Challenger®

HAY EQUIPMENT

SERIOUS DEALERS. SUPERIOR SERVICE.

When you're racing against time to get a crop out of the field, you need a dealer you can count on. And that's what you get with Challenger hay equipment from your authorized Caterpillar dealer.

Cat® dealers are second to none when it comes to on-farm service, with mobile service trucks that carry more diagnostic equipment than most repair shops. They have highly trained service technicians who work as hard at preventing problems as they do at fixing them. And a 24-hour a day parts network that helps minimize downtime and maximize productivity.

When you own a Challenger, you know that you're backed by the finest dealer network in the world.

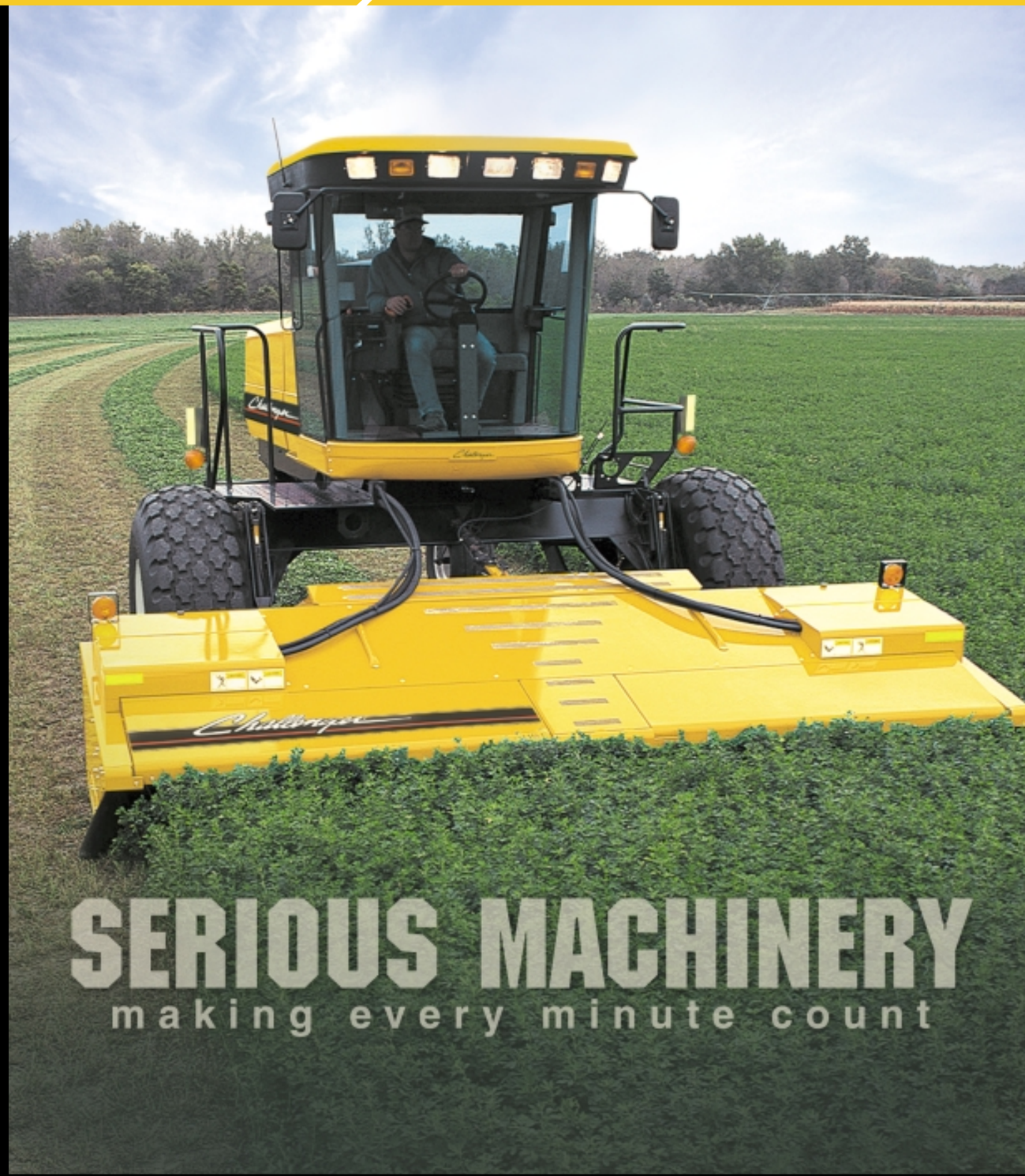
CHALLENGER FINANCE

In today's marketplace, financing is as much a part of your purchase decision as the features and benefits of the equipment. At Challenger finance, we're committed to providing the best means for acquiring equipment while allowing you to preserve other credit lines for operating capital.

