Challenger®

Product Information Guide

RB46 and RB56 Automatic Round Balers

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INTRODUCTION

The Challenger® RB46 and RB56 are both ”Fully Automatic” Round Balers. The RB46 is a 4’ wide by up to 6’ diameter Variable Chamber Round Baler, while the RB56 is a 5’ wide by up to 6’ diameter Variable Chamber Round Baler.

By “Fully Automatic” I mean that the baler takes over the tedious manual inputs previously required in the Round Bale making process (i.e.: wrapping, stopping the PTO, opening the tailgate, ejecting the bale, closing the tailgate and restarting the forming belts). An Operator/Baler can be much more production when manual inputs are not required.
Both balers offer these new features:

- A wide low profile pickup for minimal crop loss. The wider pickup eliminates the need for gathering wheels.
- Large pickup gauge wheels and flotation springs for exceptional pickup flotation.
- Centering augers and stuffer fingers smoothly move crop from the pickup into the open throat bale chamber for quick bale starts, and high capacity.
- Pickup and stuffer are now protected from overload by a radial pin slipclutch, for more dependable operation.
- Hydraulically released slip clutch to declutch the baler and protect it from overloads. If baler becomes plugged and the clutch slips longer than a determined time, the clutch will deactivate the baler drive to protect the baler components.
- New twine pulleys allow the operator to monitor twine flow onto the bale by watching the baler or by watching the control box.
- Scissors–action twine cutoff knives, for a more positive cutoff action.
- Balers can be specified with endless belts, for longer belt life.
- Heavy Belt lacing for longer belt splice life on balers with spliced belts.
- Twine ball capacity of 8 balls.
- Balers have a standard 540-rpm PTO. The baler can easily be converted to 1000 rpm. The RB56 can be ordered with a factory installed 1000 rpm PTO.
- Flotation tires are 14L x 16.1 for better ground clearance and flotation.
- The Auto cycle can be started remotely from the control box with a remote Cycle Start button.
- The bale shaper senses true bale shape rather than sensing belt slack like most other manufacturers, making the driving arrows on the monitor more accurate.
- The mesh wrap is surprisingly simple to operate and the most reliable unit on the market.

FEATURES AND BENEFITS
CHALLENGER® RB46-RB56 AUTOMATIC ROUND BALERS

The advanced electronic control box gives the operator the ability to control most baler settings from the tractor cab without the need to get out of the tractor and physically change settings on the baler. Following are some of the functions that can be controlled with the Challenger® Control Box:

- Several different languages can be programmed into the control box. The units of measurement can be expressed in inches or centimeters.
- Bale size can be set from within the tractor cab.
- Twine or mesh wrap operation. The operator can toggle between either types of wrap.
- Number of twine end wraps
- Twine spacing
- Twine end wrap position - Distance of twine from the sides of the baler
- Twine tail delay – Sets the amount of time in seconds between the end of the bale wrapping and baler declutching.
- Mesh wrap – Number of mesh wraps on the bale.
- Auto cycle select – Baler can be set to run entire automatic cycle at the push of a button, or can be set to wrap automatically after preset bale diameter is reached, then a button pushed to complete the cycle.
- Raise pickup – Hydraulic pickup lift is standard, and is controlled from a button on the control box.
- Automatic shutdown – If the console doesn't detect baler motion for 25 minutes, the control box is automatically shut down.

The functions that the operator can monitor from the Challenger® control box:

- Current bale diameter – The numeric display shows the current bale diameter in inches or centimeters.
- Bale oversize indicator – If bale size exceeds 74", the words "oversized bale" appears on the monitor, along with a beep. The baler will also automatically declutch at this point to prevent damage to the baler or belts.
- Bale size symbol – The bale size is also depicted by four segments, which indicate when the bale has reached 25%, 50%, 75% and 100% of the programmed bale diameter. The operator is alerted when the bale is within 4" of being full.
- Bale count – The field bale count can be monitored for two different fields. The total bale count is also monitored.
- Twine arm position – Indicates to the operator the position of the twine arm when twine tying. The position is indicated by illuminated segments of an LED bar graph.

Market

The RB46 and RB56 are Challenger's top of the line round balers. The automatic operation allows high baler output with minimal operator fatigue.

The RB46 baler makes a 4' x 6' bale, which is ideal to haul two wide on a trailer. Both balers are ideal for operators with large cattle herds, feedlots, dairy operations, and custom operators.

C00-2067

Size

The RB46 is a Class III (90 to 125 cu. ft.) variable chamber round baler. This baler produces a bale 46.5 inches wide and 30 to 72 inches in diameter. The Model RB46 baler is capable of a maximum bale weight up to 1660 pounds.

C00-2068

The Model RB56 is a Class IV (125 cu. ft. and above) variable chamber round baler. This baler produces a bale 61.5 inches wide and 30 to 72 inches in diameter. The Model 856 baler is capable of a maximum bale weight up to 2200 pounds.

C00-2069

BALER DRIVES

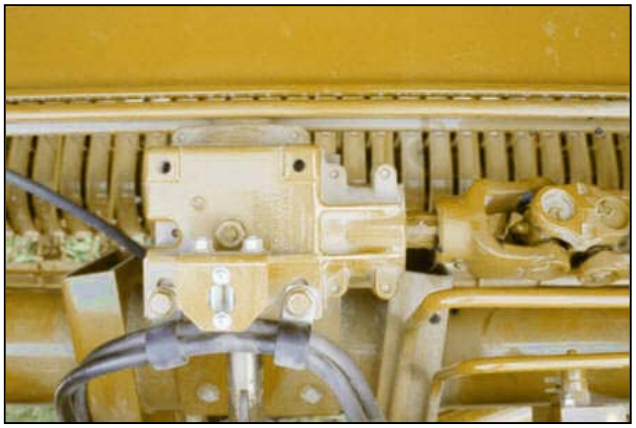
Constant Velocity Driveshaft

The constant velocity driveshaft and narrow tongue allow the operator to make short turns (up to 80°) without driveline chatter. The driveshaft features a lock back collar and 15° free motion, for easier hookup to the tractor. The constant velocity driveshaft allows short turns, which requires less time to be spent at the ends of the fields, enhancing baler output.

C00-2070

Gearbox

The 90° gearbox routes the drive from the tractor to the left side of the baler. The gearbox is equipped with a dipstick for easy servicing. By rotating the gearbox and changing the PTO yoke, the baler can be set up for 1000-rpm operation (The RB56 can be ordered with the 1000 rpm factory installed). The gearbox is made for quick servicing and versatile operation, reducing maintenance time.



C00-2071

Main Drive Slipclutch

The slipclutch on the automatic series balers performs double duty. The clutch will slip when the baler drive system is overloaded or the baler overfilled, plus it will hydraulically declutch when the tailgate is opened. De-clutching the slipclutch stops all the baler drives when the bale is ejected, and allows the baler belts to remain tensioned. When the belts remain tensioned, they remain aligned and tracking correctly, reducing belt problems. The main slipclutch gives overload protection and declutches when the tailgate is opened, lowering overall baler maintenance costs.

C00-2072

Left Side Drives

The majority of the baler is driven from the left side of the baler. The entire baler is driven using only ten drive chains. The drive to the pickup and stuffer are protected by a radial pin slipclutch. The baler drives are built for simplicity and long service life.

C00-2073

PICKUP

Wide Pickup

Both automatic balers have a wide, low profile pickup. The effective width of the RB46 pickup is 66 inches, and the effective width of the RB56 is 83 inches. The wide pickup allows the ends of the bales to be firmly packed without the need for packer wheels. The pickup pivots on roller bearings, for a smooth floating action. The RB56 pickup features a camtrack at each end of the pickup, to add stability to the tine bar and prevent twisting in heavy crop conditions. The wide pickup helps pick up wider windrows and can easier build square-shouldered bales, to better match field conditions and provide pride of ownership.

C00-2074

Gauge Wheels

Both automatic balers feature two gauge wheels as standard. The tires are 16 x 6.5 x 8 turf tread pneumatic. The gauge wheels allow the pickup to better follow the ground contours, providing more trouble-free pickup operation.

C00-2075

Flotation Springs

The pickup is equipped with two adjustable flotation springs to allow the pickup to easier follow the ground contour, reducing damage if an obstruction is encountered. The pickup flotation springs allow the pickup to closely follow ground terrain, and reduce damage when field obstructions are encountered, for longer pickup life.

