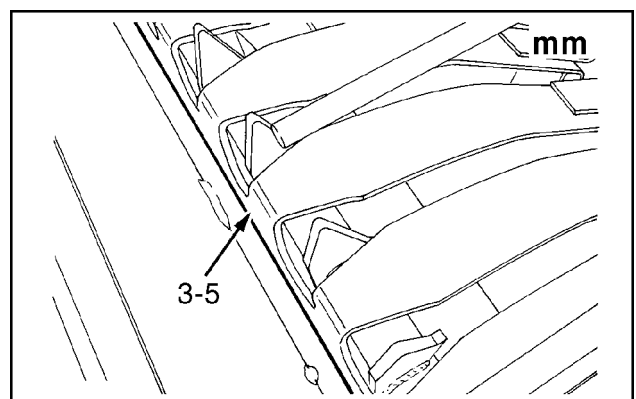
If removed then reinstall the breakaway springs (2), and adjust the breakaway link to 43 mm (1.7 in) between washer and the tip of the rod.

Then fine tune with the nut and counter nut at (1) to obtain a minimal clearance of 3 - 5 mm (0.1 - 0.2 in) between the feeder tines and the backbone of the feeder frame.



ZIL10FCRB838AAA 1

Minimal clearance of 3 - 5 mm (0.1 - 0.2 in)



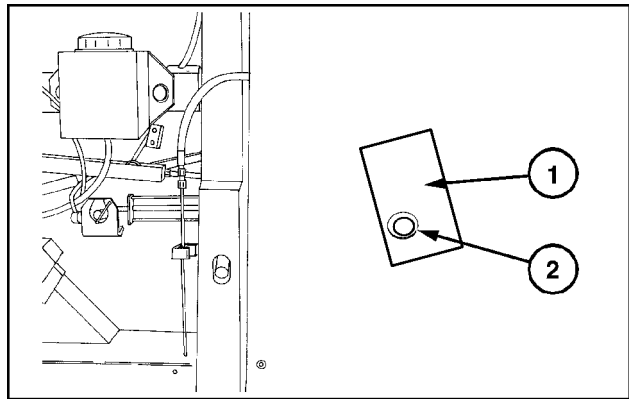
ZIL10FCRB839AAA 2

## Conveyor Adjustments [25834134]

### Conveyor chain

Open the cover (1) to the side and clean the oiling tubes (2). Feed oil onto the conveyor chains and the conveyor bar bearings on both sides of the machine.

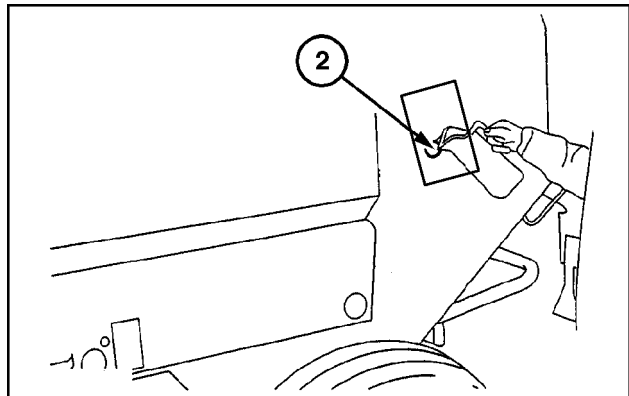
Oil the conveyor chain through the access hole (2) while running the machine idle every 10 hours of use and after storage.



ZIL10FCRB277AAA 1

Lubricate the conveyor chain immediately after operation while it is still warm and let the machine run idle for a short period to ensure effective oil penetration resulting in longer life using these guidelines.

- Run the machine at low idle speed for oiling the chain. Ensure there is a second person in the tractor to shut the tractor PTO and engine off in case of emergency. Engage the tractor handbrake. Close and latch all baler guards and the tailgate. Keep at a safe distance from the machine in particular the ground wheels.
- Oil at the end of the workday while the chain is still warm and let the machine run idle for a short period to ensure effective oil penetration, oil both sides equally.



ZIL10FCRB183AAA 2

**NOTICE:** In abrasive sandy conditions it is better to run the chains dry (not to oil on a daily basis). However oil abundantly before and between seasons, storage periods and prior to starting the new season.

### Linkages, threaded rods and pivots

It is recommended to oil all linkages, threaded rods and pivot points (including guard pivot points) which may become stiff from corrosion or dirt, every 200 operating hours or monthly and every time after cleaning the baler with water.

## Tailgate [25803035]

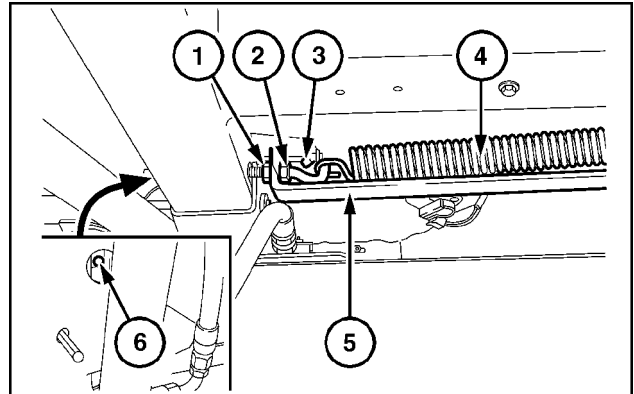
### Tailgate latches

When the tailgate latches do not function properly, such as:

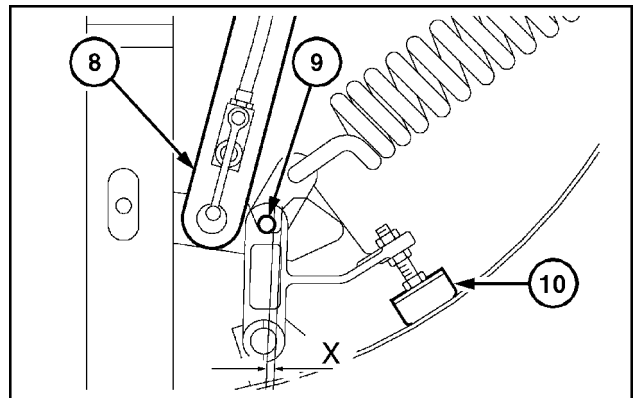
The tailgate opens prematurely, the tailgate fails to open (latches fail to disengage),

The latch engages or disengages on one side, and not on the other side, check the following points.

1. Check that the eyebolt (3) is flat with the latch (the tailgate is opened to better expose the object).
2. The tailgate latch springs (4) (on both sides) do not require adjustment. Regularly verify for possible failure.
3. With the tailgate properly closed (free from crop accumulation preventing the tailgate to fully close; the tractor hydraulics in the float position), verify that latches (8) raise up and positively engage pin (9). Verify that the tailgate hinges are in good condition as well.
4. Adjust each latch individually with links (5) on both sides of the baler. Adjust links (5) with nut (1) and jam nut (2) on eyebolt (3).
5. Verify that the density spring is retracted, the rubber dampers (10) pressed firmly against the tailgate frame.  
Adjust the rubber dampers to obtain a clearance  $X = 5 - 7 \text{ mm} (0.2 - 0.3 \text{ in})$  equally on both sides.



ZIL10FCRB825AAA 1



ZIL10FCRB720AAA 2

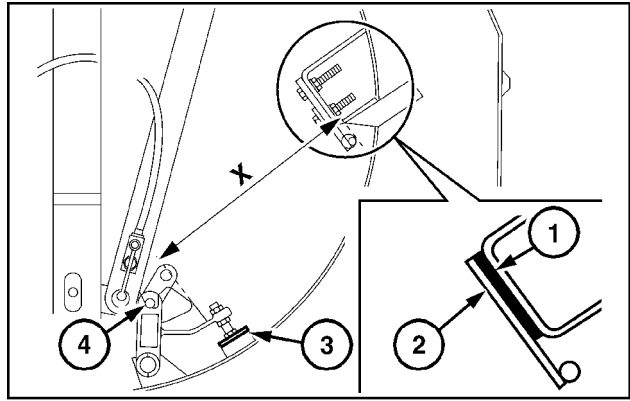
## Bale density [25839611]

### Density springs

The springs are adjusted ex-factory for proper field operation and normally do not require maintenance. They have a preload of **3.8 kN (854.3 lb)** with the bale chamber closed and empty. If, for any reason, one or both springs have to be replaced, proceed as follows:

1. Remove both springs from the baler.
2. Measure the length (from eye to eye) of the untensioned springs that will be installed on the machine.

3. Temporarily reinstall the spring fixation plates **(2)** on the tailgate, without the shims at **(1)**.
4. With the tailgate pins **(4)** properly adjusted (refer to chapter Tailgate latch adjustments), measure the distance X between both attaching points of the spring (rubber dampers **(3)**) in contact with the tailgate frame).
5. Now install the longest spring on the side where distance X was biggest.  
Add shims **(1)** left or right to obtain equal spring extension left and right (within **2 mm**) when the springs are preloaded.



ZIL10FCRB283AAA 1

Example:

- One spring is **5 mm** longer than the other.
- Distance X (left) is **2 mm (0.1 in)** bigger than distance X (right).

Solution:

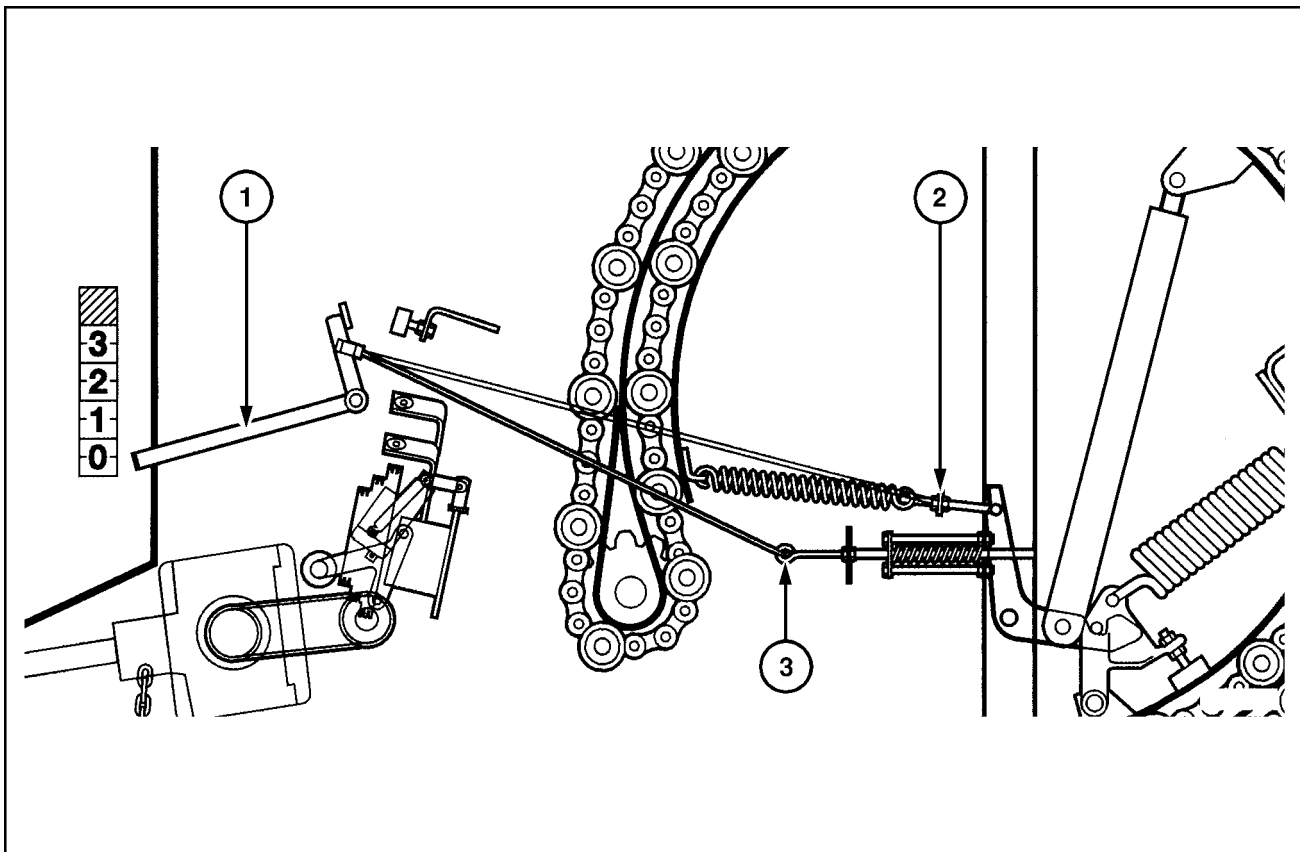
**NOTICE:** The longest spring must be installed on the left-hand side and shims to a thickness of **3 mm** must be placed on the right-hand side to obtain equal spring preload.

## Bale density system [25803339]

### Bale density indicators

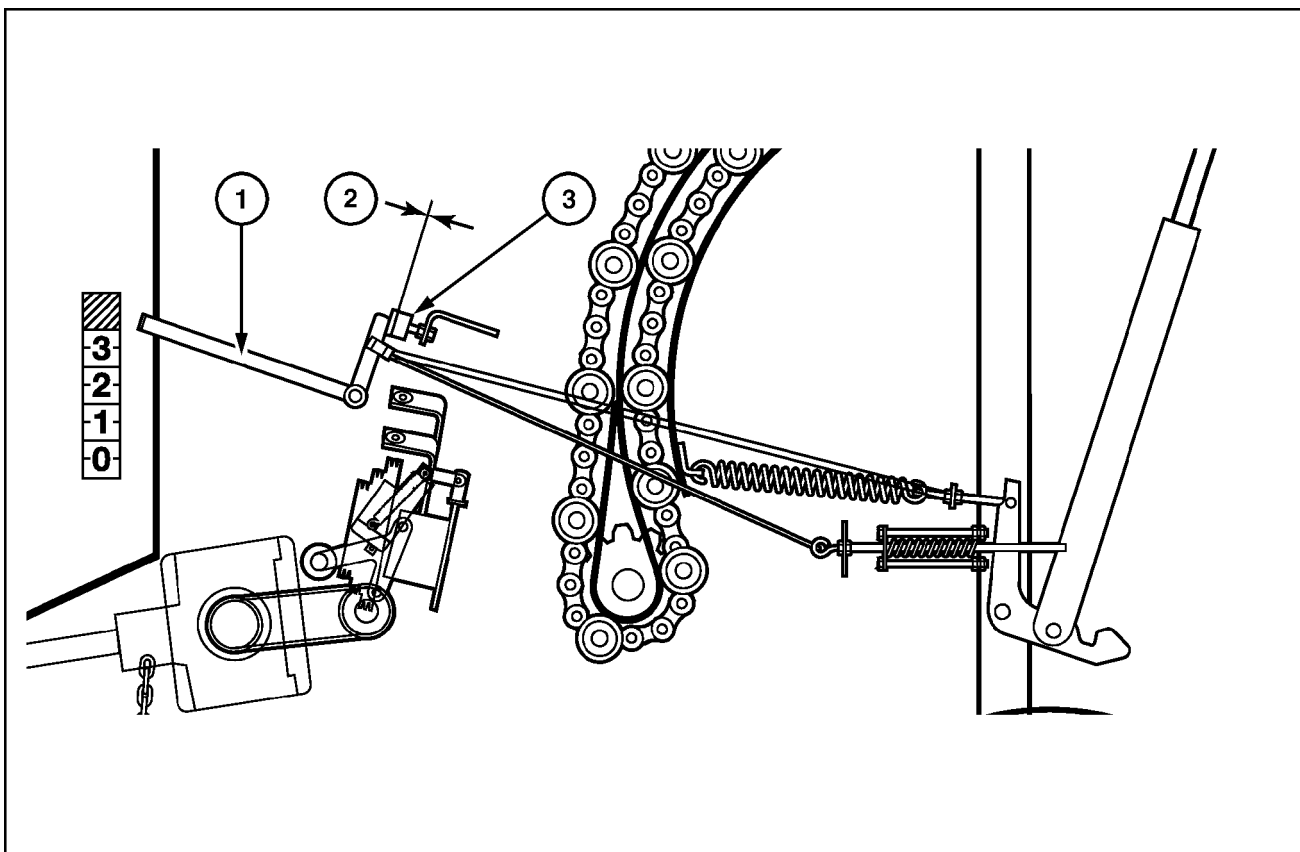
Adjust the density indicator cables as shown opposite with the tailgate closed and latched, and the bale chamber empty:

**NOTE:** After removal or replacement of the density and latch cables, always reattach them in the upper hole on the indicator.