We offer flexible payment schedules, flexible terms, quality service, competitive rates, comprehensive financing and leasing options and virtually unlimited resources. All available under one roof, at your authorized Caterpillar dealership. Talk to your Challenger dealer about financing or leasing through Challenger Finance.

Challenger® FINANCE

AGCO Corporation, 4205 River Green Parkway, Duluth, GA 30096 • Phone (800) 767-3221 • Fax (770) 813-6038



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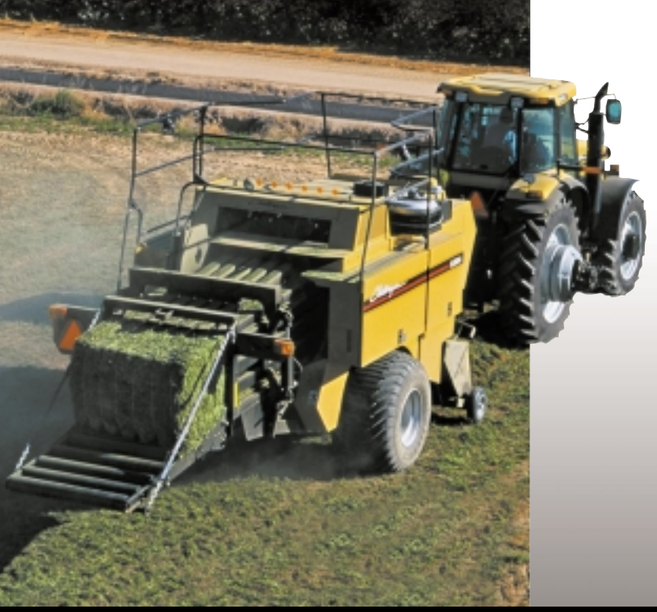
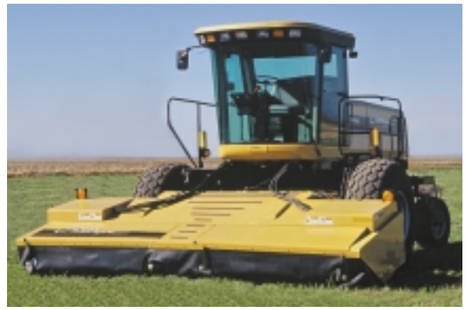


CHALLENGER HAY EQUIPMENT

Introducing the new lineup of hay equipment rugged enough to wear the name Challenger®. Whether you bale a few acres a year or a few thousand, Challenger offers equipment to meet your needs. From self-propelled windrowers, to mower-conditioners, to large round balers, and large rectangular balers, this hardworking machinery is built under the strictest, most exacting quality control standards in the industry.



NEW CHALLENGER WINDROWERS. SERIOUS MACHINERY.

The SP Series self-propelled windrowers are fast, tough and productive. These windrowers are designed to operate a range of headers with smooth efficiency and plenty of power to spare.

The SP Series windrowers are available in three models to meet the specific demands of your operation.

