1475/1875
Variable Chamber Round Balers

OPERATOR’S MANUAL
GEHL

NEW AGRICULTURAL EQUIPMENT

ROUND BALER

WARRANTY

GEHL AGRICULTURE DIVISION of the GEHL COMPANY, hereinafter referred to as Gehl, warrants new Gehl Round Balers and attachments, to the Original Retail Purchaser to be free from defects in material and workmanship for a period of twelve (12) months (ninety (90) days for commercial/custom use) from the Warranty Start Date.

GEHL AGRICULTURE WARRANTY INCLUDES:
Genuine Gehl parts and labor costs required to repair or replace equipment at the selling dealer’s business location.

GEHL MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED (INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE), EXCEPT AS EXPRESSLY STATED IN THIS WARRANTY STATEMENT.

GEHL WARRANTY DOES NOT INCLUDE:
1. Transportation to selling dealer’s business location or, at the option of the Original Retail Purchaser, the cost of a service call.
2. Used equipment.
3. Components covered by their own non-Gehl warranties, such as tires, trade accessories and engines.
4. Normal maintenance service and expendable, high wear items.
5. Repairs or adjustments caused by: improper use; non-intended use; failure to follow recommended maintenance procedures; use of unauthorized attachments; accident or other casualty.
6. Liability for incidental or consequential damages of any type, including, but not limited to lost profits or expenses of acquiring replacement equipment.

No agent, employee or representative of Gehl has any authority to bind Gehl to any warranty except as specifically set forth herein. Any of these limitations excluded by local law shall be deemed deleted from this warranty; all other terms will continue to apply.
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CHAPTER 1
INTRODUCTION

Your decision to purchase this piece of GEHL equipment was a good one. We are sure that your decision was strongly considered and that you are looking forward to many seasons of reliable performance from this machine.

We, as a Company, have invested a great deal of time and effort in developing our lines of equipment. The equipment you have purchased is built with a great deal of pride and designed to give you long life, efficient operation, durability and dependability.

This manual was developed specifically for the machine you have purchased. The information within is for your assistance in preparing, adjusting, maintaining and servicing your machine. More importantly, this manual provides an operating plan for safe and proper use of your machine. Major points of safe operation are detailed in the SAFETY chapter of this manual. Refer to the Table of Contents for an outline (by chapters) of this manual. Use the Index, located at the back of this manual, for specific chapter and topic/page number references.

This GEHL equipment is provided with a Pocket on the inside of the Right Twinebox for storing the Operator’s Manual. After using it, please return the Manual to the Pocket and keep it with the unit at all times! Furthermore, we recommend that if this machine is re-sold, this Manual accompany the unit.

Modern machinery has become more sophisticated and, with that in mind, Gehl Company asks that you read and understand the contents of this manual COMPLETELY and become familiar with your new machine, BEFORE attempting to operate it.

The Gehl dealer organization stands ready to provide you with any assistance you may require and carries genuine Gehl service parts. All parts should be obtained from or ordered through your Gehl Dealer. Give complete information about the part and include the model and serial numbers of your machine. Record the serial number in the space provided on the pictorial, as a handy record for quick reference.

The model number and serial number for the Baler is on a decal located under the Top Channel, near the Center Column of the Right Frame Assembly. If equipped with the Quick Wrap, the Quick Wrap model and serial number is on a decal located on the Left Panel Assembly behind the Left Shield Door. “Right” and “Left” are determined from a position standing at the rear of the unit facing the direction of travel. From this position, the Baler Drive Sprocket on the Transmission Output Shaft is on the left side.

Gehl Company reserves the right to make changes or improvements in the design or construction of any part without incurring the obligation to install such changes on any unit previously delivered.

Standard hardware torques appear in a chart at the end of the manual.

Throughout this manual, information is provided which is set in italic type and introduced by the word NOTE or IMPORTANT. BE SURE to read carefully and comply with the message or directive given. Following this information will improve your operating or maintenance efficiency, help you avoid costly breakdowns or unnecessary damage and extend your machine’s life.

The Gehl Company, in cooperation with the American Society of Agricultural Engineers and the Society of Automotive Engineers, has adopted this SAFETY ALERT SYMBOL to pinpoint characteristics which, if not properly followed, can create a safety hazard. When you see this symbol in this manual or on the unit itself, you are reminded to BE ALERT! Your personal safety is involved.
CHAPTER 2
SPECIFICATIONS

All Dimensions are in Inches (Millimeters) Unless Otherwise Noted

Baler Specifications

<table>
<thead>
<tr>
<th>Model &amp; Description</th>
<th>RB1475 and RB1875 Round Balers</th>
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</thead>
<tbody>
<tr>
<td>Power</td>
<td>From PTO and Electric and Hydraulic Circuit of 540 RPM tractor with Minimum power of 50 hp (37 kW)(for 1475) or 60 hp (45 kW)(for 1875)</td>
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Height:

<table>
<thead>
<tr>
<th>Model</th>
<th>Height (Approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1475</td>
<td>97 (2664)</td>
</tr>
<tr>
<td>1875</td>
<td>109 (2769)</td>
</tr>
</tbody>
</table>

Length:

<table>
<thead>
<tr>
<th>Model</th>
<th>Length (Approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1475</td>
<td>147 (3734)</td>
</tr>
<tr>
<td>1875</td>
<td>157 (3988)</td>
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Width:

<table>
<thead>
<tr>
<th>Model</th>
<th>Width (Approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1475</td>
<td>80 (2032)</td>
</tr>
<tr>
<td>1875</td>
<td>96 (2438)</td>
</tr>
</tbody>
</table>

Pickup Width:

<table>
<thead>
<tr>
<th>Model</th>
<th>Pickup Width (Approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1475</td>
<td>56 (1422)</td>
</tr>
<tr>
<td>1875</td>
<td>72 (1829)</td>
</tr>
</tbody>
</table>

Weight (Approximate):

<table>
<thead>
<tr>
<th>Model</th>
<th>Weight (Approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1475</td>
<td>4180 lb (1900 kg)</td>
</tr>
<tr>
<td>1875</td>
<td>5220 lb (2373 kg)</td>
</tr>
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</table>

Drawbar Tongue Weight (Approximate):

<table>
<thead>
<tr>
<th>Model</th>
<th>Drawbar Tongue Weight (Approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1475</td>
<td>850 lb (386 kg)</td>
</tr>
<tr>
<td>1875</td>
<td>1050 lb (477 kg)</td>
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Bale Diameter (Full Size):

<table>
<thead>
<tr>
<th>Model</th>
<th>Bale Diameter (Full Size)</th>
</tr>
</thead>
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<tr>
<td>1475</td>
<td>60 (1524)</td>
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<tr>
<td>1875</td>
<td>72 (1829)</td>
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Bale Weight (Nominal):

<table>
<thead>
<tr>
<th>Model</th>
<th>Bale Weight (Nominal)</th>
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<tbody>
<tr>
<td>1475</td>
<td>900 lb (408 kg)</td>
</tr>
<tr>
<td>1875</td>
<td>1800 lb (816 kg)</td>
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</table>

Bale Width:

<table>
<thead>
<tr>
<th>Model</th>
<th>Bale Width (Approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1475</td>
<td>45 (1143)</td>
</tr>
<tr>
<td>1875</td>
<td>61 (1549)</td>
</tr>
</tbody>
</table>

Tires:

<table>
<thead>
<tr>
<th>Model</th>
<th>Tires</th>
</tr>
</thead>
<tbody>
<tr>
<td>1475</td>
<td>11L x 14, 6-ply</td>
</tr>
<tr>
<td>1875</td>
<td>31 x 13.5, 6-ply</td>
</tr>
</tbody>
</table>

Standard Features (Common to both Balers):

- Four-Bar Closed-Reel Pickup with Crowder Shields
- Infinitely Adjustable Pickup Height
- Hydraulically Operated Rear Gate
- Hydraulic Valve Gate Cylinder Lock
- Constant Velocity Drive Line with Shear Bolt
- Overload Protection and Overrunning Clutch
- Two 3-Ball Twineboxes (6 Ball Total Capacity)
- Dual Twine Wrapping Mechanism with Electric Actuator Control
- Visual Bale Size Indicator (Manual Control Models Only)
- Self-contained Hydraulic Total Density Control System
- Bale Discharge Ramps with Adjustable Incline
- Textured (One side) Belts
- Adjustable Shuttle Stops
- Crop Hold-down for Pickup
- Fenders
- Bale Counter (Manual Control Models Only)
- Transport Lights

Optional Features & Accessories (Customer Selected):

- Automatic Bale Control System
- Automatic Twine Wrap System
- Manual Twine Wrap System
- Quick Wrap Bale Wrap System
- Crowder Wheel Kit
- Packing Roller Lagging Kit
- Chain Oiler Kit
- Pickup Hydraulic Lift Kit
- 1000 RPM Conversion Kit
- Safety Chain

Service Accessories

- Belt Dutchman
- Shear Bolts (8-pack)
- Belt Re-lacing Kit
- Belt Lacing Kit
- Net Stripper Kit
- Various Connector Repair Kits
- Twine Sensor Jumper Kit
- 2 Magnet Twine Wheels

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3
Chapter 2 – Specifications

Automatic Bale Control Specifications

**Description**
Automatic Bale Control System

**Power Requirements**
12 to 14 Volts D.C.

**Circuit Protection**
20 Amp

**Operating Temperature Range**
–5°F to 160°F
(–20°C to 70°C)

**Storage Temperature Range**
–40°F to 185°F
(–40°C to 85°C)

**3 Digit LED Back-Lit Liquid Crystal Display**
0.34” (8.6 mm) High Display

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Fig. 1: Component Identifications

1 – Liquid Crystal Display (LED Back-Lit)
2 – Bale Size (Growth) Bar Graph
3 – Change Bale Size Mode Icon
4 – Change Number of Wraps Icon
5 – Pushbutton Keypads
6 – Bale Counter/Error Message/Baler Code
   Alpha-Numeric Display
7 – Go Arrow Icon
8 – Tailgate Position Icon
9 – Cycle Icon
10 – Netting Mode Selection Icon
11 – Twine Model Selection Icon
12 – Manual Mode Selection Icon
13 – Auto Mode Selection Icon

---
Automatic Twine Wrap Control Specifications

Description . . . . . . . Automatic Twine Wrap System
Power Requirements . . . . . . . 10.5 – 15 Volts D.C.
Operating Temperature Range . . . . 15° F to 160° F
                                      (-10° C to 70° C)
Storage Temperature Range . . . . . -40° F to 185° F
                                      (-40° C to 85° C)

![Diagram of Auto-Twine Wrap Control Module Component Locations]

1 – Mode Switch (AUTO/MANUAL)
2 – Manual Mode Actuator Switch
   (EXTEND/NEUTRAL/RETRACT)
3 – POWER Switch (ON/OFF)
4 – Channel 5 Symbol – Twine Arm Position
5 – Channel 4 Symbol – Twine Arm Pause
6 – INCREASE Key
7 – Channel 3 Symbol – Twine End Wraps
8 – DECREASE Key
9 – Harness Connector
10 – Channel 2 Symbol – Twine Density
    (No. of Wraps Across Bale)
11 – Channel 1 Symbol – Bale Count
12 – Tailgate Status Symbol (Closed)
13 – Tailgate Status Symbol (Open)
14 – Digital Display
15 – SELECT Key (Channel Control)

Fig. 2: Auto-Twine Wrap Control Module Component Locations
Notes
CHAPTER 3
CHECKLISTS

PRE-DELIVERY

After the Baler has been completely set up, the following inspections MUST be made before delivering it to the Customer. Check off each item after prescribed action is taken.

Check that:

☐ NO parts of the unit have been damaged in shipment. Check for such things as dents and loose or missing parts; correct or replace components as required.

☐ All Grease Fittings have been properly lubricated and the Gearbox is filled to the proper level; see Lubrication chapter of this manual.

☐ All Guards, Shields and Decals are in place and securely attached.

☐ All fasteners and Wheel Lug Nuts are properly secured.

☐ All Adjustments are made to comply with settings given in the Adjustments chapter of this manual.

☐ Model and Serial Numbers for the Baler and Quick Wrap (if so equipped) are recorded in the spaces provided on this page and page 2.

The following items are furnished attached to the Baler or in the Baler Twinebox:

☐ Bale Ramps & Mounting Hardware; Reversing Wrench; Hitchjack.; (4) Drive Line Shear Bolts; Hitch Pin and Washers, Nut and Hairpin Cotterpin; 72” Belt Lacing Cable; Operator’s Manual; Baler Control Box & Cable; Front PTO half; Hose & Cable Support.

Hook the Baler onto the appropriate RPM tractor and test run the unit while checking that proper operation is exhibited by all components.

Check that:

☐ The Telescoping PTO Drive turns freely inside the Drive Shield Tubes.

☐ Hydraulic Hoses and all connections do NOT leak under pressure.

☐ Tailgate opens and closes without binding.

☐ Drives, Rollers and Belts are rotating smoothly and operating properly and Belts are tracking properly.

☐ TDC Reservoir pressure is at least 150 PSI (1050 kPa) and Reservoir oil is at proper fill level.

I acknowledge that the pre-delivery procedures were performed on this unit as outlined.

DEVELOPMENT

The following Checklist is an important reminder of valuable information that MUST be passed on to the Customer at the time the unit is delivered. Check off each item as you explain it to the Customer.

☐ Give the Customer his Operator’s Manual. Instruct him to be sure to read and completely understand its contents BEFORE operating the unit.

☐ Direct the Customer on how to use the Index of this manual as a quick page number locating guide.

☐ Explain and review with the Customer the Safety and Controls & Safety Equipment chapters of this manual.

☐ Explain that regular lubrication is required for continued proper operation and long life. Review with him the Lubrication chapter of this manual.

☐ Explain and review the Service chapter of this manual with the customer.

☐ Explain and review with the customer the bale tying and/or wrapping system that the Baler is equipped with.

☐ Explain the function and adjustment of the Total Density Control (TDC) system.

☐ Demonstrate the proper use of the spring-loaded PTO Locking Device, Shuttle Locks, Rear Gate Cylinder Locks, Reversing Wrench and Hitchjack.

☐ Explain and review both the Operation and Preparing for Field Operation chapters of this manual.

☐ Completely fill out the Owner’s Registration, including Customer’s signature, and return it to the Gehl Company.

I acknowledge that the above points were reviewed with me at the time of delivery.

Customer’s Signature

Date Delivered

(Dealer’s File Copy)
CHAPTER 3
CHECKLISTS

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☐ All Grease Fittings have been properly lubricated and the Gearbox is filled to the proper level; see Lubrication chapter of this manual.

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☐ All fasteners and Wheel Lug Nuts are properly secured.

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☐ Bale Ramps & Mounting Hardware; Reversing Wrench; Hitchjack; (4) Drive Line Shear Bolts; Hitch Pin and Washers, Nut and Hairpin Cotterpin; 72″ Belt Lacing Cable; Operator’s Manual; Baler Control Box & Cable; Front PTO half; Hose & Cable Support.

Hook the Baler onto the appropriate RPM tractor and test run the unit while checking that proper operation is exhibited by all components.

Check that:

☐ The Telescoping PTO Drive turns freely inside the Drive Shield Tubes.

☐ Hydraulic Hoses and all connections do NOT leak under pressure.

☐ Tailgate opens and closes without binding.

☐ Drives, Rollers and Belts are rotating smoothly and operating properly and Belts are tracking properly.

☐ TDC Reservoir pressure is at least 150 PSI (1050 kPa) and Reservoir oil is at proper fill level.

I acknowledge that the pre-delivery procedures were performed on this unit as outlined.

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☐ Demonstrate the proper use of the spring-loaded PTO Locking Device, Shuttle Locks, Rear Gate Cylinder Locks, Reversing Wrench and Hitchjack.

☐ Explain and review both the Operation and Preparing for Field Operation chapters of this manual.

☐ Completely fill out the Owner’s Registration, including Customer’s signature, and return it to the Gehl Company.

I acknowledge that the above points were reviewed with me at the time of delivery.

Baler Model Number
Serial Number
Quick Wrap Model Number
Serial Number

Dealership’s Name
Dealer Representative’s Name
Date Checklist Filled out

Customer’s Signature
Date Delivered

(Pages 7 & 8 Have Been Removed at Perforation)
CHAPTER 4
SAFETY

The above Safety Alert Symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! It stresses an attitude of “Heads Up for Safety” and can be found throughout this Operator’s Manual and on the machine itself.

BEFORE YOU ATTEMPT TO OPERATE THIS EQUIPMENT, READ AND STUDY THE FOLLOWING SAFETY INFORMATION. IN ADDITION, MAKE SURE THAT EVERY INDIVIDUAL WHO OPERATES OR WORKS WITH THIS EQUIPMENT, WHETHER FAMILY MEMBER OR EMPLOYEE, IS FAMILIAR WITH THESE SAFETY PRECAUTIONS.

Our Company ALWAYS takes the operator and his/her safety into consideration when designing its machinery and guards exposed moving parts for his/her protection. However, some areas can not be guarded or shielded in order to assure proper operation. This Operator’s Manual, and decals on the machine, warn of additional hazards and should be read and observed closely.

---

MANDATORY SAFETY SHUTDOWN PROCEDURE
BEFORE unlogging, cleaning, adjusting, lubricating or servicing the unit:

1. Disengage the tractor PTO.
2. Shut off the tractor engine, place the tractor transmission in park and/or lock brake pedals to prevent any tractor movement.
3. On Auto-Electric control equipped balers, BEFORE leaving the tractor seat to perform any function or maintenance, push “POWER” keypad to turn off power to the control.
4. Remove the starter switch key and take it with you when leaving the tractor seat.
5. Wait for all movement to stop.
6. Remove the telescoping drive and ALL power connections from the tractor.

ONLY when you have taken these precautions can you be sure it is safe to proceed. Failure to follow the above procedure could lead to death or serious bodily injury.

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ADDITIONAL SAFETY REMINDERS

Some photographs, used in this manual, may show doors, guards or shields open or removed for illustration purposes ONLY! BE SURE that all doors, guards and shields are in their proper positions and securely attached BEFORE operating this unit!

ALWAYS wear safety glasses with side shields when striking metal against metal! In addition, it is recommended that a softer (non-chipable) material be used to cushion the blow. Failure to heed could result in serious injury to the eyes or other parts of the body!

NEVER use your hands to search for hydraulic fluid leaks; use a piece of cardboard. Escaping fluid under pressure can be invisible and penetrate the skin causing serious injury! If any fluid is injected into your skin, see a doctor at once! Injected fluid MUST BE surgically removed by a doctor familiar with this type of injury or gangrene may result.
SAFETY
(Continued)

ALWAYS follow state and local regulations regarding use of a safety chain and transport lighting when towing farm equipment on public highways! A safety chain should always be used to retain the connection between the towing and towed machines, in the event of separation of the primary attaching system! BE SURE to check with local law enforcement agencies for your own particular regulations. Unless otherwise prohibited, use a Slow-moving Vehicle (SMV) emblem.

Only a safety chain (NOT an elastic or nylon/plastic tow strap) should be used to retain the connection between the towing and towed machines, in the event of separation of the primary attaching system. Refer to the Optional Features & Accessories chapter for safety chain.

Good safety practice dictates that you NEVER tow an implement that does not have brakes, unless the towing vehicle weighs at least one-and-one half (1-1/2) times the weight of the towed implement and its load. For any public highway travel and to be in compliance with this rule, BE SURE that your tractor is heavy enough to counterbalance the weight of the baler and a full-sized bale.

Limit towing speed to 20 mph (32 km/h).

Always use adequate lights or safety warnings when transporting the machine on public roads and after dark. Check with the local law enforcement agencies for specific requirements.

BE SURE that the telescoping PTO drive rotates freely inside the drive shield tubes at all times. Balers are provided with two different types of telescoping drives; one drive has metal shield tubes and the other has plastic shield tubes. The drive with plastic shield tubes must be anchored to a hole in a part of the baler frame with the tie-down chain provided. The drive with metal shield tubes MUST NOT be anchored.

Bales made with the Round Baler are LARGE, CYLINDRICAL and HEAVY. Serious personal injury or property damage could result if the bales are not carefully and properly handled. NEVER eject or store bales where they could possibly roll downhill.

To ensure continued safe operation, replace damaged or worn-out parts with genuine GEHL service parts, BEFORE attempting to operate this equipment.

Our Company does NOT sell replacement tires. In addition, tire mounting, service or inflation can be dangerous. Whenever possible, trained personnel should be called to service and/or mount tires, following the tire manufacturer’s instructions. If you do not have such instructions, contact your tire dealer or our Company. In any event, to avoid possible fatal or serious injury, follow the specific directives given in the Service chapter of this manual.

BE SURE to review and comply with ALL safety recommendations set forth in the tractor operator’s manual.

REMEMBER, it is the owner’s responsibility for communicating information on the safe use and proper maintenance of this machine.
SAFETY (Continued)

**DANGER**
STAY CLEAR OF MOVING BELTS. CONTACT WITH MOVING BELTS MAY RESULT IN ENTANGLEMENT. FAILURE TO HEED WILL RESULT IN DEATH OR SERIOUS INJURY.

**DANGER**
ROTATING DRIVELINE CONTACT CAN CAUSE DEATH KEEP AWAY!
DO NOT OPERATE WITHOUT-
- ALL DRIVELINE, TRACTOR AND EQUIPMENT SHIELDS IN PLACE.
- DRIVELINES SECURELY ATTACHED AT BOTH ENDS
- DRIVELINE SHIELDS THAT TURN FREELY ON DRIVELINE

**DANGER**
YOU MAY BECOME ENTANGLED IN MOVING BELTS, PICKUP, OR ROLLERS, MATERIAL FEEDS INTO BALER FASTER THAN YOU CAN REACT TO RELEASE IT. NEVER CLEAN OR MANUALLY FEED MATERIAL (TWINE OR CROP) INTO MACHINE. FAILURE TO HEED WILL RESULT IN DEATH OR SERIOUS INJURY.
SAFETY (Continued)

DANGER

TAIL GATE MOVES FASTER THAN YOU CAN MOVE AWAY.
STAY CLEAR OF TAIL GATE WHEN IT IS OPENING OR CLOSING.
MOVE TAILGATE LOCKOUT VALVE TO LOCKED POSITION.
BEFORE WORKING UNDER OPEN GATE DISCONNECT HYDRAULIC LINES FROM TRACTOR.
FAILURE TO HEED WILL RESULT IN DEATH OR SERIOUS INJURY.
SAFETY (Continued)

WARNING

ROTATING DRIVE LINE
DO NOT OPERATE WITHOUT THE FOLLOWING
- PROPER DRIVE LINE GUARDS
- INPUT SHAFT GUARDS
- TRACTOR MASTER SHIELD
- U-JOINTS LOCKED TO TRACTOR AND IMPLEMENT SHAFTS
FOR YOUR PROTECTION, THIS DRIVE LINE HAS A GUARD THAT ALLOWS THE INTERNAL DRIVE SHAFT TO ROTATE WHILE THE GUARD IS NOT ROTATING. DO NOT POUND BELL TO REMOVE DRIVE TUBE.
U-JOINTS MUST BE PROPERLY ATTACHED AND MAINTAINED.
FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.

WARNING

- BEFORE UNCLOGGING, CLEANING, ADJUSTING, LUBRICATING OR SERVICING THE UNIT ALWAYS FOLLOW THE MANDATORY SAFETY SHUT DOWN AS SPECIFIED BY THE OPERATOR'S MANUAL.
- KEEP ALL GUARDS AND SHIELDS IN PLACE.
- BE SURE MACHINE IS CLEAR OF PEOPLE, TOOLS, AND OTHER OBJECTS BEFORE STARTING.
- DO NOT WEAR LOOSE OR BAGGY CLOTHING AROUND THIS MACHINE AND KEEP HANDS, FEET AND CLOTHING AWAY FROM MOVING AND POWER DRIVEN PARTS.
- KEEP CHILDREN AND SPECTATORS OFF AND AWAY FROM MACHINE WHILE IT IS OPERATING.
- KEEP OFF UNIT UNLESS A SPECIFIED OPERATOR'S STATION IS PROVIDED.
- FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.

WARNING

THIS IMPLEMENT IS EQUIPPED TO OPERATE WITH 540 RPM PTO TRACTOR MEETING ASAE STANDARD S203. NEVER ATTEMPT TO CONNECT OR OPERATE WITH 1000 RPM PTO TRACTOR.
FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.

WARNING

THIS IMPLEMENT IS EQUIPPED TO OPERATE WITH 1000 RPM PTO TRACTOR MEETING ASAE STANDARD S203. NEVER ATTEMPT TO CONNECT OR OPERATE WITH 540 RPM PTO TRACTOR.
FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.
WARNING

THE OWNER IS RESPONSIBLE FOR MAKING INFORMATION AVAILABLE TO THE OPERATOR ON THE SAFE USE AND PROPER MAINTENANCE OF THIS MACHINE.

DO NOT START, OPERATE OR WORK ON THIS MACHINE UNTIL YOU READ AND UNDERSTAND THE CONTENTS OF THE OPERATOR’S MANUAL.

IF YOU HAVE QUESTIONS ON OPERATION, ADJUSTMENT OR MAINTENANCE OF THIS MACHINE OR NEED AN OPERATOR’S MANUAL, OR IF ANY DECALS ARE NOT READABLE, CONTACT YOUR GEHL DEALER OR GEHL COMPANY, WEST BEND, WISCONSIN 53095 MODEL AND SERIAL NUMBERS WILL BE REQUIRED.

FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.

DANGER

YOU MAY BECOME ENTANGLED IN PICKUP OR ROLLERS. MATERIAL FEEDS INTO BALER FASTER THAN YOU CAN REACT TO RELEASE IT.

EXERCISE MANDATORY SAFETY SHUTDOWN BEFORE DOING ANY WORK AROUND BALER AND REMOVING ANY SHIELD OR WINDGUARD.

IF THE WINDGUARD OR ANY SHIELDS HAVE BEEN REMOVED THEY MUST BE REPLACED BEFORE CONTINUING TO BALE.

FAILURE TO HEED WILL RESULT IN DEATH OR SERIOUS INJURY.
SAFETY (Continued)

**WARNING**

**ROTATING WRENCH MAY STRIKE SOMEONE OR FLY OFF SHAFT AND HIT SOMEONE.**
**DISCONNECT TRACTOR PTO BEFORE ROTATING TRANSMISSION SHAFT. REMOVE WRENCH FROM SHAFT BEFORE RESUMING OPERATION.**
**FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.**

**WARNING**

**YOU MAY BECOME ENTANGLLED IN MOVING COMPONENTS.**
**KEEP DOOR CLOSED DURING OPERATION.**
**FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.**

**DANGER**

**SHIELD MISSING**
**DO NOT OPERATE**

**DANGER**

**SHIELD MISSING**
**DO NOT OPERATE**

**DANGER**

Under Shield
SAFETY (Continued)

WARNING

YOU MAY BECOME ENTANGLED IN MOVING COMPONENTS.
KEEP DOOR CLOSED DURING OPERATION.
FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.

WARNING

IF THE OIL IS CONTAMINATED WITH FLAMMABLE FLUIDS, THE RESULTING MIXTURE CAN EXPLODE.
NEVER CONTAMINATE RESERVOIR WITH FLAMMABLE FLUID.
FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.
SAFETY
(Continued)

Quick Wrap System Models Only

WARNING

YOU MAY BECOME ENTANGLED IN MOVING COMPONENTS.
KEEP DOOR CLOSED DURING OPERATION.
FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.

Left Side (Door Removed)

Right Side (Door Removed)
WARNING

PINCH POINT HAZARD.
KEEP CLEAR WHEN MACHINE IS RUNNING.
FOLLOW MANDATORY SAFETY SHUT DOWN
PROCEDURE AS SPECIFIED IN OPERATOR’S
MANUAL BEFORE WORKING ON MACHINE
FAILURE TO HEED COULD RESULT IN DEATH
OR SERIOUS INJURY.

Door in open position

Bend Line
CHAPTER 5
CONTROLS & SAFETY EQUIPMENT

Each variable chamber Round Baler is provided with several similar features for operator safety and convenience.

**CAUTION**

Become familiar with and know how to use ALL safety devices and controls on this machine BEFORE attempting to operate the unit. Know how to STOP machine operation BEFORE starting it.

**FRONT GUARD ASSEMBLY (Fig. 1)**

The Front Guard assembly serves as a barrier and a reminder to KEEP AWAY from the front of the Baler, while it is running. Furthermore, do NOT attempt to place an arm or leg between the Front Guard Bars, while the Baler is operating. The Front Guard assembly can be unbolted at the bottom and pivoted out of the way when necessary. BE SURE the Front Guard assembly is restored to its original position and secured BEFORE resuming operation.

**WARNING**

NEVER remove the front guard assembly from the Baler. NEVER stand on or place your arms or legs through the front guard bars while the baler is running or moving. ALWAYS exercise the MANDATORY SAFETY SHUT-DOWN PROCEDURE (page 10), BEFORE approaching the front guard assembly.

**FENDER/TWINEBOX ASSEMBLIES (Figs. 2 & 3)**

The Fender/Twinebox Assemblies provide protection for the Tires, a place to store twine, a place to store the Operator’s Manual on the right side, and a place to stand on to engage or disengage the Shuttle Locks.
GATE CYLINDER LOCKOUT VALVE

**WARNING**

ALWAYS place the gate cylinder lockout valve in the locked position BEFORE working inside the bale chamber or under the gate when the gate is open.

After SN24715-1475 and SN17900-1875 (Figs. 3, 4 & 5)

The Baler is equipped with a Gate Cylinder Lockout Valve that is used to lock and hold both Gate Lift Cylinders inoperable in any position. The Lift Cylinders are locked in position when the Gate Cylinder Lockout Valve Handle is turned to the vertical position (Fig. 5). The Lift Cylinders are free to operate when the Valve Handle is turned to the horizontal position (Fig. 4).
Before SN24716-1475 and SN17901-1875 (Figs. 3, 6 & 7)

The Baler is equipped with a Gate Cylinder Lockout Valve that is used to lock and hold both Gate Lift Cylinders inoperable in any position. The Lift Cylinders are locked in position when the Gate Cylinder Lockout Valve Handle is depressed into the valve body and the position Indicator is in the vertical position (Fig. 7). The Lift Cylinders are free to operate when the Valve Handle is pulled out from the valve body and the position Indicator is pointing to the Baler and is in the notch (Fig. 6).

**SHUTTLE LOCKS (Fig. 8)**

Shuttle Locks are provided on both sides of the Baler to remove Belt tension while cleaning or servicing the Baler. Engage both Locks when replacing or re-lacing the Belts and when removing build-up from around the Rollers. Step up on the left or right Twinebox in order to reach the Shuttle Locks.

**WARNING**

NEVER have the PTO engaged while the shuttle locks are engaged. ALWAYS engage both shuttle locks to make sure that belt tension is completely locked out.

**FIRE EXTINGUISHER**

**WARNING**

If a fire occurs eject the bale from the baler IMMEDIATELY, move the baler up-wind 30 feet (10 m) or more away from the ejected bale, shut off the tractor engine and proceed to put out the fire with a fire extinguisher.
There is always the possibility of fire when handling dry forage materials. GEHL Company recommends that to limit the damage to the Baler and/or tractor in case of a bale fire, a five gallon or larger, pressurized water type, fire extinguisher should be mounted on the tractor or Baler, as a minimum protection.

**NOTE:** A five gallon extinguisher should be sufficient to put out small fires that are burning the dry material that remains in the Baler, after the bale is ejected. However, this size extinguisher is insufficient to put out even a small fire in the bale.

---

**WARNING**

The pressurized water fire extinguisher DOES NOT replace the dry chemical fire extinguisher on the tractor (if so equipped). NEVER use a water-type fire extinguisher on electrical or fuel fires. Furthermore, to reduce the possibility of a fire, keep crop build-up to a minimum, especially on the roller ends, the chain drives (behind the hinged shields) and in the pickup drive area.

**GUARDS, DOORS & SHIELDS**

Whenever possible and without affecting machine operation, Guards, Shields and/or hinged Covers have been used on this equipment to protect potentially hazardous areas. In many places, Decals are also provided to warn of potential dangers as well as display special operating procedures.