ZIL10FCRB057FAA 1

- With the density indicator (1) pointing at "zero" density, adjust the density cable bolt (3) to take up the cable slack and then loosen the bolt 4 mm (0.2 in).
- With the density indicator pointing at "zero" density, adjust the latch cable bolt (2) to just take up the cable slack.



ZIL10FCRB061FAA 2

With the tailgate open, and the density indicator **(1)** fully raised up, adjust the rubber stop **(3)** to a clearance of:

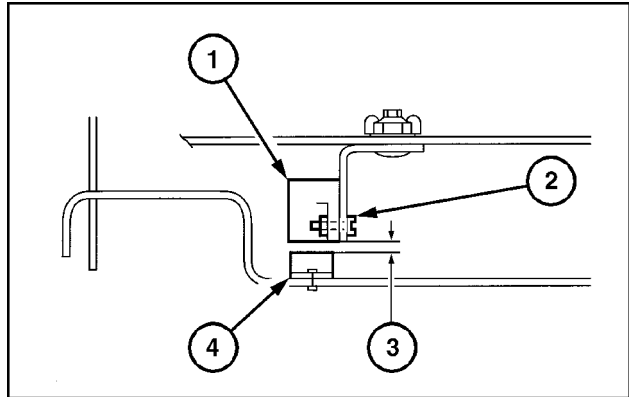
**(2) = 0 - 2 mm (0.0 - 0.1 in)** between the density indicator and the rubber stop.

## Bale Loader Sensor Adjustment [25803376]

### Full bale alarm sensor

The full bale alarm sensor **(1)** makes part of the electric control box system, supplied on demand.

Adjust the magnet **(4)** with screws **(2)** on the left density indicator for a clearance of **(3) = maximum 5 mm (0.2 in)** when the magnet passes in front of the sensor.



ZIL10FCRB798AAA 1

## Bale ejection [25803419]

### Bale kicker

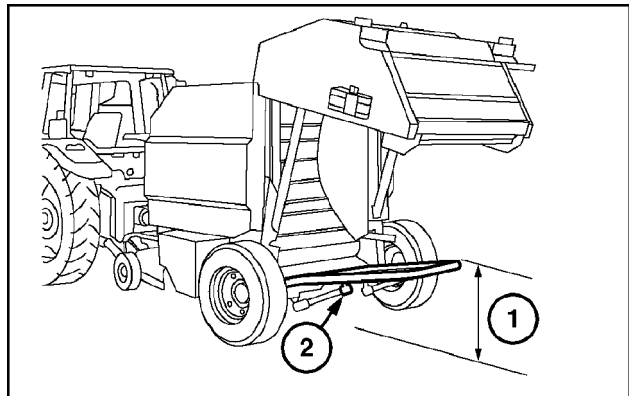
Depending on local sales policy, the bale kicker will be fitted standard on the machine, or offered as an accessory.

The bale kicker force is adjustable to suit bale weight and field conditions.

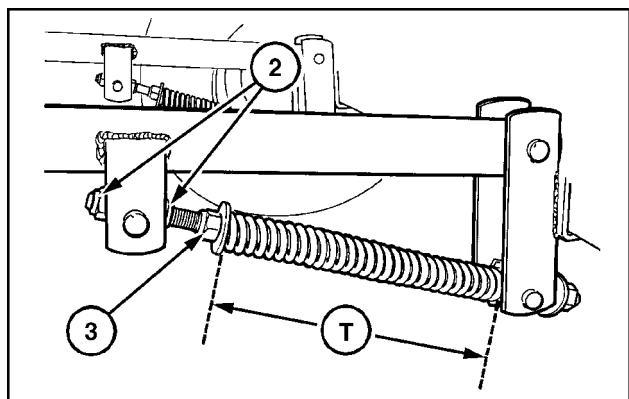
1. With the tailgate open, the rear bar of the kicker is set at a height **(1) = 620 - 640 mm (24.4 - 25.2 in)** with the nuts and counter nuts **(2)**. This adjustment must not be changed.
2. Also with the tailgate open, the spring is set at a tension **(T) = 448 - 452 mm (17.6 - 17.8 in)** with lock nut **(3)**.

In any case, when adjusting the bale kicker springs to suit operating conditions, make sure that:

- The bale kicker will always contact the ground before the springs are bottoming out, if coil bound too tight..
- The bale kicker will bounce excessively during road transport, springs too light.



ZIL10FCRB799AAA 1



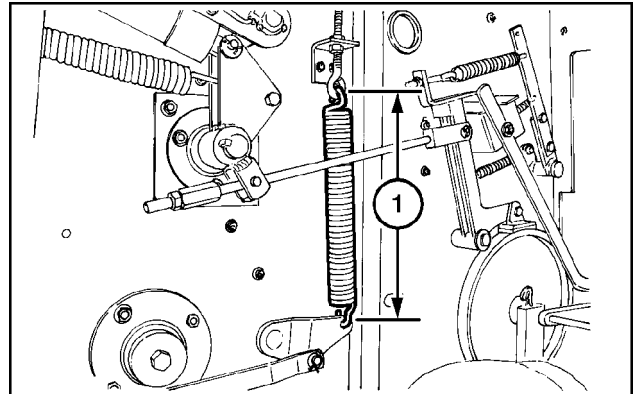
ZIL10FCRB816AAA 2

## Tailgate [25841477]

### Tailgate latch adjustments

The tailgate latch control spring position and operating linkage is designed to enable quick reaction and force.

Spring dimension (1) for the baler should be maintained at **310 mm (12.2 in)**.

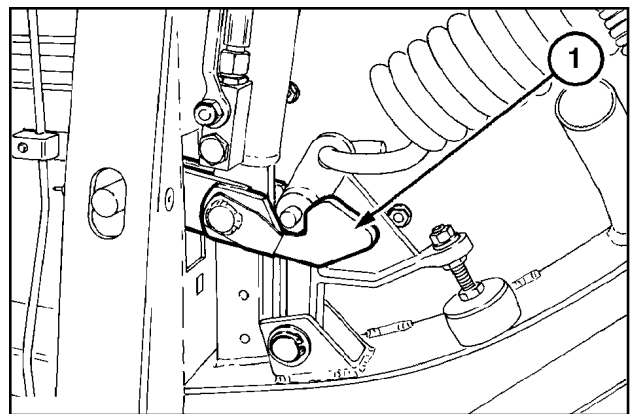


ZIL10FCRB191AAA 1

The latch control spring adjustment will suit most combinations of baler/tractor setup.

However the timing between the tailgate being closed and the latches being pulled up by the spring force depends on the back pressure in the return line of the tractor hydraulic circuit.

Latch shown pulled up and engaged correctly.

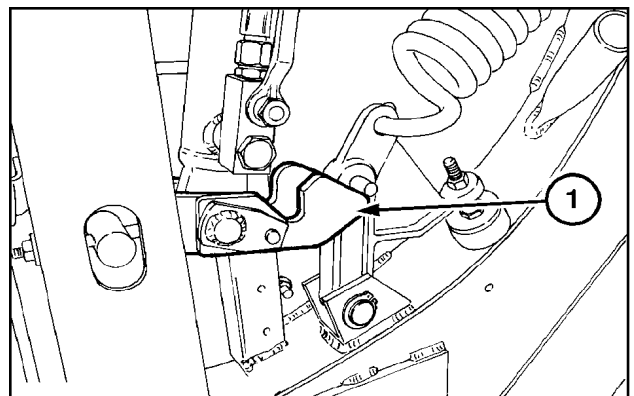


ZIL10FCRB189AAA 2

If the latches pull up before the tailgate is fully closed, the latch will not engage on the lever as shown.

**NOTICE:** The spring tension will need to be released evenly on both sides, until the tailgate is fully closed before the latches pull up.

Latch shown pulled up prematurely and not engaged.



ZIL10FCRB190AAA 3

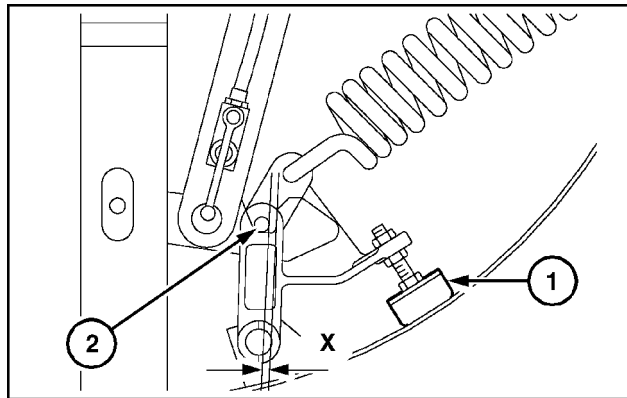
## Latch Mechanical Adjustments

When the tailgate latches do not function properly such as:

- The tailgate opens prematurely,
- The tailgate fails to open (latches fail to disengage),
- The latch engages or disengages on one side, and not on the other side,

The following points can be checked and corrected as necessary:

1. With the tailgate properly closed (free from crop accumulation preventing the tailgate to fully close; the tractor hydraulic system in the float position), verify that the tailgate hinges are in good condition as well.
2. Verify that the density spring is retracted, the rubber dampers **(1)** pressed firmly against the tailgate frame. Adjust the rubber dampers to obtain a clearance  $X = 5 - 7 \text{ mm}$  ( $0.2 - 0.3 \text{ in}$ ), equally on both sides.



ZIL10FCRB211AAA 4

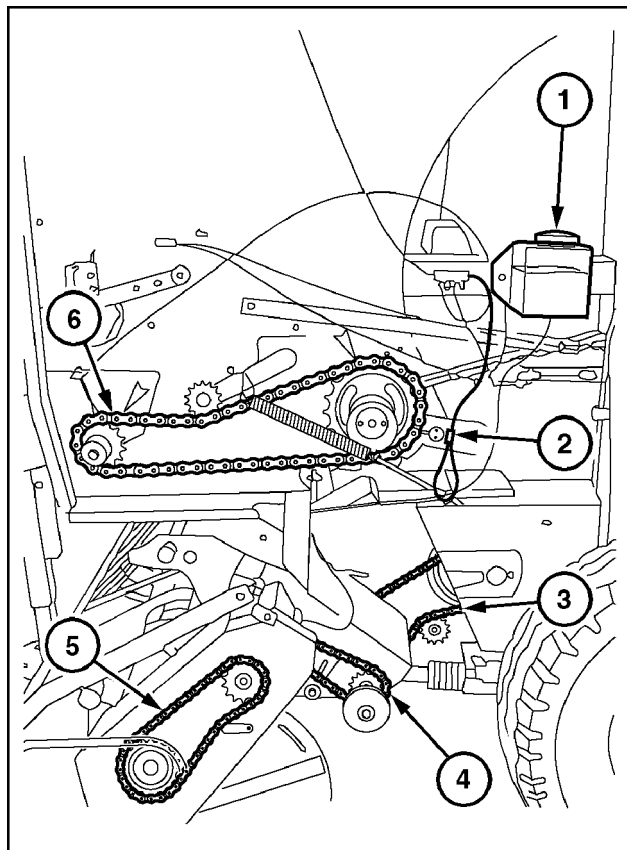
## Automatic oiling system [25804598]

### Automatic chain oiler

Automatic lubrication is a factory installed option, but can be retrofitted to all machines.