C00-2076

Windguard

The windguard is a new, rear pivoting design. By pivoting the windguard from the rear, the front of the windguard is allowed to pivot up in heavy windrows. The compression is then kept constant on the crop as it moves across the pickup to the packer. The new windguards constant compression of the crop better controls crop flow, making baling smoother, reducing baler downtime.

C00-2077

Pickup Height Adjustment

The pickup height is infinitely adjustable with a crank handle located behind the left rear tire. The operator controls the pickup lift by pressing a button on the control box. The pickup height crank provides a very simple and effective means of setting the pickup height.

C00-2078

Centering Augers and Stuffer Assembly

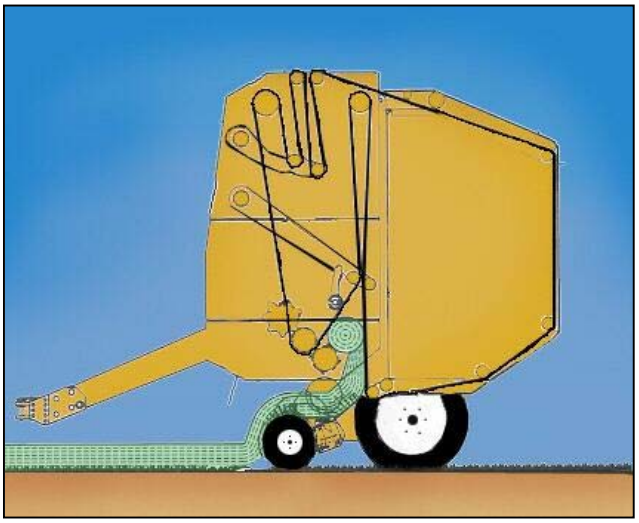
The centering augers gently move crop toward the center of the baler to be collected by the stuffer fingers. The stuffer then smoothly moves the crop from the pickup into the open center bale chamber. The positive feeding action of the stuffer helps to start the bale quickly in all crop conditions. The centering augers and stuffer assembly smoothly move crop from the pickup to the bale chamber, allowing quick bale starts, improving baler performance and productivity.

C00-2079

MAINFRAME, ROLLERS, AND BELTS

Open Throat, Vertical Bale Chamber

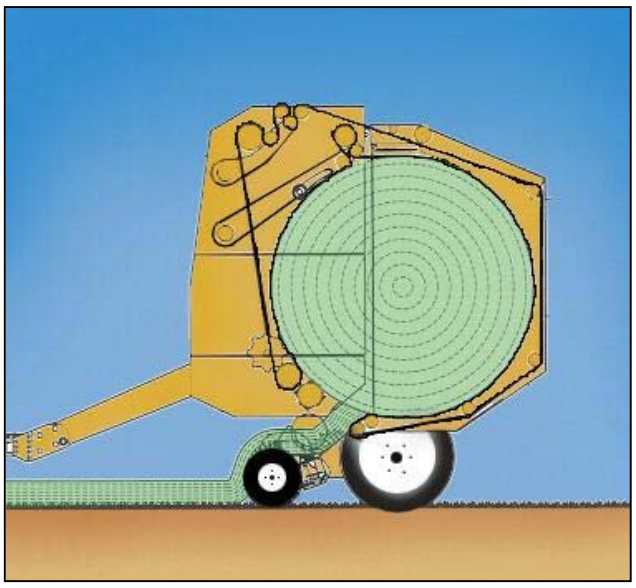
The open throat lets hay from the field flow over the pickup and stuffer directly into the vertical bale chamber without restriction. The vertical bale chamber is the cavity formed by the belts, which assists in quick bale starting.



C00-2080

As the bale grows, it exerts force on the bale tension and belt tension system. The resistance provided by the tension system is consistent from the bale core to the outer shell, making a dense bale with minimal horsepower requirements.

The open throat, vertical bale chamber allows quick bale starting in a large variety of crop conditions, increasing baler productivity and versatility.



C00-2081

Powered Rienks

The powered rienks effectively remove loose crop from the space between the front belts, and returns it to the pickup area. The rienks help remove loose buildup in dry crop conditions, and keeps crop from wrapping the bottom drive roll in damp conditions.

C00-2082

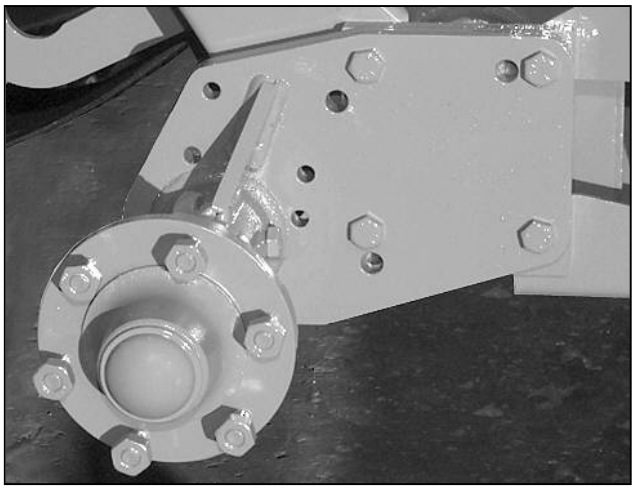
Adjustable Hitch

The clevis hitch height is easily adjustable up or down to level the baler on different size tractors or baler spindle settings. The hammer strap lock keeps the towing pin secure in the tractor drawbar. The adjustable hitch allows easier attachment to different tractor sizes, for greater versatility.

C00-2083

Adjustable Spindle Plates

The axle spindle plates can be adjusted to raise or lower the baler. The plates have two positions 2 in (50 mm) apart. In heavy crops, such as straw, the baler should be set in the upper position. In light windrows, or hard to feed crops, the baler can be lowered to improve the feed angle of the crop into the baler. The adjustable spindle plates allow the baler to match local field conditions, improving overall baler performance.



C00-2084

Bale Size Indicator

The operator can get a visual indication of the size of the bale by observing the bale size indicator (along with the indicator on the control box). The operator sets the desired bale size, and when the bale reaches this size, a visual and audio alarm sounds on the control box. The bale size indicator is a very simple and reliable guide showing operator the progress of a growing bale.

C00-2025

Bale Ejector

The bale ejector automatically pushes the bale away from under the tailgate. The advantage of a hydraulically actuated ejector rather than a spring actuated mechanism is that the hydraulic action “pushes” the bale from under the baler, rather than “kicking” it out. The spring kickers tend to unwind the twine or net off the bale, and the bale tends to roll away down a hill, or into an adjoining windrow. Another advantage of the Challenger® system is that the ejector can be shut off from the tractor seat, for precise placement of bales along a fenceline, or on a sidehill. Competitive balers usually have a means to lock out their kicker, but it is a manual job.

C00-2026

The ejector bar has a spring reset mechanism to protect it from damage in case a bale becomes trapped between the baler and ejector bar. If this happens, the ejector bar will spring over the bale and reset itself.

The hydraulic bale ejector increases overall productivity by reducing bale unloading cycle time.

C00-2027

Starting Roll

The bale-starting roll is used to help start the core formation quickly and help carry the weight of the bale. The starting roll is equipped with rubber flaps to aid bale starting in difficult conditions. The starting roll aids in quickly starting the bale turning, enhancing baler performance.

C00-2028

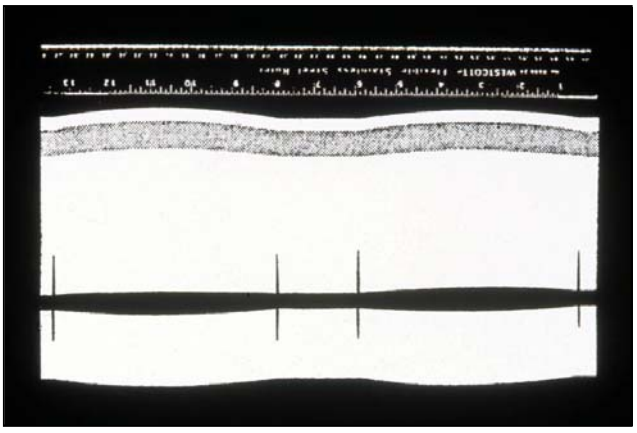
Double Tailgate Rollers

Double rollers on the bottom of the tailgate assists in starting bales by providing a gentle angle for the crop entering the bale chamber. The rolls, along with the starting roll, carry the weight of the bale, reducing stress on the baler belts. The double tailgate rollers improve bale starting and help carry the bale, giving more dependable baler operation.