---

**WARNING**

Read and observe ALL Warnings on the unit BEFORE operating it. Do NOT attempt to operate this equipment unless ALL factory installed Guards and Shields are properly secured in place. BEFORE proceeding to perform any work on the Baler and, BEFORE removing or opening any Shields, BE SURE to exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 10). Also, BE SURE to reinstall and/or close ALL Shields BEFORE operating the Baler.

---

**Front Belt Guard (Fig. 9)**

The Front Belt Guard is provided to shield the area of Belt travel around the Drive Roller and Idler Roller. BE SURE the Guard is properly positioned and secured before operating the Baler.

---

**Large Hinged Guard Doors & Removable Side Shields (Fig. 10)**

Large Hinged Doors and Removable (hinged with Latch on later models) Side Shields are provided on both sides of the Baler to cover and protect drives and adjustable portion of the TDC system. The Side Shields should be installed (latched on later models) and the doors should be closed and latched whenever the Baler is running.
WARNING
When working inside the guard doors or side shields, BE SURE to exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 10).

Pickup V-Belt Guard (Fig. 11)
The pinch point of the Pickup Drive Belt is shielded with a Guard. BE SURE that the Guard is always securely fastened in place while operating the Baler.

HITCHJACK (Fig. 12)
A Hitchjack is furnished with the Baler to support the machine when the tractor is disconnected as well as facilitate aligning the Hitch Clevis with the tractor drawbar for hookup.

When the Jack is NOT being used to support the Baler and to prevent it from being damaged by the tractor tire, it can be removed and relocated to a “Storage” position on the inside of the Drawbar on the left side. Wrap the Chain around the Jack Handle, before inserting the Locking Pin through the Hub holes, to prevent the Handle from dragging on the ground.

WARNING
BE SURE the locking pin is entirely and properly inserted through both hub holes on the jackstand BEFORE disconnecting the baler from the tractor.

REVERSING WRENCH (Figs. 13 & 14)
The Round Baler is provided with a Reversing Wrench Handle for manually rotating the Transmission Output Shaft. When NOT in use, the Wrench should be in a stored position located underneath the left Hinged Guard Door (Fig. 14).
WARNING

ALWAYS exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 10) BEFORE using the reversing wrench. Also, BE SURE to replace the wrench in its storage location BEFORE resuming baler operation.

TDC PRESSURE RELIEF (Fig. 15)

A Pressure Relief Valve is provided on top of the TDC Reservoir to automatically release excessive (beyond 300 PSI or 2100 kPa) pressure build-up. The Relief Valve helps to prevent TDC system component damage. The Relief Valve is covered with a protective plastic cap that should remain in place at all times.

AUTOMATIC BALE CONTROL SYSTEM (OPTIONAL) (Fig. 16)

The Automatic Bale Control System model Baler comes equipped from the factory with the Automatic Bale Control System factory installed. The system provides an information center and Baler control for the operator from the tractor. If the Baler is equipped with the Quick Wrap option, the operator may also change from twine tying to a netting wrap without having to leave the tractor.
AUTOMATIC TWINE WRAP SYSTEM (Fig. 17)

The Automatic Twine Wrap model Baler comes equipped with the Auto Twine Wrap Control System dealer installed. The system provides for automated twine wrapping of the bale and as an information center during the baling operation. Bales may also be wrapped in a manual mode. This system is NOT for use on Balers that are equipped with a Net Wrap system.

Fig. 17: Auto Twine Control Module

MANUAL TWINE WRAP SYSTEM (Fig. 18)

The manual tie model Baler comes with a Manual Twine Wrap system that is dealer installed. A Baler so equipped will allow manual control of the twine tying cycle from the tractor.

SAFETY CHAIN & TRANSPORT LIGHTING (Figs. 19 & 20)

CAUTION

ALWAYS follow state and local regulations regarding a safety chain and transport lighting when towing farm equipment on a public highway! BE SURE to check with local law enforcement agencies for your own particular regulations. Unless otherwise prohibited, use a Slow-Moving Vehicle (SMV) emblem. Only a safety chain (NOT an elastic or nylon/plastic tow strap) should be used to retain the connection between the towing and towed machine, in the event of separation of the primary attaching system.

As required or when desired, the Baler should be equipped with the optional safety chain for transporting the unit on public highways. The chain should be routed as shown in Fig. 19. The Balers are equipped with Transport Lights, which are standard equipment.
The Telescoping PTO Drive is provided with a Spring-loaded Locking Device on each end to positively lock the Drive connections onto the tractor PTO shaft and the Baler Drive Input Shaft. Depress the Locking Device, against the Spring tension, and slide the Yoke onto its respective Drive Shaft. Release the Locking Device and move the Yoke ahead or back until the Lock engages into the groove of its respective Shaft.

**WARNING**

BE SURE that the telescoping drive rotates freely inside the drive shield tubes at all times. BE SURE the telescoping drive connections are properly secured to the tractor PTO shaft and baler drive input shaft BEFORE starting the tractor engine. Also, BE SURE the tractor master shield is in place and properly secured BEFORE starting the tractor.

**NOTE:** For your convenience when the Baler is disconnected from the tractor, the PTO can be placed onto the CV Stand, mounted on the right side of the Hitch Clevis assembly. The CV Stand is designed to be pivoted out of the way when NOT in use. In addition, when transporting the Baler, leave the Telescoping PTO Drive attached to the tractor. If the PTO is NOT connected, it should be disconnected from the Baler and stored in or on the towing vehicle.
CHAPTER 6
OPERATION

1 – Shuttle Stop
2 – Shuttle Chain Adjustment Bolt
3 – Shuttle Lock in “Storage” Position
4 – Shuttle Chain
5 – Density Cylinder Sprocket
6 – Density Cylinder
7 – Gate Cylinder
8 – Bale Starter Torsion Spring
9 – Scraper Roller Overrunning Clutch Sprocket
10 – 16” Roller Driven Sprocket
11 – Adjustable Wheel Spindle
12 – 8” Roller Drive Sprocket
13 – Transmission Drive Sprocket
14 – 8” Floor Roller Idler
15 – 16” Floor Roller Idler
16 – Spring-loaded idler
17 – Packing Roller Spring Adjustment
18 – Packing Roll Stop Adjustment Bolt
19 – Windguard
20 – Windguard Latch
21 – Left Twine Feed Sensor*
22 – Baler to Tractor Connector
23 – Tractor Battery
24 – Tractor Control Module
25 – Bale Size Sensor*
26 – Implement Module*
27 – Shuttle Return & Full Size Bale Sensor*
28 – Gate Latch Sensor*

*Auto-Electric Models ONLY

Fig. 22: Component Identification - Left Side
Chapter 6 – Operation

Fig. 23: Component Identification - Right Side

1 – Overfill Clutch Actuator
2 – Excessive Pressure Relief & Adapter
3 – Valve Stem
4 – Shuttle Lock (Engaged)
5 – Shuttle
6 – Shuttle Stop
7 – TDC Reservoir Sight Tube
8 – Belt Drive Roller
9 – Re-wrap Roller
10 – Belts
11 – Valve Trip Mechanism
12 – Adjustable Relief Valve
13 – Density Cylinder
14 – Bale Starter
15 – Packing Roll Compression Spring
16 – Pickup Height Adjustment Crank
17 – Idler Assembly Pivot
18 – Scraper Roller
19 – Pickup Stop
20 – Packing Roller
21 – Packing Roller Drive Chain
22 – Pickup Driven Sheave
23 – Pickup Idler Pulley
24 – Cable From Overfill Clutch to Stop Pickup
25 – 8” Lower Roller
26 – 16” Lower Roller
27 – Bale Starter Roller
28 – Adjustable Gate End Roller
29 – Gate Latch
30 – Adjustable Gate Latch Lift Rod
31 – Belt Tracking Roller
32 – Gate Cylinder
33 – Pressure Gauge (TDC Reservoir)
34 – Trip Arm
35 – Trip Spacer
36 – Density Cylinder Sprocket
37 – TDC Reservoir
38 – Bale Counter (Manual Balers ONLY)
39 – Right Twine Feed Sensor (Auto-Electric ONLY)
40 – Pickup Flotation Spring
HOW BALER FUNCTIONS
(Figs. 22 & 23)

Crop material is picked off the ground by the 4-Tinebar, Closed-style Pickup and delivered to the throat of the unit where it is pressed by the Packing Roller against the Lower Roller. The Rollers then carry the crop to the back of the unit where the crop meets the Belts which are traveling toward the front of the unit. The Belts carry the crop forward and over the top of the lower incoming mat of material until it comes in contact with the Bale Starter Fingers. The Fingers deflect material down into the incoming mat of material to form a roll of crop material or bale core.

As the round core of material gets larger in size, the Bale Starter is lifted from the area to avoid contact with the bale. As the bale increases in size, the additional Belting, required to wrap the bale, is released by the Belt Shuttle as it moves toward the rear of the Baler. Belt tension and bale density control is governed by the Total Density Control (TDC) system. The windrow and driving pattern of the Baler operator determines how well the material is distributed across the bale.

NOTE: It may be necessary to weave from one side of the windrow to the other in order to properly distribute crop into the baling chamber.

On manual control models, when the Bale Size Indicator reaches the preferred size, the twine can be wrapped around the bale. Once tied, the bale is ejected by opening the Gate and the process of forming another bale can be restarted. The maximum bale size is “5” (for RB1475) or “6” (for RB1875).

NOTE: It may be necessary to back up several feet before ejecting the bale to allow room to close and latch the tailgate without contacting the crop windrow.

HOW TDC SYSTEM FUNCTIONS
(Figs. 24, 25 & 26)

The Belt Tension and subsequent bale density is controlled by the Total Density Control (TDC) system. The major components of this system include a Reservoir, two Density Cylinders, an adjustable Pressure Relief Valve, and a Manifold with a Trip Mechanism. This unique TDC system is self-contained and is completely independent of the tractor hydraulic system. The TDC system supplies a tensioning force to the Belts which, in turn, exerts a compressive force on the forming bale.

During the initial bale forming stage, the force exerted by the Density Cylinders onto the Belts is directly related to the air pressure in the Reservoir. As the bale increases in size, the additional Belting required is released by the Belt Shuttle as it moves toward the rear of the Baler. This rearward travel of the Belt Shuttle extends the Density Cylinders and forces hydraulic fluid out of the Cylinders, through a Manifold and into the Reservoir. This additional fluid further compresses the air in the Reservoir and causes an increase of pressure resulting in Belt tension.

As the Cylinders continue to extend, the Valve Trip Mechanism is contacted by the Trip Spacer on the Trip Arm of the right Density Cylinder Clevis. As the Valve Trip Mechanism is triggered, the free flow path through the Manifold is blocked off and the hydraulic fluid is redirected through the adjustable Pressure Relief Valve on its way to the Reservoir. The Relief Valve works to create a pressure differential between the Density Cylinders and the Reservoir. This means that the fluid pressure in the Density Cylinders has to reach a preset value above the pressure in the Reservoir before the Relief Valve will relieve and allow the fluid to pass through to the Reservoir.
As the bale continues to grow and the Cylinders continue to extend, the TDC system continues to function in the manner previously described. When the bale is ejected from the Baler, the pressure in the line from the Density Cylinders to the Relief Valve drops below the pressure in the Reservoir. This causes a reverse flow of hydraulic fluid from the Reservoir back into the Density Cylinders. The Cylinders are retracted which in turn restores the Shuttle, the Belts and the Valve Trip Mechanism to their original positions. The TDC system is once again ready to start forming another bale.

### BALE FORMATION & STORAGE TIPS

The following information provides guidelines for using the Round Baler to get the most out of your crop and investment.

---

**RB1475 & 1875**

Table of Approximate Core Formation (Diameter Ranges in Inches) for Various Trip Arm and Manifold Settings

<table>
<thead>
<tr>
<th>RB1475 Trip Arm Position</th>
<th>Diameter of Bale Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Top)</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>5 (Bottom)</td>
<td>27</td>
</tr>
</tbody>
</table>
Fig. 27: Bale Density & Formation Detail

A – Small Core with High Density Crop (See Curve 1)  3 – Curve for Core Formation “C”
B – Small Core with Low Density Crop (See Curve 2)  4 – Curve for Core Formation “D”
C – Large Core with High Density Crop (See Curve 3)  5 – Outer Crop (Relief Pressure-controlled)
D – Large Core with Low Density Crop (See Curve 4)  6 – Core Formation (Air Pressure-controlled)
1 – Curve for Core Formation “A”  7 – Increasing Bale Diameter
2 – Curve for Core Formation “B”  8 – Increasing TDC System Bale Forming Pressure
Optimum Conditions & Bale Density (Fig. 27)

Optimum haying conditions are a combination of crop maturity and moisture content. Because of changing weather conditions, NOT all hay can be baled under ideal circumstances. The TDC system enables the Baler to adapt to these less than ideal conditions. In particular, the density of the bales can be adjusted to be more compatible with baling conditions.

As moisture content increases, the bale density can be decreased. Using the illustration and table provided for a reference, several types of bales can be formed by altering either or both the Trip Spacer on the Trip Arm which is connected to the right Density Cylinder or the Relief Valve pressure setting. Changing the Trip Spacer location to one of the other lower holes, progressively increases the core diameter by delaying activation of the Valve Trip Mechanism.

Bale density can be adjusted for different crop conditions and moisture contents by adjusting the Relief Valve setting. Turning the End Disc assembly clockwise into the Valve Body increases the Relief Pressure and bale density. The adjusted setting can then be locked in place by turning the Locking Ring clockwise until it is snug against the Valve Body.

Bale Handling & Storage

--- WARNING ---

Bales made with a Round Baler are LARGE, CYLINDRICAL and HEAVY! Serious personal injury or property damage could result if the bales are not carefully and properly handled. MAKE SURE the bale will not roll when ejected from the baler. BE SURE that the tractor used with any bale handler is large enough to safely handle the weight of the bales. Front or rear counter-weights may be required. Using a bucket-style front end loader to move bales creates a hazard, because the bale can roll out of the bucket and down the loader arms onto the operator. Generally, agricultural tractor Roll-over Protective Structures (2–Post ROPS) are not intended to protect against falling bales. Do NOT lift round bales with the standard loader unless you have proper bale restraining devices.

Because the bales are cylindrical and very heavy, special care MUST be exercised when ejecting them and storing them to keep them from starting to roll. When the bales are moved, make sure that the original bottom of the bale stays at the bottom. When moving bales to a storage area, observe the following recommendations to minimize crop loss:

1. Select a well-drained area with complete exposure to the sunlight.
2. Place the axis of the bales north and south so the sun can dry out the cylindrical surface of the bale as it travels from east to west.
3. Where space allows, set several bales in a row with their ends pushed tightly together to form a long cylinder. Make sure that you do NOT form a water dam using too many bales in a row without skipping a space. Make sure to always maintain a clear path for the water to travel away from the bales.
4. Keep the rows of bales far enough apart so that one row will NOT overshadow the adjoining row and cut down on exposure to full sunlight.
5. When bales are stored outside in conditions of exceptionally high rainfall (especially driving rains), spoilage due to water penetration can be reduced by placing the shingled cylindrical surface of the bale in the direction of prevailing rain or wind. The shingled surface can be determined by running your hand along the edge of the bale. On the shingled surface, your hand will slide smoothly. The unshingled surface will offer more resistance to your hand movement.

--- Baling ---

After transporting the Baler to the field, adjust the Pickup height according to crop conditions and land contour; refer to the Pickup Flotation topic in the Adjustment chapter of this manual for details. The Baler Pickup should be run as high off the ground as possible while still being able to completely pick up all of the crop.

IMPORTANT: The Pickup assembly MUST be carried off the ground. Running the Pickup too low to the ground will result in excessive Tine wear or breakage and possible damage to the Pickup Stripper Bands and Headers, Cam and Cam Bearings.

Move the Baler into position with respect to the windrow and BE SURE to check the path in front of the Pickup and ahead of the Baler before starting to bale. Then, start the PTO, bring the tractor RPM up to the desired operating speed and begin baling.
If the windrow has been prepared to less than the full width of the Bale Chamber, it will be necessary to drive the Baler in a weaving fashion to fill the Chamber and start the bale core. If the windrow has been prepared for the full width of the Pickup, either 45 to 52” (1143 to 1321 mm) for an RB1475 or 61 to 68” (1549 to 1727 mm) for an RB1875, the Baler can be driven straight down the windrow while observing that the bale starts and continues to form properly. To obtain the most uniform bales, the windrow should, wherever possible, be made at or slightly larger than the Bale Chamber width.

When baling a windrow which is about 1/2 the width of the Bale Chamber and after the core has started, stop the weaving process and drive straight with the windrow entering the Pickup as far to one side as possible. Continue driving the Baler with the windrow entering on one side until the rotating bale is approximately 3 to 4” (76 to 102 mm) higher on one side than the other. Then, quickly cross over so that the windrow enters on the other side of the Pickup and continue filling that side until it is 3 to 4” (76 to 102 mm) higher than the other side. Continue crossing over from side to side until a full-sized bale is formed.

When baling a windrow which matches the full width of the Bale Chamber, drive straight down the windrow until the desired full-sized bale is formed.

**IMPORTANT:** Continuous feeding of material provides for smoother starting and better bale formation. Avoid non-cylindrical bales and bales with loosely packed outside edges. Both conditions can allow the Belts to fall off the ends of the bale and possibly tear out the Belt Lacing Hooks. In addition, this type of bale will weather poorly. Proper material preparation is a very important factor in making good-shaped bales. Refer to the Preparing for Field Operation chapter of this manual for further details.

**Baylage (High Moisture Hay)**

**(RB1475 Only)**

**NOTE:** Anyone experimenting with this type of storage procedure, for the first time, should do so with limited samples, to minimize potential losses.

**NOTE:** Due to the extremely HEAVY bale that results from high moisture baling, we recommend that bale sizes be kept under a 4 ft (1.2 m) diameter. It is further recommended that Balage baling be limited to using only an RB1475 Baler and equipp- ing it with an accessory Silage Scraper Kit. Refer to the Optional Features & Accessories chapter for ordering information.

**BALE SIZE VISUAL INDICATOR**

**(MANUAL & AUTOMATIC TWINE CONTROL MODELS)** (Fig. 28)

The Bale is full-size when it reaches 5 feet (1.5 m) in diameter for the RB1475 Baler or 6 feet (1.8 m) in diameter for the RB1875 Baler. As a matter of personal preference, the bale forming process can be stopped at any time before this size. For this reason, the Bale Size Visual Indicator is provided as a visual aid to forming consistent sized bales.

**OVERFILL PROTECTION**

**(Figs. 22 & 23)**

The Baler is designed with an Overfill Clutch mechanism which automatically stops the Pickup when the bale becomes oversized. If the bale becomes oversized, the Shuttle will activate the Overfill Clutch Actuator which is linked by a Cable to the Pickup Drive to stop the Pickup and prevent damaging the Baler. When this happens, simply back the Baler out of the windrow and tie or wrap the bale in the normal manner.
MANUAL TWINE WRAP  
(Figs. 28 & 29)

NOTE: The procedure described is the manual sequence. The entire process of wrapping the bale with twine is done from the tractor seat.

The position of the Pointer on the Bale Size Indicator can be used as a fairly accurate gauge for forming the desired size bale. When the desired size bale is formed, stop Baler forward travel. Then, swing the Twine Arm so that it is straight back.

NOTE: The Twine Arm is actuated by moving the Twine Arm Positioning Switch to the “FORWARD” position to move the Twine Arm from right to left. Moving the Twine Arm Positioning Switch to the “REV” (Reverse) position moves the Twine Arm from left to right.

NOTE: By moving the Twine Arm to the middle of the Baler, appropriate lengths of twine are brought out for starting to wrap a new bale.

Then, drive forward again to take in a small amount of material to start feeding the twine into the Baler.

DANGER

NEVER attempt to clean or manually feed the baler when it is running. Material feeds into the baler faster than you can react to release it. You may become entangled in moving belts, pick-up or rollers. Failure to heed can result in death or serious injury.

When the twine can be seen moving into the Twine Arm, stop Baler forward travel. Allow the twine to make at least one full wrap in this location and then move the Twine Arm to the left side.

NOTE: Moving the Twine Arm all the way to the left engages and locks the Twine Cutoff Jaws in the open position.

NOTE: Normally, the bale can be adequately tied with two wraps of twine on the left side, several wraps across the center of the bale and two wraps on the right side. If the material being baled is slippery, it will be beneficial to place two wraps of twine on the center of the bale before moving to the left side in order to prevent the twine from sliding off the end of the bale. It may also be necessary to adjust the positions of the end wraps depending on the crop being baled.

When the Twine Arm returns all the way to the right, the Twine Jaws will snap closed and the twine will be cut. The wrapped bale can now be ejected from the Baler and baling can resume.

AUTOMATIC TWINE WRAP SYSTEM

Features

The Auto Twine Wrap Control System exhibits the following features and characteristics:

1. AUTO/MANUAL Mode Selection - fully automatic tie system or manual tie system.
2. Continuous moving Twine Arm distributes twine in a helical pattern across the bale.
3. A daily bale counter which can be reset to Zero (0)
4. A lifetime bale counter which cannot be reset
5. The error message “SEt” is displayed when the twine wrapping system is not functioning properly (Refer to the Troubleshooting chapter).
6. Two spaced audible tones are sounded when the tie cycle starts.

7. The message “tIE” is displayed while the system is in the twine tie sequence.

8. One audible tone is sounded and the message “OPEn” “GAtE” is displayed when the tie sequence is through and the Baler is ready for the bale to be discharged. The message “OPEn” “GAtE” remains displayed until the bale is discharged.

9. One audible tone is sounded when the Tailgate is first opened and then repeated every eight seconds while the Tailgate remains open.

10. Two quick audible tones are sounded when the Tailgate is closed and latched.

Operation

The Control Module is a monitor and controller for the Twine Arm. When a bale is formed, a sequence is started that drives the Twine Arm across the face of the bale. The twine is applied in a predetermined helical pattern across the face of the bale and is designed to apply extra twine on each bale end.

Bales can be tied in a manual or fully automatic mode. The Control Module also keeps a daily and lifetime count of bales made.

NOTE: This Auto Twine Control is NOT intended for use on Balers equipped with Quick Wrap.

Controls

Control Module (Fig. 30)
POWER Switch (Fig. 31)

This Toggle Switch is used to power up and shut down the Auto Twine System.

**ON**
Move the Switch Handle to the right to turn Control Module on and power up the auto twine control system.

**OFF**
Move the Switch Handle to the left to power down the control system. This will cause the display to go blank and the control system will not accept any signals from any sensors.

Mode Switch (Fig. 32)

This Toggle Switch is used to direct power to either the SELECT Key for automatic control (AUTO mode) or to the Actuator Switch for manual control (MANUAL mode) of the Auto Twine System.

**AUTO**
Move the Switch Handle to the left to direct power to the SELECT Key for automatic twine control.

**MANUAL**
Move the Switch Handle to the right to direct power to the Actuator Switch.

Actuator Switch (Fig. 33)

This Toggle Switch is used to direct power to the Actuator to manually EXTEND or RETRACT the Twine Arm.

**NOTE:** The Mode Switch (Fig. 32) MUST BE set to MANUAL for this Switch to function.

**EXTEND**
Move and hold the Switch Handle to the right to extend the Actuator Rod and cause the Twine Arm to move toward the left side of the Baler.

**RETRACT**
Move and hold the Switch Handle to the left to retract the Actuator Rod and cause the Twine Arm to move toward the right side of the Baler.

**NEUTRAL**
Release the Switch Handle to STOP actuator movement. Switch Handle will automatically return to center position when released.

SELECT Key (Fig. 34)

**NOTE:** Mode Switch, Fig. 32, must be set to AUTO for the SELECT Key to function.

The SELECT Key is used to advance the Digital Display one channel each time it is pressed. Each of the five channels is used to control a different segment of the tie cycle. The active channel is indicated by the chevron that points toward the associated icon shown below the display. The value for each channel (except channel 1) can be changed by pressing the INCREASE or DECREASE Key. If a change is not made to the active channel within 5 seconds, the display will default back to channel 1. Channel 1 is the default channel and it indicates the daily bale count and the condition of the Tailgate (Open or Closed).
NOTE: See separate topics later in this chapter for information about the purpose and settings for each channel and for the INCREASE and DECREASE Keys.

Fig. 34: Control Module Keypad & Display

The SELECT Key is also used to view the lifetime bale count. To show lifetime bale count since installation of the Control Module, press and hold down the SELECT Key for 5 seconds.

INCREASE & DECREASE Keys (See Fig. 34)

While in “AUTO” mode and NOT on channel 1, press either Key to change the value for the function being displayed. (See separate topics later in this chapter for information about the purpose and settings for each channel.)

NOTE: To reset the Bale Count to “0”, press and hold the DECREASE and INCREASE Keys simultaneously.

Digital Displays

Default Reset

To return all of the channels back to the factory set defaults, press and hold the INCREASE and DECREASE Keys simultaneously while moving the POWER Switch Lever to ON.

Lifetime Bale Count

Press and hold the SELECT Switch for 5 seconds to have the Display show total bales made since the Control Module was first installed. Range 0–9999.

NOTE: The Tailgate Open and Closed indicators on the Display are disabled while total bale count is displayed.

NOTE: Press the SELECT Key, Fig. 34, to advance from one channel (display) to the next.

Channel 1 – Daily Bale Count – Default Display (Fig. 35)

The Daily Bale Count displays the number of bales made since the last time the counter was set to zero.
(Range is 0-999). This is the default display and is active whenever: the Control Module is turned on, is NOT in a “tie” sequence, or the SELECT Key has NOT been pressed within the last 5 seconds to change to a different channel.

This display also indicates the condition of the Tailgate. When the Tailgate is “closed”, the bottom segment of the leftmost digit is displayed (next to the icon showing a “closed” tailgate – see top illustration in Fig. 35); likewise, when the Tailgate is “open”, the top segment of the leftmost digit is displayed (next to the icon showing an “open” tailgate with a discharged bale – see bottom illustration in Fig. 35).

To reset the Daily Bale Counter to Zero, press and hold the DECREASE and INCREASE Keys, simultaneously, to reset the Daily Bale Count display to ZERO.

**NOTE:** Numerical values (marked with an *) for channels 2 and 3 are arbitrary values; they ONLY represent a range, NOT an actual count.

### Channel 2 – Twine Density
**Spacing of Wraps Across Bale**
(Fig. 36)

Press DECREASE Key for more spacing between wraps (fewer overall wraps) or INCREASE Key for less spacing between wraps (more overall wraps). Range is 0–12* in 1 step increments; Default is 6.

**NOTE:** The Twine Arm moves faster across the face of the bale as the setting approaches “0”.

* Arbitrary Numbers

### Channel 3 – Twine End Wraps
(Fig. 37)

Press DECREASE for fewer wraps or INCREASE for more wraps. Range is 0–9* in 1 step increments; Default is 3).

**NOTE:** The Twine Arm pauses for a shorter period of time at each bale end as the setting approaches “0”.

* Arbitrary Numbers

### Channel 4 – Twine Arm Pause
**Delay for Twine to Start on Bale**
(Fig. 38)

Press the DECREASE Key for a shorter delay or the INCREASE Key for a longer delay. Range 0–20 seconds in 1 second increments; Default is 2 seconds.

**NOTE:** The Twine Arm pause time is shorter as the setting approaches “0”.

* Arbitrary Numbers
Channel 5 – Twine Arm Position
(Position of Arm for Twine to Start on Bale) (Fig. 39)

Press the DECREASE Switch to cause the Twine Arm to stop further toward the center of the Baler or the INCREASE Switch to cause the Twine Arm to stop further toward the left side of the Baler. Range 1–7 seconds in 0.5 second increments; Default is 4 seconds.

**NOTE:** The position where the Twine Arm pauses is closer to the right side of the baler as the setting approaches “0”. For RB1475 Balers, DO NOT set above 5.0 seconds or the twine tie sequence will stop and the “SET” error message will display.

**NOTE:** Any changes made while in the AUTO mode will be preserved in memory.

AUTOMATIC BALE CONTROL SYSTEM

Features

The Baler Wrap Control System exhibits the following features and characteristics:

1. A daily bale count which is resettable to Zero (0)
2. A life time count which is NOT resettable
3. Programmable to specific Gehl Baler models
4. Bale size selection from 3 feet (.9 m) to the maximum bale size in 6 inch (152 mm) increments
5. Exclusive Twine/Quick Wrap Netting selection from the tractor seat
6. Audible pulsing Beeper sounds and an Error Code is displayed when bale growth and wrapping systems are not functioning properly. The following lists all of the “Error Message” codes and what the codes mean:
   a. **E1** - Out of twine or only one twine placed on bale
   b. **E2** - Out of netting
   c. **E3** - Twine/Netting NOT started
   d. **E5** - Twine Arm obstruction
   e. **E6** - Shuttle NOT returned
   f. **E7** - Twine or Netting started prematurely
   g. **E8** - End Wrap Pause Switch Adjustment/ Faulty
   h. **E9** - Twine/Netting NOT cut off
   i. **E10** - Insufficient (low) voltage or (low) amperage
7. MANUAL/AUTO Selection - fully automatic tie system or manual tie system
8. Cycle feature to manually start the auto tie cycle at anytime.
9. Feature displaying the per cent (%) of Netting used from the roll (resettable)
10. Adjustable number (#) of wraps - for both twine or net from the Control Module
11. Automatic shutdown after 30 minutes if NO Keypad entries or input entries are detected from the baler sensors
12. Enlarging Bar Graph grows as bale size grows
13. One audible tone sounds when the bale size gets to within 6 inches of the selected bale size; at this time, the Bar Graph also starts to flash
14. Three audible tones sound when the bale reaches the selected bale size to mark the start of the tieing/wrapping cycle
15. Two audible tones sound when the tieing/wrapping cycle has been successfully completed
16. One audible tone sounds and the “GO” Arrow displays when baling can resume
17. Flashing “CYCLE” Icon appears when tieing/wrapping cycle starts or when “CYCLE” Key is touched
18. Flashing “CYCLE” Icon goes solid ON when Twine/Netting is starting to feed
19. “TAILGATE OPEN” Icon appears when Tailgate is open
20. To obtain a bale count (and a “GO” Arrow), the following three things MUST happen:
a. Successful Tie
b. Tailgate properly opens and closes
c. Shuttle MUST return to its “Home” position

21. Even displacement of wrapping material regardless of baler rpm and bale size

Operating System

The following are the typical Keypad selections to activate and operate the Electronic Bale Wrap Control System:

NOTE: If, after initial “Power Up”, the display on the Tractor Module lights up and goes blank within a few seconds:

1. Check that the power cord from the Baler is connected to the tractor and all connections are clean and tight.

2. Faulty Implement Module. See Dealer.

After “Power Up”, the system will automatically default to the settings as they were before “Power Down”. Keypad activations always require that the Keypad be pressed and temporarily held until a beep is heard and/or the Display changes.

“Power” Key

Press and hold the “Power” Key to power up (turn on) the control system.

To power down (turn off) the control system, press the “Power” Key. This will cause the display to go blank and the control system will not accept any signals from the cab module or any sensors. However, bale wrapping information is preserved in memory (see Note, below).

NOTE: It is recommended to power down (turn off) the control system by pressing the “Power” Key anytime an interruption to the control system power is anticipated. This will preserve the current bale size information by storing it in memory; if the control system power is interrupted without powering down or in any other way (such as power loss due to starting the tractor engine or disconnecting the Power Cable), the current bale size information and the Bale Size Bar Graph will be lost.

NOTE: As noted above, pressing the “Power” Key will make the control system inoperable. However, this does NOT eliminate all power consumption. If the Baler is going to be idle for a week or more and remain hitched to the tractor, it is recommended that the Power Cord between the tractor and the Baler be separated to prevent draining of the tractor battery.