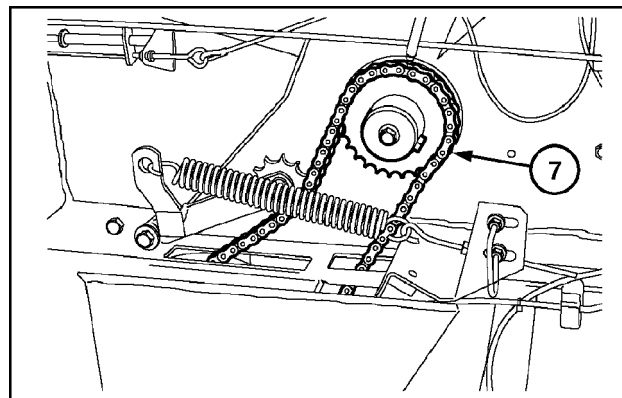
The automatic chain oiler **(2)** supplies a metered amount of oil to the following chains:

- Main drive chain **(6)** (drives the conveyor chain)
- Packer drive chain **(3)** (not on standard pickup models)
- Pickup drive chain **(4)**
- Pickup reel drive chain **(5)** (not on standard pickup models)



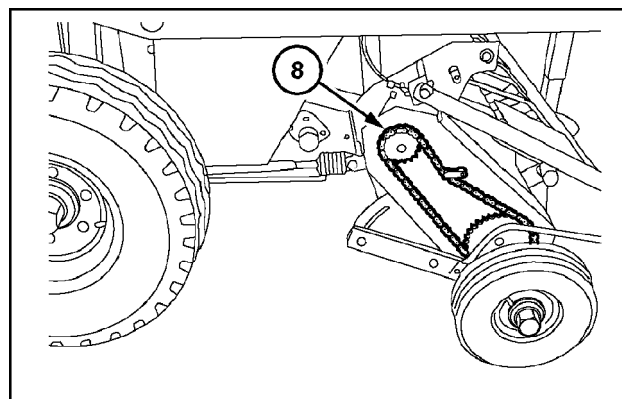
ZIL10FCRB014BAA 1

- Floor roll drive chain (7)



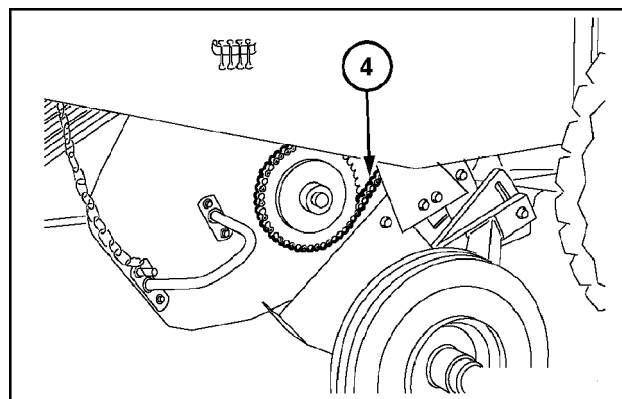
ZIL10FCRB762AAA 2

- Pickup auger right-hand drive chain (8) (not on standard pickup models)



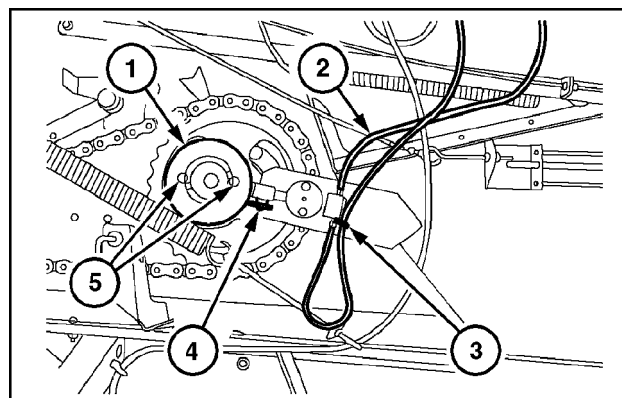
ZIL10FCRB764AAA 3

- Pickup drive chain (4)



ZIL10FCRB763AAA 4

The chain oiler pump is activated by the double eccentric disc (1) on the conveyor chain drive shaft. During the upward stroke of the pump cylinder (4), oil flows from the inlet hose (2) to the pump. During the downward stroke of the pump cylinder, oil is forced through the outlet hose (3) to the oiler brushes of the different chains. Each chain receives a certain amount of oil, determined by the size of the restrictors located inside the distribution manifold blocks.



ZIL10FCRB765AAA 5

The oil flow is determined by the eccentricity of the double disc **(1)** and is set ex-factory. To increase or reduce the oil flow rate, loosen the nuts **(5)** and turn the outer disc over the inner disc.

The mark on the outer disc will line up with an oil flow rate number on the inner disc (1 to 7). The higher the number, the greater the oil flow will be.

The **3 l** oil tank must be filled with the recommended hydraulic oil.

### Manual oiling

On machines not equipped with the automatic lubrication option, oil the drive chains daily. Prefer to oil the chains after work, when they are still warm. This will allow better penetration of the oil. Run the machine slowly at tractor engine idle speed whilst oiling the chains.

## Hydraulic Hose Replacement Interval [30313365]

### WARNING

#### Escaping fluid!

Hydraulic fluid or diesel fuel leaking under pressure can penetrate the skin and cause infection or other injury. To prevent personal injury: Relieve all pressure before disconnecting fluid lines or performing work on the hydraulic system. Before applying pressure, make sure all connections are tight and all components are in good condition. Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose. If injured by leaking fluid, see your doctor immediately.

Failure to comply could result in death or serious injury.

W0178A

Inspect equipment every 100 hours of usage or every month, whichever comes first.

Replace hydraulic hose assemblies with your local dealer for approved components,

If abrasive wear / other damage of the cover exposes the hose reinforcement braids, or

Oil leakage from the hose assembly, or

After 50,000 bales or 5 years of service life, whichever comes first.

**NOTE:** The hydraulic hose is marked with the date of manufacture and at least must be replaced 6 years after this date. This allows one year shelf life from date of manufacture to start of field service.

## Wheels and tires [25843485]

The life and performance of the tires depends largely upon maintaining the correct pressure.

With reference to the tire decal, inflate the tires as follows:

### Ground wheels

Standard pickup:

10.0/75 x 15.3 - 8 PR

Implement AW (tubeless)

Inflate to **220 kPa (2.2 bar)** in case normal farming practices prevail. When the baler is doing an unusual amount of travelling on the road at **40 km/h** (typical for contractor use), increase the tyre pressure to **320 kPa (3.2 bar)**.

Wide pickup

11.5/80 x 15.3 - 8 PR

Implement AW (tubeless)

Inflate to **207 kPa (2.1 bar)** in the case normal farming practices prevail.

When the baler is doing an unusual amount of travelling on the road, at **40 km/h** (typical for contractor use), increase the tyre pressure to **250 kPa (2.5 bar)**.

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### Pickup gauge wheels

4.00 x 6 - 4 PR

Ribbed profile (tube type, tube 4.00 x 6)

Inflate to **290 kPa (2.9 bar)**.

### Wheel nut torque

Check and tighten the wheel lug bolts daily at initial start-off of the machine until the torque remains stable. Torque to **380 N·m (280.3 lb ft)**.

Maximum forward speed on the road should not exceed **40 km/h** or not exceed local road speed regulations.

**ATTENTION:** These tires are designed for and fitted onto 15.3" rims. Ensure to fit replacement tires of the same size. Do not fit narrower, wider, larger or smaller diameter tires onto these rims.

Wheels and spindles should be checked every 200 hours. Wheel nut torque should be checked daily in the first 50 hours and, thereafter, every 100 hours.

## Wheels and tires [26070934]

### Wheel changing

#### ⚠ WARNING

##### Heavy objects!

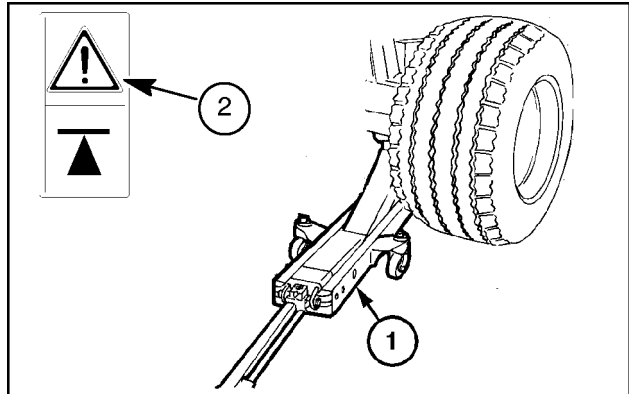
Lift and handle all heavy components using lifting equipment with adequate capacity. Always support units or parts with suitable slings or hooks. Make sure the work area is clear of all bystanders.

Failure to comply could result in death or serious injury.

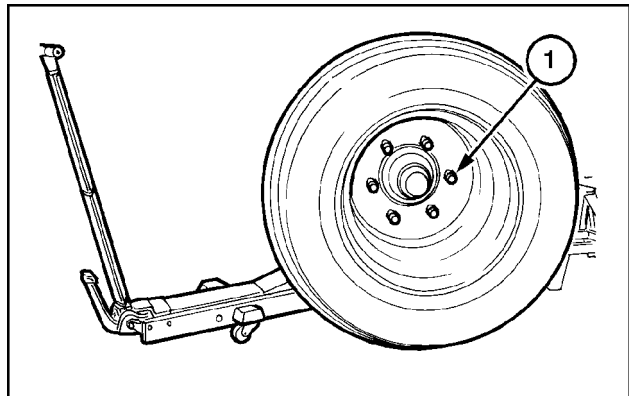
W0398A

1. Place a jack of sufficient capacity (1) under the machine only at the points identified by the decals (2). Refer to Specifications Section for the weight of the balers.
2. Lift the wheel off the ground and let the weight of the baler down onto an axle stand where possible.
3. Remove the wheel nuts (1) and wheel.

Reassemble in reverse order the wheel, tighten the nuts, rejack, remove the stand, lower the baler, remove jack and retorque the opposite nuts equally around the rim to **380 N·m (280.3 lb ft)**.



ZIL10FCRB235AAA 1



ZIL10FCRB188AAA 2

# MAINTENANCE CHART

## Maintenance Chart [32466823]

|                                 |          |                              |            | Replace   |   |   |   |   |
|---------------------------------|----------|------------------------------|------------|-----------|---|---|---|---|
|                                 |          |                              |            | Check     |   |   |   |   |
|                                 |          |                              |            | Adjust    |   |   |   |   |
|                                 |          |                              |            | Grease    |   |   |   |   |
|                                 |          |                              |            | Lubricate |   |   |   |   |
| Interval                        | Page Nb. | Maintenance Action           | Nb. of pts |           |   |   |   |   |
| 10 hours or daily Service       | 7-28     | Chain and bar system         |            | X         |   |   |   |   |
|                                 | 7-28     | Front hitch                  |            |           | X |   |   |   |
|                                 | 7-29     | Floor Roll Drive Chain       |            |           | X |   |   |   |
|                                 | 7-29     | Tailgate                     |            |           | X |   |   |   |
|                                 | 7-29     | Chain Drive                  |            | X         |   |   |   |   |
|                                 |          | PTO                          |            | X         |   |   |   |   |
|                                 |          | Drive chain lubrication      |            | X         |   |   |   |   |
|                                 |          | Drive chain lubrication      |            | X         |   |   |   |   |
|                                 |          | Chain Drive                  |            | X         |   |   |   |   |
|                                 |          | Tailgate                     |            | X         |   |   |   |   |
|                                 |          | Bale ejection                |            | X         |   |   |   |   |
|                                 |          | Wrapper mechanism            |            |           |   | X |   |   |
| 50 hours Service                | 7-30     | Drive chains                 |            |           |   | X |   |   |
|                                 | 7-30     | Drive chains                 |            |           |   | X |   |   |
|                                 | 7-31     | Gearbox                      |            |           |   |   | X |   |
|                                 | 7-31     | PTO                          |            | X         |   |   |   |   |
|                                 | 7-33     | Pick up                      |            | X         |   |   |   |   |
|                                 | 7-34     | Drive chains                 |            |           |   | X |   |   |
|                                 | 7-34     | Bale density                 |            |           | X |   |   |   |
|                                 | 7-34     | Drive chains                 |            | X         |   |   |   |   |
|                                 | 7-35     | Pick up                      |            |           |   | X |   |   |
|                                 | 7-37     | Pick up                      |            |           |   | X |   |   |
|                                 |          | Twine Wrapper                |            |           | X |   |   |   |
|                                 | 7-37     | Tailgate                     |            | X         |   |   |   |   |
|                                 | 7-38     | Gearbox                      |            |           | X |   |   |   |
|                                 | 7-38     | Tailgate                     |            |           | X |   |   |   |
|                                 |          | Pick up                      |            |           | X |   |   |   |
|                                 |          | Feeder                       |            |           | X |   |   |   |
|                                 |          | Feeder                       |            |           | X |   |   |   |
|                                 |          | Bale shape                   |            |           | X |   |   |   |
|                                 |          | Wrapper mechanism            |            |           | X |   |   |   |
| 100 hours Service               | 7-39     | Twine Wrapper                |            | X         |   |   |   |   |
| 1200 hours or 12 months Service | 7-39     | Wheels and tires             |            | X         |   |   |   |   |
|                                 |          | Hydraulic circuit oil filter |            |           |   |   |   | X |
|                                 | 7-39     | Hydraulic hoses              |            |           |   |   | X |   |

## 10 hours or daily Service

### Chain and bar system - Lubricate [25807955]

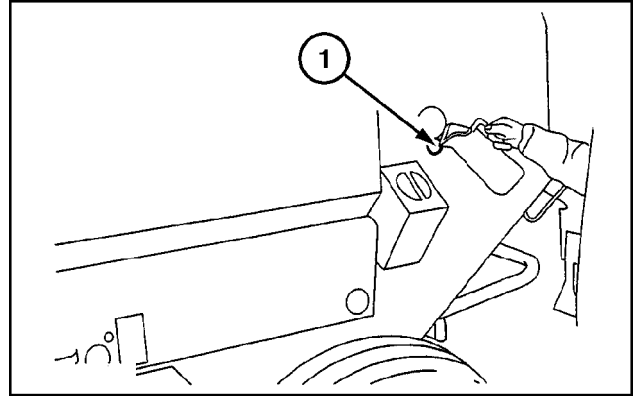
#### Conveyor chain

Oil the conveyor chain through the access hole (1) while running the machine idle every 10 hours of use and after storage.

Lubricate the conveyor chain immediately after operation while it is still warm and let the machine run idle for a short period to ensure effective oil penetration resulting in longer life using these guidelines.

- Run the machine at low idle speed for oiling the chain. Ensure there is a second person in the tractor to shut the tractor PTO and engine off in case of emergency. Engage the tractor handbrake. Close and latch all baler guards and the tailgate. Keep at a safe distance from the machine in particular the ground wheels.
- Oil at the end of the workday while the chain is still warm and let the machine run idle for a short period to ensure effective oil penetration, oil both sides equally.

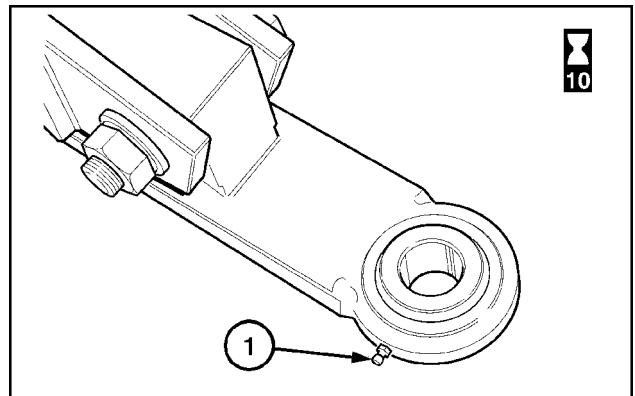
**NOTICE:** In abrasive sandy conditions it is better to run the chains dry (not to oil on a daily basis). however oil abundantly before and between seasons, storage periods and prior to starting the new season.