SP80 - **80 horsepower (60 kW)**
SP110 - **110 horsepower (82 kW)**
SP165 - **165 horsepower (124 kW)**

COMFORT AND CONTROL

Behind the wheel in the quiet, comfortable cab, total control of the windrower is within easy reach so long hours seem a little shorter, and you can spend more productive time in the field with less fatigue. The controls and monitors are right where you need them, with clear, easy-to-read gauges and displays. The ergonomic hydrostatic drive lever and four convenient switches give you fingertip control of direction, speed and key header functions.

The control console is positioned to the operator's right. The entire console moves with the operator's seat, and can be adjusted horizontally and vertically for optimal operator comfort.

The multi-adjustable air ride operator's seat gives you the support you need, where you need it, with easily adjustable lumbar and backrest settings. The seat can be held stationary, or set for isolator, to absorb the shocks and smooth the roughest terrain. A folding instructor's seat is standard in the SP110 and SP165, and optional in the SP80.

The two-spoke, tilt steering wheel is mounted on an adjustable steering post for a number of position options, offering maximum operator comfort and visibility.

The cab is enclosed in 73 square feet (6.8 m^2) of shatter-resistant tinted glass, including a large curved windshield with no cornerposts, for an unobstructed view of the header and other activities in the field. And the high-output climate control system keeps the operator comfortable, in a more productive working environment, whatever the temperature outside the cab. The air filter for the cab, which keeps the working environment clean, is located under the roof overhang and is easily serviced outside the cab.

Each model is equipped with eight halogen lights, positioned to illuminate the entire working area, providing the operator with outstanding visibility during night operation.

MONITORING DATA

Challenger windrowers keep the operator informed for optimal productivity. The SP110 and SP165 models are equipped with a 15-function monitor that includes a diagnostic system that evaluates monitor functions at startup. This system also provides visual and audible warnings of potential problems and monitors a variety of data including engine speed, header hours, acres (and Hectares) per hour and total area harvested. The SP80 features analog gauges for important engine functions including voltage, coolant temperatures, oil pressure and hourmeter.

The speedometer is positioned on the top of the steering post in the SP110 and SP165 models, with visual indicators for coolant temperature, oil pressure and fuel levels. The speedometer is optional on the SP80.

SOLID & RELIABLE

The Challenger SP windrowers are built to deliver years of trouble-free, rugged service. All SP Series windrowers are powered by strong, dependable diesel engines.

Each model has hydrostatic drive, hydraulic header drive and hydraulic header flotation. The Challenger windrower's long wheelbase (11.7 ft./3.6 m) and wide stance deliver great stability and a smooth ride. The walking beam axle is adjustable to three operating widths of 84 in. (2.1 m), 102 in. (2.6 m) and 110 in. (3 m). With standard tall, high-flotation turf or bar-tread drive tires, high-flotation rear tires and a clean under-carriage, all of these windrowers have at least 37.5 inches (952 mm) of under-frame clearance.

Extra-large fuel tanks and fuel-efficient engines let you stay in the field longer. A self-cleaning rotary screen, standard on the SP110 and SP165, pulls in a steady supply of clean air for the engine and radiator. The one-piece engine hood lifts to two positions to provide easy access for daily service and maintenance.

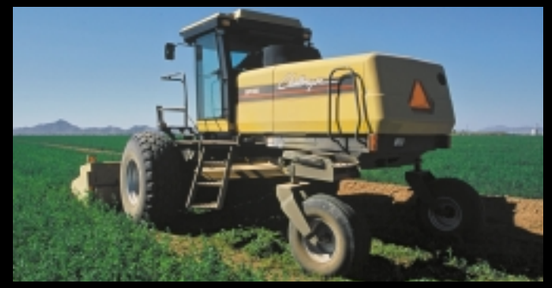
MODEL SP80

The Challenger SP80 delivers plenty of power and performance at an affordable price. It's equipped with a 239 cubic inch (3.9 L) naturally aspirated 4-cylinder diesel engine, rated at 80 horsepower (60 kW), a hydrostatic transmission and a double reduction chain final drive.