“Enter” Key

Whenever a key is pushed within the top two rows (Command Keys) of the keypad, a corresponding icon will flash in the display. If no further commands are entered by pressing a key on the keypad within 5 seconds, the flashing icon will stop and the system will return to its previous settings. In order for the system to understand and remember a new command, the command must be followed by pushing the “ENTER” key. If the “ENTER” key is not pushed within 5 seconds, the system will return to its previous setting.
Pressing the “ENTER” key will also mute the audible alarm when an error message is displayed. Muting the alarm will NOT clear the display of the error code until the error is corrected. Once the error is corrected, pressing the “ENTER” key will clear the display.

**“Bale Size” Key**

To adjust the bale diameter:

1. Press the “BALE SIZE” key
   
   The current programmed bale size will be shown on the display and the word “SIZE” will be flashing on and off at the lower left hand side of the display.

2. Press the “+” key to increase bale size or press the “–” key to decrease bale size.
   
   The Bale diameter shown in the display will respond to key entries and will increase or decrease in 6″ increments. Likewise, the limiting icon on the Bar Graph will move up and down and align itself with the selected bale size diameter.

3. Press the “ENTER” key to save the programming change made to the bale size.

**“Twine/Net” Key**

- **NOTE:** The current mode of wrapping can be identified by the icon in the top right center of the display; either 📦 for NET mode or 🎀 for TWINE mode.

To alternate between TWINE and NET modes for making changes:

1. To enact a change in the wrapping mode, press the “TWINE/NET” key. The alternate wrapping mode should begin flashing in the top right center of the display.

2. Verify that the flashing icon represents the desired wrapping mode. If it does, press “ENTER” to save. The flashing icon should have switched to solid.

- **NOTE:** The control will not switch from twine to net if it is not programmed with the correct code for a Quick Wrap baler. See Machine Operating Codes topic in this chapter for Baler codes.

**Amount of Wraps**

The values for wrapping a bale are different for twine than they are for net. When adjusting the number of wraps, you are only changing the value of wraps that pertain to the wrapping mode for which you are programmed. For example, if programmed to twine, only the number of twine wraps change. If programmed to net, only the number of net wraps change. If the control is switched from twine to net, the system will remember any previous setting for the number of net wraps. The same holds true when switching from net to twine.
To adjust the number of wraps (Auto Mode Only), press either the “+” or “–” key. A numeric value will appear in the display along with the flashing icon “WRAPS”. To increase the numeric value (number of wraps), continue to push the “+” key. To decrease the number of wraps, push the “–” key.

When in the “TWINE” Mode, the numeric value is the approximate number of wraps of twine placed across the circumference of the bale. The value increases and decreases by increments of 1 between 1 and 10, with 10 being the greatest amount of twine.

**NOTE:** Settings 4 and 5 will apply the same amount of wraps (approximately four wraps) across the bale. However, a setting of 4 or lower will place approximately 2-1/2 end wraps while a setting of 5 or higher will place approximately 3-1/2 end wraps. On Settings 1 and 10, the Twine Arm will NOT stop when travelling from the left side to the right side when applying twine.

When in the “NET” mode, the numeric value on the display is the approximate number of times the net is wrapped around the circumference of the bale (One wrap equals one time around the bale). The system can be adjusted in 0.25 wrap increments between 1.25 and 9.75.

**Bale Count (Daily)**

To clear the daily count, press and hold the “–” key and the “+” key simultaneously until a “0” appears on the display.

**Bale Count (Lifetime)**

To check the lifetime count, press the “ENTER” key and hold it until the first number (1000’s digit) is displayed. Then, release the “ENTER” key before the second number (hundreds) is displayed.

**“Cycle” Key**

To start the wrapping cycle early (Auto Mode Only):

1. Press the “CYCLE” key. The flashing cycle icon should be visible in the upper right hand corner of the display. This indicates that the control system has been switched to the wrapping mode.

2. Press the “ENTER” key. This confirms that you want to start the wrapping cycle. The actuators for either the netting or twine arm should have started and continued in the automatic wrapping cycle.
NOTE: The display will alternate between two sets of numbers. For a count under 1000, the display will first show “0” (the 1000’s digit) and the second display will be the count under 1,000. For counts over 1,000, the 1st display will be the number of 1000’s and the second display will be the count under 1,000.

Example:
A lifetime count of 13,568 would alternately display as 13 (for the 1000’s count) and 568 (for the count under 1,000).

NOTE: The maximum lifetime count can be 999,999. To clear the display of the lifetime count mode, press “ENTER” while the second set of numbers (hundreds) is on the display.

SWITCHING FROM AUTO TO MANUAL MODE

Through the course of daily operation in the “AUTOMATIC” mode, it may become necessary to switch to the “MANUAL” mode to perform a troubleshooting sequence, an adjustment or restart the system after a particular Error Message has been acknowledged and rectified. To change from “AUTO” to “MANUAL”, power-up (if NOT already power-up), press the “MANUAL/AUTO” key, hear a single beep and observe that the Display shows the MAN Icon flashing. Then, press the “ENTER” key to lock-in the “MANUAL” mode.

Operation in the Manual Mode

The primary function of the Manual Mode is to manually control the extension and retraction of the twine arm actuator or Quick Wrap actuator. Typically, this is required to route twine through the twine arm or service the baler.

The Manual Mode can be used when building and wrapping a bale, should the Auto Mode become enabled. When operating in the Manual Mode, many of the monitoring sensors on the baler are electronically switched off. The Manual Mode will allow the operator to select twine or net, change bale size, and count bales. The bale size Bar Graph will function the same as in the Auto Mode as will the tailgate open and close icon with the go arrow.

NOTE: If the bale size sensor or the tailgate sensor were to become disabled, the display will not function properly. However, it will still be possible to operate the actuators manually, providing there is sufficient power to the implement control module and the actuators.

The Manual Mode does not notify the operator when the wrapping is started. The flashing cycle icon will never stay on solid. The flashing icon is only used as an indicator to inform the operator that the manual tie system is in process and that the actuator is not in the home position.

Manual Mode Twine Arm Extension & Retraction

When in the “MANUAL” mode, the following steps can be carried out to extend and retract the Twine Arm in order to facilitate twine routing or whatever needs to be manually accomplished:
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1. Press and hold the (+) “EXTEND” key, hear a beep, and observe that the “CYCLE” Icon comes on and continues to flash as the Twine Arm continues to move away from the “home” position. Release the key to stop Twine Arm movement.

2. Press and hold the (–) “RETRACT” key, hear a beep, and observe that the “CYCLE” Icon comes on and continues to flash as the Twine Arm continues to move toward the “home” position. Release the key to stop Twine Arm movement.

**NOTE:** The Twine Arm must have stalled in the Home Position before the flashing cycle icon will disappear. The system will not accept any further commands until the “CYCLE” icon is cleared from the display.

Manual Quick Wrap Activation & De-activation

When in the “MANUAL” mode, the following steps can be carried out to extend and retract the Wrap Control Actuator whenever this needs to be manually accomplished:

1. Press and hold the (+) “EXTEND” key, hear a beep, and observe that the “CYCLE” Icon comes on and continues to flash as the Wrap Control Actuator Shaft continues to move out. Release the key to stop Actuator movement.

2. Press and hold the (–) “RETRACT” key, hear a beep, and observe that the “CYCLE” Icon comes on and continues to flash as the Wrap Control Actuator Shaft continues to retract. Release the key to stop Actuator movement.

**NOTE:** The Net Wrap Actuator must have stalled in the Home Position before the flashing cycle icon will disappear. The system will not accept any further commands until the “CYCLE” icon is cleared from the display.

% Of Net Left

When operating in the Net Mode, the control system will keep track of the amount of net being consumed, which takes into account the number of wraps and bale diameter. The system works best when using the suggested net supplied by Gehl dealers. Reset the % of net left value shown each time you add a new roll of net. To do this, push the “CYCLE” key twice and hold for 5 seconds the second time.

To show the % of net left on the display, push the cycle twice. The value on the display will represent the amount of net left on the net roll.
NORMAL BALING IN AUTOMATIC CYCLE

The following information displays the normal baling cycle from indications by the Tractor Module. With all of the desired settings established, recognize the following circumstances and events that could occur.

<table>
<thead>
<tr>
<th>At Start, Baler and Go Arrow</th>
<th>Bar Graph Starts To Build To Pre-selected Size</th>
<th>Bar Graph Flashes when Bale Diameter is 6” less than selected bale size. {Horn Emits (1) Beep}</th>
<th>Solid Bar Graph {Horn Emits (3) Beeps} when bale reaches predetermined size</th>
<th>Go Arrow Disappears</th>
<th>Cycle Icon Flashes When Tie Cycle Starts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baler and Go Arrow Signify Ready to Bale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Cycle Icon Goes Solid When Netting or Both Twines Start Wrapping on Bale {Horn Emits (1) Beep} | Horn Emits (2) Beeps When Tie Cycle Finishes | Open Baler Gate and Eject Bale. Bar Graph resets to 0 | Close Baler Gate After Bale is Ejected | Go Arrow Re-appears after Tailgate is latched and Shuttle has returned. {Horn Emits (1) Beep} & Bale count increases by one |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------------|---------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------|
NORMAL BALING IN AUTOMATIC CYCLE WITH ERRORS

The following information displays the normal baling cycle with potential error displays interjected in the various stages of the baling cycle when they are most likely to be displayed by the Tractor Module. With all of the desired settings established, recognize the following circumstances that could occur.

<table>
<thead>
<tr>
<th>Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Possible</strong></td>
</tr>
<tr>
<td>At Start, Baler and Go Arrow Signify Ready to Bale</td>
</tr>
<tr>
<td>Bar Graph Starts To Build To Pre-selected Size</td>
</tr>
<tr>
<td>Bar Graph Flashes 6 inches Before Pre-selected Size. {System Emits (1) Beep}</td>
</tr>
<tr>
<td>Possible</td>
</tr>
<tr>
<td>Solid Bar Graph {System Emits (3) Beeps}</td>
</tr>
<tr>
<td>Go Arrow Disappears</td>
</tr>
<tr>
<td>Cycle Icon Flashes When Tie Cycle Starts</td>
</tr>
<tr>
<td>Possible</td>
</tr>
<tr>
<td>Cycle Icon Goes Solid Netting or Twine Starts</td>
</tr>
<tr>
<td>Possible</td>
</tr>
<tr>
<td>System Emits (2) Beeps When Tie Cycle Finishes</td>
</tr>
<tr>
<td>Possible</td>
</tr>
<tr>
<td>Open Baler Gate and Eject Bale</td>
</tr>
<tr>
<td>Possible</td>
</tr>
<tr>
<td>Close Baler Gate After Bale is Ejected</td>
</tr>
<tr>
<td>Possible</td>
</tr>
<tr>
<td>System Cycle Is Completed, Go Arrow Re-appears {System Emits (1) Beep}</td>
</tr>
</tbody>
</table>
Chapter 6 – Operation

MANUALLY BUILDING A BALE TO TEST AUTO–ELECTRIC CONTROL SYSTEM

Preparation

Under certain conditions it may be necessary to test the Auto–Electric Control System by manually simulating the building of a bale. To simulate building a bale, proceed as follows:

1. Secure the Baler in a safe, stable and level location to avoid any inadvertent repositioning of the machine. The Tailgate should be in the closed and latched position.

2. Disconnect the Baler Driveline from the tractor and place the tractor end of the Driveline onto the Driveline Support provided on the Baler.

Required Equipment

3. The following equipment is need to be able to perform the simulated bale:
   a. A 12 Volt DC power supply capable of delivering a 20 ampere flow.
   b. Two people capable of spinning the Twine Wheels.
   c. One small magnet.

4. Connect the Auto–Electric Control System to the 12 Volt DC power supply. Check that all Wiring Harnesses are securely fastened.

5. Become familiar with the Auto–Electric Control System as described in the Operation chapter of this Operator’s Manual. Refer to the Operation and Troubleshooting chapters of this manual if problems occur during the following procedure.

6. Power up the Auto–Electric Control System by pressing and holding the Power Key.

Machine Operating Codes

7. Check that the Control System is programmed for the correct Baler model. Press “+” and “MANUAL/AUTO” simultaneously (NOTE: + will increase the code and – will decrease the code). Select “+” or “–” until the correct code that matches your Baler appears in the display. See the following table to determine the correct code. Press “ENTER” Key.

<table>
<thead>
<tr>
<th>Code #</th>
<th>Baler Model &amp; Wrap System</th>
</tr>
</thead>
<tbody>
<tr>
<td>cd1</td>
<td>1475 with Twine Wrap ONLY</td>
</tr>
<tr>
<td>cd2</td>
<td>1475 with both Twine &amp; Quick Wrap</td>
</tr>
<tr>
<td>cd5</td>
<td>1875 with Twine Wrap ONLY</td>
</tr>
<tr>
<td>cd6</td>
<td>1875 with both Twine &amp; Quick Wrap</td>
</tr>
</tbody>
</table>

Select “AUTO” Mode

8. If the word “AUTO” does not appear on the top of the display, select the “MANUAL/AUTO” Key. After the flashing “AUTO” icon appears on the display, select the “ENTER” Key. The display should appear as follows:

NOTE: It is important to have an arrow displayed in front of the “BALER” icon to indicate that everything is functioning properly.

Program “BALE SIZE”

9. Select the “BALE SIZE” Key. The words “BALE SIZE” should appear flashing in the lower portion of the display. Push “+” or “−” (“+” to increase, “−” to decrease) until 3.00 appears in the display. Press the “ENTER” Key within 5 seconds to save the 3.00 foot bale diameter value.

Select Wrapping System

10. If the Twine icon is not showing on the top of the display, push the “TWINE/NET” Key and the Twine icon should appear on the top of the display. Press the “ENTER” Key within 5 seconds to save the Twine Tying mode.

Program Twine Wrap Density

11. Press the “−” Key. This will display the current value for the twine application and a flashing “WRAP” icon will appear on the bottom of the display. Use the “−” Key to toggle the twine density to 1. Press the “ENTER” Key within 5 seconds to save the value.
Building a Bale

12. If the “GO ARROW” appears in the front of the Baler icon, you can proceed to build a bale. To build a bale, toggle the Bale Size Sensor up and down. The Bale Size Sensor is located on the left side of the Baler in the top front corner. The Sensor pivots about the Shuttle Stabilizer Sprocket. Each time the red light on the cord end of the Sensor flashes, a count is being registered. After 9 counts, the Bar Graph on the display should begin to grow. Continue to toggle the Sensor. When the Bar Graph reaches the 2-1/2 foot mark, one (1) audible signal will sound and the Bar Graph will flash on and off. Keep toggling the Bale Size Sensor until three (3) audible signals are sounded and the “CYCLE” icon appears in the upper right hand corner of the display (the “GO ARROW” will also disappear). At this point, the Twine Arm should extend and point directly to the back of the Baler while pausing.

13. The Twine Arm will remain at the pause position until one of the following conditions occur:
   a. If both twines have started on the bale (accomplished only when both Twine Wheels have rotated simultaneously), the Twine Arm will advance to the left side of the Baler to apply end wraps and then proceed to “home” while making intermittent stops.
   b. If, within 15 seconds, only one twine starts on the bale (accomplished when only one Twine Wheel rotated), the Twine Arm will still wrap the bale, but with only one string. Once the wrapping mode is completed, an E-1 error code will display on the control indicating that the bale was wrapped with only one twine. The operator then has the option to correct the problem and rewrap the bale by pressing the “CYCLE” and “ENTER” keys or to eject the bale with only a single twine.
   c. If, after 15 seconds, neither twine has started on the bale (accomplished when neither Twine Wheel rotated), an E-3 error message will display on the control and the Twine Arm will return to the home position.

Open Tailgate

14. Simulate opening the Tailgate by passing a magnet past the Tailgate switch. The “TAILGATE” icon should appear and then disappear when the magnet is removed. The Bale Size Bar Graph should have also disappeared, the Bale Count incremented by one, and the “GO ARROW” icon should have reappeared in front of the “BALER” icon.

QUICK WRAP GENERAL INFORMATION (Fig. 40)

By design, either 1475 or 1875 Auto-Electric Balers can be operated with either the Quick Wrap System or the Twine Tie (Wrap) System.

NOTE: In either case, only one or the other bale wrapping system can be operated at a time. Refer to this Operator’s Manual for Twine Tie System operational information.

Quick Wrap Roll Selection

NOTE: For best results, it is recommended that ONLY high quality, GEHL approved Quick Wrap material be used.

Quick Wrap Roll Care

Quick Wrap material should always be properly protected from moisture and damage. Snags in the material can result in unpredictable performance, poor bale appearance and reduced weatherability. BE SURE to store the Quick Wrap material in a cool, dry place away from direct sunlight. The protective covering should remain intact until the roll is placed onto the Quick Wrap Tailgate.

Quick Wrap Roll Installation (Figs. 41 & 42)

WARNING

When installing the net roll, take care to avoid pinching your fingers between the rubber drive rollers.

Fig. 40: Quick Wrap Unit Installed on RB1870 Baler

Fig. 41: Quick Wrap Unit Installed

1 – Rewrap Bar Lock
2 – Rewrap Bar Locked in Position Toward Rubber Pinch Roller
3 – Normal Net Routing
4 – Plastic Pipe
5 – Net Roll in “Operating” Position
6 – Knife Shield

Fig. 41: Quick Wrap Unit Installed
QUICK WRAP OPERATION

Principle of Operation

While operating the Baler to build the bale, the wrapping system is NOT operating. When the bale reaches 6” (152mm) before the predetermined size, the Tractor Module Bale Size Bar Graph will flash and a single beep will be heard. Continue baling until the Bale Size Bar Graph becomes a solid line and the System beeps three times. Stop forward travel IMMEDIATELY and back up a few feet. After shifting the tractor to park or neutral, continue to run the PTO. The Tractor Module Go Arrow will disappear and the “CYCLE” icon will begin to flash.

NOTE: Forward travel MUST be stopped IMMEDIATELY to prevent the crop from being placed on the outside of the Net material.

When the wrapping cycle begins, the Electric Actuator will extend causing the Knife Blade Holder to rotate the Blades away from the Front Guide assembly and release the end of the Netting. In addition, as the Blade Holder rotates, it drives the Rubber Drive Roller by means of a one-way overrunning clutch, to advance the Netting towards the Feeder Belts. The Feeder Belts will sandwich the Netting between the (bale forming) Belts and the Feeder Belts and carry the Netting toward the bale. The “CYCLE” icon will go solid. As the net is feeding onto the bale, the one-way clutch will be overrunning on the blade holder shaft. The last 1-1/2” (37 mm) of the Actuator stroke will cause the Pivot Plate to compress the Spring on the Brake Tension Arm. The Brake will then increase the drag on the Drive Roll and increase the Netting tension. There is also a Sensor mounted on the right side of the Steel Drive Roll which measures the amount of Netting placed on the bale. When the correct amount of Netting has been distributed, the Actuator will be retracted. While the Actuator is being retracted, the Strap (Fig. 43) will hold Spring tension to maintain proper Netting tension. At the end of the Actuator retraction cycle, the Brake will be released, the Blade will cut and hold the Netting and the “CYCLE” icon Indicator will extinguish and the System will beep twice indicating the tying cycle is completed.

NOTE: It may be necessary to back up several feet before ejecting the bale to allow room to close and latch the Tailgate without contacting the crop windrow.

The bale can now be ejected and the bale formation process can be restarted. As the End Gate is opened and
the bale is ejected, the “BALER” icon displays an open End Gate. As the End Gate is closed, the “BALER” icon displays a closed End Gate. When the System is recycled and ready to bale, the “BALER” icon will display the Go Arrow and the System will beep once.

The Baler can be operated with either a conventional Twine Tie system or the Quick Wrap system. For the Twine Tie system, refer to information provided in the Auto-Electric Control topic of the Operation chapter of this Operator’s Manual.

Wrapping The Bale

At least two complete wraps should be used for normal baling conditions. More wraps may be required for different conditions or to increase bale weatherability. To adjust the number of wraps, depress the “+” or “–” key on the Tractor Module. A numeric value indicating the approximate number of wraps will appear in the display along with the flashing “WRAPS” icon. To increase the number of wraps per bale, depress the “+” key, followed by the “ENTER” key. To decrease the number of wraps per bale, depress the “–” key followed by the “ENTER” key. The amount of wraps per bale can be adjusted from 1.25 to 9.75 wraps in 0.25 wrap increments.

When the bale size is changed, it WILL NOT be necessary to adjust the amount of wraps to compensate for the change in size. The system automatically compensates for the changes in bale size and PTO speed.

Use the following charts as a guide for selecting the number of wraps for a given crop:

<table>
<thead>
<tr>
<th>Crop Material</th>
<th>Number of Wraps Per Bale</th>
<th>Bale Diameter in Feet</th>
<th>Number of Bales Per 3,000 Meter Roll of Net Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hay</td>
<td>2 to 2-1/2</td>
<td>5</td>
<td>200 to 235</td>
</tr>
<tr>
<td>Straw</td>
<td>2 to 2-1/4</td>
<td>5</td>
<td>215 to 235</td>
</tr>
</tbody>
</table>

Table of Recommended 1785 Wraps

<table>
<thead>
<tr>
<th>Crop Material</th>
<th>Number of Wraps Per Bale</th>
<th>Bale Diameter in Feet</th>
<th>Number of Bales Per 2,000 Meter Roll of Net Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hay</td>
<td>2 to 2-1/2</td>
<td>6</td>
<td>130 to 170</td>
</tr>
<tr>
<td>Straw</td>
<td>2 to 2-1/4</td>
<td>6</td>
<td>150 to 170</td>
</tr>
</tbody>
</table>

Unplugging (Figs. 41 thru 45)

To unplug the Quick Wrap Attachment, proceed as follows:

1. Exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (Page 10).

2. Locate the source of the plugging. The most likely place to look is in the area of the Quick Wrap Drive Roller and Knife. If Netting should wrap around the Rubber Drive Roller, the Actuator should be in the fully retracted position before attempting to unwrap the Rubber Drive Roller. It is best to cut the Netting the entire length of the Rollers. BE SURE NOT to cut into or damage the Rubber Drive Roller. After the Netting is cut, rotate the Rubber Drive Roller by hand while pulling the cut Netting free from the Roller. It may also be neces-
sary to remove the Knife Shield (Fig. 41) and Rear Guide Assembly to access the plugged area. Check to make sure that the Chute area, between the Drive Rollers and the Feeder Belts, is free from obstructions, allowing the Netting to drop down to the Feeder Belts. If necessary, re-install the Netting following the Quick Wrap Roll Installation procedure in this chapter.

Material Removal From Pinch Rollers (Figs. 43 & 44)
Perform the following steps if the Pinch Rollers become wrapped with Netting:
1. Remove the wrapped material by gathering the ends in your hand and pulling.
2. Check the Rollers for any rough edges or protrusions and file down, if necessary.

NOTE: It may be necessary to readjust the Drive Roller Chain if the Pinch Roller tension has changed.
3. Reroute the Net end per the detailed information provided in Fig. 41 and on the decal located inside the Tailgate cover.
4. Close all Shields and secure all Latches.

EJECTING THE BALE

WARNING
Bales made with the Round Baler are LARGE, CYLINDRICAL and HEAVY! When ejected on a flat surface, the momentum of the bale coming off the bale discharge ramps, could carry the bale as far as 10 feet (3 m) behind the baler. On a hill or incline, this distance could be much farther. Serious personal injury or property damage could result if the bale is ejected toward a sloping surface and allowed to roll away uncontrolled!

The following procedure should be followed, in sequence as described, for ejecting a bale:
1. Stop the PTO (if desired) and back the Baler a short distance away from the windrow.

NOTE: Stopping the PTO, while opening the Rear Gate, will result in a neater looking bale.
2. Activate the tractor hydraulic control lever and fully extend Gate Cylinders to open Rear Gate.
3. If necessary, engage the PTO at a very low RPM and the bale will roll off the lower Rollers.
4. With the PTO running at low RPM, drive the Baler ahead and close the Rear Gate by retracting the Gate Cylinders.

IMPORTANT: When removing the wrapped (plugging) material from the Rollers, NEVER cut into Rubber Roller or Belts with a knife. Cuts in Roller or Belts will cause more frequent wrapping problems and necessitate Roller and/or Belt replacement.
IMPORTANT: BE SURE to fully retract the Gate Cylinders to allow the Gate Latches to engage and lock. The PTO should be kept running while closing the Gate to reduce the possibility of Belt damage and to help prevent the Bale Starter from hanging up on the Belts. Before proceeding to start forming another bale, check to see that the Bale Starter is in the “down” position.

BALE COUNTER (Fig. 46) (Manual Twine Wrap System Only)

The Manual Control Baler is provided with a Bale Counter which indicates the number of times the Gate has been opened to discharge a bale. The Bale Counter is located behind the large Hinged Covers on the right side of the Baler.

OVERLOAD PROTECTION SHEAR BOLTS (Fig. 47)

The Baler Drive Line is protected with one 1/4 x 1-1/2” Shear Bolt, sheared through the base of the Bolt Head.

On 540 RPM model Balers, replacement Grade L9, 1/4 x 1-1/2” Shear Bolts are available in packaged quantities of (8) per package by ordering part number 095141.

On 1000 RPM model Balers, replacement Grade 5, 1/4 x 1-1/2” Shear Bolts are available in packaged quantities of (8) per package by ordering part number 900084.

WARNING

ALWAYS use genuine GEHL replacement service parts to assure safe operation of the Baler.

IMPORTANT: To prevent the Pilot Shaft from seizing, the Shear Flange MUST BE GREASED before a new Shear Bolt is installed and the Baler is operated. Refer to the Lubrication chapter for details. BE SURE to remove the cause of the overload before restarting the Baler.

Four extra Drive Line Shear Bolts and Lock Nuts are provided in the Shear Bolt Holder which is located inside the Left Twine Box.

NOTE: Refer to the Optional Features and Accessories chapter of this manual for part number to order additional Shear Bolts.

NOTE: In order to achieve proper Bolt shearing, the Shear Bolt Must be installed so that the Bolt shears through the body of the Bolt and not the threads. See Figure 47.
UNPLUGGING & TRASH REMOVAL (Figs. 48, 49 & 50)

If the Baler becomes plugged, the following procedure MUST be used to safely clear the Baler:

1. Back out of the windrow.
2. Disengage the tractor PTO and open the Tailgate.
3. Exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (Page 10).

DANGER

ALWAYS exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE before unplugging or removing trash from the baler.

4. Lock Tailgate open by turning or depressing Gate Cylinder Lockout Valve (See Figs. 5 & 7).
5. Remove the Windguard. The Windguard is a quick disconnecting Guard that can be removed by pulling out and rotating the Windguard Retaining Lever 90°. The Windguard Retaining Lever is located on each side of the Hitch.
6. Pull out loose material from on top of plugged material.
7. When the plug occurred, the Pickup probably continued to run and balled up material on top of the Pickup. Pull the material out from the underside of the in-going windrow between the windrow and the Pickup.
8. When the material becomes hard to pull out/off of the Pickup, place the Reversing Wrench on the Cross Shaft and press downwards on the Wrench (Fig. 49). This will rotate the Pickup and Packing Rolls backwards, backing the material out of the pinch points between the Packing Roll and Pickup.
9. If you have been successful in unplugging the Baler in Step 8., proceed to Step 10. Occasionally you may be unable to reverse the Baler by hand using the Reversing Wrench. In some cases, it will be necessary to eject the partially completed bale in order to gain access to the inside of the Baler. When this occurs, the following steps MUST be followed:
   a. Remove the Reversing Wrench and return it to its proper storage position.
   b. Reconnect the PTO disconnected in Step 3.
   c. Start tractor, engage PTO and eject the partial bale that is formed in the Chamber. The partial bale can be unrolled and re-baled.
   d. Again exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (Page 10).
   e. With the baling chamber cleared, go under the raised and locked Tailgate and remove as much material as possible from the rear of the Baler. Now, using a bar or long wooden pole, bump material from between the Packing Rolls, forward, toward the tractor. NEVER use your hands or feet to clear crop from this position.

WARNING

NEVER go under a raised tailgate without first placing the gate cylinder lockout valve in the locked position. See Figs. 5 & 7 for details.

WARNING

DO NOT put your hands or feet between the packing roll and lower feed roll. NEVER use your hands or feet to dislodge crop from between the packing roll and lower feed roll. The packing roll is spring loaded downward and will entrap you.

10. After material is unplugged from the Packing Roll/Pickup area, remove any trash that may have built up on top of the belts or on top of the Starter Finger Assembly.
11. Rotate the Starter Finger Assembly upward by hand making sure that none of the Fingers make contact with the Stripper Roll. If any of the Fingers touch the Stripper Roll, they MUST be straightened BEFORE operation can continue.
12. AFTER unplugging, replace the Windguard, place the Gate Cylinder Lockout Valve in the open position and return the Reversing Wrench to its proper storage position.
13. Go through the proper start-up procedure, engage tractor PTO at a low RPM and close and latch the Tailgate.

NOTE: If the Baler is equipped with an Auto-Electric Control System, the “GO ARROW” icon MUST be visible on the Tractor Control Module BEFORE baling can resume. If the “GO ARROW” icon is NOT visible, with the PTO running, open and close the Tailgate again.

If obstruction is ahead of the Packing Roller but NOT wrapped on the Roller, check to see if the Pickup V-Belt is slipping and that the Windguard Tines are restricted from being raised higher than the center of the Packing Roller. Also, try varying your ground and PTO speeds to find a more suitable combination for the crop being baled. This condition can be encountered when baling dry straw, cane or corn stalks. To improve operation in these crops and conditions, a Packing Roller Lagging Kit is available. See the Optional Features & Accessories chapter of this manual for additional information.
**CHAPTER 7**

**ADJUSTMENTS**

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**WARNING**

BEFORE adjusting this unit, exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 10).

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**AXLE HEIGHT** (Fig. 51)

The Baler Axle height can be adjusted to four different levels by repositioning and/or rotating the Spindle assemblies. The factory set height shown is appropriate for most normal field conditions. By rotating the Spindle assemblies 180°, the Baler can be lowered approximately 3-3/4" (95 mm). This setting may be useful when using a tractor with a high drawbar ground clearance. The Baler is shipped in the second highest possible setting.

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**BALE DISCHARGE RAMPS** (Fig. 51)

Bale Discharge Ramps are mounted to the back of the Baler Axle and provided to facilitate ejecting a formed and tied bale. To accommodate different crop and field conditions, the Ramps can be mounted in either of four locations, using the holes provided. When baling certain wet crops, it may also be necessary to remove the Ramps to facilitate ejecting the bale.

---

**WARNING**

Bales made with the Round Baler are LARGE, CYLINDRICAL and HEAVY! When ejected on a flat surface, the momentum of the bale, coming off the bale discharge ramps, could carry the bale as far as 10 feet (3 m) behind the baler. On a hill or incline, this distance could be much farther. Serious personal injury or property damage could result if the bale is ejected toward a sloping surface and allowed to roll away uncontrolled!

---

**BALE STARTER** (Figs. 52 & 53)

The Bale Starter device is a set of Fingers that are located between the Belts and behind the Packing Roller. They deflect material and keep it from coming out over the top of and wrapping on the Packing Roller, when starting a bale. The Fingers are part of a movable assembly which is held by Pivoting Links and positioned by a Roller. Springs on each side of the movable assembly return the assembly to a starting position after each bale is ejected. The Roller rides on the Belts and is positioned by the bale.

**IMPORTANT:** Before starting to form each new bale, look back at the Baler to make sure the Bale Starter Assembly has returned to its starting position. It is possible that material which is wedged in the Links and worn Pivot Bushings or bent linkages can cause the Starter to hang up.
BELT GUARD (Fig. 54)

The Front Belt Guard should be maintained at a position of 1/8 to 1/4” (3 to 6 mm) away from the Belts.

WARNING

NEVER operate the baler unless the front belt guard is in place and properly adjusted.

CHAIN IDLERS (Fig. 55)

The Baler has only one adjustable Spring-loaded Idler which is located on the Roller Drive. This adjustment is provided to compensate for normal Chain wear. The Idler tension should be checked after every 50 hours of operation and readjusted, when required. The Idler tension is controlled by a Compression Spring that is adjusted to a length of 6-3/4 to 8” (172 to 203 mm). A clearance of 2” (51 mm) between the Mounting Bracket and the Spring Guide Head must also be maintained.