C00-2085

Drive Rollers

The balers are fitted with a crowned rubber top drive roller, and a steel bottom drive roller. The two drive rollers keep the belts turning, even in adverse conditions. The crowned rubber roll insures better belt tracking than flat rolls. The drive rolls insure better belt traction and tracking, for fewer belt problems and longer belt life.



C00-2030

Belts

The belts are 7 inches wide; three ply, with a chevron tread surface to improve bale starting. The belts are laced, fastened with titan lacings, or are offered as endless. The inside of the belts have approximately four areas where the chevron design has been placed to assist cleaning the rollers. These chevron areas scuff off any buildup that may accumulate. The laced belts give 90% bale coverage to reduce leaf loss and also provide better roll cleaning, for higher value bales and more trouble free operation.

C00-2086

Flotation Tires

The automatic balers offer the 14L x 16.1 flotation tire. This is the largest flotation tire offered on a round baler, and the best to reduce field compaction.

C00-2087

BALE WRAPPING

Dual Twine Arm

The hydraulically controlled twine arm is shear bolt protected and located above the pickup area. The balers use a dual twine arm tie system. The dual twine arm ties off the bale faster than a single arm. The twine tubes can be easily adjusted from 2 to 7 inches apart. The dual twine arm allows the operator to quickly tie off bales, and is easily adjustable, for improved baler performance and productivity.

C00-2088

Twine Guide (Right)

A new twine guide on the right side of the baler is spring loaded to allow crop to flow unrestricted into the bale chamber, but moves back down to assure proper twine cut off. The twine guide can be easily adjusted by moving the guide to hold the twine 3.5”, 4.8”, or 6” away from the right end of the bale. When setting the end wrap position from the control box, the baler setting should be set to the 3.5” setting. The right twine guide doesn’t obstruct crop flow, and is easily adjusted, for increased baler productivity.

C00-2089

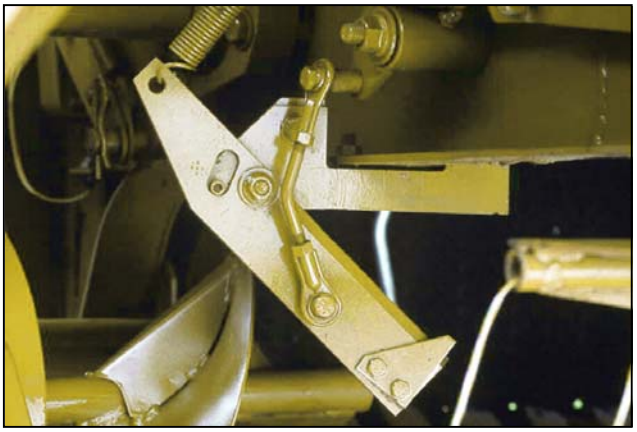
Twine Spacing (Left)

The left side twine spacing is easily adjusted by changing the position of a stop nut on the threader cylinder. A special wrench for adjusting the stop nut is provided with the baler. When setting the end wrap position from the control box, set the stop nut to a wider end position. The twine guide adjustments are quick and easy to make, reducing the time to convert spacing for different crops.

C00-2090

Twine Cutoff

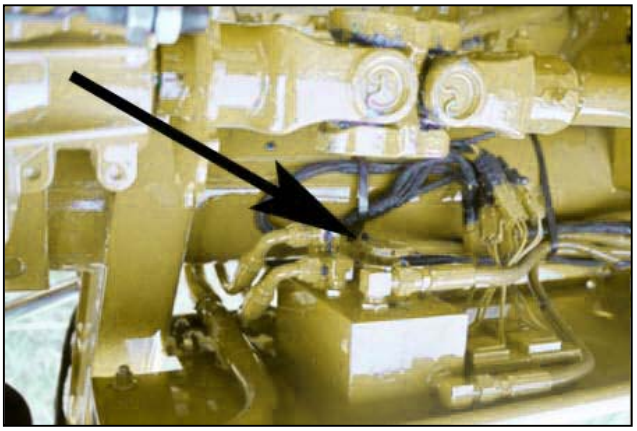
The twine cutoff features a positive scissors action. The scissors action works best when cutting the two twines, regardless of the twine thickness, giving a clean cut, with less fraying. When the twine is cut clean and not frayed, it is picked up easier when it comes time to tie the next bale. The twine cutoff has less twine related problems, adding to baler productivity, and reducing operator frustration.



C00-2091

Twine Speed Adjustment

The speed of the twine arm can be adjusted on the threader control valve to regulate the amount of twine applied to the bale. When setting the twine spacing from the control box, the control valve should be set to a fast twine arm speed. The twine speed adjustment permits the same amount of twine to be placed on every bale, giving consistent twine output.



C00-2092

Twine Wheels

The operator can easily see if twine is flowing onto the bale by observing the two twine wheels located at the front of the baler. The wheels are also fitted with sensors, so the control box also senses twine flow, and alerts the operator if it is not correct. The twine wheels are a simple and effective method of insuring that twine is being correctly applied to the bale.

C00-2093

Twine Box

The twine box holds up to eight balls of twine, depending on size and type. A decal on the right door in the twine storage compartment illustrates the proper twine routing. The well-placed decal saves the operator time when threading twine into the baler. The improved twine box capacity and informative decal means the operator has to stop less frequently, improving productivity.

C00-2094

Mesh Wrap

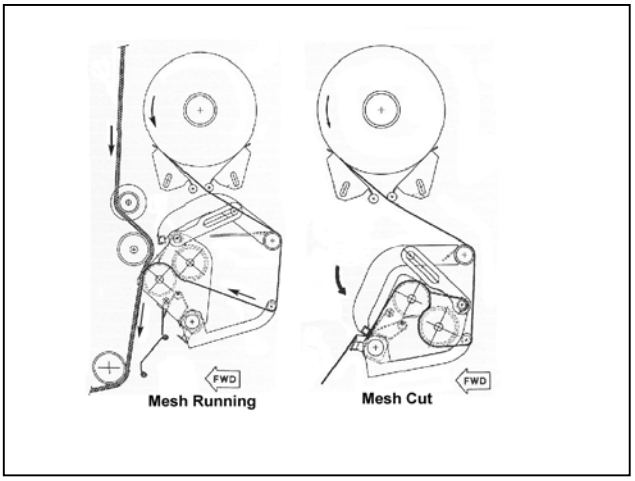
The mesh wrap can be installed as a factory option. The mesh wrap covers the entire circumference of the bale, holding the bale shape, and shedding water better than twine. The mesh wrap system can handle both standard width mesh wrap, and also wider mesh rolls (6 inches wider than bale chamber). The wider mesh holds the corners of the bale down better than the standard width mesh. The mesh wrap system reduces the time to wrap a bale, improves weathering ability of bale and can use two widths of mesh, improving baler productivity and versatility.

C00-2095

The mesh wrap mechanism is much simpler than the previous design. A single cylinder pivots the mesh feedrolls forward, and the feed roll starts turning when it comes in contact with the baler belts. The rolls move away from the belts when the rotating bale starts to pull mesh from the mesh wrap roll.

C00-2096

When the pre-set number of mesh wraps has been put on the bale, the feed rolls pivot into the cut position. A brake stops the feed roll rotation, and the mesh hold-down arm holds the mesh against the knife to cut the mesh.



C00-2097

HYDRAULICS

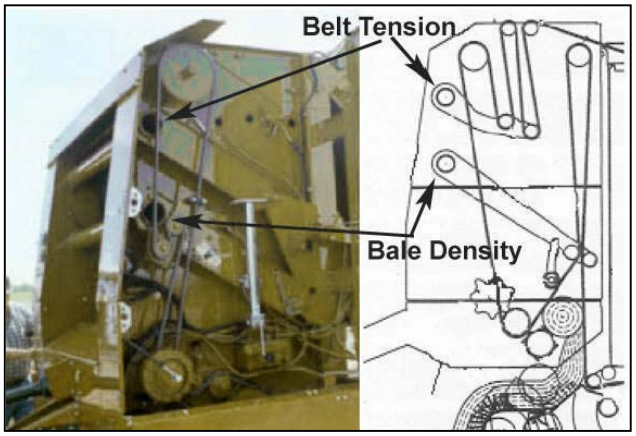
Self-contained Hydraulic System

The automatic balers feature a self-contained hydraulic system, which includes a pressure compensated hydraulic pump, hydraulic reservoir, oil filter, and control valve. The baler does not have to rely on tractor hydraulics, for more consistent and trouble free operation.