MODEL SP110

The Challenger SP110 is a high-capacity windrower featuring a powerful 239 cubic inch (3.9 L) 110 horsepower (82 kW) turbocharged 4-cylinder diesel with power and torque to handle any field. The SP110 has a hydrostatic transmission and a chain and planetary final drive system.

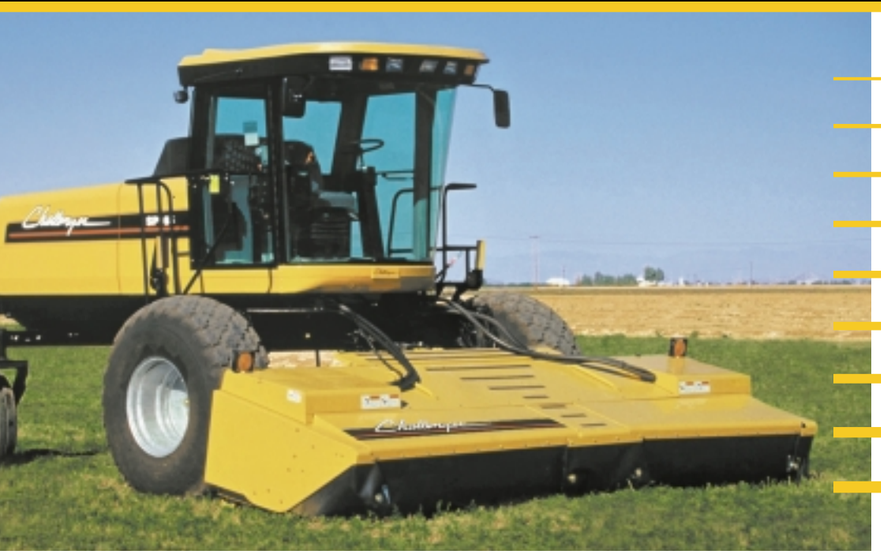
Both the SP80 and SP110 windrowers can be equipped with the dual sickle AH Series or the DH shiftable draper headers for fast, high-capacity operation.



MODEL SP165

The SP165 is powered by a 359 cubic inch (5.9 L), 165 horsepower (124 kW) turbocharged 6-cylinder diesel engine, with hydrostatic transmission and chain and planetary final drive, for outstanding performance, lower maintenance and longer service life. It has the power and precision to cut and lay down acres of crop at speeds lesser machines can't handle.

Outfitted with a Model DKH Series disc header, your crop is cut, laid out and starting to dry in record time.



Header speed can be adjusted, independently from the engine speed, from 1800 to 2600 rpm, for better fuel efficiency and performance in different crop conditions on DKH headers.

HARD-WORKING HEADERS

Challenger offers a line of great headers to handle a broad range of crops. All models have hydraulic drive, and hydraulic flotation for fast, even cutting and gentle handling.

MODEL DKH12 AND DKH15

The DKH Series disc header is available on the SP165 in 12-ft. (3.7 m) or 15-ft. (4.6 m) sizes. It handles the toughest crop conditions at speeds and efficiencies other headers can't begin to match, cutting through tall grass or lush alfalfa smoothly and cleanly.

The DKH has an efficient modular spur gear design, so each gear assembly and adjacent idler gear can be individually removed and serviced, without disassembling the entire cutterbar. This design also gives the cutterbed a thinner profile, allowing closer cutting than other disc headers. The cutterbed is set into a "cradle" which keeps the cutterbed from twisting, for extended bed life.

Conditioner rolls for the DKH are available in steel-on-steel for extra durability, and the 110-inch (2.8 m) rollers condition the crop uniformly and thoroughly. The conditioner rolls crimp the plant stem along its entire length, while retaining the nutritious leaves. This header has a spiral turbulence reduction roll between the modular-design cutterbed and the conditioner which offers improved cutoff and feeding in light crop conditions. Should the conditioner roll encounter an obstacle or slug, the roll opens to allow the slug to pass, then automatically resets.