GATE LATCH LIFT RODS (Fig. 56)

To properly adjust the Gate Latch Lift Rods on either side of the Gate, simply close the Gate and adjust the position of the nut on each Rod so that, with the Gate Hooks resting on the Locking pins, there is a 1/16” (1.5 mm) clearance between the Nuts and Barrel Spacers on each side of the Gate. Then, open the Gate and close it again to check for correct latching; readjust if necessary. For additional information, refer to the following Gate Stop topic.
GATE STOPS (Fig. 57)

The position of the Gate Stops, which are located on each side of the Baler Frame, can be adjusted by adding or removing Shims. Gate Stop adjustment is only required if some of the Gate components have been replaced. If necessary, shim each side so that, with the Gate closed, the Gate Latches are ahead of the Latch Pins by a measured distance of 1/8” (3 mm).

NOTE: After Gate Stops have been adjusted, it may also be necessary to readjust the Gate End Roller position. Refer back to the Gate End Roller topic in the next paragraph.

GATE END ROLLER (Fig. 58)

The Gate End Roller can be adjusted by means of the 1/2” Bolts (3 for 1475 or 2 for 1875) and (1) 5/16” Bolt on each side of the Gate. The 1/2” Bolts are installed in slots and the 5/16” Bolt can be positioned in any one of a series of holes to vary the position of the Roller. The Roller should be adjusted and maintained at a position of 1/2 to 1” (13 to 25 mm) from the 16” Lower Drive Roller. This distance should be increased to 1 to 1-1/2” (25 to 38 mm) for Balers with the Quick Wrap.

NOTE: The Tailgate MUST be tight against the stops before making adjustment. (See Fig. 57)

IMPORTANT: BE SURE that the Roller is set to the same position on both sides of the Gate, as determined by the 5/16” Bolt pattern. Also, BE SURE that the Right and Left Gate End Roller Support Arms are kept parallel to each other to insure proper Belt tracking.

OVERRUNNING CLUTCH SPROCKET (Fig. 59)

The Scraper Roller Overrunning Clutch Sprocket assembly gives positive drive to the Roller while allowing for slight differences in the Roller and Belt speeds. To check for freedom of rotation, with the Baler empty, shuttle locks engaged, and Baler disconnected from the tractor, use a 3/4” wrench and rotate the cap screw clockwise. The Overrunning Clutch should rotate without rotating any of the other drives. The Clutch is a self-contained unit and can be removed by removing the retaining cap screw.

NOTE: If the Clutch needs to be removed, block Gears on the opposite side of the Baler with a block of wood.

PACKING ROLLER CLEARANCE (Figs. 59 & 62)

The purpose of the Packing Roller is to compress the material which is entering between it and the 8” Lower Roller. The Packing Roller is spring-loaded and driven from the left side of the machine. Clearance between the lower 8” Roller and the Packing Roller should be set at 1/4” (6 mm). This setting is made with the 1/2” Bolts on the end of the Packing Roller Roll Arms on both sides of the Baler. This clearance should be checked on a routine basis every 100 hours. The Packing Roller Tension Spring lengths, on both sides of the machine, should be set to 9” (229 mm). For lighter, fluffier crops, the clearance should be opened up and the spring tension should be reduced.
Chapter 7 – Adjustments

1 – Scraper Roller Overrunning Clutch Sprocket Assembly
2 – Packing Roller Arm 1/2" Adjustment Bolt
3 – Scraper Roller Overrunning Clutch Retaining Cap Screw

Fig. 59

IMPORTANT: The Spring which places tension on the Packing Roller is guided by a Rod with a threaded end. The threads are provided to enable Spring installation in a compressed state. Make sure that the Nut on the threaded Rod is NOT holding the Packing Roller open which could result in damage to the Spring Bracket.

PICKUP (Fig. 60)

The Baler Pickup should be run as high off the ground as possible while still being able to completely pick up all of the crop. A Hand Crank is provided to raise and lower the Pickup. If a Hydraulic Lift Kit is installed, the lower limit of the Pickup is controlled by the Hand Crank. To set clearance, lower the Hand Crank and Hydraulic Lift Cylinder all the way. Set ground clearance with the manual Hand Crank. The Pickup height can also be adjusted by repositioning the Lift Rods (Fig. 63) into a different hole location. This adjustment may be required if the axle and Hitch Tongue have been positioned in the extreme higher or lower position.

NOTE: The Hand Crank setting overrides the Hydraulic Lift Cylinder if the Lift Cylinder is retracted.

NOTE: The Pickup is raised by turning the Hand Crank in a clockwise direction and lowered by turning the Hand Crank in a counterclockwise direction.

PICKUP FLOTATION SPRING (Fig. 61)

The Pickup Flotation Spring is located on the front right side of the Baler. The flotation is set at the factory for a Baler not equipped with Crowder Wheels. The Extension Spring should be stretched to 11” (280 mm) Hook to Hook when the Pickup is in the “up” position.

If Crowder Wheels are added to the Baler, it will be necessary to increase the spring tension to achieve the desired Pickup flotation.

PICKUP DRIVE (Fig. 62)

The Pickup is driven by a V-Belt from the 8” Lower Roller. The Belt Drive will slip in the event of an
overload. Spring tension on the Idler can be changed by repositioning the Spring Hooks and adjusting the Bracket on the lower back end of the Spring.

**NOTE:** V-Belt wear and stretching should be checked on a periodic basis to avoid affecting Overfill Clutch mechanism operation.

**IMPORTANT:** Excessive Cable tension will mean inadequate V-Belt tension and result in excessive V-Belt wear and Pickup slippage. Too little Cable tension will cause the Overfill Clutch to malfunction and thus NOT protect the Baler. The first bale made, after the Overfill Clutch mechanism is adjusted, should be observed in its final stages with a cautious eye to insure that the mechanism is functioning properly.

**WINDGUARD (Fig. 63)**

The Windguard for the Pickup has a Limit Stop adjustment. The Limit Stop adjustment consists of two 5/8" Hexagon Head Cap Screws located on either side of the hitch frame. The Cap Screws are used to set the upper limits of Windguard travel. Normal settings will restrict the Windguard Tines from being raised any higher than the center of the Packing Roller.

**WARNING**

NEVER operate the baler unless the windguard is in place and properly adjusted.

**SCRAPER (Figs. 52 & 64)**

The Lower Drive (Scraper) Roller for the Belts is provided with an adjustable full-width Scraper to help prevent material build-up on the Roller. The Scraper MUST be set close to enable full-width cleaning. To
adjust the Scraper Blade, loosen the 5/16" attaching hardware on the bottom of the Blade. Then, tap the Blade into contact with a 1/16" (1.5 mm) piece of shim stock against the Roller. Then, tightly secure the 5/16" hardware. The Blade itself will wear and may require replacement after a period of extended Baler use. Contact your GEHL dealer for the replacement Blade part number.

**IMPORTANT:** Inspect the Scraper adjustment on a routine basis every 50 hours of operation. If the Scraper is NOT adjusted correctly, material will build up on the Roller and cause excessive horsepower requirements.

In certain short or very dry straws or grass conditions, bale starting may be improved by slackening the Belts during the core formation stage. The Shuttle Stops are provided to enable slackening the Belts, when required. Rotate the Shuttle Stop Bolt on each end of the Shuttle assembly equally to move the Shuttle rearward. 1” (25 mm) of rearward Shuttle movement results in approximately 4” (102 mm) of slack in the Belts.

### SQUARING BELT SHUTTLE
(Figs. 62 & 65)

It is essential that the Belt Shuttle be square with the Baler Frame and the Belt Tracking Roller be properly adjusted (per topic titled “Belt Tracking & Alignment”) so that the Belts track evenly. To check for Shuttle squareness, measure from a crossmember on the top front of the Baler to the right and left end of one of the Shuttle Roller Tubes. To square the Belt Shuttle, have the Baler empty and the Rear Gate closed. Adjust squareness with the Bolt on the left end of the Shuttle. If the Adjustment Bolt will NOT square the Belt Shuttle, it will be necessary to change the Index position of the Keyed Sprockets that connect the left and right Density Cylinder Loading Chains. Use the following procedure for adjustment:

1. Determine the direction in which the Cylinder Loading Chain needs to be adjusted. Remember that the two Sprockets for the Chain tension are keyed to a common Shaft.

2. Depressurize the TDC system. Fully loosen or remove the Valve Stem located on top of the Reservoir. DO NOT retighten until ready to pressurize.

3. Remove the Trip Spacer from the Cylinder Trip Arm. This is done to prevent accidental actuation of the Valve Trip Mechanism (covered later in this chapter).

4. Advance the No. 60 Cylinder Loading Chain the necessary amount and readjust belt to square Shuttle.

5. Replace and/or tighten Valve Stem and pressurize to 140-150 PSI (980–1050 kPa).

6. Replace the Trip Spacer on the Trip Arm. Check to make sure that it will contact the spring loaded Valve Trip Mechanism when baling resumes.
TWINE TIE SYSTEM

Twine Placement (Figs. 66 & 67)

To adjust twine placement on the left-hand side of the Baler:

1. Extend the Actuator until the Twine Arm approaches the left side.
2. Loosen the Jam Nut on the Stop Bolt located on the left side of the Twine Tie Frame Assembly.
3. Extend the Stop Bolt to stop the Twine Arm closer to the center of the bale and retract the Stop Bolt to allow the Twine arm to travel closer to the left side of the bale.
4. Secure the adjustment by tightening the Jam Nut.

Twine Tail Length (Fig. 67)

To change the length of the twine tails, adjust the Jam Nuts on the end of the Spring Slide Rod. Loosening the adjustment lengthens the tails and tightening the adjustment shortens the tails.

NOTE: It is possible to loosen the Jam Nuts so far that the Clamp Jaws will not clamp twine. Verify Clamp Jaw operation before resuming baling.

Twine Tension (Fig. 68)

(Manual & Automatic Twine Balers)

The twine tensioning device is located on either side of the bale behind the front side doors. To increase the twine tension, rotate the insulator so the twine route follows a “Z” shaped path.

Clamp Jaws (Figs. 67 & 69)

Latch Position

To properly adjust the Clamp Jaw Latch position:

5. Fully extend the Actuator. Then, adjust the Spring Slide Rod so the Clamp Jaw Pivot Rod rotates below the Catch on the Trip assembly. When this position is obtained, tighten the Jam Nuts.
Chapter 7 – Adjustments

Latch Tension

To adjust the Clamp Jaw Latch tension:

6. Rotate the Lock Nut on the Clamp Jaw Pivot Rod. The tighter the Spring is compressed, the greater the tension on the twine. Adjust the Spring to a length of 1-1/2” (38 mm).

NOTE: It may be desirable to install Clamp Jaws with the flat edge up if problems occur using plastic twine.

Manually Opening Clamp Jaws (Fig. 69)

At times, it may be necessary to open the Clamp Jaws to insert or clear the twine. To open the Jaws, place a 3/4” box or open end wrench on the two 1/2” Jam Nuts on the Clamp Jaw Pivot Rod and turn. Figure 69 shows an early production Clamp Jaw Pivot Rod with a single Lock Nut.

BALE FORMING BELTS

Tension Adjustment (Figs. 54 & 62)

The tension of the Belts and subsequent bale density is controlled by the hydraulic TDC system. Belt tension can be varied by changing the Relief Valve pressure setting. Belt tension and bale density is increased by turning the Valve Cartridge End Disc clockwise into the Cartridge. To obtain the proper setting, rotate the End Disc clockwise all the way in, then back it off 2 turns. To fix this setting, rotate the Locking Ring clockwise until it is tight against the Valve Body.

When the Baler is manufactured, Belt tracking is set at the factory. This setting, however, may require adjustment after the paint is worn off and the Belts are broken in. After the Baler has made at least 50 bales, adjust Belt tracking in the following manner:

1. Make sure Shuttle is square and Tailgate is closed and latched. Take note first, as the bale is forming, if all of the Belts tend to travel to one side. If they do, form the next bale to about half-size and stop baling. After exercising the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 10), reposition the Belt Tracking Roller. Make sure that, before proceeding, the half-size bale is uniform and NOT barrel or cone-shaped. Then, by a test and readjust process, reposition the Tracking Roller until all of the Belts are NO longer rubbing on the Belt Guides; lowering the right side of the Roller will cause the Belts to travel to the left. After each 1/8” (3 mm) of Roller repositioning is made, tighten the Retainer hardware and watch how the Belts are tracking through at least 3 complete revolutions of the belts before stopping operation and continuing to readjust the Roller position.
2. Interchanging Belt positions may also improve Belt tracking. This process, however, is somewhat more difficult since it requires removing the Belts from the Baler in order to change Belt positions routed through the Belt Guide and around appropriate Rollers.

**NOTE:** Improper bale formation may give an erroneous indication of faulty belt tracking. See “Bale Formation” topic in the Operation chapter for details.

![Diagram](image1)

**NOTE:** Whenever Belt Lacings are uncoupled, BE SURE to re-couple the Belt so the end with extra Hooks stays on the leading end as illustrated.

**Rear Gate Belt Guide (Figs. 70, 73 & 74)**

To help improve Belt tracking, both model Balers are provided with a Rear Gate Belt Guide. The mounting position of the 1475 Belt Guide is fixed (non-adjustable). The 1875 Belt Guide is mounted in slotted holes. Therefore, the Belt Guide can be adjusted and secured in a position from 1/16 to 1/4” (1.5–6 mm) away from the Belts as shown.

![Diagram](image2)

**VALVE TRIP MECHANISM (Fig. 74)**

The Valve Trip Mechanism can be used to independently adjust the air pressure controlled bale core diameter. To increase the softer core diameter adjust the Trip Spacer to a lower hole.

**NOTE:** For additional details on the advantages of making a Trip Arm or Trip Mechanism adjustment, refer to the Bale Formation & Storage Tips topic in the Operation chapter.
AUTOMATIC TWINE WRAP SYSTEM SWITCH ADJUSTMENTS

Bale Size Adjustment (After SN25000–1475 & SN17900–1875)(Fig. 75)

While a bale is forming in the bale chamber, the Shuttle Chain (4) causes the Cylinder Rod (3) to extend. As the bale approaches full size, the Magnet (2) comes close to the Sensor Assembly (1). This closes the Sensor Switch contacts and starts the bale tie sequence.

The size of the bale is determined by the position of the Magnet in the slotted Bracket (5). To make larger diameter bales, loosen the Knurled Nut on the Magnet and slide the Magnet downward in the slot. Then tighten the Nut.

Bale Size Sensor to Magnet Gap Adjustment – Early Style Balers ONLY (Fig. 76)

While a bale is forming in the bale chamber, the Shuttle Chain (7) causes the Density Cylinder Rod (5) to extend. As the bale approaches full size, the Magnet (1) attached to the Cylinder Rod comes close to the Bale Size Sensor Assembly (2). This closes the Switch contacts and starts the bale tie sequence.

If the tie sequence does not begin automatically when the bale chamber is full, it may be necessary to adjust the gap between the Bale Size Sensor (2) and the Magnet (1). To adjust the gap to factory specifications (3), either install field fabricated shims between the Sensor and Mounting Bracket (4) or slightly bend the Sensor and Magnet Mounting Brackets as necessary.

Bale Size Adjustment – Early Style Balers ONLY (Fig. 77)

The size of the bale is determined by the position of the Bale Size Sensor (2) in the slotted Bracket (1). To make larger diameter bales, slide the Sensor upward in the slot.
Chapter 7 – Adjustments

1 – Magnet
2 – Sensor Assembly
3 – 3/16–3/8 inch (5–10 mm)
4 – Sensor Mounting Bracket
5 – Left Density Cylinder Rod (Shown fully extended as it would be when a bale is ready for tying)
6 – Shuttle (Shown all the way toward rear of Baler – where it would be when a bale is ready for tying)
7 – Shuttle Chain

Fig. 76: Early Style Auto Twine System Bale Size Sensor-to-Magnet Gap Setting

1 – Mounting Bracket
2 – Bale Size Switch Assembly

Fig. 77: Bale Size Adjustment Detail for the Following Balers:
RB1475 – After SN24715 & Before SN25001
RB1875 – After SN17675 & Before SN17901
Tailgate Switch (Fig. 78)

1. When the Tailgate is latched, the Magnet will be rotated away from the Switch and the Switch should be in the open mode.

2. When the Tailgate is unlatched, the magnet will swing alongside the end of the switch. The end of the Magnet must be positioned 1/16 to 3/32" (1.6 to 2.4 mm) from the Switch to cause it to close. To move the Magnet, loosen the Clamp, slide the Magnet to the correct position and retighten the Clamp.

Switch Placement Adjustment (Fig. 79)

The Pause Switch must be positioned on the Twine Tie Frame so that the Cam/Pause Plate will pass midway between the Switch and Magnet. To adjust, loosen the two 5/16 Cap Screws and Hex Nuts on the Switch Mounting Bracket. Move the Bracket to obtain the correct position and tighten the hardware.

Righthand End Wrap Twine Placement Adjustment (Figs. 79 & 80)

To adjust the placement of the right hand end wraps:

1. Manually swing the Twine Arm to the desired position for placing wraps on the bale.

2. Loosen the 5/16 Hex Nut and Carriage Bolt which secures the Cam/Pause Plate to the bottom of the Actuator Arm Assembly.

NOTE:  When looking up at the End Wrap Cam/Pause Plate from the bottom of the Baler, move the Plate counterclockwise to place twine closer to the edge of the bale or clockwise to place twine further inward from edge of bale.  The factory sets the leading edge of the Plate at 1.1" (28 mm) from the Actuator Arm.  This setting will place the twine at approximately 4" (102 mm) from the edge of the bale (Refer to Fig. 80, Ref. 6).

3. Rotate the Cam/Pause Plate so that the Plate passes between the Magnet and Switch.

4. Tighten the 5/16 Hex Nut.

End Wrap Pause Switch (After SN24000-1475 & SN17500-1875)

Magnet to Switch Adjustment (Fig. 79)

The distance between the Switch and Magnet must be 1/8 to 3/16" (3.2 to 4.8 mm). To adjust, loosen the Hex Nut on the Magnet Mounting Bracket. Slide the Magnet up or down to obtain the correct distance and retighten the Hex Nut.
AUTOMATIC BALE CONTROL SYSTEM SWITCH ADJUSTMENTS

Tailgate Switch (Fig. 81)

1. When the Tailgate is latched, the Magnet will be rotated away from the Switch and the Switch should be in the open mode.

2. When the Tailgate is unlatched, the magnet will swing alongside the end of the switch. The end of the Magnet must be positioned 1/16 to 3/32” (1.6 to 2.4 mm) from the Switch to cause it to close. To move the Magnet, loosen the Clamp, slide the Magnet to the correct position and retighten the Clamp.

NOTE: The holes for mounting the Tailgate Switch are slotted. When installing a new Switch, make sure the Switch is positioned so that one end of it is near the Magnet as shown in Fig. 81.

3. Check the continuity of the Switch (using an ohmmeter or equivalent) by placing the tester leads on each terminal lead from the Switch. As the Magnet approaches the Switch, the Switch should close.

Bale Size Indicator Sensor (Fig. 83)

The distance between the input end of the Sensor and the tip of the Sprocket Tooth is to be 0.10 to 0.12” (2.5 to 3 mm). To adjust, loosen the Jam Nuts on either side of the Sensor Mounting Bracket, move the Sensor to the correct position and tighten both Jam Nuts against the Mounting Bracket. DO NOT overtighten the Nuts on the plastic threads.

NOTE: Moving the Sensor too close to or too far from the Sprocket Tooth will cause poor bale size count signals.
End Wrap Pause Switch (Before SN24001-1475 & SN17501-1875)

Magnet to Switch Adjustment

1. Switch to “MANUAL” mode and extend the Twine Arm until it is straight back. The cylindrical Magnet (2) on the Switch Assembly will rotate toward the Pause Switch (1). The end of the Magnet must be within 1/16 to 3/32” (1.6 to 2.4 mm) from the end of the Switch. To adjust, loosen the Nut (3) to move the Magnet to the proper position and tighten the Nut.

2. Disconnect the Pause Switch from the Wiring Harness at the Connector (4). Then, using an ohmmeter (or equivalent), check the Switch continuity by placing the test leads across the Connector terminals. Whenever the Magnet is close to the Switch, the Switch should close (have continuity).

Righthand End Wrap Twine Placement Adjustment

1. Switch to “MANUAL” mode and extend the Twine Arm until it is at the desired location for applying twine to the righthand side of the bale.

2. Disconnect the Pause Switch from the Wiring Harness at the Connector (Fig. 84, Ref. 4). Using an ohmmeter (or equivalent), check the Switch continuity by placing the test leads across the Connector terminals.

3. Loosen the hardware (Fig. 85, Ref. 1) which secures the Trip Bracket (Ref. 2) to the Twine Arm.

4. Slide the Trip Bracket away from the Switch Assembly so that the Switch is “closed” (has continuity).

5. Slowly slide the Trip Bracket toward the Push Lever (Ref. 3) until the Lever raises and the Switch just “opens” (has no continuity). Then, tighten the hardware which secures the Trip Bracket to the Twine Arm.

This is the setting that will cause the the Twine Arm to repeatedly pause and apply end wraps to the right side of the bale. To check this adjustment, proceed as follows:

6. Switch to “MANUAL” mode and extend the Twine Arm until it is beyond the desired End Wrap position.
7. Disconnect the Pause Switch from the Wiring Harness at the Connector (Fig. 84, Ref. 4). Using an ohmmeter (or equivalent), check the Switch continuity by placing the test leads across the Connector terminals. The Switch should be “closed” (have continuity).

8. Retract the Twine Arm (move it toward the HOME position) until the Switch just “opens” (has no continuity). The Twine Arm should now be at the desired position for applying the right End Wraps. If it is NOT correct, repeat Steps 1 through 5.

Clearance Between End Wrap Pause Switch and Twine Arm Adjustment

Clearance between the Push Lever (Ref. 3) and the tube portion of the Twine Arm should be approximately 1/8” (3.2 mm) as shown in Fig. 85, Ref.4.

To adjust:
1. Loosen the hardware securing the Switch Assembly to the Twine Frame.
2. Slide the Switch Assembly up or down to obtain the required clearance.
3. Tighten the hardware.

End Wrap Pause Switch (After SN24000-1475 & SN17500-1875)

Magnet to Switch Adjustment (Fig. 86)
The distance between the Switch and Magnet must be 1/8 to 3/16” (3.2 to 4.8 mm). To adjust, loosen the Hex Nut on the Magnet Mounting Bracket. Slide the Magnet up or down to obtain the correct distance and retighten the Hex Nut.

Switch Placement Adjustment (Fig. 86)
The Pause Switch must be positioned on the Twine Tie Frame so that the Cam/Pause Plate will pass midway between the Switch and Magnet. To adjust, loosen the two 5/16 Cap Screws and Hex Nuts on the Switch...
Chapter 7 – Adjustments

Mounting Bracket. Move the Bracket to obtain the correct position and tighten the hardware.

Righthand End Wrap Twine Placement Adjustment (Figs. 86 & 87)

To adjust the placement of the right hand end wraps:

1. Manually swing the Twine Arm to the desired position for placing wraps on the bale.

2. Loosen the 5/16 Hex Nut and Carriage Bolt which secures the Cam/Pause Plate to the bottom of the Actuator Arm Assembly.

NOTE: When looking up at the End Wrap Cam/Pause Plate from the bottom of the Baler, move the Plate counterclockwise to place twine closer to the edge of the bale or clockwise to place twine further inward from edge of bale. The factory sets the leading edge of the Plate at 1.1" (28 mm) from the Actuator Arm. This setting will place the twine at approximately 4" (102 mm) from the edge of the bale (Refer to Fig. 87, Rf. 6).

3. Rotate the Cam/Pause Plate so that the Plate passes between the Magnet and Switch.

4. Tighten the 5/16 Hex Nut.

Shuttle Return Switch (Fig. 88) (After SN25000-1475 & SN17900-1875)

1 – Sensor Assembly
2 – Overfill Magnet
3 – Cylinder Rod
4 – Shuttle Rod
5 – Slide
6 – Shuttle Return Magnet
7 – Nominal Factory Settings of 16-1/4” (413 mm) for 1475 & 22-1/2” (572 mm) for 1875

Fig. 88
When the shuttle is fully returned and the TDC cylinders are retracted, the Shuttle Return Magnet must be adjusted so that the Magnet is centered opposite of the Sensor Assembly. To adjust, loosen the Knurled Nut on the Magnet and slide the Magnet opposite the Sensor in the slot. Then tighten the Nut.

**NOTE:** As the belts stretch, the TDC cylinders should be able to retract further without being restricted by the Shuttle Return Magnet Assembly. Additional adjustment may be required.

While a bale is forming in the bale chamber, the Shuttle Chain causes the Cylinder Rod to extend. As the bale approaches full size, the Overfill Magnet comes close to the Sensor Assembly and closes the Sensor Switch contacts and starts the wrapping cycle. The Magnet is designed to only act as overfill protection as bale size is governed by the Bale Size Sensor (see Fig. 83). The Overfill Magnet Assembly should be adjusted so that the wrapping system will start before the Pickup declutches. This setting is nominally set at the factory to 16-1/4” (413 mm) for the 1475 and 22-1/2” (572 mm) for the 1875 between the Overfill Magnet Assembly and the Shuttle Return Switch. Driving conditions and crop conditions may require adjusting this setting to time the wrapping system ahead of the Pickup Declutch.

To adjust, loosen the set screws in the set collar and slide the set collar, compression springs, and the Spacer Magnet Assembly up or down the tube to the desired position and retighten set screw. Sliding the parts toward the Switch Assembly will advance the start of the wrapping mode and away from the switch will delay the wrapping mode.

**Shuttle Return Switch (Fig. 89)**
*(Before SN25001-1475 & SN17901-1875)*

When the shuttle is fully returned and the TDC cylinders are retracted, the Clamp/Magnet Assembly must be slid down the square tube until tight against the Shuttle Return Switch Assembly. The Clamp/Magnet Assembly should be tightened onto the tube so that it can be slid along the tube with 4 lbs. of force, but not vibrate or slide down the tube while the TDC cylinder is extended.

**NOTE:** As the belts stretch, the TDC cylinders should be able to retract further without being restricted by the Clamp/Magnet Assembly.

The Spacer Magnet Assembly is designed to start the wrapping system at the maximum bale size condition and act as an overfill protection. The Spacer Magnet Assembly should be adjusted so that the wrapping system will start before the Pickup declutches. This setting is nominally set at the factory to 16-1/4” (413 mm) for the 1475 and 22-1/2” (572 mm) for the 1875 between the Spacer Magnet Assembly and the Shuttle Return Switch. Driving conditions and crop conditions may require adjusting this setting to time the wrapping system ahead of the Pickup Declutch.

To adjust, loosen the Knurled Nut on the Magnet and slide the Magnet downward in the slot. Then tighten the Nut.

**QUICK WRAP ADJUSTMENTS**

**Drive Roller Chain (Fig. 90)**

Occasionally, it may be necessary to readjust the two Drive Roller Chains on the left-hand side of the Pinch Rollers and Knife assembly. Proceed as follows:

1. Loosen mounting hardware on Double Sprocket Idler Bracket.

2. Adjust the tension of the Inner Chain (Knife assembly to Double Sprocket Idler) first by sliding the Idler away (outward in the slots in End Panel).

3. Keeping the Inner Chain taut, rotate the Idler in a clockwise direction to tension the Outer Chain (Double Sprocket to Pinch Roller). Retighten the mounting hardware.
Pinch Roller Mechanism
(See Figs. 43 & 44)

The pressure on the Pinch Drive Roller against the Idler Roller is adjusted by the Compression Spring and Adjusting Bolt on each side. Starting with the Adjusting Bolt loose, set the pressure by equally tightening both Adjusting Bolts just enough to allow rotation of the Idler (Steel) Roller. Equal pressure should be maintained on both sides by measuring the Spring compressed distance. This distance should be maintained at 1-3/4 to 1-7/8" (44 to 46 mm).

Feeder Belt Tension & Tracking
(Figs. 91, 92 & 93)

NOTE: With different wrap materials in different conditions, it may be necessary to increase the distance between the Guides and Roller.

The Wrap Feeder Belts are preadjusted at the factory. Readjustment may be required after break-in has occurred. The Feeder Belts are friction-driven by the Baler (bale forming) Belts. BE SURE that the Baler Belts are tracking correctly. Refer to the Tracking & Alignment section in this chapter for additional information.

The Wrap Feeder Belt tension and tracking may be adjusted by repositioning the Idler Roller (See Item 1, Fig. 91). Loosen the mounting bolt in the ends of the Idler Roller. Using a suitable prying mechanism, tighten the Feeder Belts equally on each side by moving the idler rolled downward and retighten the mounting bolts. Enough tension MUST be maintained in the Feeder Belts to make the Belts track properly and prevent relative slippage with the Baler (bale forming) Belts.

Operate the Baler and check the Belt tracking with the Tailgate closed and locked. The Feeder Belts should be adjusted to track straight with minimal rubbing on the Guides while following the Baler (bale forming) Belts relatively close. Lowering the right side of the Roller will cause the Belts to travel to the left.

If the Feeder Belts still do NOT track satisfactorily, it will be necessary to adjust the top Feeder Roller (See Item 1, Fig. 93). Start by loosening the idler roller and allow the Belts to go slack on both sides. The top Feeder Belt Roller Shaft should be parallel with the Baler Belt Tracking Roller before making the initial adjustment for Feeder Belt tracking. When doing the tracking adjustment, lowering the right side of the top Feeder Roller will cause the Belt to track to the right. Usually, sliding the top Roller 1/8 to 1/4" (3 to 6 mm) is an adequate adjustment. Proceed by tightening the Lower Idler Roller as outlined earlier in this section.
Chapter 7 – Adjustments

1 – Measure Center of Shaft to Center of Shaft Distances On Both Ends of Gate To Establish Exact Parallel Alignment
Fig. 93: Tracking Adjustment Detail

Feeder Belt Fingers (Figs. 94 & 95)
The Feeder Belt Fingers are provided to guide the Netting. In their positions next to the Lower Feeder Belt Roller, the Fingers must not contact the sides of the belt. Heating of the guides by belt contact will melt the net as it is pulled towards the bale. Also, in this area, the Fingers strip the Netting from the Feeder Belts. As the Netting is brought along by the (bale forming) Belts, the Fingers guide the Netting toward the bale, in the area of the Tailgate Roller. The Fingers should always be adjusted to and maintained at a distance of 1/4” (6 mm) away from the Rollers in both positions.

Brake (Net) Tension (Figs. 96, 97 & 98)
The Quick Wrap Net tension is established and controlled by the Brake Tension on the right side of the Quick Wrap unit. To properly adjust the Brake and subsequent Net tension, proceed as follows:

NOTE: Brake tension adjustment regulates the amount of Quick Wrap Net tension on the bale. Establishing a measured tension of 130 to 160 in-lb (15 to 18 Nm) on the Rubber Drive Roller, with a torque wrench, will provide the correct amount of Net tension. Too much tension will prevent the Net starting onto the bale. Too little tension will cause the Net to be wrapped too loosely causing poor weathering and crop loss.

1. Fully extend the Actuator.
2. Adjust the Washer assembly on the Strap so the Bushing will catch in the detent, just as the Actuator is fully extended. BE SURE the Bushing is free to rotate on its mounting Bolt (See Item 2, Fig. 97).
3. Using the Set Screw and Jam Nut on the side of the Brake Caliper, adjust the Activation Arm so it is perpendicular to the Caliper Housing (Fig. 97).
4. Adjust the Spring length to 2–1/6” (52 mm) (Fig. 96).
5. Manually retract the Actuator. As the Actuator is retracted, the Strap assembly should hold the Pivot Assembly still and prevent it from rotating with the Actuator. (This maintains the same Brake tension as when the Actuator is fully extended.)
6. Cycle the Actuator to make sure that the Strap is catching the Detent at full Actuator extension.

7. Use a torque wrench to check the torque reading on the Rubber Drive Roller. The torque should be 130-160 in-lb (15 to 18 Nm), when the Brake is fully applied. If the torque is NOT correct, adjust the Spring length to obtain a reading of 130-160 in-lb (15 to 18 Nm), to rotate the Rubber Drive Roller (Fig. 98).