C00-2098

Hydraulic Density

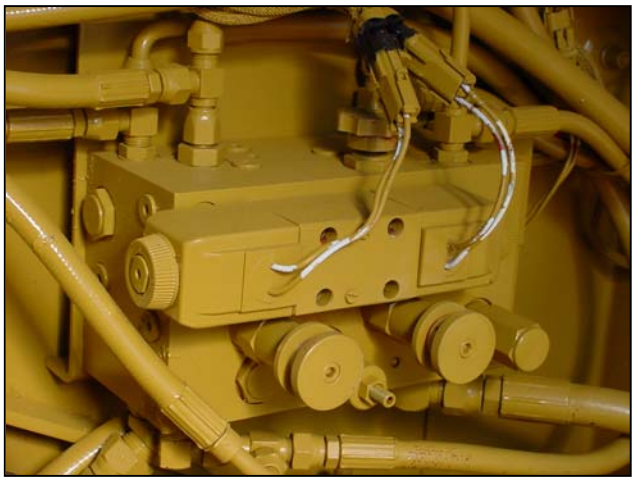
Belt tension and bale density are controlled hydraulically. The top tension arm maintains pressure on the belts to eliminate slippage, while the pressure on the lower arm develops a more uniform and dense bale. The split bale and belt tension systems reduces belt slippage as the bale is being built, and allows the bale tension to be released when the bale is ejected, reducing the possibility of the bale sticking in the chamber. At the same time, the belts remain tight, not allowing the belts to move off-track when the tailgate is opened and closed. The hydraulic density system releases the bale tension, but maintains the belt tension when the bale is ejected, reducing ejection problems and prolonging belt life.



C00-2099

Hydraulic Valve Block

The hydraulic valve block contains most of the hydraulic adjustments on the baler. A belt tension pressure relief valve (dump valve) allows the operator to release the baler belt tension for routine baler service. The hydraulic valve contains the main hydraulic adjustments on the baler, making adjustment easier and simpler.



C00-2100

Pressure Gauges

The two gauges at the front of the baler are used to monitor the belt tension and the bale density. A decal mounted below the gauges indicates the function of each gauge, and the corresponding valve used to adjust pressure. The gauges show the operator both belt and bale cylinder pressure, to give the operator more control of baler hydraulics.

C00-2101

Tailgate Lockout Valve

The safety lockout is a simple push-pull hydraulic valve. The ease of operation of this valve improves the likelihood that the operator will engage it when servicing the baler, improving safety. The tailgate lockout valve is easy to use, and an effective means of locking the tailgate open, giving the operator peace of mind when maintaining the baler.

C00-2102

Electro-hydraulic Pickup Lift

The electro-hydraulic pickup lift allows the pickup to be raised and lowered from the tractor seat by pressing a button on the control box. The operator saves time and effort when moving the baler from field to field. With the hydraulic lift installed, the hand crank is still used to set pickup height, and the hydraulic cylinder is used to raise and lower the pickup.

C00-2103

ELECTRICAL

C00-2104

Control Box

The new generation control box allows the operator to monitor the function of the baler, and to set bale size and wrap options, all without leaving the tractor seat. The control box features suction cups on the back of the monitor, so it can be mounted in any cab, or the box includes a mounting bracket, so it can be securely mounted to any flat surface.

C00-2105

Languages

English, French, Spanish or German languages can be programmed into the control box. The units of measurement can be expressed in inches or centimeters.

C00-2106

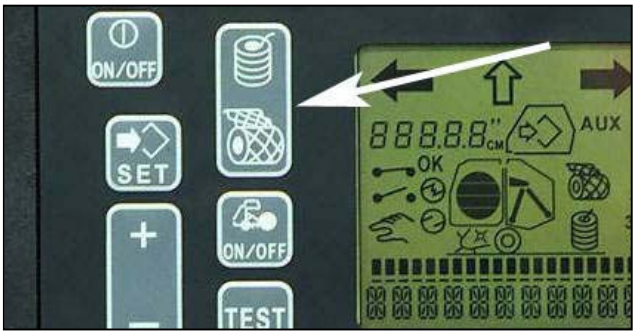
Bale Size

The size bale desired can be programmed into the control box. Values start at 30” (76 cm) to full size at 72” (183 cm).

C00-2107

Twine or Mesh Operation

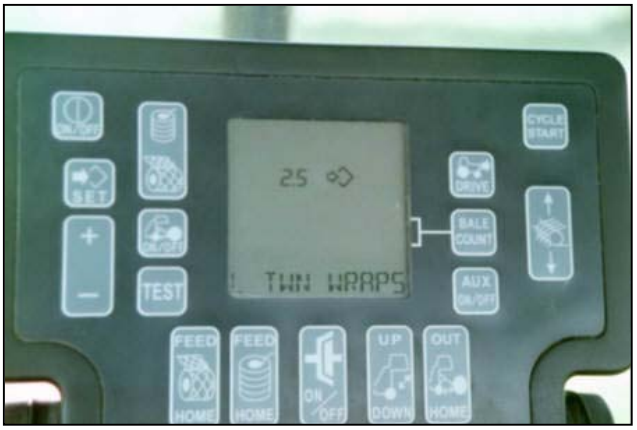
Twine or mesh operation can be selected with a touch of a button, and the twine or mesh symbol will illuminate on the monitor.



C00-2108

Number of Twine End Wraps

The number of twine end wraps can be adjusted from 1 to 4. The number of wraps on the right and left ends can be adjusted separately. In conditions such as fluffy straw, more end wraps are needed on the right side to keep bale together.



C00-2109

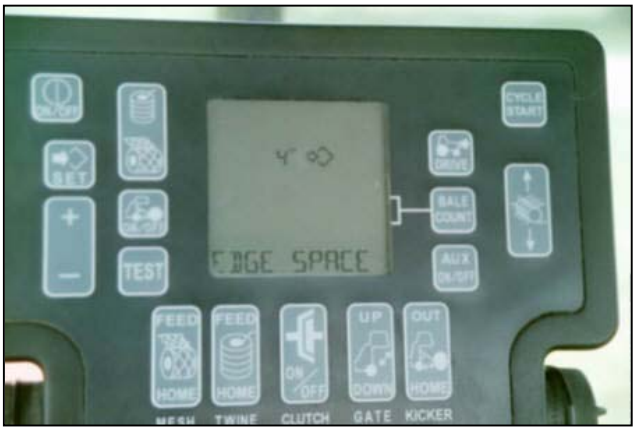
Twine Spacing

The twine spacing can be controlled from the control box by the “Spacing On” setting. The spacing can be controlled from the hydraulic valve by using the “Spacing Off” setting. The twine spacing in the “Spacing On” mode can be adjusted from 3” (76 cm) to 6” (152 cm) in 0.5” (13 cm) increments.

C00-2110

Twine Edge Spacing

The twine end wrap position can be adjusted from 4” to 6” from the edge of the bale. The end wraps usually need to be placed farther inboard in slick crops, such as straw, to keep the twine from sliding off the bale.



C00-2111

Twine Tail Delay

The twine tail delay sets the amount of time (from 1 to 3 seconds), between the end of the bale wrapping and baler declutching. In some conditions, a delay keeps the twine tail from unwrapping when the bale is dumped.

C00-2112

Mesh Wrap

The mesh wraps adjustment sets the number of mesh wraps on the bale, from 1.25 to 4. The default setting is 2.5 wraps.

C00-2113

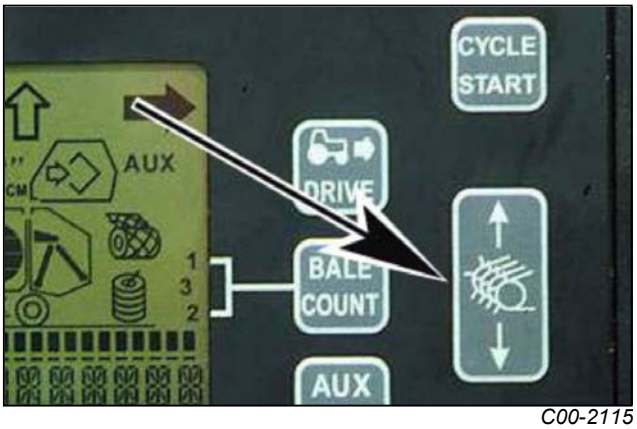
Auto Cycle Select

The baler can be set to run entire automatic cycle at the push of a button (Auto Kick), or can be set to wrap automatically after preset bale diameter is reached (Auto Wrap), then a button is pushed to complete the cycle. The auto wrap can be delayed up to 5 seconds, to give the operator time to stop the tractor and baler after the beeper sounds. A remote start switch is available as a field installed option.