MODEL AH14, AH16, AH18

The AH Series dual auger header is available for the SP80 and SP110 windrowers. It features a timed dual-sickle system that operates at 1,840 strokes per minute, and an automatic roll separation feature that allows slugs to pass through the conditioner without plugging. Sickle sections are bolted instead of riveted for easier field maintenance. The dual augers move crop smoothly and more gently than single auger/header pan systems, for increased capacity, less bunching and higher quality hay.

A lean bar positions the crop to feed through the counter-rotating augers "butt-first" for reduced leaf shattering and uniform conditioning. A standard five-bat reel, designed to take smaller "bites" than a four-bat reel, feeds crop smoothly to the conditioner. The adjustable reel is belt driven, eliminating the need for a slip clutch.

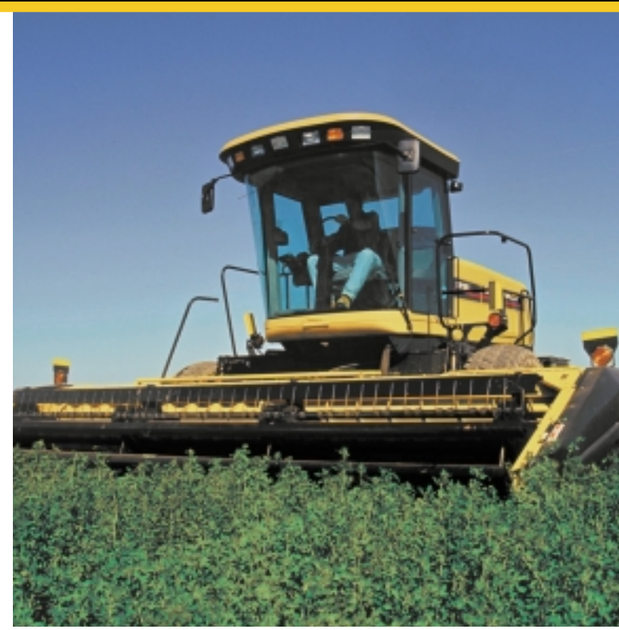
All header-operating controls are located inside the tractor cab. Controls to engage the header and set flotation are on the side console. Tilt and lift controls are incorporated into the hydro control lever. Hydraulic header flotation allows for on-the-go adjustments.

The AH header is available in 14-ft. (4.3 m), 16-ft. (4.9 m) and 18-ft. (5.5 m) cutting widths, with 110-inch (2.8 m) conditioner rolls. The 14-ft. and 16-ft. models are available in rubber-on-steel, steel-on-steel or TiCor™ configurations. 18-ft. models have steel-on-steel conditioner rolls. Header reverser is standard on the SP110 windrower tractor, and available as an option on the SP80.

MODEL DH18, DH22, DH25

For big acreage with a variety of crops, the DH Series shiftable draper header is a great choice. It's available in four center-delivery models in 18-ft. (5.5 m), 22-ft. (6.7 m), 25-ft. (7.6 m) and 30-ft. (9.1 m) cutting widths, and three double swath shiftable headers, in 22-ft. (6.7 m), 25-ft. (7.6 m) and 30-ft. (9.1 m) widths, that let you position the swath left, right or center.