8. Retract the Actuator to make sure that the Strap, catching the Detent, is releasing properly. When the Actuator is approximately 2/3 fully retracted, the Washer (on end of Actuator Rod) should disengage the Strap assembly from the “detent” position and release the Brake.

**NOTE:** Drive Rollers should be able to be rotated by hand when Actuator is retracted.
CHAPTER 8
LUBRICATION

GENERAL INFORMATION

⚠️ WARNING
NEVER lubricate the machine when any part of the unit is in motion. ALWAYS exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 10), BEFORE lubricating the machine.

It is well to remember that a sufficient amount of oil or grease will prevent excessive part wear and early failure.

IMPORTANT: Whenever service is performed on hydraulic components (valves, cylinders, hoses, etc.) or Transmission, care must be taken to prevent discharging fluid onto the ground. Catch and dispose of fluid per local waste disposal regulations.

TRANSMISSION LUBRICATION

The Transmission should be checked after every 100 hours of operation and the oil level replenished as necessary. The Transmission requires 1 quart (.95 liters) of SAE 80W90 EP Gear Lube.

The Transmission should be checked occasionally for oil drips and dust accumulation which indicates the Seals are leaking. Oil which is tan in color and foams excessively indicates that it has water present and should be replaced.

The Transmission is drained by removing the lower Plug on the Transmission or Dipstick pipe tee. All plugs are located on the right side of the Transmission and are accessed beneath the Baler Cross Frame. Fill Transmission with the proper type and amount of oil or until oil appears at the oil check hole or the proper mark on the Dipstick. Replace all Plugs.

IMPORTANT: Do NOT overfill the Transmission. Only fill it to the bottom of the Inspection Plug hole or to the mark on the Dipstick (for those models with Dipsticks).

TDC HYDRAULICS SYSTEM

Maintain the fluid level in the Sight Tube at NO higher than the upper oil level Decal mark on the Reservoir with the Density Cylinders fully retracted. The TDC system comes primed from the factory with a special grade of hydraulic oil capable of operating at lower ambient temperatures than normal hydraulic oils. If low temperatures and slow shuttle returns are not a problem, ATF (Dexron II) is an acceptable oil to use in the TDC system. During the baling season, the fluid level should be checked before each day of operation (or at least once every 10 hours) and replenished if the fluid drops below the lower oil level decal mark with the Density Cylinders fully retracted.

OILING

Lubricate all Drive Chains every 10 hours (or daily) of operation using a clean oil or a good grade of foaming aerosol lubricant. The recommended method is to spray the entire length of Chain on the center of the Rollers sufficiently to allow the chain sidebars to be thoroughly lubricated. It is better to lubricate Chains when they are warm (after use, rather than before).

NOTE: For a Baler equipped with an accessory Automatic Chain Oiler, fill the Oil Reservoir Tank as often as necessary with a good grade of clean petroleum oil (SAE 20-40). Usually, a full Tank should provide adequate lubrication for producing 100-150 bales.

Apply oil or foaming aerosol lubricant to the threads of the Pickup Height Adjustment Crank every 100 hours (or monthly).

Apply oil or foaming aerosol lubricant on all Bale Starter Pivot Bushings at the end of each baling season or before storing Baler. Best results are obtained if oil is applied at the end of day or when Bushings are warm.

IMPORTANT: Remove any stems or leaves which might be wrapped around shafts next to Bearings. Wrapped debris buildup can be damaging to the Bearing Seals.

GREASING

NOTE: Grease all fittings on a prescribed basis, at the intervals of operation listed, before and after storing the unit, and as otherwise indicated. Use a good grade of Lithium base grease.
Wipe dirt from the fittings before greasing to prevent the dirt from being forced into the Bearing or Pivot. Replace any missing fittings, when noted. Force the grease into the fitting until it comes out at the Bearing Seal or at the Shaft. To minimize dirt buildup, avoid excessive greasing.

**IMPORTANT:** In addition to the fittings, inspect and repack the Wheel Bearings at least once a season. The Telescoping PTO Drive should also be separated and grease applied to the splines at least three times during the harvesting season. Apply a light coat of grease on the Twine Knife following each season and before placing the Baler into storage.

**QUICK WRAP LUBRICATION**

The Drive Roller Chains should be lubricated every 100 hours using a good grade of foaming aerosol lubricant. The recommended method is to spray the entire length of Chain on the center of the Rollers sufficiently to allow the chain sidebars to be thoroughly lubricated.

The only other required lubrication on the Quick Wrap unit is to apply oil or foaming aerosol lubricant to the various hinge or pivot points annually.

**Grease Fitting Locations**

**Grease Every 10 hours (or Daily)**

1. Telescoping Drive Crosses (3 Places) (can be either center of Cross or end of Cross)
2. Universal Jackshaft
3. Idler Arm Pivot (Right Side)
4. Lower 8” Roller Bearing Housing (1 each side)
5. Lower 16” Roller Bearing Housing (1 each side) (On right side, hidden beneath shield)
6. Packing Roller Arm Bearing (1 each side)
7. Packing Roller Arm Pivot (1 each side)
8. Bale Starter Pivot Bearing (1 each side)
9. Gate End Roller Bearing (1 each side)
10. Gate Latch Torsion Tube Pivot (1 each side)
11. Scraper Roller Bearing Housing (1 each side)

**Grease Every 50 hours (or Weekly)**

12. Overrunning Clutch (Scraper Roll)
13. Pickup Drive Belt Idler Pivot
14. Twine Tie Pivots (2 Places)
15. Pickup Flotation Torsion Shaft Pivot (1 each side)
16. Telescoping Drive Tube
17. CV Joint Housing (2 Places)
18. Gate Cylinder Pivot (1 each side)
19. Gate Latch Bearing (1 each side)
20. PTO Overrunning Shear Device

**Grease Every 100 hours (or Monthly)**

21. Gate Pivot Bushing (1 each side)
22. TDC Cylinder Idler Pivot (1 each side)
23. Optional Crowder Wheel Pivot (1 each side)
The following is a duplicated listing of the Grease Fitting Locations provided for your convenience when viewing the locations in the photographs.

**Grease Fitting Locations**

**Grease Every 10 hours (or Daily)**
1. Telescoping Drive Crosses (3 Places) (can be either center of Cross or end of Cross)
2. Universal Jackshaft
3. Idler Arm Pivot (Right Side)
4. Lower 8” Roller Bearing Housing (1 each side)
5. Lower 16” Roller Bearing Housing (1 each side) (On right side, hidden beneath shield)
6. Packing Roller Arm Bearing (1 each side)
7. Packing Roller Arm Pivot (1 each side)
8. Bale Starter Pivot Bearing (1 each side)
9. Gate End Roller Bearing (1 each side)
10. Gate Latch Torsion Tube Pivot (1 each side)
11. Scraper Roller Bearing Housing (1 each side)

**Grease Every 50 hours (or Weekly)**
12. Overrunning Clutch (Scraper Roll)
13. Pickup Drive Belt Idler Pivot
14. Twine Tie Pivots (2 Places)
15. Pickup Flotation Torsion Shaft Pivot (1 each side)
16. Telescoping Drive Tube
17. CV Joint Housing (2 Places)
18. Gate Cylinder Pivot (1 each side)
19. Gate Latch Bearing (1 each side)
20. PTO Overrunning Shear Device

**Grease Every 100 hours (or Monthly)**
21. Gate Pivot Bushing (1 each side)
22. TDC Cylinder Idler Pivot (1 each side)
23. Optional Crowder Wheel Pivot (1 each side)
CHAPTER 9
SERVICE

WARNING

BEFORE Servicing this unit, exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 10).

NOTE: The following information is referred to in both the Troubleshooting Guide and the Maintenance Schedule chapters of this manual. It should also be understood that all services covered in this chapter are Owner-Operator responsibilities. Where indicated, certain service routines should only be carried out by an authorized GEHL Dealer or GEHL Company representative.

SEALED BALL BEARING REPLACEMENT (Fig. 99)

Sealed Ball Bearings are used on various Shafts around the unit. This type of Bearing is generally retained in place with a Self-locking Eccentric Collar. The Lock Collar has a counter bored recess, which is eccentric with the Collar bore. This eccentric recess engages or mates with an eccentric end of the Bearing inner ring, when the Bearing is assembled on the Shaft. The Bearing is engaged, on the inner ring cam, by the Collar. This assembly grips the Shaft tightly with a positive binding action that increases with use. The Collar Set Screw provides supplementary locking.

A Bearing can be removed from the Shaft by loosening the Set Screw and tapping on a punch which is placed in the drift pin hole, to loosen the Collar. Install Bearings with self-locking Collins in the following manner:

1. Place the Bearing and Collar on the Shaft with the cam surfaces next to each other. Tighten the bolts on the Bearing Retainers.
2. Mate the cam of the Lock Collar with the cam of the Bearing inner ring.
3. Press the Locking Collar against the Bearing wide inner ring and turn it, in the direction of Shaft rotation, until it tightly engages. Tighten the Collar further by tapping on a punch inserted in the drift pin hole.

NOTE: Avoid damaging the Collar by overtightening it.

4. Last, tighten the Set Screw in the Locking Collar.

BALE SIZE INDICATOR CORD (AUTOMATIC & MANUAL TWINE WRAP MODELS ONLY)(Fig. 100)

The Bale Size Indicator Cord links the Pointer above the Indicator Plate to the Belt Shuttle on top of the Baler. Pointer position, through appropriate Cord routing, changes with the position of the Shuttle which moves as the bale grows in size inside the Bale Chamber. If the 3/16” Cord wears out, a new Cord can be obtained and
routed as shown. For the RB1475, order part number 052595 or, for the RB1875, order part number 070607.

**WARNING**

NEVER use your hands to search for hydraulic fluid leaks. Escaping fluid under pressure can be invisible and penetrate your skin causing serious injury! If any fluid is injected into your skin, see a doctor at once! Injected fluid MUST be surgically removed by a doctor familiar with this type of injury or gangrene may result.

**PICKUP (Figs. 102, 103 & 104)**

1 – Three Holes for 3/8 x 3/4” Cap Screws
2 – Hole for 3/8 x 1-1/4” Grade 8 Cap Screws
3 – Retainer
4 – Reel
5 – Cam Arm
6 – Cam
7 – Cam Follower (520175)
8 – Cam Bolt (066490)
9 – 1/16” to 1/8” (1.6 to 3.2 mm)

**Fig. 102: Cam Follower**
Chapter 9 – Service

The Pickup should be inspected on a routine basis every 100 hours of operation. The following inspections should be made:

1. The Cam Follower Bearings should be positioned from 3/16” to 5/16” (4.75 to 8 mm) away from the inside edge of the Cam Track as shown.

2. Depending on conditions, the Cam Followers will wear out and need to be replaced. When replacing, it is recommended that the Bolt (GEHL 066490) also be replaced. Apply Loctite® 609 or equivalent and torque the Bolt to 75 ft-lb (104 N-m).

NOTE: It is not necessary to remove the Pickup from the Baler to replace the Cam Follower Bearing. An access port is provided. See Fig. 103 for details.

NOTE: NO lock washer is used with the 066490 Bolt.

3. To check for Cam wear and binding in the Cam, remove the V-Belt which drives the Pickup and turns the Drive over one complete revolution by hand.

NOTE: Readjust any areas that are binding.

4. Inspect the (4 each side) Sintered-metal Bearings at points where the Bars pivot. Oil Seals are provided on each side of these Bearings. Also, BE SURE to check that the Tine Bar hardware is tightly secured.

5. Check for broken Pickup Tines. Best operation is only obtained after all broken Tines have been replaced. Pickup Tines can be ordered by GEHL number 071607 (for the double Tine) or 071939 (for the single Tine).

The Pickup Drive Sheave has (2) set screw holes and the Driven Sheave has (2) set screw holes. The hole over the keyway contains two set screws, one screw to lock the other, similar to jam nuts. Install the appropriate Sheaves on their respective Shafts as shown.

TOTAL DENSITY CONTROL (TDC) SYSTEM

WARNING

NEVER use your hands to search for hydraulic fluid leaks. Escaping fluid under pressure can be invisible and penetrate your skin causing serious injury! If any fluid is injected into your skin, see a doctor at once! Injected fluid MUST be surgically removed by a doctor familiar with this type of injury or gangrene may result.

Reservoir Air Pressure (Fig. 105)

The TDC system comes primed from the factory with a special grade of hydraulic oil capable of operating at lower ambient temperatures than normal hydraulic oils. If low temperatures and slow shuttle returns are not a problem, ATF (Dexron II) is an acceptable oil to use in the TDC system. The system is to be pressurized to 150 PSI (1050 kPa) by air pressure in the Reservoir. For normal operation, the Reservoir Pressure Gauge MUST
indicate a pressure reading of 140 to 150 PSI (980-1050 kPa). If the reading is NOT within this range, either add AIR or bleed off AIR, as necessary, using the Tank Inlet and Valve Stem at the top of the Reservoir.

**WARNING**

DO NOT pressurize the Reservoir to more than 150 PSIG (1050 kPa) when adding air and NEVER pressurize with anything other than AIR!

Reservoir (Fig. 105)

The Reservoir fluid level should be checked before each day of Baler operation (or at regular 10 hour intervals) using the Sight Tube located on the forward side of the Reservoir. Proper fluid level can be determined when both Density Cylinders are fully retracted. In this condition, the level of fluid in the Sight Tube should be slightly below the level mark Decal.

**NOTE:** If the fluid level is below the bottom 1” (25 mm) level mark, add fluid BEFORE attempting to operate the Baler. Refer to the “Adding Fluid to Reservoir” topic below for proper refilling procedures.

**WARNING**

DO NOT remove any hydraulic lines or fittings until you are sure that the system is depressurized and that there is no load on any hydraulic components. Failure to heed may result in personal injury.

Adding Fluid to Reservoir (Fig. 105)

**WARNING**

NEVER contaminate the reservoir fluid with any flammable liquid. ONLY use non-flammable cleaning solvents for cleaning components or containers used for storing, transporting or transferring the fluid. If the fluid should become contaminated with a flammable liquid, the resulting mixture, when combined with compressed air, can explode causing death or serious injury.

To add fluid to the TDC System Reservoir, proceed as follows:

1. Make sure TDC cylinders are fully retracted (Baler empty and tailgate closed and latched).
2. Clean the top of the Reservoir to prevent any contamination during draining or refilling.
3. Fully depressurize the system by loosening or removing (and retaining) the Valve Stem from the Inlet at the top of the Reservoir.

**NOTE:** When operating this machine during times of extreme cold ambient temperatures and if a faster shuttle return speed is desired, use only oil supplied by Gehl in the TDC System. Refer to the “Draining and Repriming System” later in this Chapter for the proper draining procedure.
4. Remove and retain the Relief Valve Adapter from the top of the Reservoir.

5. The TDC system comes primed from the factory with a special grade of hydraulic oil capable of operating at lower ambient temperatures than normal hydraulic oils. If low temperatures and slow shuttle returns are not a problem, ATF (Dexron II) is an acceptable oil to use in the TDC system. Add the necessary amount of fluid through the Relief Valve Adapter opening to bring the level in the Sight Tube in line with the lower level mark on the TDC Reservoir (both Density Cylinders MUST be fully retracted when using the lower level mark).

6. After the proper amount of fluid has been added, reinstall and secure Relief Valve Adapter (and Valve Stem, if removed) at top of the Reservoir.

7. Using AIR pressure ONLY, repressurize the system to 140-150 PSI (980-1050 kPa).

If the system has air in it (or gets air into it from opening a hydraulic line), it MUST be reprimed. Or, if the system requires complete draining (to change to a lighter or heavier fluid, for example), refer to the “System Draining and Repriming Procedure” for details.

**System Draining and Repriming Procedures (Fig. 105)**

1. Make sure TDC cylinders are fully retracted (Baler empty and tailgate closed and latched).

2. Clean the top of the Reservoir to prevent any contamination during draining or refilling.

3. Fully depressurize the system by loosening or removing (and retaining) the Valve Stem from the Inlet at the top of the Reservoir.

4. Remove and retain the Hardware securing the Trip Spacer to the Trip Arm for the right side Density Cylinder and remove the Trip Spacer. This MUST be done to prevent accidental activation of the Valve Trip Mechanism.

5. Fully extend both Density Cylinders by pulling on the Belts at the back of the Baler (this will pull the Shuttles back and extend the Cylinders) and then block them in the extended position so they will NOT retract.

6. Check the fluid level in the Reservoir. With both Density Cylinders fully extended, the fluid level should be in line with or slightly above the upper level mark on the Reservoir. If fluid has to be added, go to Step 9.

If the fluid is going to be drained and replaced, continue with Step 7. If repriming is all that is required, go to Step 9.

7. Place a 2 gallon or larger container near the right side Density Cylinder to catch the fluid during draining. Disconnect the TDC Reservoir Hydraulic Hose at the Manifold Disconnect and allow the fluid to drain into the container.

**IMPORTANT:** Whenever service is performed on hydraulic components (valves, cylinders, hoses, etc.), care must be taken to prevent discharging fluid onto the ground. Catch and dispose of fluid per local waste disposal regulations.

8. After draining is completed, reconnect the Hydraulic Hose at the Manifold Disconnect.

9. Remove and retain the Relief Valve Adapter from the top of the Reservoir.

10. The TDC system comes primed from the factory with a special grade of hydraulic oil capable of operating at lower ambient temperatures than normal hydraulic oils. If low temperatures and slow shuttle returns are not a problem, ATF (Dexron II) is an acceptable oil to use in the TDC system. Add the necessary amount of fluid through the Relief Valve Adapter opening to bring the level in the Sight Tube in line with the upper level mark on the TDC Reservoir (both Density Cylinders MUST be fully extended when using the upper level mark).

11. After the proper amount of fluid has been added, reinstall and secure Relief Valve Adapter (and Valve Stem, if removed) at top of the Reservoir.

12. Check the Belts to MAKE SURE that they are NOT twisted and remove any blocking used to hold the Density Cylinders in the extended position.

13. Using AIR pressure ONLY, repressurize the system to 140-150 PSI (980-1050 kPa). Repressurizing the Reservoir forces oil through the hydraulic lines and retracts the Density Cylinders.

14. Bleed any air that may have entered the Density Cylinders by carefully opening the Bleed Valve at the top of each Density Cylinder.

**NOTE:** It may be necessary to repeat steps 3., 9., 10., 11., 12. and 13. several times in order to completely bleed the air from the Density Cylinders.
15. Reinstall the Trip Spacer and secure it to the Trip Arm. MAKE SURE that the Trip Spacer properly contacts the Valve Trip Mechanism before resuming baling.

**Pressure Relief Valve**  
(Figs. 105 & 106)

**Faulty Valve Operation**

Malfunction of the Adjustable Pressure Relief Valve is suspected if one or more of the following conditions arise while baling:

1. If desired density bale can NOT be produced, contamination may be keeping the Relief Valve Poppet from seating properly. To test this: first, fully depressurize the system by loosening or removing (and retaining) the Valve Stem from the Inlet at the top of the Reservoir. Then, remove the Pipe Plug from the top of the Adjustable Relief Valve Manifold and in its place, install a 1000 PSI (7000 kPa) MINIMUM pressure gauge. Next, loosen the Locking Ring on the Adjustable Relief Valve (turn it counterclockwise) and then, gently turn the End Disc clockwise until it bottoms. Now, remove the Trip Spacer and rotate the Valve Trip Mechanism clockwise to its upper stop position. Make sure that there is sufficient fluid in the Reservoir and then open the Gate to extend the Density Cylinders. The indicated pressure on the pressure gauge (installed above) MUST be at least 500 PSI (3500 kPa), otherwise the Relief Valve Poppet is NOT seating properly.

2. If the Density Cylinders will NOT retract quickly, contamination may be blocking the Check Valve and preventing the hydraulic oil from flowing freely through the Valve. To check this, turn the Valve Trip Mechanism to its counterclockwise stop position when the Density Cylinders are extended. If the Cylinders quickly retract, the Check Valve is malfunctioning.

3. If excess power is required for baling or if frequent Belt failure is experienced, contamination may be blocking the Relief Valve Poppet, thereby preventing free flow of fluid through the Valve. To test this, use the same test procedures as for Step 1 above and if the gauge reading rises above 700 PSI (4900kPa), the Relief Valve may be blocked.

If any or all of the above situations occur, the Pressure Relief Valve can be partially disassembled following details in the next topic.

**Relief Valve Removal & Replacement**

If the Adjustable Pressure Relief Valve is suspected of leaking or blockage, it can be partially disassembled in the following manner:

---

**WARNING**

DO NOT remove any hydraulic lines, fittings or components until you are sure that the system is depressurized and that there is no load on any hydraulic components. Failure to heed may result in personal injury. To fully depressurize the system, loosen or remove (and retain) the valve stem from the inlet at the top of the reservoir (see Ref. 2, Fig. 108).

---

1 – Ring & Backup Washer  
2 – Area of Possible Contamination  
3 – Locking Ring  
4 – End Disc  
5 – O-Ring  
6 – Poppet

Fig. 106: Adjustable Relief Valve Cartridge
1. MAKE SURE the system is depressurized. Also, MAKE SURE the Density Cylinders are fully retracted and there is NO bale in the machine.

2. Carefully disconnect the Reservoir-to-Manifold Hose at the Manifold Disconnect Coupler.

3. Remove and retain all but one of the four Manifold Bracket mounting bolts so the Manifold assembly can be swung clockwise as far as the Hose connections will allow and temporarily secured (with the remaining screw). The Manifold should be rotated to avoid excessive fluid loss.

**IMPORTANT:** Whenever service is performed on hydraulic components (valves, cylinders, hoses, etc.), care must be taken to prevent discharging fluid onto the ground. Catch and dispose of fluid per local waste disposal regulations.

**WARNING**

BE SURE to wear a face and eye protection shield or goggles and position yourself so that your face is away from the valve to prevent contact with the escaping fluid.

4. Carefully loosen the Adjustable Relief Valve and bleed off pressure from the system.

5. After pressure has been removed, the Valve can be removed from the Manifold and the opening should be plugged to prevent contamination.

6. Inspect the Cartridge for a leaky or blocked Poppet. Force the Poppet on the front end of the Cartridge backward and, using a clean punch, rotate the Poppet to dislodge any contamination.

7. After step 5 has been performed, check the two outside O-rings for damage and then replace the Cartridge into the Manifold.

8. With the Cartridge replaced, reattach the Manifold assembly into its original mounting position and secure it.

9. Carefully and properly reconnect Quick coupler.

10. Check the Reservoir fluid level and pressurize to 140-150 PSIG (980-1050 kPa) before attempting to resume operation.

**NOTE:** If the Baler fails to operate properly after the above procedures have been carried out, contact your dealer for further directives. To order replacement Valve Cartridge, specify GEHL part #094191 (1475) and 127112 (1875).

To repair Cartridge specify GEHL part #094193 for Seal Kit. Replace Check Valve with part #119302.

**TRANSMISSION**

**IMPORTANT:** Internal Transmission component repairs and replacements should only be attempted by (or under the direction of) an authorized GEHL equipment dealer.

To remove Transmission for service, proceed as follows:

1. Remove Windguard Assembly.

2. Remove Twine Tie System (5 bolts, 1 electrical connection on Manual Tie, 2 electrical connections on Auto-Electric models).

3. Release Drive Chain tension, break the Drive Chain and loosen the Bearing attaching hardware.

4. Loosen 4 flangette mounting bolts on cross shaft.

5. Slide cross shaft off of transmission output shaft.

6. Remove the (4) fasteners securing the Transmission Housing to the Crosstube.

7. Carefully remove the Transmission from the unit.

After service is performed, replace the Transmission in reverse order of removal. Then, replace the oil until it comes out the Inspection Hole or reaches the full mark on the Dipstick. The Transmission requires 3 U.S. pints of SAE 80W90EP Gear Lube. Replace and readjust the Drive Chain.

**TWINE KNIFE**

When resharpening the Twine Knife, only sharpen the beveled edge. Remove the (2) bolts to take the Knife off the Cut-off Arm.

**BELTS**

**WARNING**

BEFORE Servicing this unit, exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 10).
Activating Shuttle Locks (Fig. 107)

**WARNING**

BEFORE servicing the belts, BE SURE to release the tension on the belts with the shuttle locks. NEVER have the PTO engaged while the shuttle locks are engaged. ALWAYS engage BOTH locks to make sure that belt tension is completely locked out.

To use the Shuttle Locks, first open the Gate. Then, carefully climb up onto Twineboxes, remove the Hairpin Cotterpins and swing the Locks over. Reinstall the Hairpin Cotterpins, carefully climb down and then slowly close the Gate.

1 – Relief Valve & Adapter
2 – Valve Stem
3 – Sight Tube
4 – Reservoir
5 – Trip Arm
6 – Trip Spacer Assembly
7 – Right Density Cylinder
8 – Valve Trip Mechanism
9 – Manifold
10 – Relief Valve Cartridge (070633)
11 – Pressure Gauge
12 – To Left Density Cylinder
13 – Magnet (Inside Reservoir)

Fig. 108: Total Density Control (TDC) System
Belt Tension (Fig. 108)

If the Belts do NOT return or otherwise are NOT returning fast enough after ejecting a bale, check out the following items in the order listed to troubleshoot and correct the problem.

1. Check the Gauge pressure for the Reservoir while the Baler is empty. If the pressure reads less than 140-150 PSI (980-1050 kPa), add air to bring the pressure up to 140-150 PSI (980-1050 kPa). If the pressure drops again after a short time, there is most likely a leak at one of the fitting connections. To find the leak, apply a soapy water solution to the fittings and watch for air bubbles to form. As necessary, tighten the fitting connection or replace the fitting. Be careful NOT to overtighten the fittings and damage the threads.

2. Check the Reservoir hydraulic fluid level. With the Cylinders fully retracted, the fluid should be between 1” (25 mm) from the bottom of the Reservoir to just below the Oil Level Decal mark. Refer to TDC System topic in this chapter under Reservoir subtopic for additional information.

3. Check the plumbing arrangement and compare your machine to the routing shown in the TDC Hydraulic Circuit Diagram provided.

4. Check the operation of the Pressure Relief Valve following details under the Pressure Relief Valve subtopic contained within the TDC System information in this chapter.

5. Check for sticking Density Cylinders. Release the Reservoir air pressure. Remove the Trip Spacer from the Trip Arm and then fully extend both Density Cylinders by pulling the Belts at the back of the Baler. Slowly pressurize the Reservoir to 25 PSI (75 kPa). Cylinders should retract completely and smoothly.

Cause of Belt Failure

When a Belt fails, it will usually occur in the area of Lacing Hooks and will be caused by one or more of the following:

1. Bale improperly formed.
2. Lacing wire worn or broken.
3. Belt not properly laced.
4. Belts not tracking properly.
5. Build-up on Roller(s) or Scraper.
6. Baling when conditions are too wet.

Splicing and Re–lacing (Fig. 109)

Belts are laced with #4-1/2HT Clipper Lacing Hooks and 3/32” diameter Nylon-coated Cable. These materials and a 6” (152 mm) Vice Lacer can be obtained as service accessories; see the Optional Features & Accessories chapter of this manual.

To relace a Belt, the following additional items will be needed: small square, ball–point pen, sharp knife, long-nose pliers, slip-joint pliers and a vice.

To re–lace a Belt, follow the procedure below:

1. Open the Rear Gate, engage the Shuttle Locks and completely close Gate to remove Belt tension. Then remove the Belt to be re–laced.

2. Mark the Belt with the small square and ball–point pen just behind the old hooks or 5/8” (16 mm) from the end of the Belt. Carefully cut the Belt with a sharp knife. Check the squareness from both sides after cutting. Clip the corners as shown.

NOTE: Relace both ends of a pulled lacing joint. By limiting the amount of Belt cut to 5/8” (16 mm) on each end, a Belt can be re–laced twice before alternative action is required; see Maintaining Belt Length section for details.

3. Install #4-1/2HT Hooks with the Vice Lacer. Make sure the ends of the Hooks protrude through the Belt and are clinched over.

4. Make sure outside Hooks are on the leading Belt end. Install relaced Belt in the Baler.

5. Cut an 8” (203 mm) long piece of Nylon-coated Cable. Bend a 3/4” (19 mm) loop in one end of the Cable. Install Cable in splice positioning loop as shown.

6. Restore Belt tension by opening the Rear Gate and returning the Shuttle Locks to storage.

7. Using the long-nose pliers, trim and bend the remaining end of the Cable into a loop with a minimum of 3/4” (19 mm) engagement into the lacing.

NOTE: To keep the belt splice in good operating condition, it is recommended that the Lacing Cables be replaced every 500 bales.
Maintaining Belt Length

The length of the Belts should be maintained within 2-1/2" (63.5 mm). This 2-1/2" (63.5 mm) difference between Belt lengths can be achieved in either of two ways:

a. by switching Belts around to different positions, or
b. by using Dutchman Splices.

a) Switching Belts

The lacing on the outside Belts is more likely to fail before the inside Belt lacing. Outside Belts that have already been relaced can be switched towards the center of the Baler where less stress will be placed on the lacing.

NOTE: This practice of switching is the recommended procedure for purposes of expense and repair time reduction.

b) Dutchman Splice

The original or matching Belt length can be restored by using a Dutchman Splice on a Belt which has been shortened excessively by repeated re–lacings, a diagonal cut or a tear.

NOTE: It is important to keep an accurate record of re–lacing for each Belt so that a Belt can be re–laced twice before the Belt is switched or a Dutchman is necessary.

Dutchman Splice Installation

NOTE: The Dutchman Splice MUST be at least 12" (305 mm) in Belt length for ample lacing separation. If Lacings are staged too close together, the Belt Lacings will fail quicker. BE SURE to use the longest Dutchman available as the piece that will be cut off. The long Belt will (hopefully) be good enough for more than 1 foot and then itself be usable as a Dutchman. Refer to the Optional Features & Accessories chapter for Dutchmans available.

RB1475 Belt (Fig. 110)

Perform the following steps to restore a short or torn RB1475 Belt:

1. Cut one end off the long Belt as close to the damaged area as possible and without including the damaged area. Relace this end.
2. Determine what overall length of Belt has to be developed (Belt length only, NOT including Lacing). To determine the overall length, consider the following:
   a. A new Belt is 469" (11 913 mm) long.
   b. Belts should be maintained within 2-1/2" (63.5 mm) of each other.
   c. Check your records as the Belt may already have been reduced in length due to previous Lacing failures.
3. After the overall length required has been determined, subtract the following:
   a. Dutchman belt length
   b. Extra gap necessary of 1/2" (13 mm)
4. After the above measurements and calculations are made, cut the long Belt to the appropriate length determined and re–lace it.
5. Install the Cable Lacing Pin in one joint, reassemble the Belt into the Baler and install the other Cable Lacing Pin.

Example

Given a 36" (915 mm) Dutchman and a full length Belt that is badly torn and now needs to be re–laced. To what length should the damaged Belt be cut. Refer to Fig. 110 and follow the calculation below.
Solution

Belt Length Desired? (This may be less than 469” if all other Belts have already been cut off) 469”
Minus Dutchman Belt Length -36”
Minus Additional Belt Gap -1/2”
(Due to additional Lacing) 432-1/2”
Therefore, Belt MUST be cut to a length of 432-1/2”

1. Cut one end off of the long Belt as close to the damaged area as possible and without including the damaged area. Relace this end.

2. Determine what overall length of Belt has to be developed (Belt length only, NOT including Lacing). To determine the overall length, consider the following:
   a. A new Belt is 552” (14 021 mm) long.
   b. Belts should be maintained within 2-1/2” (63.5 mm) of each other.
   c. Check your records as the Belt may already have been reduced in length due to previous Lacing failures.

3. After the overall length required has been determined, subtract the following:
   a. Dutchman belt length
   b. Extra gap necessary of 1/2” (13 mm)

4. After the above measurements and calculations are made, cut the long Belt to the appropriate length determined and relace it.

5. Install the Cable Lacing Pin in one joint, reassemble the Belt into the Baler and install the other Cable Lacing Pin.

Example

Given a 36” (915 mm) Dutchman and a full length Belt which is badly torn and now needs to be relaced. To what length should the damaged Belt be cut. Refer to Fig. 111 and follow the calculation below.