C00-2114

Pickup Lift

The electro-hydraulic pickup lift is controlled from a button on the control box.

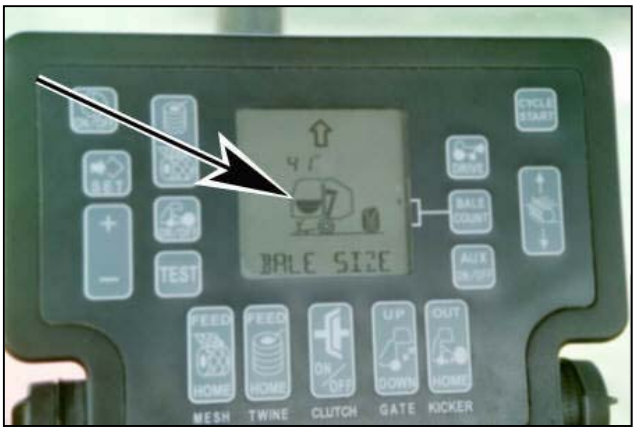


C00-2115

Functions that the operator monitors from the control box:

Bale Size Symbol

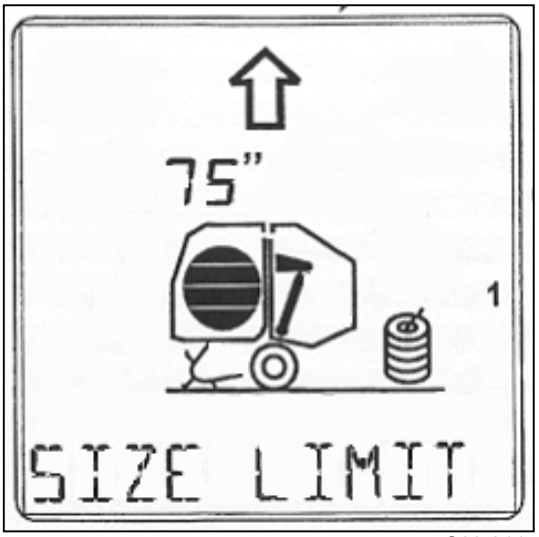
The bale size is depicted by four segments, which indicate when the bale has reached 25%, 50%, 75% and 100% of the programmed bale diameter. The bale diameter is also indicated on a numeric display. The operator is alerted when the bale is within 4” of being full.



C00-2116

Bale Oversize Indicator

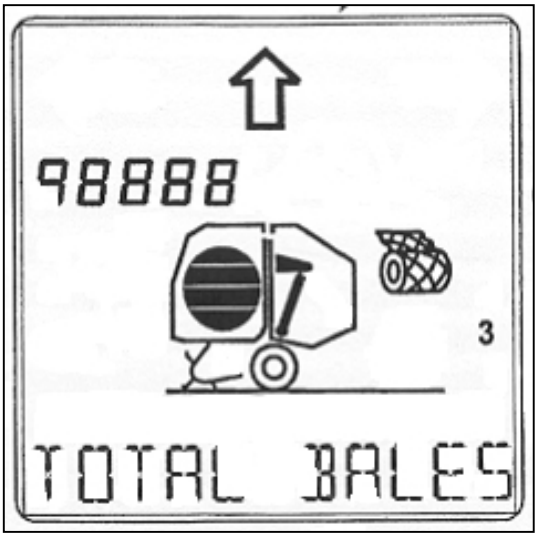
If bale size exceeds 74”, the words “size limit” appears on the monitor, along with a beep. The baler will automatically declutch at this point to prevent damage to the baler or belts.



C00-2117

Bale Count

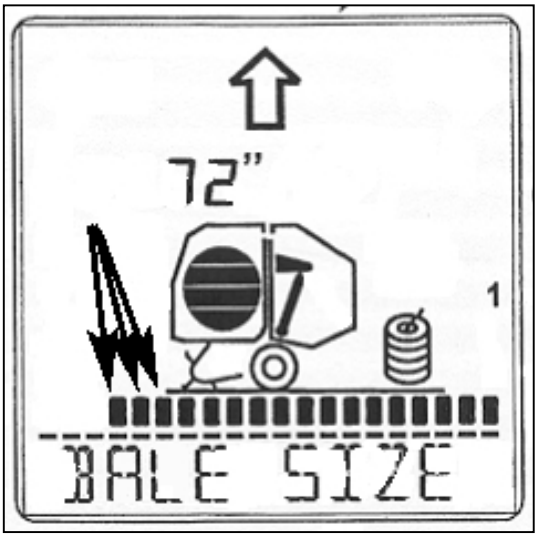
The field bale count can be monitored for two different fields. The total bale count is also monitored.



C00-2118

Twine Arm Position

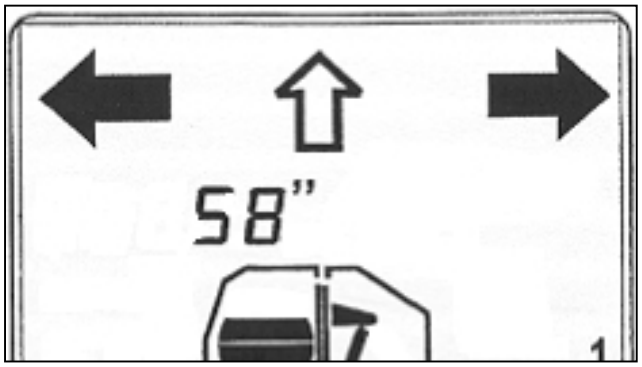
Indicates to the operator the position of the twine arm when twine tying. The position is indicated by illuminated segments of an LED bar graph.



C00-2119

Driving Arrows

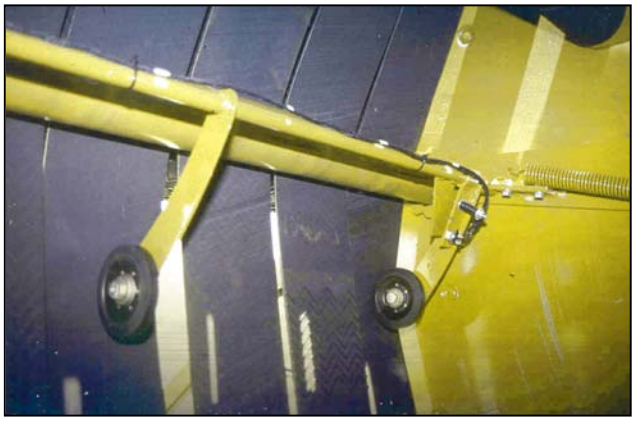
The arrow pointing forward illuminates to indicate that the tailgate and ejector are home, and the baler is ready to bale. The left and right arrows indicate to the operator the direction to drive to make a square shouldered bale.



C00-2120

Bale Shaper Indicator (Driving Arrows)

The shaper uses sensors located under the bale density arm. The rollers run on the backside of the belts, so the feedback from the bale to the driving arrows is more accurate than systems that measure belt slack. Belt wear or differences in belt size will not cause changes in the bale monitoring system. The bale shaper uses direct bale size feedback; so the correct bale shape can be built more accurately.



C00-2121

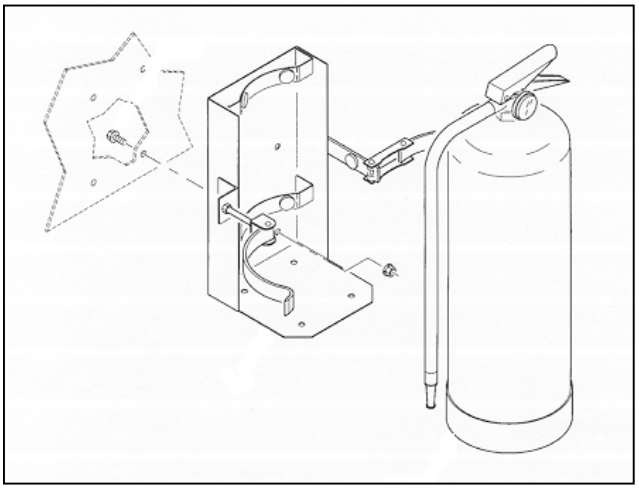
Hazard Lights

The hazard lights and turn signals are standard equipment on the automatic balers. The flashing lights alert other drivers that a slower-moving vehicle is ahead of them. The hazard lights are put on all balers, improving overall road security.