ZIL10FCRB844AAA 1

### Front hitch [25808567]

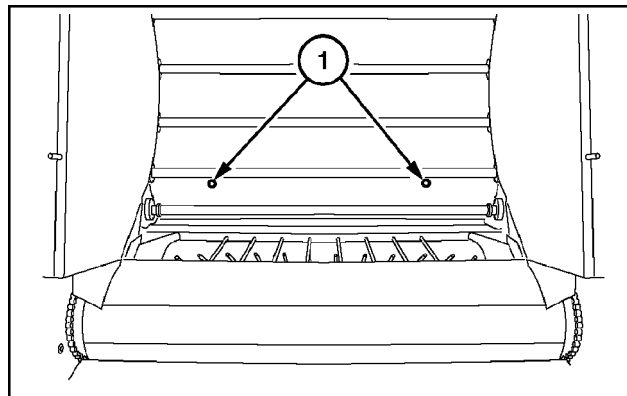
#### Ball hitch



ZIL10FCRB811AAA 1

## Floor Roll Drive Chain [25809072]

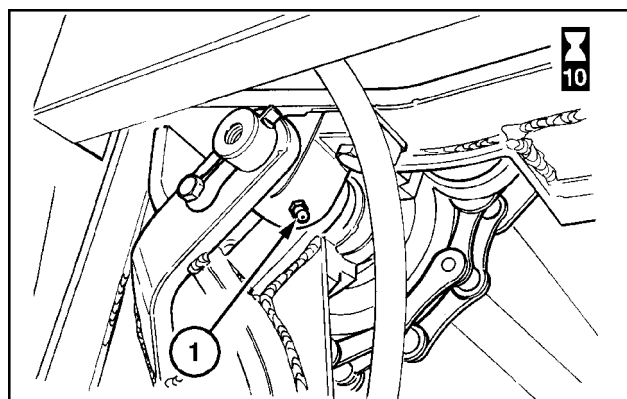
Conveyor drive shaft idlers (2 inside tailgate)



ZIL10FCRB776AAA 1

## Tailgate [25809136]

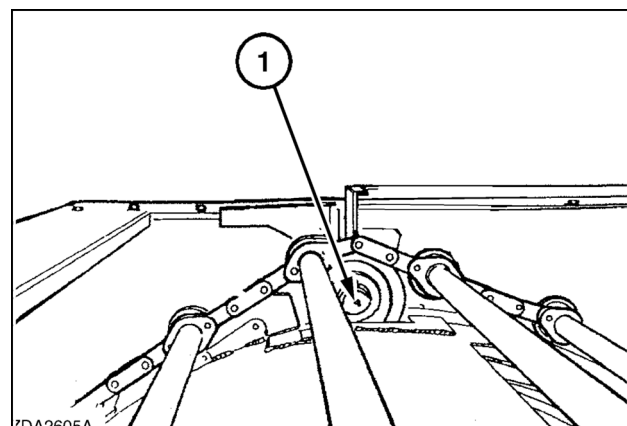
Tail gate hinges



ZIL10FCRB831AAA 1

## Chain Drive [25809176]

Right or left bearing for bar chain support



ZDA2605A

CHAIN 1

## 50 hours Service

### Drive chains [25804953]

#### Drive chains

Most drive chains are provided with spring-loaded chain idlers to keep the chains at their optimum tension at all times.

Periodically check the chains and adjust as required:

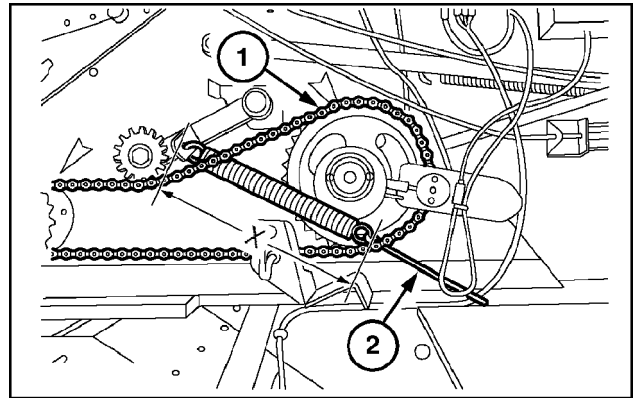
- At first start off, after 50 bales made.
- Every 100 bales during the run-in period, until the chain tension stabilizes.
- Thereafter, on a weekly basis or every 500 bales.

#### Main drive chain (1)

Spring length (eye to eye):

X = 356 - 360 mm (14.0 - 14.2 in)

Adjust with eyebolt (2).



ZIL10FCRB788AAA 1

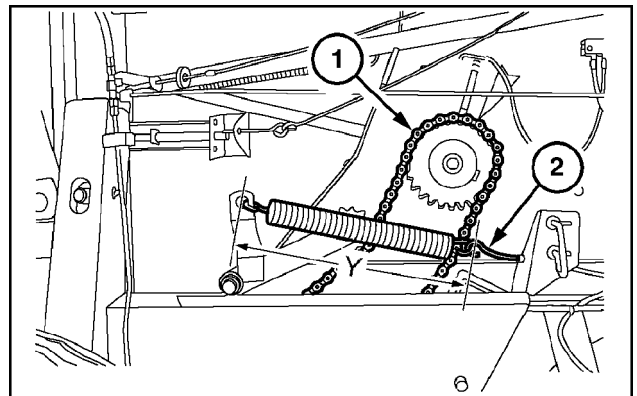
### Drive chains [25805006]

#### Floor roll drive chain (1)

Spring length (eye to eye):

Y = 356 - 360 mm (14.0 - 14 in)

Adjust with eyebolt (2).



ZIL10FCRB789AAA 1

## Gearbox [25807253]

### Oil level

Keep the gearbox filled to level plug **(3)**. If necessary, fill the gearbox through plug **(2)**. Plug **(4)** is a drain plug.

Always use gearbox oil meeting the following specifications:

SAE 90 viscosity rating

API GL5M and MIL-L 2104 E classification

When checking the oil level, the baler must be levelled so that the coach work is parallel to the ground.

**NOTE:** To check the gearbox oil level, reach over the frame cross beam **(1)** to gain access to the level plug.

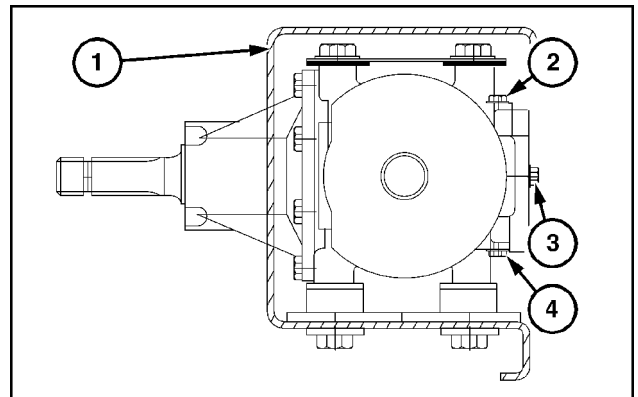
### Oil change

For a new machine after 50 operating hours and thereafter annually.

Drain the oil through plug **(4)**. Refill the gearbox through plug **(2)**.

**NOTE:** Avoid spillage when draining off used oil.

Gearbox capacity 1 l.



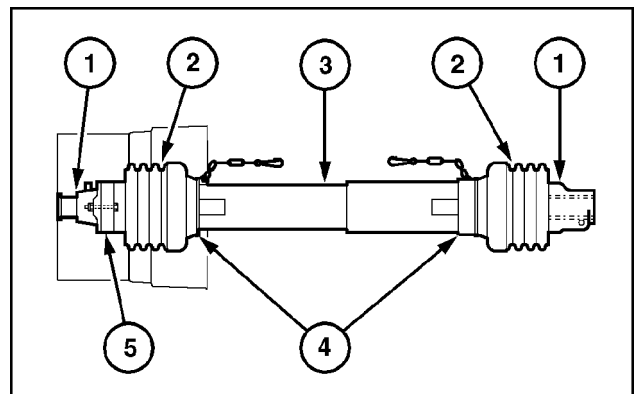
ZIL10FCRB278AAA 1

## PTO [25807378]

### Oiling and greasing

#### PTO shaft - Standard

The complete PTO driveline must be greased regularly for smooth power transfer and longer life of the baler driveline (Standard PTO shown).

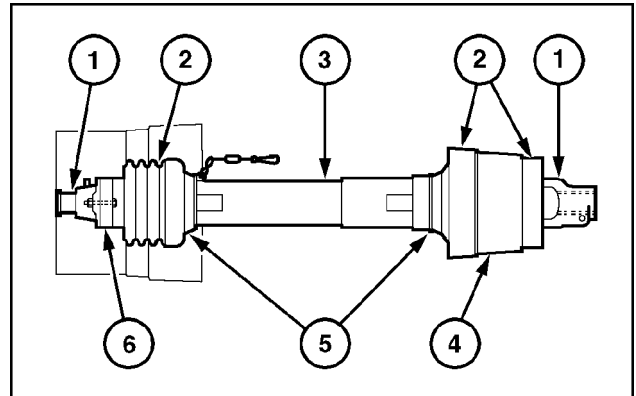


ZIL10FCRB767AAA 1

## PTO shaft - Wide angle

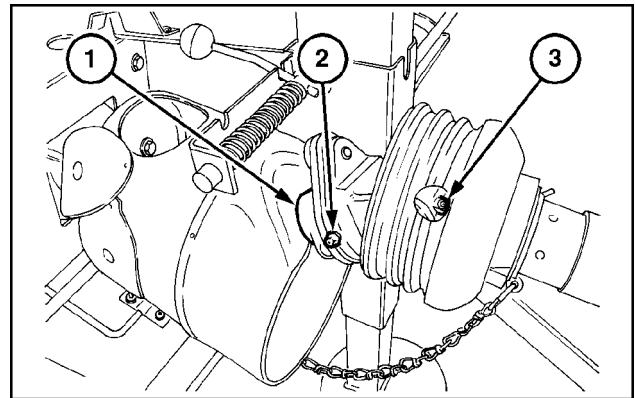
The baler end PTO universal joint is mostly covered by safety guarding. To access the rear U - Joint spider lube fitting (2).

Slide the PTO off the gearbox shaft. The push pin lock on the rear yoke facilitates this operation.



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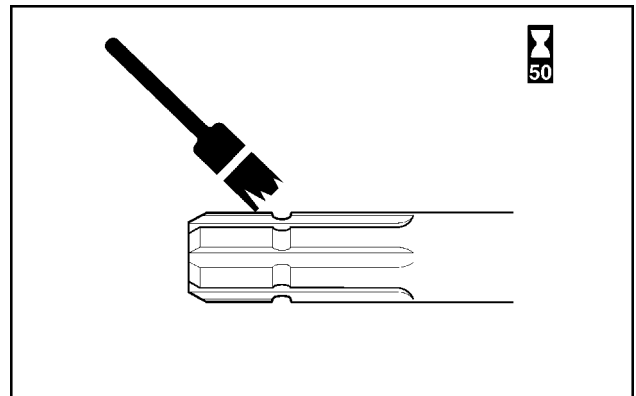
Apply grease to areas (1), (2), and (3).



ZIL10FCRB842AAA 3

## Tractor yoke

Clean and grease the tractor PTO shaft, the front PTO yoke and the locking collar before installation of the driveline and after 50 hours of use.

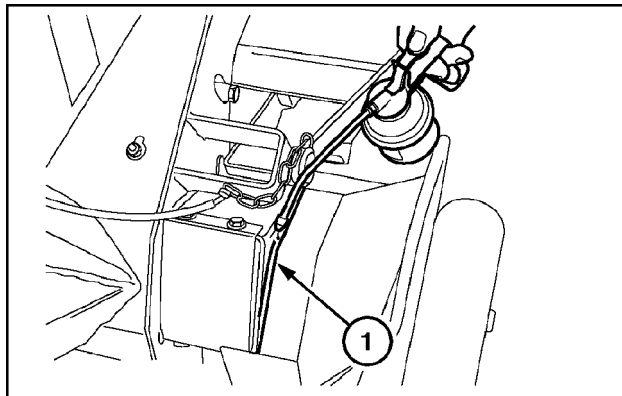


ZIL10FCRB813AAA 4

## Pick up [25807794]

### Pickup pivot plates - Standard

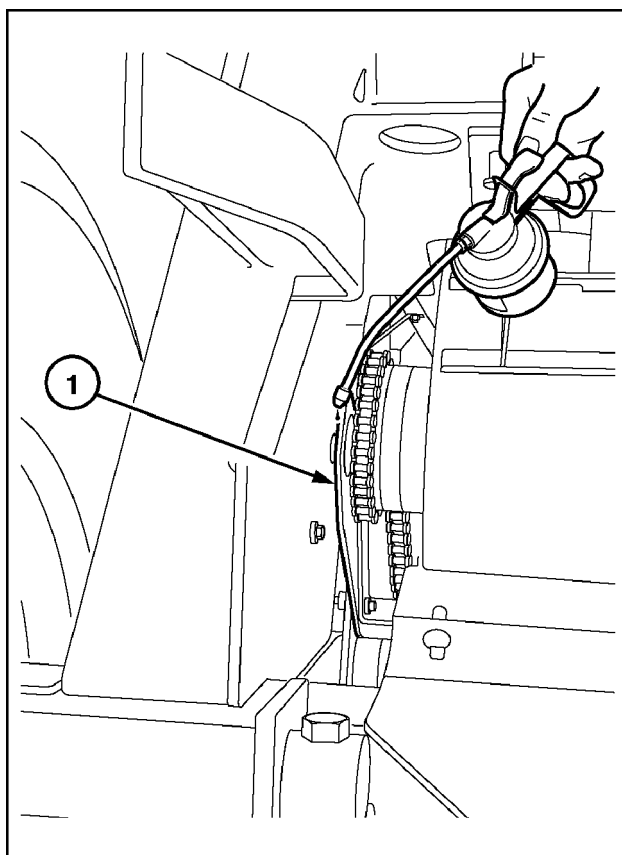
Oil the pickup pivot plates (1) every 50 hours of use and after storage.



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### Pickup pivot plates - Wide pickup

Oil the pickup pivot plates (1) every 50 hours of use and after storage.

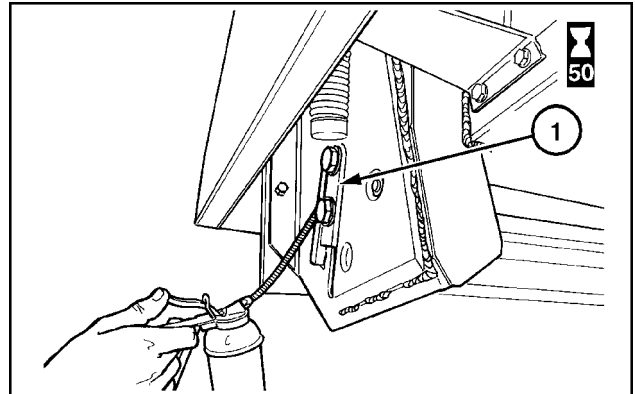


ZIL10FCRB015BAA 2

## Drive chains [25808174]

### Conveyor chain stretch take-up slots

Clean and oil the left and right-hand conveyor chain stretch take-up slots (1) every 50 hours of use and after storage.

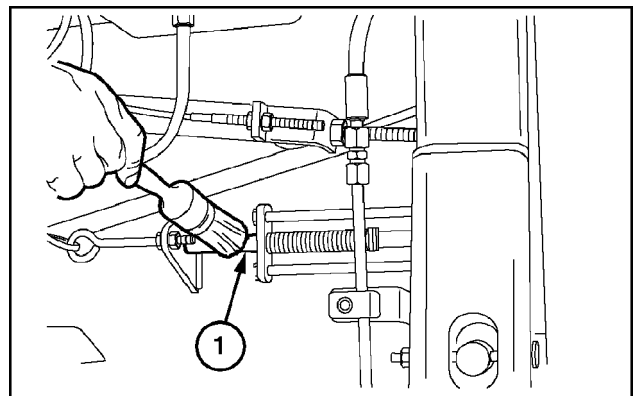


ZIL10FCRB810AAA 1

## Bale density [25808394]

### Density indicator rods

Clean and brush grease the left and right density indicator rods (1) every 50 hours of use and after storage.