Solution

Belt Length Desired? (This may be less than 552” if all other Belts have already been cut off) 552”
Minus Dutchman Belt Length? -36”
Minus Additional Belt Gap? -1/2”
(Due to additional Lacing) 515-1/2”
Therefore, Belt MUST be cut to a length of 515-1/2”

RB1875 Belt (Fig. 111)

Perform the following steps to restore a short or torn RB1875 Belt:
Check the Baler Tire pressure after every 50 hours of operation. Tires should be inflated to the 40 PSI (280 kPa). Wheel Lug Nut torque should be checked after every 50 hours of operation and tightened to 90 ft-lb (124 Nm) torque.

**WARNING**

Inflating or servicing tires can be dangerous. Whenever possible, trained personnel should be called to service and/or mount tires. In addition, DO NOT place your fingers on the tire bead or rim during inflation; serious injury or amputation could result. In any event, to avoid possible death or serious injury, follow the safety precautions below:

- **BE SURE** the rim is clean and free of rust.
- Lubricate both the tire beads and rim flanges with a soap solution. **DO NOT** use oil or grease.
- Use a clip-on tire chuck with a remote hose and gauge, which allows you to stand clear of the tire while inflating it.
- **NEVER** inflate beyond 35 PSI (240 kPa) to seat the beads. If the beads have not seated by the time the pressure reaches 35 PSI, deflate the assembly, reposition the tire on the rim, relubricate both parts and reinflate it. Inflation pressure beyond 35 PSI with unseated beads may break the bead or rim with explosive force sufficient to cause death or serious injury.
- After seating the beads, adjust the inflation pressure to the recommended operating pressure listed.
- **DO NOT** weld, braze, or otherwise attempt to repair and use a damaged rim.

**WHEELS & TIRES**

**NOTE:** Our Company does **NOT** sell replacement Tires. In addition, Tire mounting, repair and replacements should **ONLY** be attempted by a qualified tire manufacturer’s representative or by properly trained personnel following the tire manufacturer’s instructions. If you do not have such instructions, contact your tire dealer or our Company.
QUICK WRAP SERVICE

Knife Removal and Installation (Figs. 112 & 113)

1. Begin by fully extending the Electric Actuator to rotate the Knife Holder away from the Knife Cutoff position. Then, unplug the Actuator to guarantee that the Knife can NOT be accidentally rotated.

2. Remove the Knife Shield by detaching the (4) mounting fasteners.

3. Rotate the Knife Holder rearward for access to the mounting hardware.

4. Take special notice of the position of the Knives and Knife edges.

5. Detach the bolts and nuts and remove the Knives from the Knife Holder.

6. Sharpen or replace the Knives.

7. Reinstall the Knives on top of the Knife Holder with the beveled cutting edge facing down.

8. Reinstall the Knife Shield and tightly secure the attaching hardware before resuming operation.

1 – Shield Attachment Bolt, Plain Washer & Lock Washer (1 each of 4)
2 – Knife Shield

Fig. 112

1 – Knife Holder
2 – Knife (1 of 2)
3 – Knife Secured to Holder with (4 each) 5/16 x 1” Cap Screws, Lock Washers and Hexagon Nuts.

Fig. 113

WARNING

Knives are very sharp.
CHAPTER 10
PREPARING FOR FIELD OPERATION

PREPARING THE MATERIAL

Material to be baled should be clean and dry. Wet material will cause overloading in the Baler resulting in high Side Sheet resistance, wrapping on the Rollers and high Belt tension. In addition to baling problems, wet material when baled will have a tendency to spoil easier as well as be more prone to spontaneous combustion.

Hay being prepared for round baling should be windrowed into a 45″ or 24″ (1143 or 610 mm) windrow for the RB1475 or, 61″ or 36″ (1549 or 914 mm) windrow for the RB1875 Baler. Corn stalks should be severed from their roots. Corn stalks, straw and other brittle materials should be raked into a full-width windrow, since these materials tend to break-up and deteriorate due to Side Sheet friction. In addition, the wider windrow will reduce crop loss or trash build-up.

NOTE: Improper windrow widths result in barrel-shaped bales because of material overlap in the center of the bale. Narrow windrow widths will require a weaving path across the windrow to assure even crop distribution as the bale is formed.

TRACTOR REQUIREMENTS & HITCH CONNECTIONS (Figs. 115 & 116)

Tractor

The Round Baler MUST be operated by a tractor with the following:

1. A minimum power output of 50 hp (37 kW) (RB1475) and 60 hp (45 kW)(RB1875) for level ground or 70 hp (52 kW)(RB1475) and 75 hp (56 kW)(RB1875) for hilly terrain or high density bales.

2. Having NON-tricycle type front wheels.

3. Having a minimum rear wheel inside dimension 45″ (RB1475) or 61″ (RB1875).

4. Equipped with a PTO which runs at 540 RPM with a standard 1-3/8″ 6-tooth spline (1000 RPM optional conversion is available).

5. Equipped with at least one set of double acting hydraulic outputs to operate Gate Cylinders.

6. Having standard PTO and hitch dimensions conforming to ASAE Standard S203, as shown.

Figure 115 shows one of the two possible mounting positions for tractors with drawbars having 13 to 17″ (330 to 432 mm) high ground clearance. Figure 116 shows one of the two possible mounting positions for tractors with drawbars having a ground clearance greater than 17″ (432 mm) high.

WARNING
NEVER connect a 1000 RPM tractor to a baler equipped for a 540 RPM PTO drive.

WARNING
Because dry material is being processed, the tractor should also be equipped with a spark arrestor muffler, if the tractor emits sparks.

IMPORTANT: If this unit is connected to a tractor equipped with a Hammer Strap style drawbar, the Hammer Strap parts shown in dashed lines MUST be removed to prevent damage to the unit Driveline. See Fig. 114 for details.

1 – Hammer Strap Hitch Parts to be Removed
Fig. 114
Chapter 10 – Preparing For Field Operation

Drawbar Connection
When hooking the Baler to the tractor drawbar, BE SURE to use the Bolt, Nut and Hairpin Cotterpin provided. To prevent the bolt from becoming an obstacle to hay movement, insert the bolt from the bottom side of the tongue. Install the Hairpin Cotterpin after the Nut is secured. The proper Baler-tractor hook-up will NOT only allow maximum ground clearance but will also insure that the Baler will NOT become detached from the tractor.

DRAWDAR FLAP (Fig. 117)
If the Baler Drawbar is catching and bunching up the windrow below the Hitch, order and install a Drawbar Flap (420-34054) to help eliminate the problem.

PTO CONNECTION (Figs. 115–119)

WARNIING
DO NOT start the tractor until the locking device is positively engaged to hold the telescoping drive couplings onto the tractor pto shaft and baler transmission input shaft. Also, BE SURE that the drive shafts rotate freely inside the drive shield tubes.

The Baler is equipped with a Constant Velocity Telescoping PTO Drive Shaft. This constant velocity capability, while cornering, results in a smooth, quiet running Drive Line, without power fluctuation.
NOTE: Whether in operation or NOT, the Maximum Joint angle MUST NOT exceed 80°. Any angle, greater than 80°, WILL result in damage to the Joint. In addition, for continuous operation, the maximum Joint angle should be limited to 35°. Wide-angle Constant Velocity Joints are NOT designed for use as angled-gearboxes. Any continuous operation, at angles greater than 35°, will result in shortening Joint life.

HYDRAULIC CONNECTIONS (Fig. 119)
The Hoses for the Hydraulic Gate Cylinders are equipped with Pioneer ASAE S366.1 (SAE J1036, ISO 5675) quick-disconnect couplers. The Baler is delivered already primed with Type F Automatic Transmission Fluid (ATF) in the Gate Cylinder control hydraulic system. This should be changed if this is incompatible with your tractor hydraulic fluid. BE CAREFUL when handling the Hoses and fittings to insure that they are kept free of dirt and contamination to avoid damage to the Baler and/or tractor hydraulic system.

NOTE: The Baler comes with the Rear Gate Cylinder system filled with Hydraulic Transmission Fluid. MAKE SURE this fluid is compatible with your tractor’s hydraulic system BEFORE connecting to the tractor. If the fluid is NOT compatible, the system will have to be drained and refilled with the fluid used in your tractor.
TWINE ROUTING (Figs. 120 thru 124)

To thread the Baler with twine, proceed as follows:

NOTE: Use the following twine routing procedure from each Twinebox through the Twine Tubes in the Baler Frame.

1. Place up to three balls of twine in the Twinebox. If continuous feeding is desired, route the twine end through the Guide above the twine ball on the Twinebox Cover, tie the twine ends together (always tie the outside twine end of the first ball to the inside twine end of the next ball for continuous feeding). On each side of the Baler, pull the end of twine from the center of the first ball and out through the hole in the side of the Twinebox.

2. Feed the twine through the Twine Tube in the Front Frame, through the Rope Guide (Manual Control models) or Twine Sensor (Auto-Electric models) on the Frame, through the Twine Tube on the corner of the Hitch.

NOTE: The characteristics of the wrapping materials used to wrap bales varies significantly. Therefore, the way in which the twine is routed around the Twine Wheels (or through the Rope Guides on Manual Tie Models) is important. To achieve optimum placement of the wrapping material on the bale. The plastic material should be wrapped around the Twine Wheels 1-1/2 times. The sisal style twine works best with a 1/2 wrap around the Twine Wheel. However, if the Twine Wheel appears to be slipping, 1-1/2 wraps around the Twine Wheel should be considered.

NOTE: The Twine Keeper is to be adjusted so the Tab of the Keeper rests on the Twine Guide while the outside corners of the Twine Keeper are flush with the outside edges of the Twine Wheels. The Twine Keeper is to be centered between the flanges of the Twine Wheel.
3. On RB1475 Model Balers, proceed routing the twine through the two Rope Guides on the front center of the Hitch and into one of the two Tubes on the Twine Arm.

On RB1875 Model Balers, proceed routing the twine through the two upper Rope Guides on the front of the Hitch and into the one Rope Guide on the lower front of the Hitch. Continue into one of the two Tubes on the Twine Arm.

4. After the twine is through the Twine Arm, pull some twine from the Twine Arm to make sure it is dispensing freely and NOT hanging up. Cut off any excess twine which is extending from the Twine Arm more than 12” (305 mm).

NOTE: After the first bale has been tied, the twine (extending from the Twine Arm) will be held by the Clamp Jaws, after cutoff. The Clamp Jaws should provide a 20” (508 mm) tail of twine for starting to wrap the next bale.

START-UP

WARNING

BE SURE all bystanders are away from the baler, all tools and other objects have been removed from the baler and the windrow is clear of all obstacles BEFORE proceeding. In addition, BE SURE that the PTO shafts turn freely inside their shield tubes before starting the tractor.

After the Baler is properly hooked up, start the tractor and run the PTO at a slow tractor RPM. Raise and lower the Rear Gate a few times to purge the hydraulic system of air and to make sure the Rear Gate opens and closes freely.
CHAPTER 11
TRANSPORTING

SMV EMBLEM & REFLECTORS
(Fig. 125)

GEHL Company complies with all laws for safety when transporting slow-moving vehicles on public highways. The Baler is equipped with a Bracket for mounting a Slow–Moving Vehicle (SMV) emblem. The Baler is also equipped with Red Reflector Strips on the rear corners of both Twineboxes.

NOTE: The SMV emblem MUST be purchased locally.

When the Baler is equipped with the Quick Wrap option, a SMV Decal is already attached to the back of the Quick Wrap. See Decal chapter for details.

1 – Transport Lights
2 – Red Reflector Strip (Back of each Twinebox)
3 – SMV Emblem Mounting Bracket

Fig. 125

Because of the variations in safety laws for different states and localities, it may be necessary to change the Emblem Bracket location. Your local GEHL dealer can assist you in making the location change.

SAFETY CHAIN & TRANSPORT LIGHTING (Figs. 125 & 126)

As required or when desired, the Baler can be equipped with a Safety Chain for travel on public highways. Refer to the Optional Features & Accessories chapter for ordering information. The Safety Chain should be attached to the tractor and Baler as shown. When attached in this manner, the safety chain should have the following characteristics:

1. Chain is sufficiently slack to allow turns and movements of either the tractor or the farm implement, without placing tension on chain.
2. Chain is of sufficient strength to hold the decoupled implement (and its load) and tow it to the shoulder.

WARNING

ALWAYS follow state and local regulations regarding use of a safety chain and transport lights when towing farm equipment on public highways. ONLY a safety chain (NOT an elastic or nylon/plastic tow strap) should be used to retain the connection between the towing and towed machine, in the event of separation of the primary attaching system. BE SURE to check with local law enforcement agencies for your own particular regulations. Unless otherwise prohibited, use a Slow-Moving Vehicle (SMV) emblem.

1 – CV Stand in “Storage” Position
2 – Locking Hitchbolt
3 – Drawbar Clevis (Provided)
4 – Chain Secured Around Tractor Frame Member
5 – Safety Chain Attached Around Baler Frame

Fig. 126
Chapter 11 – Transporting

The RB1475 and RB1875 Round Balers are equipped with Transport Lights as standard equipment. A cord with a standard 7-pin connector to connect to the tractor is also provided. If your tractor is not equipped with the proper receptacle, see your tractor dealer for details.

**PICKUP (Fig. 127)**

Whether the Baler is equipped with the optional Hydraulic Lift Kit or not, BE SURE to raise the Pickup to the transport position with the Hand Crank provided anytime the Baler is being transported. The Pickup is raised by turning the Hand Crank in a clockwise direction and lowered by turning the Hand Crank in a counterclockwise direction.

**IMPORTANT:** The Hand Crank settings act as the lower limit stop for the Hydraulic Lift Kit. BE SURE to reset this setting when resuming baling.
CHAPTER 12
STORAGE

The following items are recommended for off-season storage of the Baler:

1. Remove all crop material and debris from behind the Sprockets, Sheaves, ends of the Rollers, Pickup . . . etc.

2. Grease all Fittings and make sure the Telescoping PTO Drive is completely greased. Repack the Wheel Bearings. Also, apply a light coat of grease to the Twine Knife.

3. Release tension on the Belts by locking out the Belt Shuttle.

4. Release tension from the V-belt which drives the Pickup.

5. Hydraulic Cylinder should be fully retracted and exposed Cylinder Rods should be coated with grease.

6. Apply motor oil to all Roller Chains, Telescoping Drive Shields and Guard Door Hinges.

7. Store the unit inside a shed, if possible, or cover the top half of the unit to protect the Belts, if stored outside.

8. Reorder and replace any required parts so that the Baler will be ready to operate at the start of the next baling season.

9. Cover and protect all exposed electrical connectors from dirt and corrosion.

10. Store Control Boxes in a protected dry area out of the weather.

**NOTE:** Before starting up next season, go over the Checklists, chapter 3 in the front of this manual.

**PROTECTION OF UNPAINTED SURFACES**

Apply a rust preventative oil or grease to the following unpainted surfaces:

— All Roller Chains and Sprockets

— The Front PTO Drive Yoke and PTO Shaft

— Inside Side Sheets where paint is worn off
### CHAPTER 13

**TROUBLESHOOTING**

**NOTE:** This Troubleshooting guide presents problems, causes and suggested remedies beyond the extent of loose, worn or missing parts and it was developed with the understanding that the machine is in otherwise good operating condition. Refer to the index at the back of this manual for Chapter and Topic page references. BE SURE to exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 10), BEFORE making any adjustments or repairs.

#### BALE APPEARANCE

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bale density is greater in the center than on the ends (bale is barrel-shaped).</td>
<td>Improper placement of material along edge of bale.</td>
<td>Rerake material into a proper width windrow or drive Baler in a weaving fashion.</td>
</tr>
<tr>
<td></td>
<td>Adjustable Relief Valve pressure is set too low.</td>
<td>Increase Relief Valve pressure.</td>
</tr>
</tbody>
</table>

#### BALE DENSITY

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Bale Density.</td>
<td>Adjustable Relief Valve pressure is set too low.</td>
<td>Increase Relief Valve pressure.</td>
</tr>
<tr>
<td></td>
<td>Low Reservoir pressure.</td>
<td>Increase air pressure to between 140 to 150 PSI (980 to 1050 kPa).</td>
</tr>
<tr>
<td></td>
<td>Trip Spacer on Trip Arm is not engaging the Valve Trip Mechanism.</td>
<td>Adjust so that they are in line.</td>
</tr>
<tr>
<td></td>
<td>Poppet in adjustable Relief Valve not seating properly or, 3/8” diameter Poppet is grooved.</td>
<td>Remove, inspect and clean Relief Valve Cartridge per instructions in Service chapter. Repair with part #094193 Seal Kit.</td>
</tr>
<tr>
<td></td>
<td>Air in the hydraulic lines or fluid level too low in Reservoir.</td>
<td>Re-prime system. Refill with correct oil.</td>
</tr>
</tbody>
</table>

#### BALE FILLING & BELTS

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bale fails to rotate or rotates sporadically.</td>
<td>Faulty Scraper Roller Overrunning Clutch Sprocket assembly.</td>
<td>Lubricate Clutch. Check with wrench to see if clutch is free and overrunning in a clockwise direction.</td>
</tr>
<tr>
<td></td>
<td>Material has too high of a moisture content.</td>
<td>Stop baling and wait for material to dry out.</td>
</tr>
<tr>
<td></td>
<td>Pressure Relief setting too low.</td>
<td>Increase Relief pressure setting.</td>
</tr>
<tr>
<td></td>
<td>Low pressure in Reservoir.</td>
<td>Increase AIR to between 140 to 150 PSI (980 to 1050 kPa).</td>
</tr>
</tbody>
</table>
## BALE FILLING & BELTS (cont.)

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belts getting under Bale Starter Fingers when closing Gate.</td>
<td>Bale Starter sticking in Up Position.</td>
<td>Lubricate all of the pivots on the Bale Starter assembly. Leave PTO running while closing Gate.</td>
</tr>
<tr>
<td></td>
<td>Low Reservoir pressure.</td>
<td>Increase pressure to between 140 to 150 PSI (980 to 1050 kPa).</td>
</tr>
<tr>
<td></td>
<td>Extremely cold conditions.</td>
<td>When ejecting bale, open Gate with PTO off, wait until Shuttle Stops, engage PTO and close and latch Gate.</td>
</tr>
<tr>
<td></td>
<td>TDC oil too thick for cold conditions.</td>
<td>Use recommended oil for TDC system; see Lubrication chapter.</td>
</tr>
<tr>
<td>Belt Lacing Hooks tearing out frequently.</td>
<td>Bale improperly formed.</td>
<td>Correctly form next bale; see “Baling” topic in Operation chapter.</td>
</tr>
<tr>
<td></td>
<td>Lacing Pin worn.</td>
<td>Replace the Lacing Pin.</td>
</tr>
<tr>
<td></td>
<td>Belt improperly laced.</td>
<td>Correctly lace Belt.</td>
</tr>
<tr>
<td></td>
<td>Belt NOT tracking properly.</td>
<td>Correct Belt tracking; see Adjustments chapter.</td>
</tr>
<tr>
<td></td>
<td>Build-up on Scraper or Rollers.</td>
<td>Remove build-up.</td>
</tr>
<tr>
<td></td>
<td>Conditions too wet.</td>
<td>Stop baling and wait for material to dry.</td>
</tr>
<tr>
<td></td>
<td>Hooks improperly installed.</td>
<td>Correct Hooks and clinch them over.</td>
</tr>
<tr>
<td></td>
<td>Adjustable Relief Valve pressure too high for crop conditions.</td>
<td>Reduce Relief Valve pressure.</td>
</tr>
<tr>
<td>Belts are making squealing noise.</td>
<td>Baler is being run empty for too long a period of time.</td>
<td>Run Baler empty for a shorter time.</td>
</tr>
<tr>
<td></td>
<td>Gate End Roller improperly adjusted.</td>
<td>Readjust End Roller; see Adjustments chapter.</td>
</tr>
<tr>
<td></td>
<td>Shuttle returning too slow.</td>
<td>Increase Reservoir pressure to between 140 to 150 PSI (980 to 1050 kPa).</td>
</tr>
<tr>
<td></td>
<td>Belts rubbing together in rear.</td>
<td>Reduce bale diameter.</td>
</tr>
<tr>
<td>Belts traveling to the side (excessively).</td>
<td>Lacing is NOT square to Belt edge.</td>
<td>Properly square edge and relace Belt.</td>
</tr>
<tr>
<td></td>
<td>Belt Shuttle NOT square.</td>
<td>Readjust Belt Shuttle; see Adjustments chapter.</td>
</tr>
<tr>
<td></td>
<td>Belt length variation greater than 2-1/2” (64 mm).</td>
<td>Relace or replace Belts that are too short.</td>
</tr>
<tr>
<td></td>
<td>Belt Tracking Roller improperly adjusted.</td>
<td>Readjust Belt Tracking Roller; see Adjustments chapter.</td>
</tr>
</tbody>
</table>
### BALE FILLING & BELTS (cont.)

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gate opens prematurely while bale is still being formed.</td>
<td>Gate Cylinders are NOT fully retracted to activate Latch.</td>
<td>Fully retract Cylinders. If NOT possible, check tractor and Baler circuits.</td>
</tr>
<tr>
<td></td>
<td>Gate Latch improperly adjusted.</td>
<td>Readjust Latch; see Adjustments chapter.</td>
</tr>
<tr>
<td></td>
<td>Improper use of tractor hydraulics or closing the Gate with the hydraulics in the float position.</td>
<td>When closing the Gate, tractor hydraulics should go to the Relief Pressure to insure that Gate is latched.</td>
</tr>
<tr>
<td></td>
<td>Tractor has faulty hydraulics.</td>
<td>Refer to tractor manual for repair.</td>
</tr>
<tr>
<td></td>
<td>Tractor has low GPM output.</td>
<td>Close Gate as quickly as possible to force Hooks to engage Pins.</td>
</tr>
<tr>
<td>Excessive amount of material peeling off the bale resulting in large trash build-up.</td>
<td>Improper baling speed.</td>
<td>Reduce the PTO speed and increase the ground travel speed.</td>
</tr>
<tr>
<td></td>
<td>Adjustable Relief Valve pressure is too high.</td>
<td>Reduce Relief Valve pressure.</td>
</tr>
<tr>
<td>Material wrapping around Rollers.</td>
<td>Moisture content too high.</td>
<td>Stop baling and wait for material to dry.</td>
</tr>
<tr>
<td></td>
<td>Adjustable Relief Valve pressure is high.</td>
<td>Reduce Relief Valve pressure.</td>
</tr>
<tr>
<td></td>
<td>Scraper improperly adjusted.</td>
<td>Readjust Scraper; see Adjustments chapter.</td>
</tr>
<tr>
<td></td>
<td>Excessive PTO speed causing material to peel off the bale.</td>
<td>Reduce the PTO speed.</td>
</tr>
</tbody>
</table>

### CROP RELATED PROBLEMS

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty encountered in baling corn stalks, cane, etc.</td>
<td>Improper baling speed.</td>
<td>Reduce the PTO speed and increase the ground travel speed.</td>
</tr>
<tr>
<td></td>
<td>Improper material preparation.</td>
<td>Rake windrow into a full 45” (1140 mm) (1475) or 61” (1550 mm) (1875) wide row.</td>
</tr>
<tr>
<td></td>
<td>Improper clearance between Packing Roller and Lower Roller.</td>
<td>Readjust clearance; see Adjustments chapter.</td>
</tr>
<tr>
<td></td>
<td>Higher Belt Tension is applied too soon.</td>
<td>Lower position of the Trip Spacer.</td>
</tr>
<tr>
<td></td>
<td>Material will NOT feed under Packing Roller.</td>
<td>Adjust Wheel Spindle positions to raise Baler so that Pickup can be carried lower. Install Packing Roller Lagging Kit and/or remove right hand and left hand Crop Deflectors.</td>
</tr>
</tbody>
</table>
# CROP RELATED PROBLEMS (cont.)

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty getting bale to grow in light</td>
<td>Material is deteriorating on bale ends. Too much time spent forming</td>
<td>Rake light windrows together.</td>
</tr>
<tr>
<td>windrow.</td>
<td>bale.</td>
<td>Reduce clearance; see Adjustments chapter.</td>
</tr>
<tr>
<td></td>
<td>Gate End Roller to 16” Lower Roller clearance too great.</td>
<td></td>
</tr>
<tr>
<td>Material kicking ahead of Pickup.</td>
<td>Improper baling speed.</td>
<td>Reduce the PTO speed and increase ground travel speed.</td>
</tr>
<tr>
<td></td>
<td>Improper material preparation.</td>
<td>Increase or decrease the windrow size, as necessary.</td>
</tr>
<tr>
<td>Material wraps on Packing Roller.</td>
<td>Bale Starter does NOT drop down.</td>
<td>Lubricate all of the pivots on the Bale Starter assembly. Leave PTO</td>
</tr>
<tr>
<td></td>
<td>Material has too high a moisture content.</td>
<td>running while closing Gate.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Start baling and wait for material to dry.</td>
</tr>
</tbody>
</table>

## FEEDING INTO BALER

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pickup can NOT be adjusted high enough or</td>
<td>Axle height improperly set.</td>
<td>Readjust Axle height; see Adjustments chapter.</td>
</tr>
<tr>
<td>low enough.</td>
<td>Tractor drawbar height does NOT meet specifications.</td>
<td>Readjust the drawbar height in accordance with specified dimensions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>listed in the Preparing for Field Operation chapter of this manual.</td>
</tr>
<tr>
<td>and 8” Lower Roller.</td>
<td>Windguard set too high.</td>
<td>Reduce Windguard's upward travel.</td>
</tr>
<tr>
<td></td>
<td>Improper Packing Roller to Lower Roller clearance.</td>
<td>Readjust clearance; see Adjustments chapter.</td>
</tr>
<tr>
<td></td>
<td>If occurring while starting a bale.</td>
<td>Feed crop evenly until bale has started to rotate.</td>
</tr>
<tr>
<td></td>
<td>Pickup is being carried too high for heavy windrows.</td>
<td>Adjust Wheel Spindle positions to raise Baler so that Pickup can be</td>
</tr>
<tr>
<td></td>
<td></td>
<td>carried lower.</td>
</tr>
<tr>
<td>Material passes through the Baler.</td>
<td>Gate NOT closed and latched.</td>
<td>Close and latch Gate.</td>
</tr>
<tr>
<td></td>
<td>Gate End Roller to 16” Lower Roller clearance too great.</td>
<td>Readjust clearance; see Adjustments chapter.</td>
</tr>
</tbody>
</table>
## MISCELLANEOUS PROBLEMS

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belts return too slow or fail to return.</td>
<td>Reservoir pressure too low.</td>
<td>Increase pressure to 140-150 PSI (980-1050 kPa).</td>
</tr>
<tr>
<td></td>
<td>Faulty Check Valve on Density Cylinders.</td>
<td>Replace or repair faulty Check Valve.</td>
</tr>
<tr>
<td></td>
<td>Oil level is too low in Reservoir.</td>
<td>Re-prime system.</td>
</tr>
<tr>
<td></td>
<td>Defective or contaminated Relief Valve.</td>
<td>Remove, inspect and clean relief Valve per instructions in Service chapter.</td>
</tr>
<tr>
<td></td>
<td>Operating in extremely cold conditions.</td>
<td>Fill Reservoir with recommended hydraulic oil (see Lubrication chapter) and set Reservoir pressure to 140-150 PSI (980-1050 kPa).</td>
</tr>
<tr>
<td>Drive Chain heating.</td>
<td>Lack of lubrication. Install Accessory Chain Oiler.</td>
<td>Refer to Lubrication chapter.</td>
</tr>
<tr>
<td></td>
<td>Poor Chain alignment.</td>
<td>Realign Sprockets.</td>
</tr>
<tr>
<td></td>
<td>Relief Valve pressure is too high for crop conditions.</td>
<td>Decrease Relief Valve pressure.</td>
</tr>
<tr>
<td></td>
<td>Material has too high a moisture content.</td>
<td>Stop baling and wait for material to dry.</td>
</tr>
<tr>
<td>Pickup will NOT go into “Transport” position.</td>
<td>Mechanism blocked by debris.</td>
<td>Remove debris from on top of either the Pickup Header or Pivot Links.</td>
</tr>
</tbody>
</table>

## PICKING UP MATERIAL

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pickup kicks up corn stalks or other lightweight materials.</td>
<td>Improper baling speed.</td>
<td>Reduce the PTO speed and increase ground travel speed.</td>
</tr>
<tr>
<td></td>
<td>Improper material preparation.</td>
<td>Increase the windrow size by combining windrows.</td>
</tr>
<tr>
<td>Pickup is NOT completely cleaning material off the field.</td>
<td>Improper baling speed.</td>
<td>Increase the PTO speed and reduce ground travel speed.</td>
</tr>
<tr>
<td></td>
<td>Broken or missing Tines.</td>
<td>Replace broken or missing Tines.</td>
</tr>
<tr>
<td></td>
<td>Pickup set too high off the ground.</td>
<td>Readjust Pickup to lower the setting or lower the Baler Axle.</td>
</tr>
<tr>
<td></td>
<td>Windrow’s too wide or the material (such as straw) is falling to the sides of the Pickup.</td>
<td>Obtain and install Crowder Wheels.</td>
</tr>
</tbody>
</table>
### PICKING UP MATERIAL (cont.)

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pickup NOT running or running at below full speed.</td>
<td>Pickup set too low to the ground.</td>
<td>Readjust Pickup to raise the setting or raise the Baler Axle.</td>
</tr>
<tr>
<td></td>
<td>Improper Drive Belt tension.</td>
<td>Readjust the tension; see Adjustments chapter.</td>
</tr>
<tr>
<td></td>
<td>Pickup mechanism jammed.</td>
<td>Clean out blockage.</td>
</tr>
<tr>
<td></td>
<td>Overfill Clutch mechanism</td>
<td>Wrap and eject bale and make smaller bale the next time.</td>
</tr>
<tr>
<td></td>
<td>activated.</td>
<td>Readjust Clutch mechanism and linkage.</td>
</tr>
<tr>
<td></td>
<td>Overfill Clutch improperly</td>
<td></td>
</tr>
<tr>
<td></td>
<td>adjusted.</td>
<td></td>
</tr>
</tbody>
</table>

### STARTING THE BALE

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty is encountered in starting the bale to rotate.</td>
<td>RPM too high.</td>
<td>Reduce the PTO RPM to 300 on 540 RPM Balers and 700 RPM on 1000 RPM Balers.</td>
</tr>
<tr>
<td></td>
<td>Material is NOT being fed in</td>
<td>Feed crop evenly until bale has started to rotate.</td>
</tr>
<tr>
<td></td>
<td>uniformly.</td>
<td>Increase the windrow size by combining windrows. Use Shuttle Stops</td>
</tr>
<tr>
<td></td>
<td>Material is extremely dry and</td>
<td>to provide slackened Belts during core formation.</td>
</tr>
<tr>
<td></td>
<td>windrows are too small, making</td>
<td></td>
</tr>
<tr>
<td></td>
<td>it impossible for a sufficient</td>
<td></td>
</tr>
<tr>
<td></td>
<td>amount of material to get into</td>
<td></td>
</tr>
<tr>
<td></td>
<td>the Bale Chamber quick enough</td>
<td></td>
</tr>
<tr>
<td></td>
<td>to start the core rolling.</td>
<td></td>
</tr>
<tr>
<td>Material wraps on Packing Roller.</td>
<td>Bale Starter does NOT drop down.</td>
<td>Lubricate all of the pivots on the Bale Starter assembly. Leave PTO running while closing Gate.</td>
</tr>
<tr>
<td></td>
<td>Material has too high a moisture content.</td>
<td>Stop baling and wait for material to dry.</td>
</tr>
<tr>
<td></td>
<td>Baling below 50% moisture</td>
<td>Bale at moisture levels between 50% and 70%.</td>
</tr>
<tr>
<td></td>
<td>when making balage.</td>
<td></td>
</tr>
</tbody>
</table>

### WRAPPING & EJECTING BALE

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twine falls off left edge of bale.</td>
<td>Twine Tube is being extended</td>
<td>Adjust Twine Arm Stop.</td>
</tr>
<tr>
<td></td>
<td>too far to the left.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Twine improperly wrapped</td>
<td>When starting to wrap the bale with Twine, place two wraps of Twine at</td>
</tr>
<tr>
<td></td>
<td>around the bale.</td>
<td>the center of the bale to secure the Twine on the bale.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bale improperly formed.</td>
<td></td>
</tr>
</tbody>
</table>
### WRAPPING & EJECTING BALE (cont.)