C00-2048

OPTIONAL KITS (FIELD INSTALLED)

Fire Extinguisher Kit



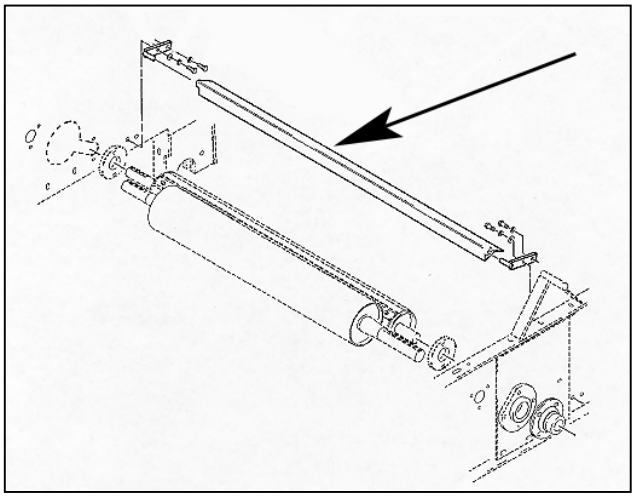
C00-2052

The fire extinguisher kit consists of a 2.5-gallon extinguisher and mounting bracket. To use, the extinguisher is filled with water, then "pumped up" with compressed air. Because of the flammable nature of hay crops, it is recommended that a fire extinguisher be mounted to every baler. A fire extinguisher helps protect the owner's investment in machinery and crops.

Wholegoods Kit – BK50556

Estimated Installation Time – 0.5 Hr.

Short Crop Kit



C00-2123

The short crop kit is for use in conditions where the crop is short, dry and brittle. The short crop filler plate helps support the weight of the bale, so the bale stays together better. The kit allows the baler to bale in a wider range of crop conditions, for better versatility. The kit should be removed when crop conditions improve.

Wholegoods Kit – RB46 –BK50459
RB56 – BK50458

Estimated Installation Time – 1.0 Hr.

Roller Windguard Kit

This roller windguard kit fits the rear pivoting
Production windguard. The roller windguard
Can help crop feeding in light fluffy conditions.

Wholegoods Kit – RB46 – BK51029
RB56 – BK51028

Estimated Installation Time – 1.0Hr.

Front Pivoting Windguard Kit

The Front Pivoting Windguard Kit replaces the production
Rear pivoting windguard. This windguard can improve crop
Flow in large windrows.

Wholegoods Kit – RB46 – BK51039
RB56 – BK51040

Estimated Installation Time – 1.0Hr.

Front Pivoting Roller Windguard Kit

This roller windguard mounts to the Front Pivoting Windguard Kit.
This roller windguard can improve crop flow into the baler in large windrows
Of tall, light, fluffy crops such as rotary combined straw.

Wholegoods Kit – RB46 – BK51041 (Must have BK51039 Installed)
RB56 – BK51042 (Must have BK51040 Installed)

Manual Control Backup

The manual control backup kit contains a simple control box with toggle switches to control the functions of the baler manually rather than automatically for service work or as a back-up control box for field use. It is a good item to have on hand at the dealership for performing service work on a baler that is brought in by a customer for service and he forgets to bring the monitor with the baler. It is also good to have for customer use in the event of a failure of a control box. The customer could still use his baler while the automatic control box is repaired.

Wholegoods Kit – BK51023

SPECIFICATIONS
CHALLENGER® MODEL RB46 ROUND BALER

MODEL ..... RB46 Round Baler

DIMENSIONS AND WEIGHTS

Width (overall with gauge wheels) in (mm)	111 (2808)
(overall without gauge wheels in (mm)	102.5 (2604)
Length (overall) in (mm)	149 (3768)
Height (overall) in (mm)	115 (2921)
Weight (approximate) lb (kg)	6325 (2869)
Tongue weight lb (kg)	1150 (522)
Tire size	14L x 16.1

BALE SIZE

Diameter (minimum) in (mm)	30 (762)
Diameter (maximum) in (mm)	72 (1829)
Width in (mm)	46.5 (1182)
Dry weight hay, lb (kg)	1660 (753)

BALE CHAMBER

Width in (mm)	47 (1182)
Number of belts	6 laced or endless
Belt width in (mm)	7 (177)
Belt length in (mm)	547 (13,894)
Number of bale forming rolls	15
Belt drive rolls	2
Lower drive, steel	1
Upper drive, crowned rubber	1
Belt idler rolls	12
Starting roll with rubber flaps	1
Bale tensioning	Hydraulic
Bale density control	Adjustable valve
Bale size indicator	On monitor and visual on-baler
Bale full alert	On monitor
Bale counter	2 field + total
Over-size bale protection	Declutches baler

PICKUP

Width (tine to tine) in (mm)	60 (1518)
Width (outside end to end) in (mm)	78 (1972)
Width (inside, panel to panel) in (mm)	66 (1680)
Tine bars	4
Number of tines	48 double
Tine control	Cam track
Speed rpm	125
Pickup lift	Electro-hydraulic
Windguard	Rod
Gauge wheels	16 x 6.5 x 8 turf tread

TWINE WRAPPING

Bale wrapping	Automatic hydraulic actuated
Twine arm protection	Shearbolt
Number of twine balls	Up to 8 (depending on size)
Type of twine	Plastic or sisal

MESH WRAP (FACTORY OPTION)

Feed roll drive	Bale forming belts
Feed rolls	
Number	2
Type	1 rubber covered, 1 plated steel
Bale wrap type	Knitted polyethylene (or equivalent)
Mesh width in (mm)	48 (1219) or 52 (1320)

DRIVES

Input driveline	Constant velocity (CV) u-joint
Overload protection	Slip clutch
Gearbox	540/1000 rpm
Belt roller drive	Chain
Pickup drive	Chain

LUBRICATION SPECIFICATIONS

Gearbox pt (L)	1.75 (0.83)
Lubricant	SAE EP 90W

TRACTOR REQUIREMENTS

Recommended minimum PTO hp (kW)	65 (48)
PTO speed rpm	540 (1000 with conversion)
Hydraulics	None required
Electrical system	12V DC
Tractor tire spacing	
Front and rear, minimum in (mm)	65 (1651)

OPTIONAL EQUIPMENT

Fire extinguisher
Remote start kit
Silage Kit
Short Crop Kit

(Specifications and design are subject to change without notice and without liability therefore.)

Sales Engineering, July 2002

SPECIFICATIONS
CHALLENGER® MODEL RB56 ROUND BALER

MODEL ..... RB56 Round Baler

DIMENSIONS AND WEIGHTS

Width (overall, with gauge wheels) in (mm)	126 (3204)
(overall, without gauge wheels in (mm)	117 (2984)
Length (overall) in (mm)	155 (3937)
Height (overall) in (mm)	115 (2921)
Weight (approximate) lb (kg)	6665 (3023)
Tongue weight lb (kg)	1150 (522)
Tire size	14L x 16.1

BALE SIZE

Diameter (minimum) in (mm)	30 (762)
Diameter (maximum) in (mm)	72 (1829)
Width in (mm)	61.5 (1562)
Dry weight hay, lb (kg)	2200 (998)

BALE CHAMBER

Width in (mm)	61.5 (1562)
Number of belts	8 laced or endless
Belt width in (mm)	7 (177)
Belt length in (mm)	547 (13894)
Number of bale forming rolls	15
Belt drive rolls	2
Lower drive, steel	1
Upper drive, crowned rubber	1
Belt idler rolls	12
Starting roll with rubber flaps	1
Bale tensioning	Hydraulic
Bale density control	Adjustable valve

PICKUP

Width (tine to tine) in (mm)	75.3 (1914)
Width (outside end to end) in (mm)	92 (2337)
Width (inside, panel to panel) in (mm)	83.6 (2133)
Tine bars	4
Number of tines	60 double
Tine control	Dual cam track
Speed rpm	125
Pickup lift	Electro-hydraulic
Windguard	Rod
Gauge wheels	16 x 6.5 x 8 turf tread

TWINE WRAPPING

Bale wrapping	Automatic hydraulic actuated
Twine arm protection	Shearbolt
Number of twine balls	Up to 8 (depending on size)
Type of twine	Plastic or sisal

MESH WRAP (FACTORY OPTION)

Feed roll drive	Bale forming belts
Feed rolls	
Number	2
Type	1 rubber covered, 1 plated steel
Bale wrap type	Knitted polyethylene (or equivalent)
Mesh width in (mm)	64 (1626) or 67 (1702)

DRIVES

Input driveline	Constant velocity (CV) u-joint
Overload protection	Slip clutch
Gearbox	540 or 1000 rpm
Belt roller drive	Chain
Pickup drive	Chain

LUBRICATION SPECIFICATIONS

Gearbox pt (L)	1.75 (0.83)
Lubricant	SAE EP 90W

TRACTOR REQUIREMENTS

Recommended minimum PTO hp (kW)	90 (67)
PTO speed rpm	540 or 1000
Hydraulics	None required
Electrical system	12V DC
Tractor tire spacing	
Front and rear, minimum in (mm)	65 (1651)

OPTIONAL EQUIPMENT

Fire extinguisher
Remote start kit

(Specifications and design are subject to change without notice and without liability therefore.)