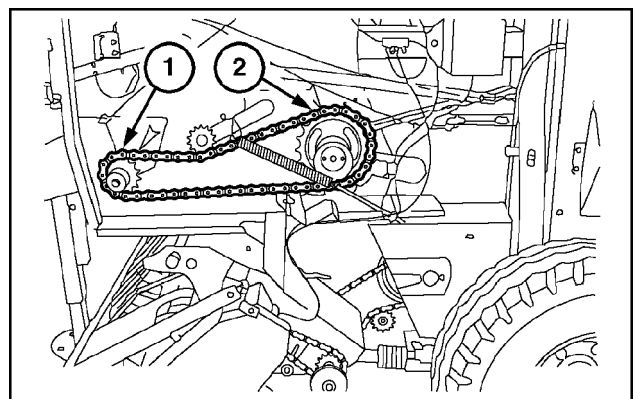


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## Drive chains [25808966]

Left-hand side:

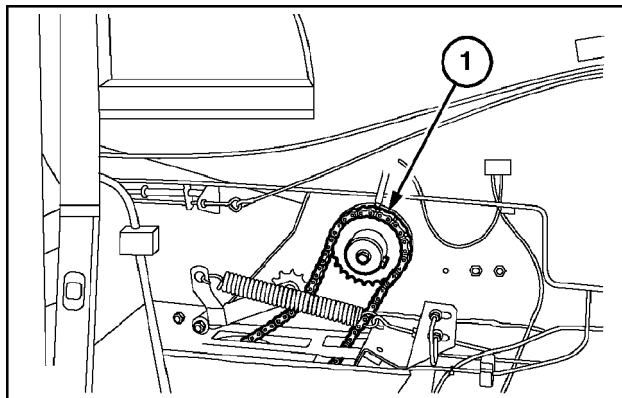
- Gearbox output shaft bearing
- Conveyor drive shaft bearing



ZIL10FCRB774AAA 1

Right-hand side:

- Conveyor drive shaft bearing



ZIL10FCRB775AAA 2

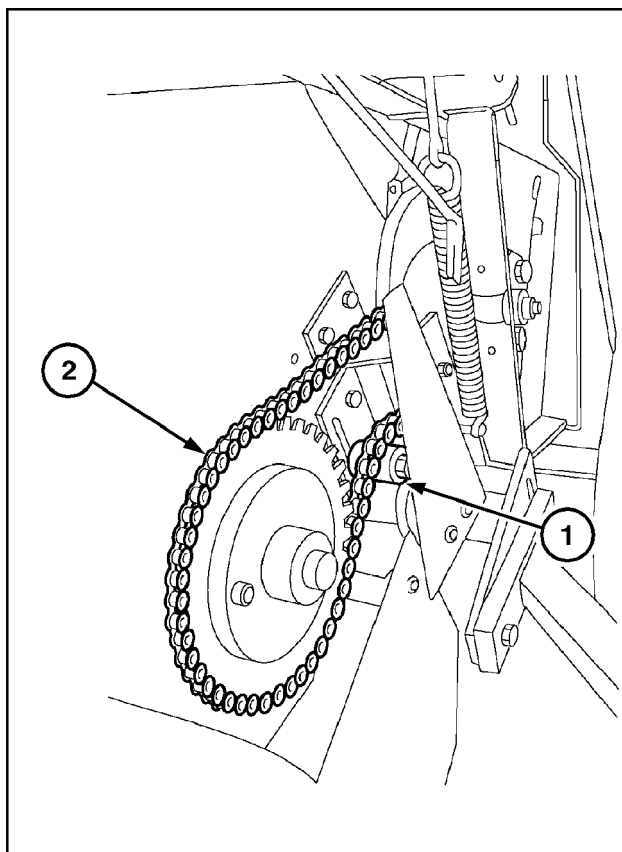
## Pick up [25809459]

### Pickup drive chains

Standard pickup models with guards removed for clarity

Pickup drive chain (2)

Adjust the chain tensioner (1) for a maximum deflection of **10 mm (0.4 in)** in the upper chain span under manual pressure.



ZIL10FCRB017BAA 1

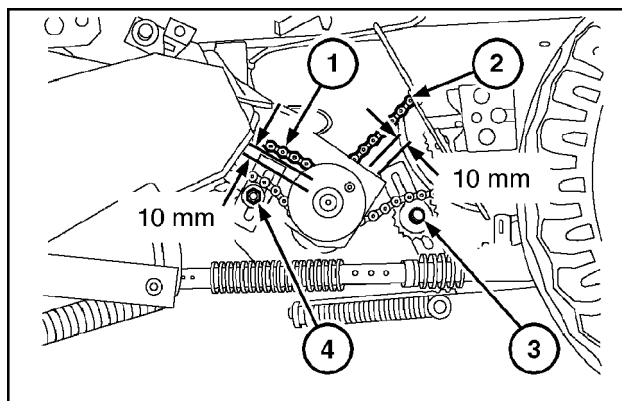
Wide pickup models

Feeder drive chain (2)

Adjust the chain tensioner (3) for a maximum deflection of **10 mm (0.4 in)** in the upper chain span under manual pressure.

Pickup drive chain (1)

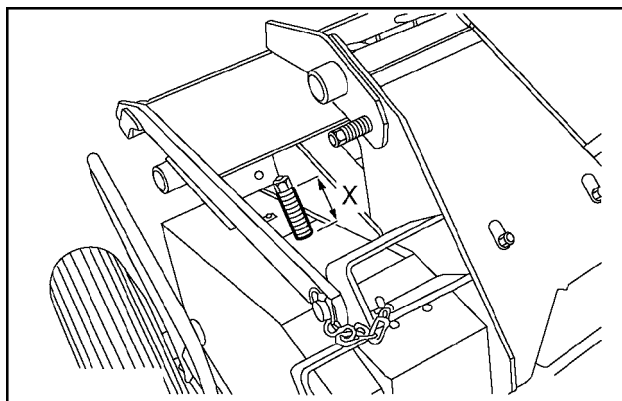
Adjust the chain tensioner (4) for a maximum deflection of **10 mm (0.4 in)** in the upper chain span under manual pressure.



ZIL10FCRB790AAA 2

Pickup reel drive chain (left-hand side) - Figure 3

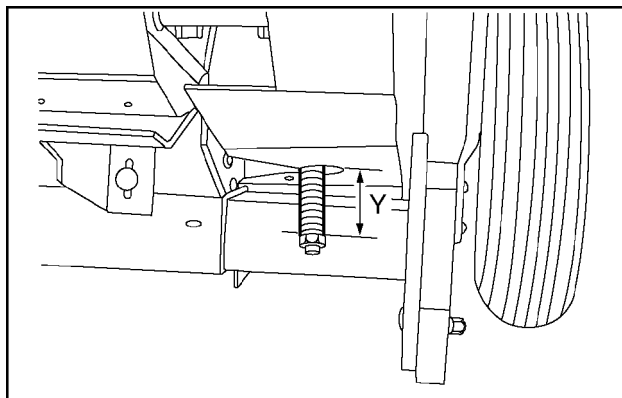
Spring length compressed:  $X = 58 - 62 \text{ mm (2.3 - 2.4 in)}$



ZIL10FCRB791AAA 3

Stub auger drive chain (right-hand side) - Figure 4

Spring length compressed:  $Y = 58 - 62 \text{ mm (2.3 - 2.4 in)}$



ZIL10FCRB792AAA 4

## Pick up [25810137]

### Pickup

Standard pickup

For adjustment of the pickup gauge wheels (accessory) and windguard, refer to Working operations.

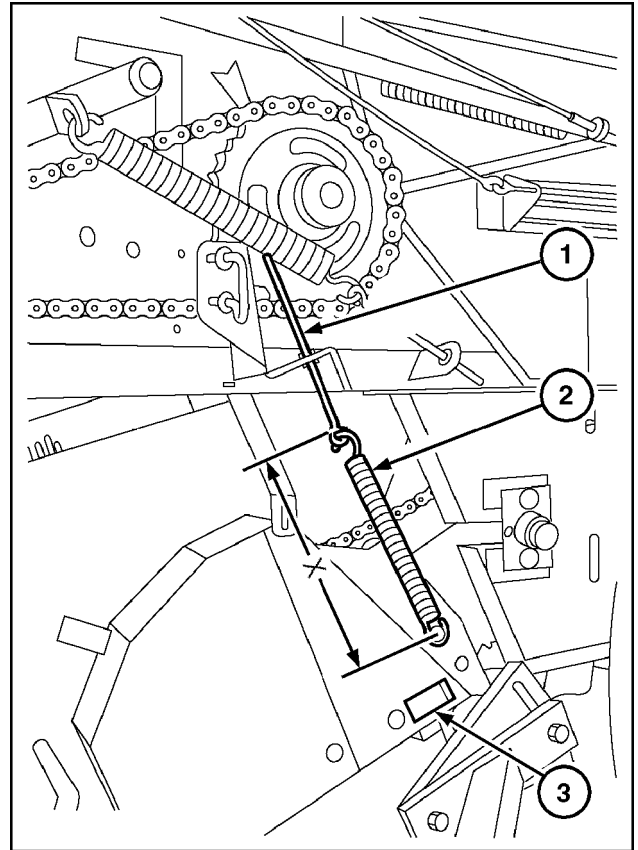
Flotation springs

Two flotation springs (2) left and right of the pickup carry most of the pickup weight, without making it bounce excessively on rough terrain.

Adjust the springs to a length (eye to eye) of:

$X = 292 - 298 \text{ mm (11.5 - 11.7 in)}$

Check that the stop (3) touches the chassis and that the pickup teeth pass at **15 mm** from the ground, then get the value X through the threaded rods (1).



ZIL10FCRB011BAA 1

## Tailgate [25808090]

### Tailgate latching hooks

#### **⚠ DANGER**

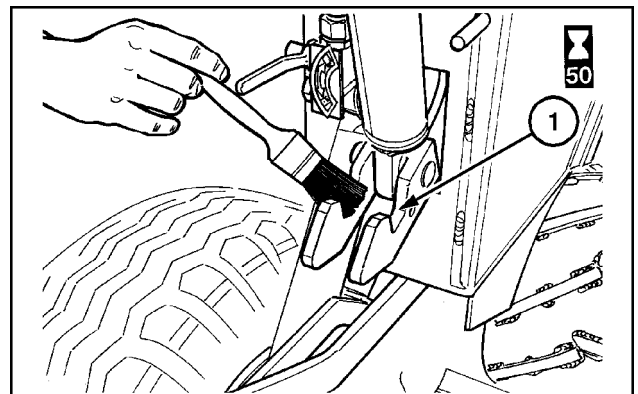
**Crush hazard! The tailgate may close faster than you can move away.**

**ALWAYS** make sure the tailgate lockout valves are in the OFF (locked) position before working under a raised tailgate. In the event of a sudden loss of hydraulic pressure, the tailgate will fall if the lockout valves are not engaged. Stand clear of the tailgate before disengaging the lockout valves.

**Failure to comply will result in death or serious injury.**

D0002A

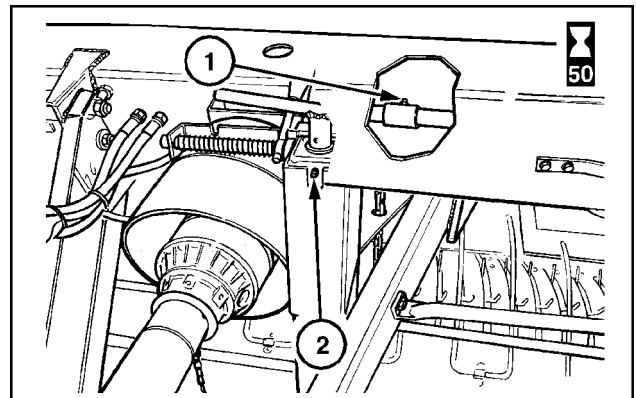
Clean and slightly grease the tailgate latching hooks (1) every 50 hours of use and after storage.



ZIL10FCRB812AAA 1

## Gearbox [25808740]

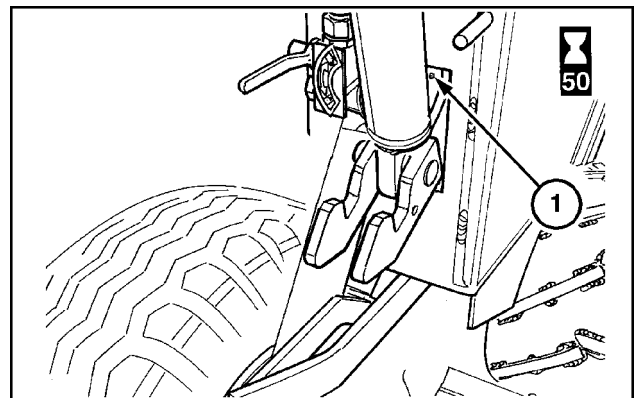
Jack and gearbox output shaft



ZIL10FCRB830AAA 1

## Tailgate [25809216]

Right or left hook for tailgate



ZIL10FCRB723AAA 1

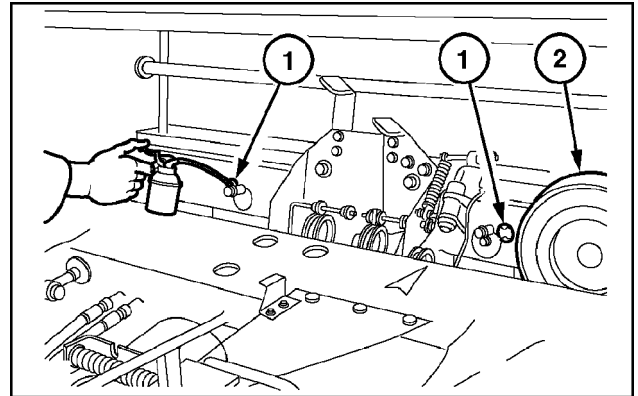
## 100 hours Service

### Twine Wrapper [25808310]

#### Twine wrapper

Oil the twine wrapper chain after 100 hours of use and after storage.

Open both spring-loaded covers and oil the chain through the holes (1) while turning the pattern pulley (2) manually.