<table>
<thead>
<tr>
<th>Issue</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twine will NOT start into the bale.</td>
<td>Twine not routed properly.</td>
<td>Reroute.</td>
</tr>
<tr>
<td></td>
<td>Insufficient amount of material is being fed in with twine.</td>
<td>Feed in more material.</td>
</tr>
<tr>
<td></td>
<td>Twine tails not long enough</td>
<td>Adjust Clamp Jaw Rod.</td>
</tr>
<tr>
<td></td>
<td>Twine itself is excessively kinky; poorly made or wet.</td>
<td>Change the type of twine.</td>
</tr>
<tr>
<td></td>
<td>Twine prematurely slipping out of Clamp Jaws.</td>
<td>Deburr the edges of the Clamp Jaws, and/or increase the Spring tension on the Clamp Jaws.</td>
</tr>
<tr>
<td>Twine will not be placed on the left side of the Baler.</td>
<td>Obstruction in path of Twine Arm.</td>
<td>Remove obstruction.</td>
</tr>
<tr>
<td></td>
<td>Feeding too much crop when starting twine.</td>
<td>Reduce amount of crop.</td>
</tr>
<tr>
<td>Twine will NOT cut.</td>
<td>Clamp Jaws will NOT latch open properly.</td>
<td>Twine Arm is NOT being extended far enough to the left side and/or Spring Slide Rod adjustment is too long.</td>
</tr>
<tr>
<td></td>
<td>Clamp Jaw Spring tension is too tight.</td>
<td>Readjust tension; see Adjustments chapter.</td>
</tr>
<tr>
<td></td>
<td>Twine Knife NOT sharp.</td>
<td>Sharpen or replace Knife.</td>
</tr>
<tr>
<td>Gate will NOT open.</td>
<td>Gate Latch improperly adjusted.</td>
<td>Readjust Gate Latch; see Adjustments chapter.</td>
</tr>
<tr>
<td></td>
<td>Improper hydraulics connections.</td>
<td>Check, repair or replace connections.</td>
</tr>
<tr>
<td></td>
<td>Gate Cylinder seals bad.</td>
<td>Replace seals.</td>
</tr>
<tr>
<td></td>
<td>Tractor has faulty hydraulics.</td>
<td>Refer to tractor manual for repair.</td>
</tr>
<tr>
<td>Bale will NOT fall out of Baler when baling cornstalks or haylage.</td>
<td>Bale Ramps stop bale from falling.</td>
<td>Remove Bale Ramps.</td>
</tr>
<tr>
<td>Twine breaks when bale hits ground.</td>
<td>Insufficient number of wraps for size of bale and type of Twine.</td>
<td>Increase number of wraps or reduce the size of the next bale.</td>
</tr>
<tr>
<td></td>
<td>Twine is being cut between 8” roller and Packing Roller.</td>
<td>Maintain clearance of 1/4” (6 mm) above rods.</td>
</tr>
</tbody>
</table>
AUTOMATIC TWINE WRAP SYSTEM TROUBLESHOOTING

NOTE: This Troubleshooting guide presents problems, causes and suggested remedies beyond the extent of loose, worn or missing parts and it was developed with the understanding that the machine is in otherwise good operating condition. BE SURE to exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (see page 10) BEFORE making any adjustments or repairs.

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>System will not power up at all.</td>
<td>Poor connection with Wiring Harness at tractor power source.</td>
<td>Check for poor connections or broken wires in Power Harness. Repair any bare or broken wires in Harness.</td>
</tr>
<tr>
<td></td>
<td>Blown fuse in Baler power Harness.</td>
<td>Replace with 20 amp automotive type fuse.</td>
</tr>
</tbody>
</table>
| The word “SET” appears in the Control Box Digital Display while operating in the AUTO mode. | Twine Arm is not in “park” (home) position. | 1. Switch the Mode Switch to MANUAL.  
2. Using the Actuator Switch, RETRACT the Twine Arm to the “park” position.  
3. Switch the Mode Switch back to AUTO. |
| | Twine Arm Position (Channel 5) setting is too high. | Check Channel 5 on the Display. If the reading is above 5.0 for a model 1475 Baler:  
1. Using the DECREASE Switch, change the setting to 5.0 or lower.  
2. Switch the Mode Switch to MANUAL.  
3. Using the EXTEND/RETRACT Switch, RETRACT the Twine Arm to the “park” position.  
4. Switch the Mode Switch back to AUTO.  
If the reading is below 5.5, do Steps 2 through 4, only.  
If the problem continues, see your dealer. |
| | Insufficient power to the Control Box. | The system requires a minimum of 11 volts D.C. and 20 amps to operate. Check all power connections and power source. |
| The word “TIE” is continuously displayed in the Control Box Digital Display while operating in the AUTO mode. | Twine Arm is not in “park” (home) position. | 1. Switch the Mode Switch to MANUAL.  
2. Using the EXTEND/RETRACT Key, RETRACT the Twine Arm to the “park” position.  
3. Switch the Mode Switch back to AUTO. |
| | End Wrap Pause Switch is not adjusted properly. | Refer to the End Wrap Pause Switch Adjustment topic in the Operator’s Manual. |
## Automatic Twine Wrap System Troubleshooting (Cont.)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The word “tie” is continuously displayed in the Control Box Digital Display while operating in the AUTO mode. (Continued)</td>
<td>Faulty Harness.</td>
<td>Check for continuity in Harness.</td>
</tr>
<tr>
<td></td>
<td>End Wrap Pause Switch is faulty.</td>
<td>Check for faulty End Wrap Pause Switch; Switch must close as the Magnet passes by.</td>
</tr>
<tr>
<td>Tie system will not start automatically.</td>
<td>Mode Switch is set to MANUAL.</td>
<td>Set Mode Switch Fig. 30, Ref. 1 to AUTO.</td>
</tr>
<tr>
<td></td>
<td>Trip Magnet is not activating the Bale Size Switch.</td>
<td>As the bale grows to the desired size, the Trip Magnet MUST slide within 1/8 inch (3.2 mm) of the Bale Size Switch (3/16–3/8 inch (4.8–9.5 mm) on Early Style Baler Control). If necessary, adjust Magnet to proper location in slot and make sure the Switch is mounted in the proper location. Refer to the Adjustments chapter.</td>
</tr>
<tr>
<td></td>
<td>Bale Size Switch is faulty.</td>
<td>Check for faulty Bale Size Switch; Switch must close when the Magnet is near the Switch.</td>
</tr>
<tr>
<td>Tailgate OPEN/CLOSED Indicators do not function on Digital Display.</td>
<td>The Magnet on the Tailgate Switch Assembly is not properly adjusted.</td>
<td>Adjust the Magnet on the Tailgate Switch Assembly so that it passes within 3/32 inch (2.4 mm) from the Switch.</td>
</tr>
<tr>
<td></td>
<td>Tailgate Switch is faulty.</td>
<td>Check for faulty Tailgate Switch; Switch must close as the Magnet passes by.</td>
</tr>
<tr>
<td>Tailgate “OPEN” “GATE” message continues to flash on Digital Display after a bale has been discharged.</td>
<td>The Magnet on the Tailgate Switch Assembly is not properly adjusted.</td>
<td>Adjust the Magnet on the Tailgate Switch Assembly so that it passes within 3/32 inch (2.4 mm) from the Switch.</td>
</tr>
<tr>
<td></td>
<td>Tailgate Switch is faulty.</td>
<td>Check for faulty Tailgate Switch; Switch must close as the Magnet passes by.</td>
</tr>
</tbody>
</table>
AUTOMATIC BALE CONTROL SYSTEM TROUBLESHOOTING

NOTE: This Troubleshooting guide presents problems, causes and suggested remedies beyond the extent of loose, worn or missing parts and it was developed with the understanding that the machine is in otherwise good operating condition. BE SURE to exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 10), BEFORE making any adjustments or repairs.

## BALE WRAPPING IMPROPERLY

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bale size is inconsistent.</td>
<td>Bale size sensor is not adjusted correctly (Fig. 83) or Jam Nuts are loose. Friction Block not adjusted properly; too loose.</td>
<td>The air gap between the tip of the Bale Size Sensor to the Sprocket Tooth should be adjusted to 0.1 to 0.12&quot; (2.5 to 3 mm). The Friction Block is to clamp on the sprocket Hub so as to create 3-4 in-lb (0.34–0.45 Nm) of drag when rotated up and down between stops.</td>
</tr>
<tr>
<td>Cab Module display powers up for a few seconds and then shuts off.</td>
<td>Power is not reaching the Implement Module.</td>
<td>The power cord between the tractor and the Baler is not properly connected. Repair broken wire or poor connection between tractor power source and Implement Module. Faulty Implement Module. See dealer.</td>
</tr>
<tr>
<td>System will not power up at all.</td>
<td>Poor connection with Wiring Harness at tractor power source. Blown fuse in Baler power Harness.</td>
<td>Check for poor connections or broken wires in Power Harness. Replace with 20 amp automotive type fuse. Check for and repair any bare or broken wires in Harness.</td>
</tr>
<tr>
<td>PROBLEM</td>
<td>CAUSE</td>
<td>REMEDY</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>--------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>The system starts before bale has reached</td>
<td>Friction Block is not adjusted correctly.</td>
<td>The Friction Block is to clamp on the Sprocket Hub so as to create 3-4</td>
</tr>
<tr>
<td>programmed bale size.</td>
<td></td>
<td>in-lb (0.34–0.45 Nm) of drag when rotated up and down between stops.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Refer to the Shuttle Return Switch topic in the Adjustments Chapter.</td>
</tr>
<tr>
<td></td>
<td>Spacer/Magnet Assembly (located above left</td>
<td>Clamp/Magnet Assembly is to be clamped on square tube and should</td>
</tr>
<tr>
<td></td>
<td>TDC Cylinder and to the rear of the</td>
<td>require 4 lbs. (18 N) of force to slide on tube.</td>
</tr>
<tr>
<td></td>
<td>Shuttle Return Switch) is set too close to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Switch.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Refer to the Shuttle Return Switch topic in the Adjustments Chapter.</td>
</tr>
<tr>
<td></td>
<td>Clamp/Magnet Assembly located above left</td>
<td>Free the Spacer/Magnet Assembly from the Shuttle Return Switch. The</td>
</tr>
<tr>
<td></td>
<td>TDC Cylinder is not moving away from</td>
<td>Spacer/Magnet Assembly should travel back and forth with the square</td>
</tr>
<tr>
<td></td>
<td>Shuttle Return Switch when TDC Cylinder is</td>
<td>tube located above the TDC Cylinder. The back and forth movement</td>
</tr>
<tr>
<td></td>
<td>extended.</td>
<td>occurs as the TDC Cylinder Rod extends and retracts.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To check for a faulty Shuttle Return Switch, separate Harness at</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Check Wiring Harness for bare wires. Separate Harness at Connector</td>
</tr>
<tr>
<td></td>
<td></td>
<td>near the Switch. Check Switch continuity (using an ohmmeter or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>equivalent) by placing the tester leads on each Terminal of the Leads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>coming from the Switch. Whenever the Magnet in the mating part comes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>close to the Switch, the Switch should close. As the Magnet moves</td>
</tr>
<tr>
<td></td>
<td></td>
<td>away from the Switch, the Switch should open.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Check Wiring Harness for bare wires. Separate Harness at Connector</td>
</tr>
<tr>
<td></td>
<td></td>
<td>near Switch. With a volt/ohmmeter check the voltage across the two</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Terminals in the Harness end of the Connector. When the Control System</td>
</tr>
<tr>
<td></td>
<td></td>
<td>is on, the voltage should be 5 volts DC.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ERROR MESSAGE EXPLANATIONS

One of the functions of the Tractor Module is to display the conditions of the Bale Wrap system, both in the stages of normal and proper operation and also in recognition of errors, failures and faults. Potential Error Message codes are listed in the beginning of this chapter.

**E 1 - Out of Twine/Only One Twine on Bale (Twine Tie System ONLY)**

NOTE: The following information is developed in consideration of the Wrap System known to be correctly set up, properly wired and interconnected and operated in the “AUTOmatic” mode.

For whatever reason, if the Twine Wrap system twine runs out, an E1 error message will be given and the following action should be taken:

**E1 Troubleshooting Guide**

1. Check twine supply and replenish if required.
2. Check if twine is broken, hooked, or pinched. Repair twine break and check to see if twine is routed properly.
3. Check that twine did not come off Twine Wheels. Reinstall if required. Adjust Twine Keeper, if required.
4. If E1 error is displayed just as Twine Arm comes to Home Position:
   a. The End Wrap Pause Switch is not adjusted correctly. Need to advance the Cam/Pause Plate. See the End Wrap Pause Switch topic in the Adjustments Chapter.
   b. Faulty End Wrap Pause Switch. To check for a faulty Switch, separate Harness at Connector near the Switch. Check the Switch continuity (using an ohmmeter or equivalent) by placing the tester leads on each Terminal of the Leads coming from the Switch. Whenever the Magnet in the mating part comes close to the Switch, the Switch should close. As the Magnet moves away from the Switch, the Switch should open.
   c. Check Wiring Harness for breaks or loose connections. Separate Harness at Connector near Switch. With a volt/ohmmeter, check the voltage across the two Terminals in the Harness end of the Connector. When the Control System is on, the voltage should be 5 volts DC.
E 2 - Out of Netting
(Quick Wrap System ONLY)

For whatever reason, if the Quick Wrap system netting runs out, the Actuator will return HOME and an E2 error message will be given. The following action should be taken:

- Push ENTER to Silence Beeper
- Push CYCLE two times to find out the % of netting used from roll.
- Exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE & Power-down the Wrap Control System
- Push CYCLE two times to find out the % of netting used from roll.
- Reconnect PTO & Hydraulic Hoses & restart tractor engine & Power-up Wrap Control System
- If new roll of netting is installed, reset % of Netting by pressing CYCLE two times; on second time, hold CYCLE for 5 seconds until “0” appears in display
- Push CYCLE to repeat Wrap Material feeding attempt
- Push ENTER to Re-activate System
- When netting starts, normal operation can be resumed
- * Refer to SAFETY chapter of Baler Operator’s Manual for details.
- ** As desired, attempt wrapping again or stop here and eject bale.

E2 Troubleshooting Guide

1. Check net supply and refill if required.
2. Check for torn netting:
   a. Brake is too tight. See operator’s manual for brake adjustment.
   b. Netting is not routed properly. Check for proper net routing.
   c. Net roll does not rotate freely in storage position. Remove obstruction.
   d. Check for other foreign objects that might cause the roll of netting to rotate hard or not at all.
3. Pinch Count Switch and Magnet not functioning properly (Quick Wrap Only). Check the Pinch Count Switch located on the right side of the rubber Pinch Roller on the Quick Wrap. To check for a faulty Switch, separate Harness at Connector near the Switch. Check the Switch continuity (using an ohmmeter or equivalent) by placing the tester leads on each Terminal of the Leads coming from the Switch. Whenever the Magnet in the mating part comes close to the Switch, the Switch should close. As the Magnet moves away from the Switch, the Switch should open. The air gap between the plastic collar and the switch should be 1/16” (1.6 mm).
4. Check Wiring Harness for breaks or loose connections. Separate Harness at Connector near Switch. With a volt/ohmmeter, check the voltage across the two Terminals in the Harness end of the Connector. When the Control System is on, the voltage should be 5 volts DC.
5. Replace any broken parts. Remove any obstacles and retread the netting outlined in the procedure on the Decal provided on the Quick Wrap.
**E 3 - Twine/Netting NOT Started**

The Circular CYCLE Light Will Continue to Flash for Approximately 15 Seconds OR Until Both Twines or the Netting Has Started Feeding on the Bale. If the Wrapping Material Does NOT Start and an E3 Error appears, the Actuator Will Return to the Home Position.

CHECK E3 TROUBLESHOOTING GUIDE

Reconnect PTO & Hydraulic Hoses & restart tractor engine & Power-up Wrap Control System

Push ENTER to Silence Beeper

Exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE & Power down the Wrap Control System

For Twine Tie Systems only, the Tie System works best if the cycle is started with hay.

Push CYCLE to repeat Wrap Material feeding attempt

Push ENTER to confirm cycle command

For Twine Tie System ONLY, feed in small amount of crop to try to get twine to start

If Wrap Material starts, normal operation can be resumed

Push ENTER to Silence Beeper

CHECK E3 TROUBLESHOOTING GUIDE

If Wrap Material does NOT start, System will Time out & E3 Error will appear

* Refer to SAFETY chapter of Baler Operator’s Manual for details.

** As desired, attempt wrapping again or stop here and eject bale.
Chapter 13 – Troubleshooting

E3 Troubleshooting Guide

NOTE: E3 only appears if both twines or the net fail to wrap on the bale. System will successfully wrap bale with only one twine.

1. Check for depletion of wrapping material.
2. Wrapping material not routed correctly from storage location to discharge location. Check manual for correct routing.
3. Twine tail(s) not long enough (twine only). Check operator’s manual for correct twine jaw adjustment.
5. Pinch Count Switch and Magnet not functioning properly (Quick Wrap Only). Check the Pinch Count Switch located on the right side of the rubber Pinch Roller on the Quick Wrap. To check for a faulty switch, separate Harness at Connector near the Switch. Check the Switch continuity (using an ohmmeter or equivalent) by placing the tester leads on each Terminal of the Leads coming from the Switch. Whenever the Magnet on the mating part comes close to the Switch, the Switch should close. As the Magnet moves away from the Switch, the Switch should open. The air gap between the plastic collar and the switch should be 1/16” (1.6 mm).
6. Check Wiring Harness for breaks or loose connections. Separate Harness at Connector near Switch. With a volt/ohmmeter, check the voltage across the two Terminals in the Harness end of the Connector. When the Control System is on, the voltage should be 5 volts DC.

7. Both twines visually appear to be started but E3 reoccurs:
   a. Check that the twine has not jumped off the Twine Wheel.
   b. Check for faulty Twine Wheel Switch. Spinning both the Right and Left Twine Wheels independently by hand, should cause an E7 to appear on the Cab Module Display. If E7 does not occur, check for faulty Switch or missing Magnet in Twine Wheel. To check for a faulty Switch, separate Harness at Connector near the Switch. Check the Switch continuity (using an ohmmeter or equivalent) by placing the tester leads on each Terminal of the Leads coming from the Switch. Whenever the Magnet on the mating part comes close to the Switch, the Switch should close. As the Magnet moves away from the Switch, the Switch should open.
   c. Check Wiring Harness for breaks or loose connections. Separate Harness at Connector near Switch. With a volt/ohmmeter, check the voltage across the two Terminals in the Harness end of the Connector. When the Control System is on, the voltage should be 5 volts DC.

8. Bad wiring harness or poor connection: if both steps 5 and 6 check out OK, check out circuit for bare or broken wires or a loose connection.

9. Quick Wrap only. Check for trash in the net knife area. Also check that the Knife Carrier is being rotated away from the cutoff position and driving the Sprague Clutch. See net wrap troubleshooting section.
### E 5 - Twine Arm Obstruction
(Twine Tie System ONLY)

**NOTE:** Twine may or may NOT have started; Twine Arm may return HOME automatically depending on whether Arm was moving out from HOME or moving back to HOME.

On a Twine Tie system only, an E5 error message could potentially occur, due to an obstruction in the path of the Twine Arm. The following action should be taken:

<table>
<thead>
<tr>
<th>E 5</th>
<th>Push ENTER to Silence Buzzer</th>
<th>Manually return Twine Arm to Home Position</th>
<th>Exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE * &amp; Power-down the Wrap Control System</th>
<th>CHECK E5 TROUBLESHOOTING GUIDE</th>
</tr>
</thead>
</table>

- **Check that twine is in the Clamps**
  - Reconnect PTO & Hydraulic Hoses & restart tractor engine & Power-up Wrap Control System
  - Push CYCLE to repeat Wrap Material feeding attempt
  - Push ENTER to confirm cycle command

- **Feed in small amount of crop to try to get twine to start**
  - If Wrap Material starts, normal operation can be resumed

* Refer to SAFETY chapter of Baler Operator’s Manual for details.
** As desired, attempt wrapping again or stop here and eject bale.
E5 Troubleshooting Guide

1. Check for and remove any visible obstructions.

2. If windrows are very large, the Windguard can be forced into the path of the Twine Arm. Slow down ground speed when full bale signal is given to reduce the amount of crop going into the baler.

3. If E5 is displayed when the Twine Arm travels completely to the left side of the baler without pausing and then returns home:
   a. The End Wrap Pause Switch is closing too late. See manual for End Wrap Pause Switch adjustment.
   b. End Wrap Pause Switch is sticking open. To check for a faulty Switch, separate Harness at Connector near the Switch. Check the Switch continuity (using an ohmmeter or equivalent) by placing the tester leads on each Terminal of the Leads coming from the Switch. Whenever Magnet on the mating part comes close to the Switch, the Switch should close. As the Magnet moves away from the Switch, the Switch should open.
   c. Check Wiring Harness for breaks or loose connections. Separate Harness at Connector near Switch. With a volt/ohmmeter, check the voltage across the two Terminals in the Harness end of the Connector. When the Control System is on, the voltage should be 5 volts DC.
   d. The gap between the End Wrap Pause Switch and magnet is too great. The air gap should be 1/16 to 3/32” (1.6–3.2 mm).
   e. Twine Arm Stop Bolt (Fig. 66), used for stalling Actuator when applying end wraps to left side of bale, is extended out too far. The Twine Arm Linkage is striking the Stop Bolt before allowing Twine Arm to pause at pause position.
   f. Reset the Control System by disconnecting power to the Implement Module. This can be done by disconnecting the Power Chord between the Baler and tractor or by removing and reinserting the Fuse in the Baler Power Harness.

4. If E5 is displayed when Twine Arm stalls at Home Position:
   a. The End Wrap Pause Switch is opening too late. See manual for End Wrap Pause Switch adjustment.
   b. Faulty End Wrap Pause Switch. To check for a faulty Switch, separate Harness at Connector near the Switch. Check the Switch continuity (using an ohmmeter or equivalent) by placing the tester leads on each Terminal of the Leads coming from the Switch. Whenever the Magnet on the mating part comes close to the Switch, the Switch should close. As the Magnet moves away from the Switch, the Switch should open.
   c. Check Wiring Harness for breaks or loose connections. Separate Harness at Connector near Switch. With a volt/ohmmeter, check the voltage across the two Terminals in the Harness end of the Connector. When the Control System is on, the voltage should be 5 volts DC.

5. If E5 is displayed when Twine Arm stalls or hits an obstruction while in the extending mode:
   a. The Twine Arm will automatically return to Home Position.
   b. Exercise the Safety Shutdown and remove obstruction.
   c. Cycle tie system again.

NOTE: If Twine Arm encounters an obstruction between the pause position and the left side of the Baler, it will continue its normal wrapping operation. However, the left portion of the bale will not be wrapped. This is usually caused by crops being fed into the Baler too heavy while starting the twine. Slow down or stop ground speed when full bale signal is given.

6. If E5 is displayed when Twine Arm stalls while in retracting position:
   a. System switches to manual mode and Twine Arm remains where obstruction occurred. Operator may have to manually control the Twine Arm away from the obstruction.
   b. Remove obstruction.
   c. Return Twine Arm to Home Position.
Chapter 13 – Troubleshooting

**E 6 - Shuttle NOT Returned**

If the Tailgate closes but the Shuttle does NOT return, the Wrap system will do a self-analysis and, after 7 seconds delay, an E6 error message will be given. The following action should be taken:

<table>
<thead>
<tr>
<th>E 6</th>
<th>Push ENTER to Silence Beeper</th>
<th>To Clear E6 from Display, operate the tractor hydraulics to open the Baler Tailgate. Next, engage the PTO. Then, slowly close and latch Tailgate.</th>
<th>If the System beeps and the GO Arrow appears, normal operation can be resumed</th>
<th>If GO Arrow does NOT appear, continue with next steps.</th>
</tr>
</thead>
</table>

| Push ENTER to Silence Beeper | Exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE * & Power-down the Wrap Control System | Check E6 Troubleshooting Guide | Reconnect PTO & Hydraulic Hoses & restart tractor engine & Power-up Wrap Control System | |

| To Clear E6 from Display, operate the tractor hydraulics to open the Baler Tailgate. Next, engage the PTO. Then, slowly close and latch the Tailgate. | The System should beep, the GO Arrow should appear and normal operation can be resumed. | |

* Refer to SAFETY chapter of Baler Operator’s Manual for details.

**E6 Troubleshooting Guide**

1. Check for twisted belts, or belt hooked on bale ramps.
2. Shuttle hanging up or shuttle locks engaged.
3. Check TDC system for correct air pressure and oil level. See manual for correct settings.
4. Check shuttle return switch so that trash is not obstructing the trip magnet.
5. Check that Friction Block with Magnet is properly positioned against Shuttle Switch.
6. Check for faulty Shuttle Return Switch. To check for a faulty Switch, separate Harness at Connector near the Switch. Check the Switch continuity (using an ohmmeter or equivalent) by placing the tester leads on each Terminal of the Leads coming from the Switch. Whenever the Magnet in the mating part comes close to the Switch, the Switch should close. As the Magnet moves away from the Switch, the Switch should open.
7. Check Wiring Harness for breaks or loose connections. Separate Harness at Connector near Switch. With a volt/ohmmeter, check the voltage across the two Terminals in the Harness end of the Connector. When the Control System is on, the voltage should be 5 volts DC.
8. Control system was not powered down before interrupting electrical power to the Baler (ie. starting tractor). This is important if a partial bale is in the Baler.
Chapter 13 – Troubleshooting

E 7 - False Start for Wrap Material

NOTE: This error message may occur at any time during normal baling.

If the twine starts prior to the tie cycle, an E7 error message will be given. The following action should be taken:

1. Inspect twine jaws to see if they are loose and working freely. (Twine Only)
2. Be sure that twine is routed correctly.

* Refer to SAFETY chapter of Baler Operator’s Manual for details.

** As desired, resume baling or wrapping.
E8 - End Wrap Pause (EWP)
Faulty or Misadjusted
(Twine Tie System ONLY)

NOTE: When this error message occurs, the Twine Arm will return Home automatically.

On a Twine Tie system only, an E8 error message could potentially occur, due to the End Wrap Pause (EWP) Switch being out of adjustment or faulty. The following action should be taken:

- Reconnect PTO & Hydraulic Hoses & restart tractor engine & Power-up Wrap Control System
- Push ENTER to Silence Beeper
- Check E8 Troubleshooting Guide

Detach and unplug the Screw Plug from the tractor harness to the Baler power cord. This is located at the rear of the tractor. This should reset the system parameters. Then, re-connect the Plug.

- Push CYCLE Feed in small amount of crop to get the twine to start. Then, resume normal baling.
- Push ENTER to Re-activate System

E8 Troubleshooting Guide

1. If the Twine Arm hits an obstruction and stalls prior to the closing of the End Wrap Pause, an E8 will be displayed. Remove the obstruction.

2. E8 is displayed when Twine Arm travels uninterrupted to the left side of the Baler. The Switch is not closing due to misadjustment or a faulty Switch. To check for a faulty Switch, separate Harness at Connector near Switch. Check the Switch continuity (using an ohmmeter or equivalent) by placing the tester leads on each Terminal of the Leads coming from the Switch. Whenever the Magnet in the mating part comes close to the Switch, the Switch should close. As the Magnet moves away from the Switch, the Switch should open.

3. Check Wiring Harness for breaks or loose connections. Separate Harness at Connector near Switch. With a volt/ohmmeter, check the voltage across the two Terminals in the Harness end of the Connector. When the Control System is on, the voltage should be 5 volts DC.

* Refer to SAFETY chapter of Baler Operator’s Manual for details.

** As desired, attempt wrapping again or stop here and eject bale.
On a Twine Tie system only, an E9 error message will occur when the twine does NOT cut off. When this occurs, the following action should be taken:

- Push ENTER to Silence Beeper
- Exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE & Power-down the Wrap Control System
- Shut Off PTO
- If twine is NOT cut, inspect the Knife Clamps and Blade for frayed material, dull knife edge or improper clamp tension. Check if twine is in the twine clamp. If not, place in clamps.
- Refer to SAFETY chapter of Baler Operator’s Manual for details.
- Reconnect PTO & Hydraulic Hoses & restart tractor engine & Power-up Wrap Control System
E 10 - Low Voltage/Low Amperage

The E10 Error Message usually occurs when the actuators are put in motion because of the additional current draw.

E10 Troubleshooting Guide

1. Check for poor connection at power source.
2. Power harness for the control system is not connected to an adequate power source. Connect power harness directly to battery or power source that is capable of supplying 17 amps at 12 volts.
3. Using an intermediate harness or wiring between the power cord and the power source should be 10 gauge wiring or greater and capable of supplying 17 amps at 12 volts. If at all possible, an intermediate wiring harness should be avoided.
4. Check integrity of the tractor electrical system. If E10 appears while starting tractor engine, it may be an indication of battery weakening. Check water level in the batteries. Check wiring harness connections at power source for corrosion or poor connections. If problem persists, check charging system and battery strength.
## QUICK WRAP (NET) SYSTEM TROUBLESHOOTING

**NOTE:** This Troubleshooting guide presents problems, causes and suggested remedies beyond the extent of loose, worn or missing parts and it was developed with the understanding that the machine is in otherwise good operating condition. **BE SURE to exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 10), BEFORE making any adjustments or repairs.**

### BALE WRAPPING IMPROPERLY

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>The desired number of wraps is NOT being obtained.</td>
<td>The Drive Roller Switch is NOT operating correctly.</td>
<td>Check that Roller Switch closes when Magnet passes by.</td>
</tr>
<tr>
<td></td>
<td>The Drive Roller tension is incorrect.</td>
<td>Readjust the Drive Roller tension.</td>
</tr>
<tr>
<td></td>
<td>Netting NOT started on Drive Rollers.</td>
<td>Start netting on Roller per instructions on Decal.</td>
</tr>
<tr>
<td>Frequent bending of Feeder Fingers.</td>
<td>Tailgate Roller too close to Floor Roller.</td>
<td>Move Tailgate Roller back away from Floor Roller approximately 1-1/2” (37 mm) from Tailgate Roller to the rib of the Floor Roller.</td>
</tr>
<tr>
<td></td>
<td>Feeder Fingers NOT adjusted properly.</td>
<td>Readjust Feeder Finger positions with Baler empty and Gate against stops.</td>
</tr>
<tr>
<td></td>
<td>Trash accumulation.</td>
<td>Remove trash accumulated inside Bale Forming Belts before the bottom Tailgate Roller.</td>
</tr>
<tr>
<td>Bale is NOT being wrapped uniformly.</td>
<td>Foreign material or crop buildup on the Feeder Fingers.</td>
<td>Remove any buildup and readjust the Finger positions, as required.</td>
</tr>
<tr>
<td></td>
<td>Belts NOT tracking correctly.</td>
<td>Readjust the Belt tension and/or tracking per the information in this Supplement.</td>
</tr>
<tr>
<td></td>
<td>Rewrap Bar NOT locked down.</td>
<td>Lock Bar in “DOWN” position.</td>
</tr>
<tr>
<td></td>
<td>An incorrect number of wraps is being placed on the bale.</td>
<td>Readjust the wrap control to obtain at least two wraps.</td>
</tr>
<tr>
<td></td>
<td>Foreign material, crop or wrap material buildup on the Rollers or Belts.</td>
<td>Carefully and properly remove crop or wrap material from Rollers and/or readjust Feeder Belt tension, as required.</td>
</tr>
<tr>
<td></td>
<td>Netting NOT routed properly.</td>
<td>Properly route Netting per instructions at the beginning of this Supplement.</td>
</tr>
<tr>
<td></td>
<td>The roll of Netting material is too narrow or of inadequate quality.</td>
<td>Contact your Gehl dealer. Use ONLY Gehl approved wrap material.</td>
</tr>
<tr>
<td>Tear in the wrap material on bale.</td>
<td>Rough edges or burrs on Tailgate Roller.</td>
<td>File off rough edges.</td>
</tr>
<tr>
<td></td>
<td>Burrs on the Feeder Fingers.</td>
<td>Remove the burrs with a file.</td>
</tr>
<tr>
<td></td>
<td>Rubber Ramp Shield NOT covering Bale Ramps.</td>
<td>Reposition or replace Ramp Shield.</td>
</tr>
<tr>
<td></td>
<td>Feeder Finger snagging Netting when bale rolls out of Baler.</td>
<td>Open Tailgate quicker.</td>
</tr>
</tbody>
</table>
## BALE WRAPPING IMPROPERLY (cont.)