Sales Engineering, July 2002

COMPETITIVE COMPARISONS
CHALLENGER® MODEL RB46 ROUND BALER

MAKE MODEL	CHALLENGER® RB46	JOHN DEERE 467	NEW HOLLAND 658	VERMEER 604XL
BALE				
Diameter (max.) in (mm)	72 (1829)	72 (1829)	70 (1778)	72 (1829)
Diameter (min.) in (mm)	30 (762)	32 (813)	36 (914)	36 (914)
Width in (mm)	46.5 (1182)	46.1 (1171)	46.5 (1182)	47.0 (1194)
Bale Weight (max.) lb (kg)	1660 (753)	1650 (748)	1900 (862)	1900 (862)
DIMENSIONS AND WEIGHT				
Overall Width in (mm)	111 (2808)	96 (2438)	93.6 (2378)	93 (2362)
Overall Height in (mm)	115 (2921)	110 (2794)	109.5 (2781)	111 (2819)
Overall Length in (mm)	155 (3937)	146 (3708)	152 (3861)	166 (4216)
Baler Weight lb (kg)	6325 (2869)	4165 (1893)	5270 (2390)	5900 (2676)
Tire Size	14L x 16.1	Std: 11L x 14 Opt:31x13.5-15	31x13.5-15	31x13.5-15
PICKUP				
Pickup Width (Tine to Tine)	60 (1518)	44.2 (1123)	60.4 (1534)	47.0 (1194)
Number of Tines per Bar	24	18	24	16
Tine Spacing in (mm)	2.6 (66)	2.6 (66)	2.6 (66)	3.0 (78)
Number of Tine Bars	4	4	4	5
BALE CHAMBER				
Chamber Style	Variable	Variable	Variable	Variable
Density Control Mechanism	4 Hyd. Cyl.	2 Springs, 2 Hyd Cyl	2 Springs, 1 Hyd Cyl	2 Cyl. Hyd./Pneumatic
Number of Belts	6 Laced or Endless	6 Laced	6 Laced or Endless	4
Belt Width (Number) in (mm)	7.0 (178)	7.0 (178)	7.0 (178)	(2) 6.5 (152) (2) 14.0 (356)
Belt Length in (m)	547 (13.9)	(2) 525 (13.3) (4) 531 (13.5)	420.5 (10.7)	528 (13.4)
Belt Construction	Nylon/Polyester	Nylon/Polyester	Nylon/Polyester	Monofilament
Belt Surface (No of Plies)	Chevron (3)	Diamond (3)	Friction (3)	Smooth (2)
Belt Splices	Titan Lacing or Endless	Plate Type	Laced	Clipper Lacing
WRAPPING MECHANISM				
Number of Twine Arms	1 (2 tubes)	1 (2 tubes)	2	2
Wrap Actuation Style	Hydraulic	Electric	Mech or Electric	Electric
Twine Ball Capacity	8	6	6	8
BALER EQUIPMENT				
Bale Shape Monitor	Driving Arrows	Bale Shape Bars	Driving Arrows	Bale Shape Bars
Oversize Bale	Audible/Declutch	Audible/Visual	Audible/Visual	Audible/Declutch
Bale Counter	2 Field +Total	Field +Total	Field +Total	Field +Total
Bale Ejector	Standard	Optional	Ramp	Optional
TRACTOR INFORMATION				
PTO hp, Minimum hp (kW)	65 (48)	65 (48)	70 (52)	70 (49)
PTO Speed Std.	540 (Opt 1000)	540 (Opt 1000)	540 or 1000	540 or 1000
Hydraulic Remotes Required	None	1	1	1
OPTIONS AVAILABLE	Mesh Wrap Fire Extinguisher	Net Wrap Hyd Pickup Lift Wide Pickup Mega Tooth Pickup Mega Wide Pickup Fire Extinguisher High-Moisture Kit Variable Core Kit	Net Wrap Hyd Pickup Lift Green Feed Kit Crop Saver Wheels Scraper Kits Fire Extinguisher Endless Belts	Net Wrap Hyd Baler Lift Silage Kit Chain Oiler

Every attempt has been made to ensure the accuracy, but AGCO® assumes no responsibility for authenticity of data. Data presented is obtained from various sources, including manufacturers publications.

Sales Engineering, July, 2002

COMPETITIVE COMPARISONS
CHALLENGER® MODEL RB56 ROUND BALER

MAKE MODEL	CHALLENGER RB56	JOHN DEERE 567	NEW HOLLAND 688	VERMEER 605XL
BALE				
Diameter (max.) IN (mm)	72 (1829)	72 (1829)	70 (1778)	72 (1829)
Diameter (min.) IN (mm)	30 (762)	32 (813)	36 (914)	36 (914)
Width IN (mm)	61.5 (1562)	61.6 (1564)	61.5 (1562)	61.0 (1549)
Bale Weight (max.) LB (kg)	2200 (1000)	2400 (1089)	2200 (998)	2400 (1100)
DIMENSIONS AND WEIGHT				
Overall Width IN (mm)	126 (3204)	106 (2705)	108.6 (2758)	107 (2717)
Overall Height IN (mm)	115 (2921)	110 (2794)	109.5 (2781)	111 (2819)
Overall Length IN (mm)	155 (3937)	146 (3708)	157.9 (4011)	166 (4216)
Baler Weight LB (kg)	6800 (3085)	4730 (2145)	5695 (2560)	6600 (2994)
Tire Size	14L x 16.1	Std: 11L x 14 Opt:31x13.5-15	31x13.5-15	31x13.5-15
PICKUP				
Pickup Width (Tine to Tine)	75.3 (1914)	59.8 (1519)	60.4 (1534)	61.0 (1549)
Number of Tines per Bar	30	24	24	20
Tine Spacing IN (mm)	2.6 (66)	2.6 (66)	2.6 (66)	3.0 (78)
Number of Tine Bars	4	4	6	5
BALE CHAMBER				
Chamber Style	Variable	Variable	Variable	Variable
Density Control Mechanism	4 Hyd. Cyl.	2 Springs, 2 Hyd Cyl	2 Springs, 2 Hyd Cyl	2 Cyl. Hyd./Pneumatic
Number of Belts	8 Laced or Endless	8 Laced	8 Laced or Endless	5
Belt Width (Number) IN (mm)	7.0 (178)	7.0 (178)	7.0 (178)	(2) 6.5 (152) (3) 14.0 (356)
Belt Length IN (m)	547 (13.9)	(4) 525 (13.3) (4) 531 (13.5)	420.5 (10.7)	528 (13.4)
Belt Construction	Nylon/Polyester	Nylon/Polyester	Nylon/Polyester	Monofilament
Belt Surface (No. of Plies)	Chevron (3)	Diamond (3)	Friction (3)	Smooth (2)
Belt Splices	Titan Lacing or Endless	Plate Type	Laced or Endless	Clipper Lacing
WRAPPING MECHANISM				
Number of Twine Arms	1 (2 tubes)	1 (2 tubes)	2	2
Wrap Actuation Style	Hydraulic	Electric	Mech. or Electric	Electric.
Twine Ball Capacity	8	6	8	8
BALER EQUIPMENT				
Bale Shape Monitor	Driving Arrows	Bale Shape Bars	Driving Arrows	Bale Shape Bars
Oversize Bale	Audible/Declutch	Audible/Visual	Audible/Visual	Audible/Declutch
Bale Counter	2 Field +Total	Field +Total	Field +Total	Field +Total
Bale Ejector	Standard	Optional	Ramp	Optional
TRACTOR INFORMATION				
PTO hp, Minimum hp (kW)	70 (52)	75 (56)	80 (60)	70 (49)
PTO Speed Std.	540 or 1000	540 (Opt 1000)	540 or 1000	540 or 1000
Hydraulic Remotes Required	None	1	1	1
OPTIONS AVAILABLE	Mesh Wrap Fire Extinguisher	Net Wrap Hyd Pickup Lift Mega Tooth Pickup Mega Wide Pickup Fire Extinguisher High-Moisture Kit Variable Core Kit	Net Wrap Hyd Pickup Lift Green Feed Kit Crop Saver Wheels Scraper Kits Fire Extinguisher	Net Wrap Hyd Baler Lift Silage Kit Chain Oiler