ZIL10FCRB772AAA 1

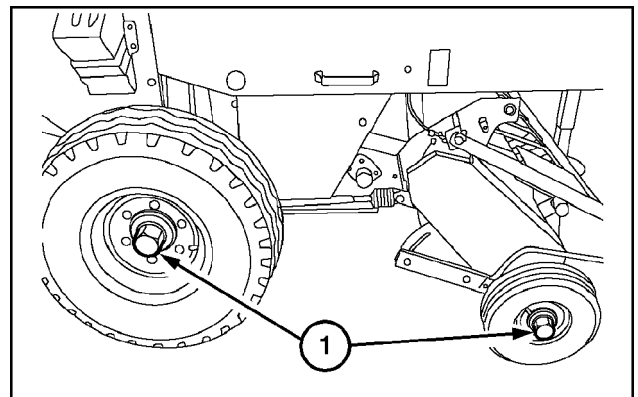
## 1200 hours or 12 months Service

### Wheels and tires [25807608]

#### Wheel bearings

Disassemble, clean and repack the wheel bearings and pickup gauge wheel bearings (1) with grease.

**NOTE:** Pickup gauge wheels are an accessory for standard pickup models.



ZIL10FCRB769AAA 1

### Hydraulic hoses Hose replacement [31336074]

#### ⚠ WARNING

Pressurized fluid can penetrate the skin and cause severe injuries.

Keep hands and body away from any pressurized leak. **DO NOT** use your hand to check for leaks. Use a piece of cardboard or paper. If fluid penetrates the skin, seek medical attention immediately.

Failure to comply could result in death or serious injury.

W0158A

1. Hydraulic hoses are an important safety element in modern machinery. However hose characteristics under pressure, thermal heat and UV light over the years deteriorate.  
Therefore hoses are now identified with a date printed on the hose or a band which enables age identification.  
Legislation in certain countries and good practices require that the hydraulic hoses are replaced when 6 years old.

## STORAGE

### End of Season Parts Replacement [25869278]

Before preparing the baler for storage, check the baler for any parts that may be worn or damaged and in need of replacement. Order the parts now and replace them before the next baling season.

Always be sure to give your dealer the model and PIN of your baler. The PIN plate is located on the right side, just to the rear and below the large side shield.

Insist on genuine replacement parts. For best performance have your baler serviced by an authorized dealer.

1. Check the twine and net knives.
2. Examine all of the chains and sprockets for wear. Replace worn sprockets when installing new chains. Always install new chain when replacing sprockets.
3. Inspect the hitch for excessive wear.
4. Order all of the bearings that were found to require replacement during the storage procedure.
5. Check all bushings for wear.
6. Examine the wrapper systems and check for looseness or excessive wear.
7. Note any broken or bent pickup tines or severely damaged guards.
8. Make sure the pickup cam bearings are in good condition.
9. Check the tailgate lights.
10. Is the supply of shearbolts adequate.

### Preparing for Storage [11227607]

Perform the following steps when the baler will not be used for an extended period of time.

1. Cut the twine near the twine balls and remove all the balls from the twine boxes. Leave the twine end threaded in place. Move the twine balls to an inside location to reduce moisture absorption.
2. Remove the operators manual and store it in a safe location.
3. Clean the unit thoroughly
4. Remove any material buildup on the belt rolls, wrapper area and in the twine boxes.
5. Remove any twine that has wrapped on the pickup tines
6. Lubricate the entire baler as recommended in the lubrication section. Apply lubricant to the threads of the adjustment bolts and to all the hinges.
7. Lubricate all the chains with oil and operate the baler a few minutes to let the oil work into the chains. Carefully check all the bearings for any heat that would indicate a failed bearing.

8. Coat the exposed bare metal areas with a light coat of oil. Particularly the inside of the bale chamber side sheets.
9. Clean the belts of oil and grease. Store the baler with the belts at normal tension.
10. Store the unit in a dry sheltered area, if possible. If not, cover the top with a tarpaulin or plastic.

## Removing from storage [11229773]

1. Make all the repairs that were required from the end of the season inspection.
2. Review the initial baler attachment and setup instructions.
3. Check all of the wires and wire harnesses for damage.
4. Check the hydraulic lines for any signs of leaks.
5. Install the net or twine.
6. Check for proper flotation.
7. Check the tires air pressure.
8. Check proper chain tensions and alignment.
9. Burnish all of the slip clutches.
10. Check the twine tube travel and timing with the knife.
11. If the baler will be used with a different tractor, check the hydraulic fluid compatibility
12. Check the tailgate hydraulic lock valve. Raise the tailgate and place the valve in the locked position. Try to move the tailgate with the tractor hydraulics.
13. Check the hydraulic pressure setting.
14. Check that all of the indicators operate properly.
15. Operate the baler and check that the belts track properly.

## TROUBLESHOOTING

### Round baler [25871691]

#### PTO drive area

| Concern                       | Possible Cause                                                                                                         | Correction                                                                                                                                                         |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Main drive shearbolt failure. | Foreign object or plugging.<br>Bale too dense.<br><br>Windrows too large.<br>Feed rate too high.<br>Shearbolt fatigue. | Remove foreign object or plugging.<br>Check bale density and reduce, if necessary.<br>Reduce feed rate by driving slower.<br>Replace clutch.<br>Replace shearbolt. |

#### Pickup area

| Concern                                         | Possible Cause                                                                                                                                                                                  | Correction                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pickup plugging.                                | Feeding large windrows too rapidly.<br>Lumpy windrows.<br><br>Incorrect windrow preparation and/or driving technique.<br>Incorrect windguard baffle plate adjustment.                           | Reduce ground speed to allow the pickup to tear the bunches apart as they are fed into the machine.<br>Optimize windrow preparation and/or driving technique.<br>Properly adjust windguard baffle plate.                                                                                                                                                                                                                         |
| Pickup shearbolt failure.                       | Blockage in front of the augers caused by big lumps.<br><br>Foreign objects entering the pickup (branches, stones).<br><br>Pickup hitting the ground in rough fields.<br><br>Shearbolt fatigue. | Reduce ground speed to allow the pickup to tear the bunches apart as they are fed into the machine.<br>Optimize windrow preparation and driving technique.<br>In stony fields, raise the pickup higher off the ground to prevent stones from entering the pickup.<br>Raise the pickup and drive around pot holes in the field. Adjust pickup flotation lighter (less force needed to lift the pickup).<br>Install new shearbolt. |
| Pickup does not drop freely.                    | Pickup pivots binding.                                                                                                                                                                          | Grease pickup pivots.                                                                                                                                                                                                                                                                                                                                                                                                            |
| Pickup tines breaking.                          | Pickup tines digging in the ground.<br>Pickup set too low.<br>Foreign objects or previously broken tines in the pickup.<br>Heavy stalky conditions.                                             | Increase pickup tines to ground clearance.<br>Remove foreign objects and replace broken tines.<br>In stalky conditions, frequent pickup tines breaking may be expected.                                                                                                                                                                                                                                                          |
| Crop plugging in front of the centering augers. | Excessive weaving, feeding too much crop in front of the augers.<br>Auger scrapers maladjusted.<br>Crossing windrows.                                                                           | Improve weaving technique, do not feed the entire windrow to the augers.<br>Readjust auger scrapers.<br>Raise the pickup when crossing windrows.                                                                                                                                                                                                                                                                                 |
| Does not pick up material cleanly.              | Missing or broken pickup tines.<br>Flotation too light.<br>Driving too fast.<br>Pickup-to-ground clearance too high.                                                                            | Replace broken or missing tines.<br>Adjust pickup flotation.<br>Reduce ground speed.<br>Reduce pickup-to-ground clearance.                                                                                                                                                                                                                                                                                                       |

### Bale formation

| Concern                                             | Possible Cause                                      | Correction                                                                                               |
|-----------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Feeding problems in short, brittle crop conditions. | Brittle crop breaks easily when fed into the baler. | Reduce PTO speed down to <b>350 - 450 RPM</b> .<br>Disengage the PTO when running idle on the headlands. |

### Bale density

| Concern                    | Possible Cause                                                      | Correction                                                                                                    |
|----------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Bales too light and soft.  | Ground speed too high.                                              | Reduce ground speed to allow compaction of the incoming crop. Drive slower at the end of bale formation.      |
|                            | Improper windrow preparation.<br>Full bale density setting too low. | Improve windrow preparation.<br>Increase full bale density.                                                   |
| Bales too heavy and dense. | Crop moisture content too high.<br>Ground speed too low.            | Allow crop to dry before baling.<br>Increase ground speed to leave less compaction time to the incoming crop. |
|                            | Windrow too small.                                                  | Increase ground speed or rake two windrows together.                                                          |
|                            | Full bale density setting too high.                                 | Decrease full bale density setting.                                                                           |

## Twine wrapping

| Concern                                        | Possible Cause                                                                                                                                                                                                                                                                                                               | Correction                                                                                                                                                                                                                                                                          |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Twine does not start.                          | Feed rolls slipping over the twine, because: <ul style="list-style-type: none"><li>• Twine tension too high.</li><li>• Feed roll tensioner set too low.</li><li>• Misalignment between upper and lower feed rolls.</li><li>• Twine tangled in the twine box.</li></ul> Improper twine routing.<br>Slippery straw conditions. | Reduce twine tension.<br>Readjust feed roll tensioner.<br>Align upper and lower feed rolls.<br><br>Reroute twine.<br>Route the twines correctly.<br>In extreme conditions, continue feeding material into the pickup until the twines really start wrapping. Then stop immediately. |
| Twines not picked up by the spreader hooks.    | Wrapper was not in the home position at twine start.<br>Maladjustment of the feed roll module.                                                                                                                                                                                                                               | Make sure the wrapper is always in the home position at twine start.<br>Readjust feed roll module height.                                                                                                                                                                           |
| Twine spacing not constant over the bale.      | Twines slipping over the pattern pulley.                                                                                                                                                                                                                                                                                     | Clean pattern pulley. Increase twine tension, if necessary.                                                                                                                                                                                                                         |
| Twine is not cut at the end of the wrap cycle. | Dull or damaged knife.<br>Knife installed in the wrong fixation hole.                                                                                                                                                                                                                                                        | Sharpen or replace the knife.<br>Correctly reinstall the knife.                                                                                                                                                                                                                     |
| Twine falls off the end of the ejected bales.  | Poorly shaped bales.<br><br>End wraps placed too close to the bale's edges.                                                                                                                                                                                                                                                  | Improve windrow and driving techniques to obtain well shaped bales.<br>Adjust the twine stops more to the middle.                                                                                                                                                                   |

## Miscellaneous

| Concern                                                                       | Possible Cause                                                                                                                                                                                                                                                                                   | Correction                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tailgate will not latch.                                                      | Crop and stones buildup behind the floor roll.<br>Tailgate latching hooks/pin maladjusted.<br>Crop buildup in the tailgate latching hook area.                                                                                                                                                   | Clean crop buildup and stones behind the floor roll.<br>Readjust tailgate hooks/pins.<br>Clean crop buildup.                                                                                                                                                                                                                                                    |
| Tailgate will not open.                                                       | Insufficient hydraulic pressure.                                                                                                                                                                                                                                                                 | Check tractor hydraulics.                                                                                                                                                                                                                                                                                                                                       |
| Bale ejection is slow and difficult.                                          | Insufficient hydraulic flow for fast tailgate opening.<br>Bale ejector springs too tight.<br>Bale density too high.<br>Too much material fed into the sides of the bale.<br>Paint on bale chamber side sheets when the baler is new.<br><br>PTO speed too low.<br><br>Bale stuck in the chamber. | Check tractor hydraulics.<br><br>Release bale ejector springs.<br>Decrease full bale density setting.<br>Do not overfill the sides of the bale.<br><br>On a new baler, select a lower full bale density until the bale chamber side sheets are polished.<br>For bale ejection, increase PTO speed to at least <b>450 RPM</b><br>Install special tailgate discs. |
| Bale ejector [accessory] tube jumps excessively during transport on the road. | Bale ejector springs not tight enough.                                                                                                                                                                                                                                                           | Tighten the bale ejector springs.                                                                                                                                                                                                                                                                                                                               |

### Automatic lubrication (accessory)

| Concern                          | Possible Cause                                                                                                                                                                                                                                         | Correction                                                                                                                                                                                                                                 |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Not enough oiling.               | Pump action has become tight due to crop and dirt buildup in the pump area.<br>Oil too heavy.<br><br>System contaminated.<br>Oil flow rate set too low.                                                                                                | Clean pump area and check free pump action.<br>Use specified oil.<br>In cold conditions, use a lighter type of oil.<br>Replace all metering valves.<br>Increase oil flow rate by increasing pump stroke.                                   |
| Too much oiling.                 | Oil flow rate set too high.<br><br>Oil too light.                                                                                                                                                                                                      | Lower oil flow rate by decreasing pump stroke.<br>Use specified oil.<br>In very hot conditions, use heavier type of oil.                                                                                                                   |
| No oiling on some or all chains. | Oil pump maladjusted.<br>Main oiling line from tank to pump detached or defective.<br>One or more metering valves contaminated or blocked.<br>Air in the oiling system.<br>Detached, looped or squeezed oiling line(s).<br>Oiling brushes maladjusted. | Readjust oil pump.<br>Reattach or repair main oiling line.<br><br>Replace contaminated metering valves.<br><br>Bleed the oiling pump and all oiling lines.<br>Reroute and/or replace defective oiling line(s).<br>Readjust oiling brushes. |

### Electric control box system (accessory)

| Concern                                                                                                                                        | Possible Cause                                                          | Correction                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Control box not functioning.                                                                                                                   | Control box not turned on.<br>Blown fuse.<br><br>Wire harness damaged.  | Turn the control box on.<br>Look for the cause of the blown fuse and repair.<br>Trace the damaged wire and repair. |
| As power is turned on, the actuator extends to its end of stroke. When the WRAP switch is toggled, the actuator retracts to the home position. | Reverse polarity.                                                       | Change polarity at the power source.                                                                               |
| Full bale alarm does not turn on.                                                                                                              | Sensor / magnet maladjustment.<br>Defective sensor.<br>Wiring problem.  | Readjust sensor / magnet.<br>Replace sensor.<br>Check wiring and connector, repair / replace, if necessary.        |
| The actuator does not extend as the WRAP switch is toggled.                                                                                    | System was not turned on.<br>Wiring problem.<br><br>Defective actuator. | Turn system power on.<br>Check wires and connector, and repair, if necessary.<br>Replace actuator.                 |

## 8 - SPECIFICATIONS

### Overall Dimensions [25870358]

The specification figures in this section are provided for your information and guidance. For further information concerning your baler and equipment, consult your New Holland dealer.