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tear in the wrap material on bale (cont.).</td>
<td>Improperly adjusted or plugged Feeder Fingers. Belts NOT tracking properly.</td>
<td>Readjust Feeder Finger positions. Readjust Feeder Belt tracking or reinstall Feeder Fingers on left side of their mounting Tabs.</td>
</tr>
<tr>
<td>The Knife retracts to the “Cutoff” position but does NOT cut the material.</td>
<td>The Knife edge has become dull.</td>
<td>Remove the Knife, sharpen it and replace it.</td>
</tr>
<tr>
<td>Netting follows Bale Forming Belts up the front of the Baler instead of wrapping Bale.</td>
<td>Lacing Cables exposed. Blemish (cut or fray) in belt.</td>
<td>Re-lace main Baler belts and replace any lacing hooks. Repair Belt. Add Net Stripping Kit, as described in Optional Features Chapter.</td>
</tr>
</tbody>
</table>

## BALE NOT WRAPPED

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeder Belts stop turning or slip.</td>
<td>Feeder Belt tension too loose.</td>
<td>Readjust Feeder Belt tension.</td>
</tr>
<tr>
<td>Wrap material wraps around Drive Rollers.</td>
<td>Rear Net Guide too close to Rubber Drive Roller. Too much wrap material is being indexed into Net Chute when starting Net Roll. Pinch Rollers damaged. Sticky material on Rubber Drive Roller.</td>
<td>Readjust Guide Roller. Install the wrap material per the instructions on the Decal. BE SURE to avoid rotating the wrapping material Roll more than 1 revolution. NEVER cut the Rubber Roller with a knife when attempting to remove wrapped material. Smooth off damaged areas with a file; it may be necessary to replace the Rubber Roller. Clean the Roller.</td>
</tr>
<tr>
<td>Wrap material not reaching Bale at Lower Tailgate Roller.</td>
<td>Feeder Finger NOT properly adjusted. Trash accumulation.</td>
<td>Readjust Feeder Finger positions. Remove trash accumulation inside Bale Forming Belts by bottom Tailgate Roller.</td>
</tr>
</tbody>
</table>
CHAPTER 14
SET-UP & ASSEMBLY

The Baler is shipped with the following parts NOT attached to the Main unit:
- Wheels & Tires
- Bale Ramp Shields (Quick Wrap Models)
- Bale Ramps
- Tractor Controls and Control Cables
- Hose & Cable Support

WHEELS & TIRES

The Baler may be shipped from the factory without Wheels and Tires mounted. Install the Tires and Rims; torque the Wheel Nuts to 90 ft-lb (124 N-m). Inflate the Tires to 40 PSI (280 kPa). Refer to the Wheels & Tires topic at the end of the Service chapter for additional information.

IMPLEMENT PTO

Installation of the PTO is covered in the Preparing for Field Operation chapter.

BALE RAMPS (Fig. 128)

The Bale Ramps and mounting hardware are packed loose in the Twine Box. Install each of the (2) Bale Ramps to the Axle mounted Ramp Anchors securing each with (4) 1/2 x 1-1/4” Cap Screws, Lock Washers and Nuts. Several mounting positions are available to allow compensation for various crop and field conditions.

BALE RAMP SHIELDS & BALE RAMPS (QUICK WRAP MODELS ONLY) (Fig. 128)

The Bale Ramp Shields and mounting hardware are packed loose in the Twine Box. Installation is as follows:

1. Remove the (4) 1/2 x 5” Cap Screws and 1/2” Lock Nuts that secure the (2) Ramp Anchor Assemblies and retain.
2. Install a Ramp Shield to the back of each Ramp Anchor Assembly securing with the retained (4) 1/2 x 5” Cap Screws, 1/2” Lock Nuts and adding (4) 1/2” Flat Washers as shown in Fig. 128.
3. Install each of the (2) Bale Ramps to the Axle mounted Ramp Anchors securing each with (2) 1/2 x 1-1/4” Cap Screws, Lock Washers and Nuts. Several mounting positions are available to allow compensation for various crop and field conditions.
4. Roll the Ramp Shields over the Ramps and secure each using a Hold Down Strap, (2) 1/2 x 1-1/4” Cap Screws, Lock Washers and Nuts.

HOSE & CABLE SUPPORT

Attach the Hose & Cable Support to the right front face of the Hitch securing with (2) 5/8 x 2” Cap Screws, (2) 5/8” Flat Washers and Lock Washers. MAKE SURE to place the Flat Washers under the heads of the Cap Screws. Route the Hydraulic Hoses, Transport Lighting Cable and Baler Control Cable through the loop on the Hose & Cable Support.

NOTE: To ease assembly, manually extend the Twine Arm for additional clearance.
TWINE TIE SYSTEMS

NOTE: The Twine Arm and Actuator comes fully assembled and mounted on the Baler from the factory.

Manual Twine Wrap System (Fig. 129)

Tractor Control Box Installation

A Bracket is provided for attaching the Receptacle onto the tractor. The Bracket should be located on the rear of the tractor in a position which prevents the Cable from being caught by the PTO.

Appropriate hardware and mounting brackets are provided for attaching the Control Box to a non-supportive member (such as the cab or a fender) on the tractor. BE SURE to locate the Control Box within convenient reach. Make the Red (+) 12-volt and White (-) 12-volt tractor battery/ground connections for powering the Control Box. A 20 amp Bus Bar connection is also acceptable. Any intermediate wire or harness must be AWG 10 gauge or heavier.

Bale Counter Installation

1. Pop rivet the Bale Counter to the Counter Mounting Bracket using the Pop Rivets supplied.

2. Attach one end of the Extension Spring to the Bale Counter Arm closing the loop in the Spring to secure.

3. Mount the Counter Assembly to the TDC Valve Trip Mechanism using the existing hardware on the Baler (TDC Valve Trip Stop Bolt & TDC Valve Mounting Bolt).

4. Loosen the TDC Valve Trip Mounting Bolt. Attach the other end of the Extension Spring to the end of the Bolt facing the front of the Baler and secure.

Baler Actuator Cable Installation

1. Remove Windguard to gain access to the Twine Arm Actuator.

2. Route Actuator Cable through Cable and Hose Support, along Hydraulic Hoses, through the Hitch Assembly and plugging into the Actuator. Secure the Cable with the Cable Ties provided.

CAUTION

DO NOT secure cable to any moving parts or pinch points.

3. Replace Windguard.

---

Fig. 129: Manual Twine Control Parts
Automatic Twine Wrap System
(Figs. 130 – 133)

1. Connect the Power Harness to an adequate power source that is capable of supplying a minimum of 20 Amps at 12 Volts. Connect the RED power lead to the (+) polarity of the power source and the BLACK power lead to the (−) polarity (Ground).

Tractor Control Box Installation

NOTE: If the RED power lead is connected to the wrong polarity, the system will NOT respond.

2. Avoid using an intermediate harness or wiring means between the power source and the Power Harness supplied with your Gehl Baler.

3. An inline fuse holder is manufactured into the RED (+) positive lead of the Power Harness. The holder has a 20 Amp spade type automotive fuse inside. For replacement use an equivalent 20 Amp fuse.

4. Route the Power Harness in such a way as to be protected by its location, but so it does not interfere with any other tractor controls or moving parts. Route the female connector end of the Harness to the tractor and plug the connector into the bottom of the Control Box. Route the bracket and male connector assembly to the rear of the tractor. Mount the bracket securely to the back of the tractor in a location that will keep and hold the power cord in a safe operating position.

Baler Shuttle Position/Bale Size Sensor Installation (See Fig. 130)

1. Mount the Shuttle Position/Bale Size Sensor on the two rear upper Tie Rods of the left TDC Cylinder securing with two 1/2″ Hex Nuts. MAKE SURE to position the Sensor Assembly so the Sensor is facing down or towards the rear of the machine.

2. Remove the special Screw, Lock Washer and Flat Washers that retain the Sprocket Assembly at the top of the left TDC Cylinder. Place the Slide Mounting Plate over the exposed Pin and secure with the removed hardware deleting one of the Flat Washers.

3. Pre-assemble the Slide, Strap, Magnet Assemblies, Magnet Nuts and Nylon Washers as shown.

4. Route the Slide Assembly through the Shuttle Position/Bale Size Sensor and secure the Assembly to the outside of the Plate on the top of the TDC Cylinder clevis with a 3/8 x 1″ Cap Screw and 3/8″ Nylon Insert Lock Nut. Adjust the Magnet Assembly in the Slide to determine bale size. Move the Magnet closer to the sensor for smaller bales and farther from the Sensor for larger bales.
Baler Tailgate Sensor Installation (See Fig. 130)

1. Remove the Nut and Lock Washer from the two lower Gate Stop mounting Bolts on the left side of the Baler.

2. Mount the Tailgate Sensor Assembly as shown securing with the two lower Gate Stop mounting Bolts. The Assembly has Weld Nuts for the Bolts.

Fig. 131

1 – Wire Ties
2 – Clamp, 1” Dia. (25 mm)
3 – 5/16” Flat Washer
4 – 5/16” Lock Nut
5 – Pause Sensor Cam
6 – Upper Actuator Arm Assembly
7 – Twine Tie Frame Assembly
8 – 5/16 x 1 Cap Screw
9 – End Wrap Pause Sensor Assembly
Baler End Wrap Pause Sensor Installation (See Fig. 131)
1. Remove Windguard to gain access to the Twine Tie Assembly.
2. Install Pause Sensor Assembly on Twine Tie Frame as shown securing with (2) 5/16 x 1” Cap Screws, (4) 5/16” Flat Washers and (2) 5/16” Lock Nuts.

NOTE: The Pause Sensor Cam MUST pass between Magnet and Sensor without touching the Magnet or Sensor.

Baler Cable Installation (See Fig. 130)
1. Route Implement Cable through Cable and Hose Support, along Hydraulic Hoses, through the Hitch Assembly and connect the Actuator leg (white & yellow wires) of the Cable into the Actuator. Also connect the End Wrap Pause leg (brown & green wires) to the End Wrap Pause Sensor.
2. Continue routing the Implement Cable through the left side of the Hitch Assembly, along the Twine Tube and to the remaining Sensors. The Connector with the grey & green wires goes to the Gate Latch Sensor and the Connector with the blue & green wires goes to the Shuttle Position/Bale Size Sensor.
3. Secure the Implement Harness with the Wire Ties & Clamps as shown.
4. Replace Windguard.

![Diagram of Power Harness]

1 – To Tractor 12 volt D.C. Power System
2 – Inline Fuse Holder
3 – Connect to Mating Plug On Tractor Module
4 – Power Harness
5 – Connect to Mating Round Plug On Implement Harness

Fig. 132: Power Harness
Chapter 14 – Set-up & Assembly

AUTOMATIC BALE CONTROL SYSTEM (Figs. 134, 135 & 136)

Implement Module

The Implement Module is factory installed on the left side of the Baler next to the TDC Cylinder. The Implement Module is:

1. A memory storage unit
2. The controller for the Tractor Module
3. A fully pre-programmed computer
4. The component from which the Wiring Harness extends

Tractor Module

The Tractor Module is part of a mounting and wiring package for the tractor. The Module and mounting and wiring package comprises:

1. A cooperating Microprocessor with the Implement Module
2. A Liquid Crystal Display (LCD) Indicator
3. Eight (8) Touch Keypads which are used singly or in pairs to perform specific functions
4. Magnetic base male Spade Mount and Bracket for placement on tractor fender or other metal cab member within convenient operator arm’s reach

NOTE: If NO convenient metal member exists, remove Spade Mount and secure with field-supplied standard hardware.

Remove protective cover from LCD Display by starting at one corner of the display and peel off plastic cover.

Power Harness

1. Connect the Power Harness to an adequate power source that is capable of supplying a minimum of 17 Amps at 12 Volts. The red power lead is to be connected to the (+) polarity of the power source, and the black power lead is to be connected to the (−) polarity (Ground)
2. Avoid using an intermediate harness or wiring means between the power source and the Power Harness supplied with your Gehl Baler
3. An inline fuse holder is manufactured into the (+) positive lead of the Power Harness (See Item 2,
Fig. 134). The holder should have a 20 Amp spade type automotive fuse inside. For replacement use an equivalent 20 Amp fuse.

**NOTE:** Do NOT reverse wiring connections because system will NOT respond.

4. Route the Power Harness in such a way as to be protected by its location, but not in interference with any other tractor controls or moving parts.

The rectangular connector with the four wires is to be routed to the operator’s station and plugged into the back of the Tractor Module. The bracket with the round 6-pin connector is to be routed to the back of the tractor. The bracket should be mounted securely to the back of the tractor in a location that will keep and hold the power cord in a safe operating position.
Chapter 14 – Set-up & Assembly

Fig. 136: Baler Harness

All Harness Connectors except Bale Size Sensor, connect to "Normally Open" switches.
## Pin Identifications

<table>
<thead>
<tr>
<th>Pin</th>
<th>Wire Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Ground Black</td>
</tr>
<tr>
<td>A2</td>
<td>Twine Actuator (Yellow)</td>
</tr>
<tr>
<td>A3</td>
<td>Net Actuator</td>
</tr>
<tr>
<td>B1</td>
<td>Ground (Gate Latch - Black)</td>
</tr>
<tr>
<td>B2</td>
<td>Ground Gate Latch &amp; Pinch Roll Return (Black)</td>
</tr>
<tr>
<td>B3</td>
<td>Bale Size Sensor +V (Red)</td>
</tr>
<tr>
<td>B4</td>
<td>Bale Size Sensor, Signal (Orange)</td>
</tr>
<tr>
<td>C1</td>
<td>Ground (Black)</td>
</tr>
<tr>
<td>C2</td>
<td>Left Twine Sensor (White)</td>
</tr>
<tr>
<td>D1</td>
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</tr>
<tr>
<td>D2</td>
<td>Right Twine Sensor (Green)</td>
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<tr>
<td>D3</td>
<td>Pinch Roll Count (Violet)</td>
</tr>
<tr>
<td>D4</td>
<td>Shuttle Return (Pink)</td>
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<tr>
<td>G1</td>
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<tr>
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<td>H1</td>
<td>Ground, Shuttle Return (Black)</td>
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<tr>
<td>H2</td>
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</tr>
<tr>
<td>J1</td>
<td>Bale Size Sensor, Ground (Black)</td>
</tr>
<tr>
<td>J2</td>
<td>Left Twine Sensor Return (Black)</td>
</tr>
<tr>
<td>J3</td>
<td>End Wrap Pause (Brown)</td>
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<tr>
<td>J4</td>
<td>Serial Communication B. (Yellow)</td>
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<tr>
<td>K1</td>
<td>+12 Volts D.C. (Red)</td>
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<td>Twine Actuator (Red)</td>
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## Plug Identifications

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<tr>
<td>B4</td>
<td>Bale Size Sensor, Signal (Orange)</td>
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<tr>
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<td>Bale Size Sensor, Ground (Black)</td>
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<tr>
<td>K1</td>
<td>+12 Volts D.C. (Red)</td>
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<tr>
<td>A1</td>
<td>Ground Black</td>
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<tr>
<td>C2</td>
<td>Left Twine Sensor (White)</td>
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<td>G2</td>
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<td>B1</td>
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<td>Ground (Black)</td>
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<td>D3</td>
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<tr>
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<td>Net Actuator (Red)</td>
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<tr>
<td>H1</td>
<td>Ground, Shuttle Return (Black)</td>
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</table>
CHAPTER 15
OPTIONAL FEATURES & ACCESSORIES

GENERAL INFORMATION

The following Optional Features & Accessories are available for installation on a Baler to increase its capabilities. Set-up and assembly information for all Kits, except the Twine Tie Mechanisms, are provided in separate instructions packaged with each Kit of parts.

1000 RPM CONVERSION KIT

The 1000 RPM Conversion Kit (806698) will convert a standard 540 RPM RB1475 or RB1875 to 1000 RPM operation. The Kit includes a 1000 RPM Transmission, a tractor to implement PTO, 8 Shear Bolts, 2 Decals and an Instruction Sheet.

BELT LACING KIT

The Belt Lacing Kit (802700) contains a 6” (152.5 mm) wide Clipper Vice Lacer, (6) #4-1/2 Clipper Hook Cards and a 72” (1829 mm) long piece of Nylon-coated Stainless Steel Cable. The Kit is required when it is necessary to repair a Baler Bale Forming Belt. Refer to details in the Service chapter of this manual for using the Kit.

BELT RE-LACING KIT

The Belt Re-lacing Kit (073390) contains the same components as the Belt Lacing Kit (802700) above with the exception of the Clipper Vice Lacer. This Kit is available to replace the supplies furnished with the above Kit.

BELT LACING CABLE

The Belt Lacing Cable (094104) is a 7” (178 mm) long piece of Nylon-coated Stainless Steel Cable used for rethreading a Belt splice. Refer to the instructions in the Service chapter of this manual for using this Cable. A 6’ (1.83 m) roll of Lacing Cable is also available by ordering part number 078112. Instructions are included.

CROWDER WHEELS KIT

The Crowder Wheels Kit (806492) is available for expanding the Pickup width of either model Baler to enable taking in a wider swath of material. The Kit contains (2) Crowder Wheels, Mounts and attaching hardware. Installation, operation and adjustment details are provided with the Kit of parts.

PACKING ROLLER LAGGING KIT

The Packing Roller Lagging Kit (068633) is available to improve feeding into the Baler in certain crop conditions. The Kit contains (2) Strips of Lagging (Belting), (36) Rivets and (4) Cover Strips. Installation details are provided with the package of parts.

PICKUP HYDRAULIC LIFT KIT

The Pickup Hydraulic Lift Kit (806946) is available for remote height control of the Crop Pickup from the tractor. The Kit contains a Hydraulic Cylinder, hydraulic connections and mounting hardware. Installation details are provided with the Kit.

SHEAR BOLTS

On 540 RPM model Balers, replacement Grade L9, 1/4 x 1-1/2” Shear Bolts are available in packaged quantities of (8) per package by ordering part number 095141. On 1000 RPM model Balers, replacement Grade 5, 1/4 x 1-1/2” Shear Bolts are available in packaged quantities of (8) per package by ordering part number 900084.
CHEVRONE DUTCHMAN KIT
The Dutchman Kit (126230) contains (1) 36” long, 6” wide section of Chevone Belt, already laced and ready for splicing. Installation details are provided with the Kit.

NET STRIPPER KIT
The Net Stripper Kit (127038 - 1475 & 127039 - 1875) prevents the netting from following the belts up the backside of the Baler.

CHAIN OILER KIT
The Chain Oilier Kit (806491) provides automatic oiling of all Drive Chains as the Baler is used. Installation details are provided with the Kit.

SAFETY CHAIN (Fig. 138)
The recommended Safety Chain for use with these Balers can be obtained in Kit 803320.

NOTE: If the Baler is to be transported on a public highway, a Safety Chain Kit should be obtained and installed following the details in the Transporting chapter.

CONNECTOR KIT 119923
This Connector Kit repairs the male and female ends of the Connectors (2 wires) that join the ends of the Baler Harness with the Left and Right Twine Feed Sensors, End Wrap Pause Sensor, Pinch Roll Count Sensor (Net Wrap models only) and the Shuttle Return & Full Size Bale Sensor on the Automatic Bale Control models. The Kit also repairs the Connectors for the End Wrap Pause Sensor, Gate Latch Sensor & Full Size Bale Sensor on the Automatic Twine Wrap models. Installation details are provided with the Kit.

CONNECTOR KIT 119924
This Connector Kit repairs the male and female ends of the Connectors (3 wires) that join the ends of the Baler Harness with the Bale Size Sensor. Installation details are provided with the Kit.

CONNECTOR KIT 119925
This Connector Kit repairs the male and female ends of the Connector (2 wires, 18 AWG blue and yellow) that joins the ends of the Baler Harness with the Implement Harness. Installation details are provided with the Kit.

CONNECTOR KIT 119926
This Kit repairs the 6 hole Connector to the Cab Module of the Auto-Electric Tie System in the tractor Power Harness. Installation details are provided with the Kit.

CONNECTOR KIT 119927
This Connector Kit repairs the male and female ends of the Connector (2 wires, 10 AWG red and black) that joins the ends of the Baler Harness with the Implement Harness. Installation details are provided with the Kit.

CONNECTOR KIT 119928
This Kit repairs the Fuse Holder in the tractor Power Harness on both Automatic Bale Control and Manual Twine Wrap models. Installation details are provided with the Kit.

CONNECTOR KIT 119929
This Connector Kit repairs the end of the Baler Harness (30 wire Connector) that plugs into the Implement Module. Installation details are provided with the Kit.
Chapter 15 – Optional Features & Accessories

CONTACT KIT 141191

This Kit repairs the Contacts in the Plugs that join the tractor Power Harness to the Implement Harness on both Automatic Bale Control and Manual Twine Wrap models. The Kit also repairs the Contacts in the Plugs that join the tractor Power Harness to the Baler Control on the Manual Twine Wrap models. Installation details are provided with the Kit.

CONNECTOR KIT 141192

This Kit repairs the Plug (tractor half of Connector ONLY) that joins the tractor Power Harness to the Implement Harness on both Automatic Bale Control and Manual Twine Wrap models. The Kit also repairs the Plug in the Baler Control that plugs into the tractor Power Harness on Manual Twine Wrap models. Installation details are provided with the Kit.

CONNECTOR KIT 141193

This Kit repairs the Plug (Baler half of Connector ONLY) that joins Implement Harness to the tractor Power Harness on both Automatic Bale Control and Manual Twine Wrap models. The Kit also repairs the Plug in the tractor Power Harness that plugs into the Baler Control on Manual Twine Wrap models. Installation details are provided with the Kit.

TWINE SENSOR JUMPER HARNESS 141460
(AUTOMATIC BALE CONTROL ONLY)

This Harness provides the necessary electrical connection to enable the Baler to be operated using just one string of twine on the Automatic Bale Control models.

2 MAGNET TWINE WHEEL 141532
(AUTOMATIC BALE CONTROL ONLY)

The 2 magnet Twine Wheel will speed up the twine tying cycle. A Wheel MUST be ordered for each side of the Baler.
CHAPTER 16
DECAL LOCATIONS

GENERAL INFORMATION
Decal Locations information is provided to assist in the proper selection and application of new decals, in the event the original decal(s) become(s) damaged or the machine is repainted. Refer to the listing for the illustration reference number, part number, description and quantity of each decal provided in the Kit. Refer to the appropriate illustration(s) for replacement location(s).

NOTE: Refer to the SAFETY Chapter of the Operator’s Manual for the specific information provided on all of the various Safety Decals furnished in the Decal Kit(s).

To insure proper selection for correct replacement decal(s), compare all of the various close-up location photographs to your machine BEFORE starting to refinish the unit. Then, circle each pictured decal (applicable to your machine) while checking off its part number in the listing. After you have verified all the decals needed for replacement, set aside unneeded decals for disposal.

NEW DECAL APPLICATION
Surfaces MUST be free from dirt, dust, grease and other foreign material before applying the new decal. To apply a solid-formed decal, remove the smaller portion of the decal backing paper and apply this part of the exposed adhesive backing to the clean surface while maintaining proper position and alignment. Slowly peel off the other portion of the backing paper while applying hand pressure to smooth out the decal surface.

CAUTION
ALWAYS observe safety rules shown on decals. If decals become damaged, or if the unit is repainted, replace the decals. If repainting, BE SURE that ALL decals from the kit(s) which apply to your machine are affixed to your unit.

| PAINT NOTICE |
| Use this list to order paint for refinishing: |
| 906315 | One Gal. AG Red |
| 902872 | One Qt. Light Grey |
| 906316 | 6 (12 oz. Spray Cans) AG Red |
| 902874 | 6 (12 oz. Spray Cans) Light Grey |
For a complete Decal Set, order Part Number 119614 for the RB1475 model Baler or 119615 for the RB1875 model Baler. The following Decals (as required) are included in the Sets:

<table>
<thead>
<tr>
<th>Ref. Part No.</th>
<th>Description &amp; Quantity</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Operating Instructions</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>General Operating Instructions</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Shuttle Lock Position (2 Places)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Jack Storage Position</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Jack Lifting Position</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Belt Tracking Adjustment (2 Places)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Patent</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Red Reflector Strip (2 Places)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>DANGER - Rotating Drive Line</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Lubrication Symbol (16 Places)</td>
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</tr>
<tr>
<td>11</td>
<td>IMPORTANT - Store Manual Here</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>WARNING - Owner’s Responsibility &amp; Read Manual</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>WARNING - General Safety</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>WARNING - Keep Door Closed (3 Places)</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>WARNING - Rotating Wrench</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>WARNING - Reservoir Contamination</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>DANGER - Belt Entanglement</td>
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</tr>
<tr>
<td>18</td>
<td>DANGER - No Manual Feed (2 Places)</td>
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</tr>
<tr>
<td>19</td>
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<td></td>
</tr>
<tr>
<td>20</td>
<td>093653</td>
<td>WARNING - Rotating Drive Line</td>
</tr>
<tr>
<td>21</td>
<td>094914</td>
<td>GEHL 5 x 23-1/2” (Front)</td>
</tr>
<tr>
<td>22</td>
<td>094962</td>
<td>Colorbar 13-1/2 (1 on Each Side)</td>
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<tr>
<td>23</td>
<td>119562**</td>
<td>Bale Size Indicator (1875 – 0-3)</td>
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<td>35</td>
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<td>36</td>
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<td>DANGER - Baler Entanglement (2 Places)</td>
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<td>122617</td>
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<td>38</td>
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* Not Shown
** Automatic & Manual Twine Wrap Models Only

**NOTE:** Order Part Number 126757 for 10 ft roll of replacement Striping
NOTE: This following is a duplicated listing of the Decals from a previous page. It is provided for your convenience when selecting Decals from the second page of photographs.

For a complete Decal Set, order Part Number 119614 for the RB1475 model Baler or 119615 for the RB1875 model Baler. The following Decals (as required) are included in the Sets:

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<tr>
<th>Ref. Part No.</th>
<th>Description &amp; Quantity</th>
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<td>32</td>
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<td>DANGER - Baler Entanglement (2 Places)</td>
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<td>DANGER - PTO Shield (under Shield)</td>
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<td>** Automatic &amp; Manual Twine Wrap Models Only</td>
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NOTE: Order Part Number 126757 for 10 ft roll of replacement Striping
**QUICK WRAP DECALS**

Individual Decal Sets for the QW1400 and QW1800 Quick Wraps are NOT available. Order Quick Wrap decals by individual part numbers.

<table>
<thead>
<tr>
<th>Ref. No.</th>
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<tr>
<td>1</td>
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**Door in open position**

**Center on Machine between Handles.**

**Bend Line**
CHAPTER 17
MAINTENANCE LOG

NOTE: Under extreme operating conditions more frequent service than the recommended intervals may be required. You must decide if your actual operation requires more frequent service based on your use.

<table>
<thead>
<tr>
<th>COMPONENT and SERVICE REQUIRED</th>
<th>PROCEDURE and/or CHAPTER TOPIC REFERENCE (Check Page No. in Index)</th>
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<tbody>
<tr>
<td>Inspect Upper Belts.</td>
<td>Check Lacing and Pins.</td>
</tr>
<tr>
<td>Check Roller Chain Tension.</td>
<td>See Chain Idlers topic in Adjustments chapter.</td>
</tr>
<tr>
<td>Lubricate Chains and appropriate grease fittings.</td>
<td>Refer to Lubrication chapter for Grease Fitting locations and intervals.</td>
</tr>
<tr>
<td>TDC Reservoir air pressure &amp; fluid level.</td>
<td>Refer to Density Control system topic in Service chapter.</td>
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Date After Service is Completed
## SERVICE EVERY 50 HOURS

<table>
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<th>PROCEDURE and/or CHAPTER TOPIC REFERENCE (Check Page No. in Index)</th>
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<tr>
<td>Check Tire Pressure and Wheel Nut Torque.</td>
<td>Inflate Tires to 40 PSIG (280 kPa) and torque Wheel Lugs to 90 ft-lb (124.5Nm).</td>
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<tr>
<td>Check Universal Drive Guards.</td>
<td>Lubricate and test that Drive Shaft rotates freely inside Guard.</td>
</tr>
<tr>
<td>Inspect Twine Knife.</td>
<td>Check sharpness – See Twine Knife topic in Service chapter.</td>
</tr>
<tr>
<td>Readjust Scraper position.</td>
<td>Set up to Roller – See Scraper topic in Adjustments chapter.</td>
</tr>
<tr>
<td>Inspect Pickup Overfill Clutch.</td>
<td>See Overfill Clutch topic in Adjustments chapter.</td>
</tr>
<tr>
<td>Inspect all Roller Bearings.</td>
<td>Check for Seal failure &amp; overheating.</td>
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</tbody>
</table>

**Date After Service is Completed**

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## SERVICE EVERY 100 HOURS

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<tr>
<td>Inspect Roller Chains and Drive Sprockets.</td>
<td>Replace if worn more than 3% elongation.</td>
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<tr>
<td>Inspect Pickup Drive Belt.</td>
<td>Replace if Belt NO longer drives Pickup.</td>
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<tr>
<td>Inspect Cams and Cam Bearings.</td>
<td>See Pickup topic in Service chapter.</td>
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<tr>
<td>Check Packing Roller to 8” Lower Roller clearance.</td>
<td>Readjust to 1/4” (6 mm) clearance – see Packing Roller Clearance topic in Adjustments chapter.</td>
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<tr>
<td>Check quality and level of Transmission lubrication.</td>
<td>Replace or replenish – see Lubrication chapter.</td>
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**Date After Service is Completed**

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### SERVICE EVERY 200 HOURS (OR END OF SEASON)

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<td>Inspect Universal Drive Joints.</td>
<td>Refer if worn (loud and vibrating).</td>
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<tr>
<td>Inspect Universal Joint Seals.</td>
<td>Replace if Seals worn or damaged.</td>
</tr>
<tr>
<td>Lubricate appropriate grease fittings and repack Wheel Bearings.</td>
<td>Refer to <strong>Lubrication</strong> chapter.</td>
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**NOTE:** Use these torque values when tightening GEHL hardware (excluding: Locknuts and Self-tapping, Thread Forming and Sheet Metal Screws) unless specified otherwise.

All torque values are in Lb-Ft except those marked with an * which are Lb-In

(For metric torque value Nm, multiply Lb-Ft value by 1.355 or Lb-In value by 0.113)

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WARNING

THIS OPERATOR’S MANUAL IS PROVIDED FOR OPERATOR USE

DO NOT REMOVE
FROM THIS MACHINE

THANK YOU

DO NOT START, OPERATE OR WORK ON THIS MACHINE UNTIL YOU HAVE CAREFULLY READ AND THOROUGHLY UNDERSTAND THE CONTENTS OF THE OPERATOR’S MANUAL.

FAILURE TO FOLLOW SAFETY, OPERATING AND MAINTENANCE INSTRUCTIONS COULD RESULT IN SERIOUS INJURY TO THE OPERATOR OR BYSTANDERS, POOR OPERATION, AND COSTLY BREAKDOWN.

IF YOU HAVE ANY QUESTIONS ON PROPER OPERATION, ADJUSTMENT OR MAINTENANCE OF THIS MACHINE, CONTACT YOUR DEALER OR THE SERVICE DEPARTMENT OF GEHL COMPANY BEFORE STARTING OR CONTINUING OPERATION.