COMPETITIVE COMPARISONS
CHALLENGER® MODEL RB56 ROUND BALER

MAKE MODEL	CHALLENGER RB56	GEHL 2880	CASE-IH RBX561
BALE			
Diameter (max.) in (mm)	72 (1829)	72 (1829)	70 (1778)
Diameter (min.) in (mm)	30 (762)	36 (915)	36 (914)
Width in (mm)	61.5 (1562)	61 (1549)	61.5 (1562)
Bale Weight (max.) lb (kg)	2200 (1000)	2000 (910)	2200 (998)
DIMENSIONS AND WEIGHT			
Overall Width in (mm)	126 (3204)	96 (2438)	108.6 (2758)
Overall Height in (mm)	115 (2921)	109 (2769)	109.5 (2781)
Overall Length in (mm)	155 (3937)	174 (4420)	157.9 (4011)
Baler Weight lb (kg)	6800 (3085)	5125 (2325)	5695 (2560)
Tire Size	14L x 16.1	31 x 13.5-15	31x13.5-15
PICKUP			
Pickup Width (Tine to Tine)	75.3 (1914)	INA	60.4 (1534)
Number of Tines per Bar	30	INA	24
Tine Spacing in (mm)	2.6 (66)	2.6 (66)	2.6 (66)
Number of Tine Bars	4	4	6
BALE CHAMBER			
Chamber Style	Variable	Variable	Variable
Density Control Mechanism	4 Hyd. Cyl.	Air + Hydraulic	2 Springs, 2 Hyd Cyl
Number of Belts	8 Laced or Endless	8 Laced	8 Laced or Endless
Belt Width (Number) IN (mm)	7.0 (178)	6.0 (152)	7.0 (178)
Belt Length in (m)	547 (13.9)	INA	420.5 (10.7)
Belt Construction	Nylon/Polyester	Nylon/Polyester	Nylon/Polyester
Belt Surface (No. of Plies)	Chevron (3)	Chevron (3)	Friction (3)
Belt Splices	Titan Lacing or Endless	Lacing Hooks	Laced or Endless
WRAPPING MECHANISM			
Number of Twine Arms	1 (2 tubes)	2	2
Wrap Actuation Style	Hydraulic	Electric	Mech. or Electric
Twine Ball Capacity	8	6	8
BALER EQUIPMENT			
Bale Shape Monitor	Driving Arrows	INA	Driving Arrows
Oversize Bale	Audible/Declutch	INA	Audible/Visual
Bale Counter	2 Field +Total	Mech. (Elec. opt)	Field +Total
Bale Ejector	Standard	Ramps	Ramp
TRACTOR INFORMATION			
PTO hp, Minimum hp (kW)	70 (52)	50 (37)	80 (60)
PTO Speed Std.	540 or 1000	540 (1000 Opt.)	540 or 1000
Hydraulic Remotes Required	None	1	1
OPTIONS AVAILABLE	Mesh Wrap Fire Extinguisher	Quick-Wrap Hyd Pickup Lift Crowder Wheels Chain Oiler Auto Twine Wrap	Net Wrap Hyd Pickup Lift Green Feed Kit Crop Saver Wheels Scraper Kits Fire Extinguisher

NA - Not Available
INA - Information Not Available

Challenger® features to sell compared to the New Holland 658 and 688

Pickup

- Wide pickup with standard gauge wheels and dual camtrack is standard.
- Electro-hydraulic pickup lift is standard.

Mainframe and Rollers

- Hydraulic bale ejector is standard. Hydraulic ejector is gentler on bale ejection than spring-loaded ejectors. The Challenger hydraulic ejector can be turned on and off from the tractor seat, for greater operator control.
- The Challenger baler features the open throat, vertical bale chamber for positive bale starts. It is a simpler and more effective system than using a floor roller.
- The baler shaper senses bale shape directly from the surface of the bale, rather than sensing the density at the sides of the bale, for better shaped bales.
- Heavier frame for longer baler life.
- Larger standard tires

Hydraulics

- Bale and belt tension controlled with four hydraulic cylinders, compared to two cylinders and two springs, for more consistent density and heavier bales.

Control Box

- The Challenger baler is fully automatic with the push of a button. The 658 and 688 still only offer automatic twine or net wrap. It doesn't offer automatic bale eject.

Challenger® features to sell compared to the John Deere 467 and 567

Pickup

- Wide pickup with standard gauge wheels and dual camtrack is standard
- Electro-hydraulic pickup lift is standard.

Mainframe and Rollers

- Power rienks provide a positive method of trash cleanout, without two belt lengths and extra roller needed with staggered belts.
- Hydraulic bale ejector is standard. Hydraulic ejector is gentler on bale ejection than spring-loaded ejectors. The Challenger hydraulic ejector can be turned on and off from the tractor seat, for greater operator control.
- The Challenger starting roll features rubber flaps, which are more versatile than the starting roll with steel rods.
- The baler shaper senses bale shape directly from the surface of the bale, rather than sensing loose belts, for better shaped bales.
- Heavier frame for longer baler life.
- Larger standard tires
- The belts remain tight during bale ejection, reducing the possibility of loose belts crossing and mis-tracking.

Bale Wrapping

- Mesh wrap features fewer moving parts, better mesh pickup, and better reliability. The rubber roller no longer needs to be powdered to keep the mesh from wrapping the roller, for less setup time.

Hydraulics

- Bale and belt tension controlled with four hydraulic cylinders, compared to two cylinders and two springs, for more consistent density and heavier bales.

Control Box

- The Challenger baler is fully automatic with the push of a button. The 467 and 567 still only offer automatic twine or net wrap. It doesn't offer automatic bale eject.

Challenger® features to sell compared to the Vermeer 604XL and 605XL

Pickup

- Wide pickup with standard gauge wheels and dual camtrack is standard, eliminating the need for gathering wheels.
- Electro-hydraulic pickup lift is standard.

Mainframe and Rollers

- Power rienks provide a positive method of trash cleanout, without the need to twist the belts.
- Hydraulic bale ejector is standard. Hydraulic ejector is gentler on bale ejection than spring-loaded ejectors. The Challenger hydraulic ejector can be turned on and off from the tractor seat, for greater operator control.
- The Challenger baler features the open throat, vertical bale chamber for positive bale starts. It is a simpler and more effective system than using a floor roller.
- The baler shaper senses bale shape directly from the surface of the bale, rather than sensing loose belts, for better shaped bales.
- Larger standard tires
- The belts remain tight during bale ejection, reducing the possibility of loose belts crossing and mis-tracking.

Bale Wrapping

- Mesh wrap features fewer moving parts, better mesh pickup, and better reliability. The rubber roller no longer needs to be powdered to keep the mesh from wrapping the roller, for less setup time.

Control Box

- The Challenger baler is fully automatic with the push of a button. The 604XL and 605XL still only offer automatic twine or net wrap. It doesn't offer automatic bale eject.

Challenger® features to sell compared to the Gehl 2880

Pickup

- Wide pickup with standard gauge wheels and dual camtrack is standard
- Electro-hydraulic pickup lift is standard.

Mainframe and Rollers

- Power rienks provide a positive method of trash cleanout.
- Hydraulic bale ejector is standard. Hydraulic ejector is gentler on bale ejection than spring-loaded ejectors. The Challenger hydraulic ejector can be turned on and off from the tractor seat, for greater operator control.
- The Challenger baler features the open throat, vertical bale chamber for positive bale starts. It is a simpler and more effective system than using a floor roller.
- The baler shaper senses bale shape directly from the surface of the bale, rather than sensing loose belts, for better shaped bales.
- Heavier frame for longer baler life.
- Larger standard tires
- The belts remain tight during bale ejection, reducing the possibility of loose belts crossing and mis-tracking.

Bale Wrapping

- Mesh wrap features fewer moving parts, better mesh pickup, and better reliability. The rubber roller no longer needs to be powdered to keep the mesh from wrapping the roller, for less setup time.

Control Box

- The Challenger baler is fully automatic with the push of a button. The 2880 still only offers automatic twine or net wrap. It doesn't offer automatic bale eject.