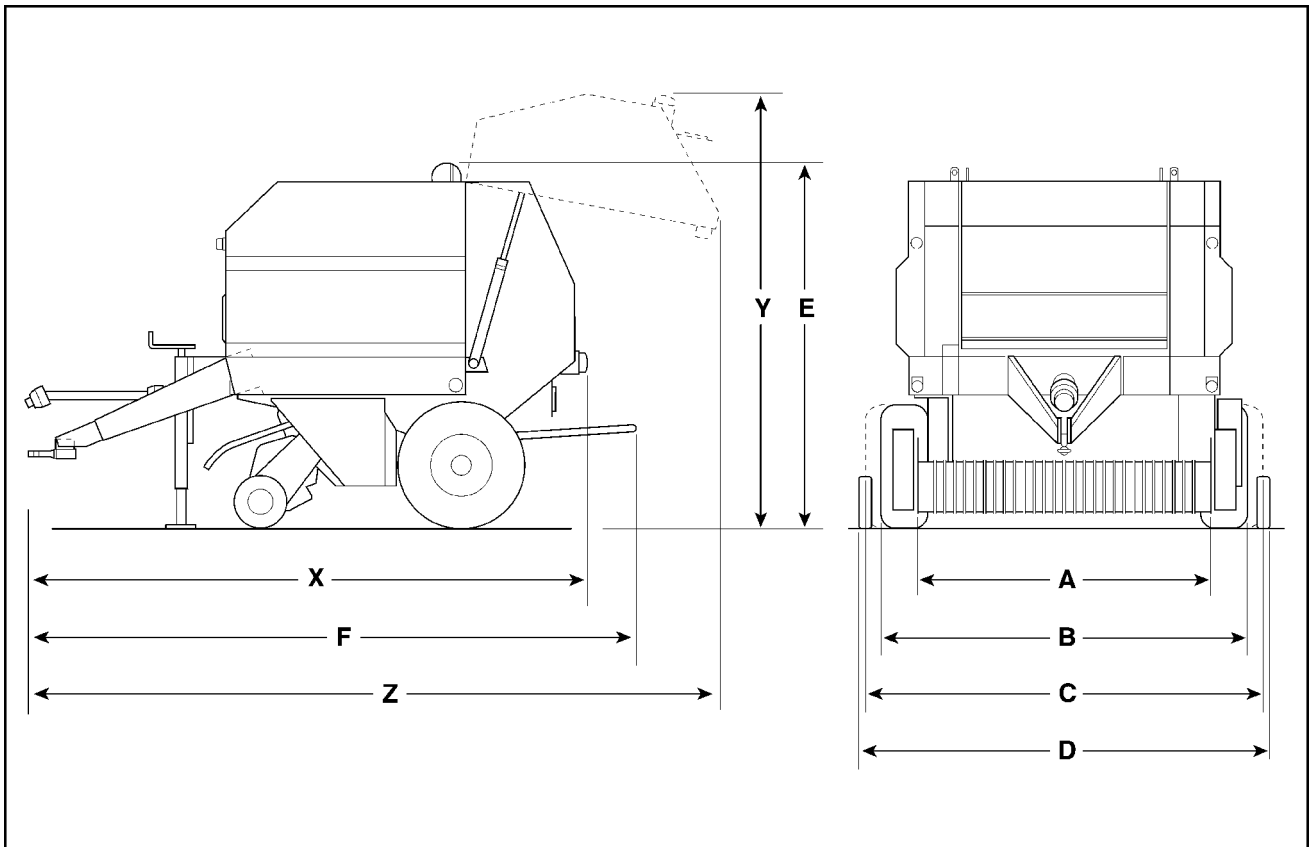
New Holland policy is one of continuous improvement and the right to change prices, specification or equipment at any time without notice is reserved.

All data given in this manual is subject to production variation. Dimensions and weights are approximate only.

The illustrations do not necessarily show balers in standard condition or imply that these features are available in all countries. For exact information about any particular baler, please consult your New Holland dealer.

#### Overall dimensions

|        |   |                                                                                            |                         |
|--------|---|--------------------------------------------------------------------------------------------|-------------------------|
| Width  | A | Pickup - Standard                                                                          | <b>1.35 m (4.4 ft)</b>  |
|        | B | Pickup - Wide                                                                              | <b>2.00 m (6.6 ft)</b>  |
|        | C | Ground wheels (Standard pickup machines)                                                   | <b>2.37 m (7.8 ft)</b>  |
|        | D | Ground wheels (Wide pickup machines)                                                       | <b>2.40 m (7.9 ft)</b>  |
| Length | D | Maximum (pickup wheels installed on wide pickup)                                           | <b>2.65 m (8.7 ft)</b>  |
|        | X | Low hitch                                                                                  | <b>3.65 m (12.0 ft)</b> |
|        | F | Bale ejector excluded                                                                      | <b>4.05 m (13.3 ft)</b> |
|        | Z | Bale ejector included<br>Maximum (tailgate open)<br>High hitch = low hitch + <b>0.15 m</b> | <b>4.50 m (14.8 ft)</b> |
| Height | E | Tailgate closed - 10.0/15 tires                                                            | <b>2.19 m (7.2 ft)</b>  |
|        |   | Tailgate closed - 11.5/80 tires                                                            | <b>2.23 m (7.3 ft)</b>  |
|        | Y | Tailgate opened - 10.0/75 tires                                                            | <b>2.54 m (8.3 ft)</b>  |
|        |   | Tailgate opened - 11.5/80 tires                                                            | <b>2.56 m (8.4 ft)</b>  |



## Technical data

### Weight

|                       |                            |
|-----------------------|----------------------------|
| Standard pickup baler | <b>2040 kg (4497.4 lb)</b> |
| Wide pickup baler     | <b>2335 kg (5147.8 lb)</b> |

### Tractor requirements

|                                |                                                                                                                                                                                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power (PTO input requirements) |                                                                                                                                                                                                       |
| Minimum                        | <b>37 kW (50.3 Hp)</b>                                                                                                                                                                                |
| Recommended                    | <b>48 kW (65.3 Hp)</b>                                                                                                                                                                                |
| Hydraulics                     | 2 single-acting valves<br><b>124 bar (1798.0 psi)</b><br><b>210 bar (3045.0 psi)</b><br>Output <b>45 l/min</b> minimum at <b>540 RPM</b> PTO<br><b>540 RPM</b> - 6 splines - <b>1-3/8 in</b> diameter |
| PTO                            |                                                                                                                                                                                                       |
| Electric's                     |                                                                                                                                                                                                       |
| Electric control box system    | <b>13 - 14 V</b>                                                                                                                                                                                      |
| Road light equipment           | B7 DIN 72577, 7-pin connector                                                                                                                                                                         |
| Hitch height                   | Infinitely adjustable                                                                                                                                                                                 |
| Low hitch                      | <b>250 - 800 mm (9.8 - 31.5 in)</b>                                                                                                                                                                   |
| High hitch                     | <b>700 - 1100 mm (27.6 - 43.3 in)</b>                                                                                                                                                                 |

### Bale chamber

|          |                       |
|----------|-----------------------|
| Width    | <b>120 cm (47 in)</b> |
| Diameter | <b>120 cm (47 in)</b> |

### Bale weight

|           |                                         |
|-----------|-----------------------------------------|
| Range     | <b>120 - 800 kg (264.6 - 1763.7 lb)</b> |
| Maximum   | <b>800 kg (1763.7 lb)</b>               |
| Typical : |                                         |
| Straw     | <b>120 - 200 kg (264.6 - 440.9 lb)</b>  |
| Hay       | <b>180 - 300 kg (396.8 - 661.4 lb)</b>  |
| Silage    | <b>350 - 800 kg (771.6 - 1763.7 lb)</b> |

## 8 - SPECIFICATIONS

### Tires

#### Ground wheels

Standard pickup machines

10.0/75 x 15.4 - PR 8 Tubeless

Pressure: for normal farming practice

**2.3 bar (33.4 psi)**

**40 km/h** road travel

**3.2 bar (46.4 psi)**

Wide pickup machines

11.5/80 x 15.3 - PR8 Tubeless

Pressure: for normal farming practice

**2.1 bar (30.5 psi)**

**40 km/h** road travel

**2.5 bar (36.3 psi)**

Pickup gauge wheels

15 x 6.00-6-4 ply

Pressure

**3 bar (43.5 psi)**

Maximum road speed

**40 km/h (24.9 mph)** (unless local speed regulations restrict to a lower speed)

### Driveline

PTO

**540 RPM**

Gearbox

**90 °** bevel gears in oil

### Drive chains

Legend: LHS = Left Hand Side RHS = Right Hand Side

| Description                       | Size     | Pitch                   | Number of links (include connector link) | Length                    |
|-----------------------------------|----------|-------------------------|------------------------------------------|---------------------------|
| Main drive chain (LHS)            | RC 80    | <b>25.4 mm (1.0 in)</b> | 76                                       | <b>1930 mm (76.0 in)</b>  |
| Apron conveyor chain (LHS + RHS)  |          | <b>50.8 mm (2.0 in)</b> | 144                                      | <b>7315 mm (288.0 in)</b> |
| Floor roll drive chain (RHS)      | RC 60 HV | <b>19.0 mm (0.7 in)</b> | 88                                       | <b>1676 mm (66.0 in)</b>  |
| Standard pickup drive chain (LHS) | RC 50    | <b>15.9 mm (0.6 in)</b> | 104                                      | <b>1651 mm (65.0 in)</b>  |
| Feeder drive chain (LHS)          | RC 60    | <b>19.0 mm (0.7 in)</b> | 66                                       | <b>1257 mm (49.5 in)</b>  |
| Wide pickup drive chain (LHS)     | RC 50    | <b>15.9 mm (0.6 in)</b> | 52                                       | <b>825 mm (32.5 in)</b>   |
| Pickup reel drive chain (LHS)     | RC 50    | <b>15.9 mm (0.6 in)</b> | 75                                       | <b>1190 mm (46.9 in)</b>  |
| Pickup auger drive chain (RHS)    | RC 50    | <b>15.9 mm (0.6 in)</b> | 75                                       | <b>1190 mm (46.9 in)</b>  |

## 8 - SPECIFICATIONS

| pickup                       | Standard                                                                                                                                                                                       | Width                                                                                                                                                                                          |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overall width:               |                                                                                                                                                                                                |                                                                                                                                                                                                |
| With pickup wheels installed | <b>2.35 m (7.7 ft)</b>                                                                                                                                                                         | <b>2.69 m (8.8 ft)</b>                                                                                                                                                                         |
| With pickup wheels removed   | <b>1.66 m (5.4 ft)</b>                                                                                                                                                                         | <b>2.50 m (8.2 ft)</b>                                                                                                                                                                         |
| Width inside side sheets     | <b>1.35 m (4.4 ft)</b>                                                                                                                                                                         | <b>2.00 m (6.6 ft)</b>                                                                                                                                                                         |
| Distance between outer tines | <b>1.18 m (3.9 ft)</b>                                                                                                                                                                         | <b>1.80 m (5.9 ft)</b>                                                                                                                                                                         |
| Distance between tines       | <b>69 mm (2.7 in)</b>                                                                                                                                                                          | <b>67 mm (2.6 in)</b>                                                                                                                                                                          |
| Number of tine bars          | 5                                                                                                                                                                                              | 4                                                                                                                                                                                              |
| Number of tines              | 5 x 18 = 90 (45 double tines)                                                                                                                                                                  | 4 x 28 = 112 (56 double tines)                                                                                                                                                                 |
| Windguard type               | Single windguard, pivoting, 2 positions, quick-attach                                                                                                                                          | First windguard: pivoting, chain adjustable height Second windguard: pivoting                                                                                                                  |
| Flotation                    | Coil spring-loaded, quickly adjustable<br>Height adjustable gauge wheels<br>Raised position locks<br>Transport position lock                                                                   |                                                                                                                                                                                                |
| Pickup lift                  | Mechanical / Hydraulic                                                                                                                                                                         | Hydraulic                                                                                                                                                                                      |
| Overload protection          | Shearbolt                                                                                                                                                                                      | Shearbolt                                                                                                                                                                                      |
| Feed rotor                   | -                                                                                                                                                                                              | Crank-type                                                                                                                                                                                     |
| Width                        | -                                                                                                                                                                                              | <b>140 cm (55.1 in)</b>                                                                                                                                                                        |
| Overload protection          | -                                                                                                                                                                                              | Sprung loaded, break away, of the feeder fork                                                                                                                                                  |
| <b>Bale chamber</b>          |                                                                                                                                                                                                |                                                                                                                                                                                                |
| Bale chamber                 | Consists of steel floor roll and conveyor bars                                                                                                                                                 | Consists of steel rolls and conveyor bars                                                                                                                                                      |
| Conveyor chain and bars      | <b>36 bar, 35 mm</b> diameter, each guided by 2 bearings<br>Bars connected by a <b>2 in</b> pitch chain with a length of <b>7315 mm</b> (144 links)<br>Automatic spring-loaded chain tensioner | <b>36 bar, 35 mm</b> diameter, each guided by 2 bearings<br>Bars connected by a <b>2 in</b> pitch chain with a length of <b>7315 mm</b> (144 links)<br>Automatic spring-loaded chain tensioner |
| Bale rotation speed          | <b>± 26 RPM</b>                                                                                                                                                                                | <b>± 26 RPM</b>                                                                                                                                                                                |
| Time for one revolution      | <b>± 2.25 s</b>                                                                                                                                                                                | <b>± 2.25 s</b>                                                                                                                                                                                |
| <b>Bale density system</b>   |                                                                                                                                                                                                |                                                                                                                                                                                                |
| Bale density system          | Preloaded coil springs                                                                                                                                                                         | Preloaded coil springs                                                                                                                                                                         |
| Bale density setting         | Full density pointers<br>Full bale alarm sensor [accessory]                                                                                                                                    | Full density pointers<br>Full bale alarm sensor [accessory]                                                                                                                                    |
| Bale density measurement     | 2 spring-loaded extension rods connected to a mechanical density indicator measure the amount of tailgate opening during bale formation                                                        | 2 spring-loaded extension rods connected to a mechanical density indicator measure the amount of tailgate opening during bale formation                                                        |
| Wrapper Controls             | Manual starting cord (standard) Cab electric control [accessory]                                                                                                                               | Manual starting cord (standard) Cab electric control [accessory]                                                                                                                               |

## 8 - SPECIFICATIONS

### Twine wrapping

|                                  |                                                                                                                  |                                                                                                                  |
|----------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Twine spreaders                  | 2, separate, chain driven                                                                                        | 2, separate, chain driven                                                                                        |
| Twine feeding                    | 2 feed rollers, belt driven                                                                                      | 2 feed rollers, belt driven                                                                                      |
| Twine wrap patterns              | 3 patterns on pattern pulley<br>14 wraps<br>18 wraps<br>22 wraps                                                 | 3 patterns on pattern pulley<br>14 wraps<br>18 wraps<br>22 wraps                                                 |
| End wrap placement               | 2 adjustable twine stops (one for each twine), 4 positions                                                       | 2 adjustable twine stops (one for each twine), 4 positions                                                       |
| Twine tension                    | 2 adjustable spring-loaded tensioners (one for each twine) in the twine box                                      | 2 adjustable spring-loaded tensioners (one for each twine) in the twine box                                      |
| Twine run indicators             | Rotating pattern pulley                                                                                          | Rotating pattern pulley                                                                                          |
| Twine storage capacity           | 4 balls of <b>285 mm</b> diameter<br>5 balls of <b>270 mm</b> diameter<br>6 balls of <b>225 mm</b> diameter      | 4 balls of <b>285 mm</b> diameter<br>5 balls of <b>270 mm</b> diameter<br>6 balls of <b>225 mm</b> diameter      |
| Twine                            | Sisal twine <b>250 - 400 mg/kg</b><br>Polypropylene twine <b>350 - 750 mg/kg</b><br>Binder twine not recommended | Sisal twine <b>250 - 400 mg/kg</b><br>Polypropylene twine <b>350 - 750 mg/kg</b><br>Binder twine not recommended |
| Electric control box [accessory] | Full bale alarm Manual electric control over cycle start<br>Acoustic signal when tailgate closed and latched     | Full bale alarm Manual electric control over cycle start<br>Acoustic signal when tailgate closed and latched     |

### Lubrication

|                       |                                                    |                                                    |
|-----------------------|----------------------------------------------------|----------------------------------------------------|
| Oil tank capacity     | <b>3 l (0.8 US gal)</b>                            | <b>3 l (0.8 US gal)</b>                            |
| Oil flow rate setting | Infinite adjustment, from 1 minimum) to 8 maximum) | Infinite adjustment, from 1 minimum) to 8 maximum) |
| Gearbox capacity      | <b>2.1 l (0.6 US gal)</b>                          | <b>2.1 l (0.6 US gal)</b>                          |

### Lubricants to be used

A new line of specially formulated lubricants, based on own engineering specifications, is available from your Dealer. Avoid all universal, multipurpose, hydraulic or gear oils.



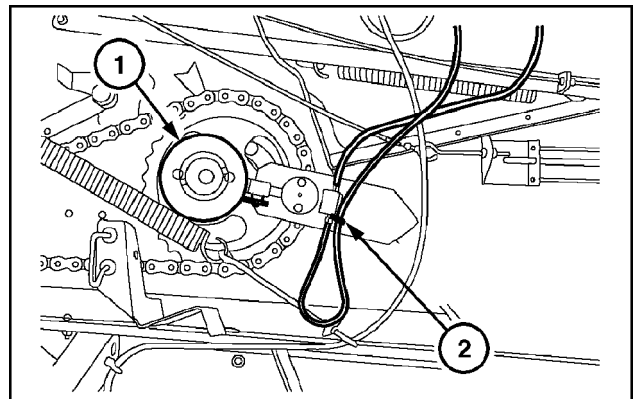
## 9 - ACCESSORIES

### Optional equipment [25869530]

Depending on the model and on local sales policy, some of the following accessories will be fitted standard on the machine, while others will not. Contact your dealer for more information.

#### Chain oiler

The automatic chain oiler pump (2), driven by the eccentric disc (1), supplies a metered amount of oil to all drive chains. Every drive chain receives a certain amount of oil, calibrated by restrictors located inside the distribution manifold blocks.

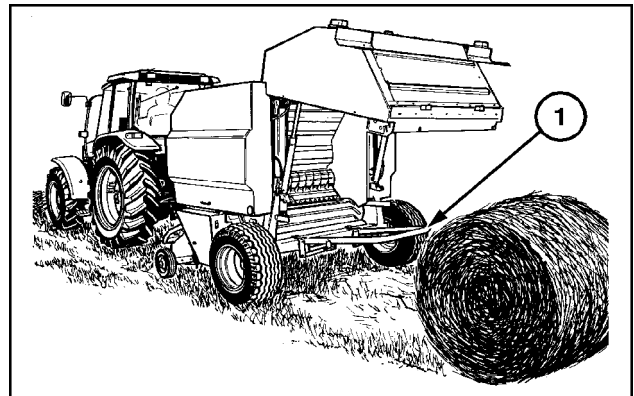


ZIL10FCRB766AAA 1

#### Bale ejector

The bale ejector (1) rolls the bale out of the bale chamber far enough to allow closing of the tailgate without having to move the tractor forward.

This means that there is no need to reverse the baler a few meters during the wrap cycle.

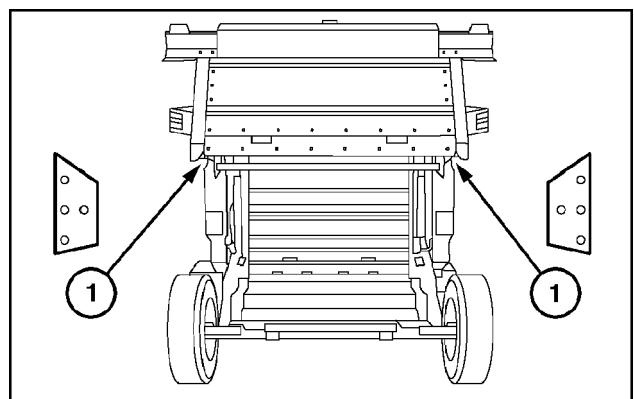


ZIL10FCRB118AAA 2

#### Tailgate discs

In special crop conditions, such as light straw, the bale might have difficulty to be ejected from the bale chamber.

In these conditions, installing the tailgate discs (1) left and right inside the tailgate will improve bale ejection.

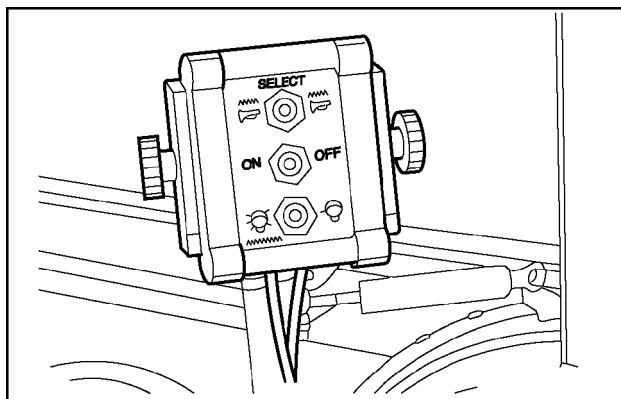


ZIL10FCRB078AAA 3

## Electric control box system

The system provides the following features to the operator:

- Manual electric control over twine wrap start.
- Audible alarm at full bale density.
- Acoustic signal when tailgate latches.

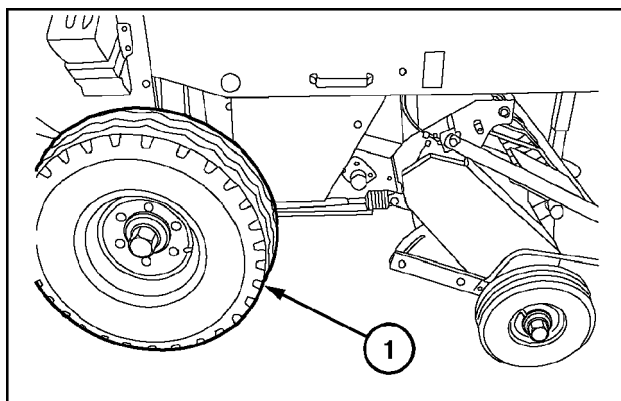


ZIL10FCRB750AAA 4

## Bigger tires

Bigger tires **(1)** (11.5/80 x 15.3 - 8 PR) are standard on wide pickup models and can be installed as an accessory on standard pickup models which are equipped with 10.0/75 x 15.3 - 8 PR tires.

The installation of bigger tires increases the ground clearance of the machine and reduces soil compaction.

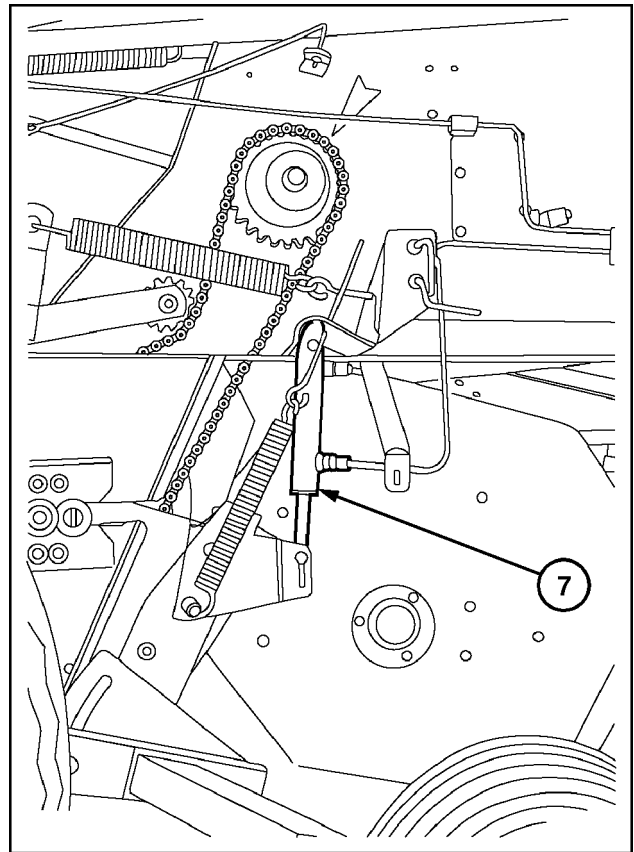


ZIL10FCRB770AAA 5

### Pickup hydraulic lift kit (Standard pick-up)

Pickup hydraulic lift is fitted standard on wide pickup models, and can be installed as an accessory on standard pickup models.

The hydraulic lift cylinder (1) allows the operator to lift and lower the pickup from the tractor seat.



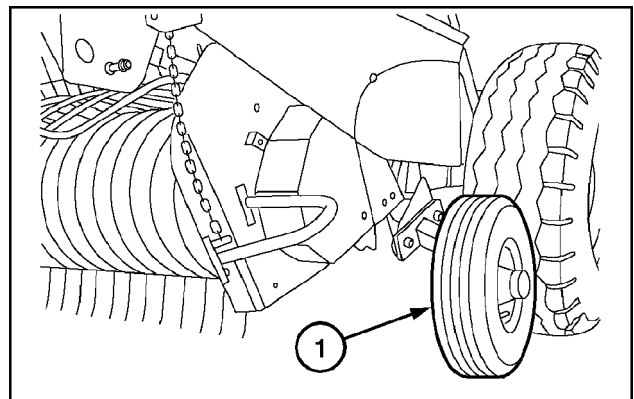
ZIL10FCRB012BAA 6

### Pickup gauge wheels

Pickup gauge wheels (1) are standard on the wide pickup models, and can be installed as an accessory (both individually and in pairs) on the standard pickup models.

They allow to follow the ground contours and assure better pickup performance.

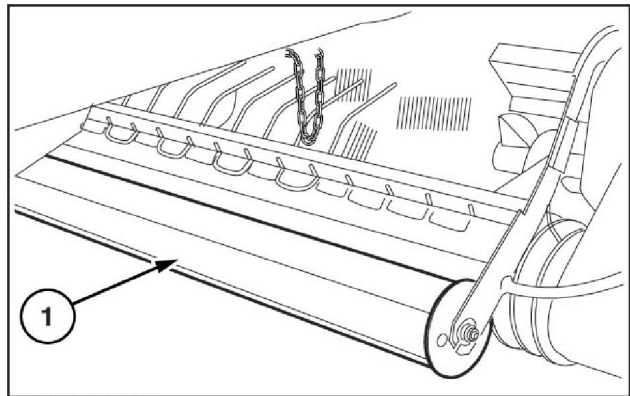
**NOTICE:** Check local legislation to see if the wheels must be removed for road transport.



ZIL10FCRB849AAA 7

## Roller windguard

A roller windguard is available which aids crop flow into the rotor.



ZIL10FCRB182AAA 8

## **10 - FORMS AND DECLARATIONS**



## Delivery Report Customer Copy Customer copy [25871210]

### Check and adjust, as required

Checks to be done with tractor and baler standing still

1. Check PTO shaft and guarding ☐
2. Clean the machine ☐
3. Oil level of the main drive gearbox ☐
4. Lubricate all grease points ☐
5. Check oil level in the automatic chain oiler ☐
6. Check the function of the parking brake (if installed) ☐
7. Check the tyre pressure/tyre condition ☐
8. Check the condition of wheel/rims ☐
9. Tighten the wheel nuts to prescribed torque ☐
10. Check/adjust the pickup flotation ☐
11. Check/adjust the pickup drive chains ☐
12. Check the condition of the pickup tines ☐
13. Check and adjust the feed auger drives ☐
14. Check/adjust the main, - rotor and floor roll drive chains ☐
15. Check the bearings of the pickup and the rotor ☐
16. Check and adjust the entire wrapper configurations ☐
17. Check and adjust the scrapers ☐

Checks to be done with the tractor/baler running if required

1. Check the function of the pickup and the tailgate hydraulics ☐
2. Check the function of the monitor system. ☐
3. Check the function of the lights ☐
4. Check/adjust the conveyor chain tension ☐
5. Check the condition of the conveyor chain tubes and bearings ☐
6. Check the function of the automatic chain oiler ☐
7. All options and accessories ☐

THE INSPECTION HAS BEEN MADE

BALER MODEL NO: ..... BALER SERIAL NO: .....

SIGNATURE OWNER, DATE: ..... SIGNATURE DEALER, DATE: .....



## Delivery Report Dealer Copy Dealer copy [25871627]

### Check and adjust, as required

Checks to be done with tractor and baler standing still

1. Check PTO shaft and guarding ☐
2. Clean the machine ☐
3. Oil level of the main drive gearbox ☐
4. Lubricate all grease points ☐
5. Check oil level in the automatic chain oiler ☐
6. Check the function of the parking brake (if installed) ☐
7. Check the tyre pressure/tyre condition ☐
8. Check the condition of wheel/rims ☐
9. Tighten the wheel nuts to prescribed torque ☐
10. Check/adjust the pickup flotation ☐
11. Check/adjust the pickup drive chains ☐
12. Check the condition of the pickup tines ☐
13. Check and adjust the feed auger drives ☐
14. Check/adjust the main, - rotor and floor roll drive chains ☐
15. Check the bearings of the pickup and the rotor ☐
16. Check and adjust the entire wrapper configurations ☐
17. Check and adjust the scrapers ☐

Checks to be done with the tractor/baler running if required

1. Check the function of the pickup and the tailgate hydraulics ☐
2. Check the function of the monitor system. ☐
3. Check the function of the lights ☐
4. Check/adjust the conveyor chain tension ☐
5. Check the condition of the conveyor chain tubes and bearings ☐
6. Check the function of the automatic chain oiler ☐
7. All options and accessories ☐

THE INSPECTION HAS BEEN MADE

BALER MODEL NO: ..... BALER SERIAL NO: .....

SIGNATURE OWNER, DATE: ..... SIGNATURE DEALER, DATE: .....



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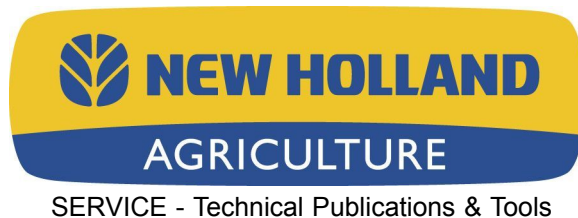
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