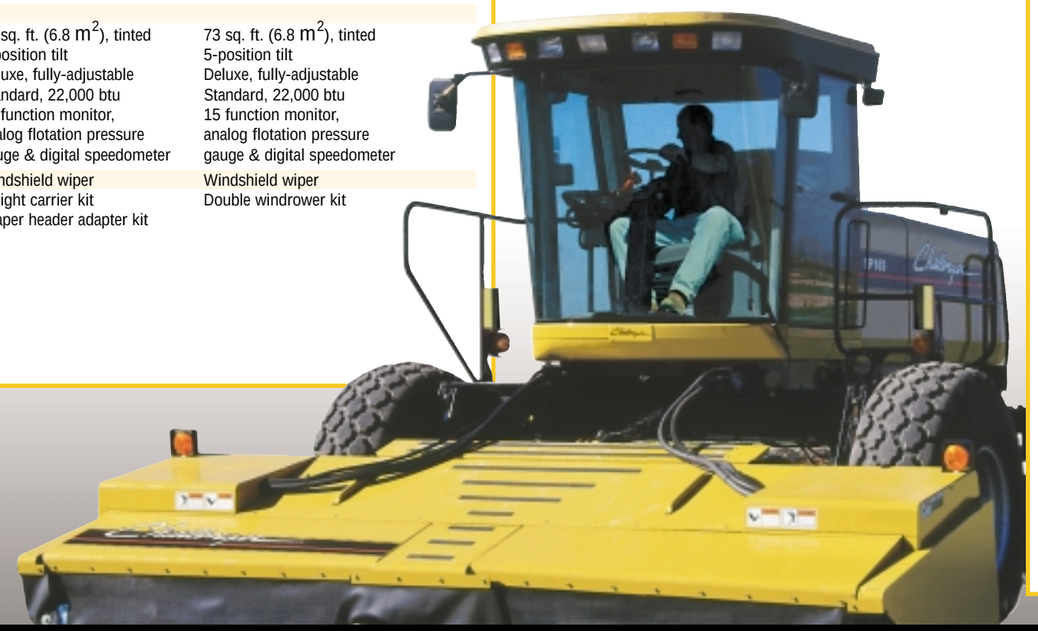
The DH header has three different five-bat reel options, including a Hart Carter (HCC) pickup reel, a Universal UII pickup reel and a metal bat reel. The variable draper reel speed and hydraulic guard angle adjustment are standard. Skid shoes and/or gauge wheels are optional.



A hydraulically driven planetary gear sickle drive virtually eliminates peak starting and stopping loads. And the gears are exactly aligned with the knife for better cutting performance and less sickle and guard damage, even operating at a sickle speed of 1,300 strokes per minute.

WINDROWERS

MODEL	SP80	SP110	SP165
DIMENSIONS (with standard tires)			
Wheelbase	140 in. (3556 mm)	140 in. (3556 mm)	140 in. (3556 mm)
Overall Height	130.2 in. (3307 mm)	130.2 in. (3307 mm)	133.4 in. (3388 mm)
Length W/ header	257.6 in. (6543 mm)	257.6 in. (6543 mm)	255.9 in. (6500 mm)
Min. clearance under frame	37.5 in. (953 mm)	37.5 in. (953 mm)	41 in. (1042 mm)
Tread Width			
Drive wheels	126 in. (3202 mm)	126 in. (3202 mm)	128.9 in. (3274 mm)
Tail wheels, min.	84.4 in. (2144 mm)	84.3 in. (2140 mm)	84.4 in. (2144 mm)
Tail wheels, max.	120 in. (3048 mm)	120 in. (3048 mm)	120 in. (3048 mm)
Tractor Weight	8000 lbs. (3629 kg)	8000 lbs. (3629 kg)	9060 lbs. (4110 kg)
SPEED RANGE, FIELD:	0 to 12 mph (0 - 19 km/h)	0 to 10 mph (0 - 16 km/h)	0 to 10 mph (0 - 16 km/h)
SPEED RANGE, ROAD:		0 to15 mph (0-24 km/h)	0 to15 mph (0-24 km/h)
ENGINE	239 cu. in. (3.9 L) Natural Aspirated 4-Cyl. Cummins Diesel 80 hp (60 kW)	239 cu. in. (3.9 L) Turbocharged 4-Cyl. Cummins Diesel 110hp (82 kW)	359 cu. in. (5.9 L) Turbocharged 6-Cyl. Cummins Diesel 165 hp (124 kW)
FLUID CAPACITIES			
Fuel tank	60 gal. (227 L)	60 gal. (227 L)	80 gal. (303 L)
Hydraulic system	23 gal. (87 L)	23 gal. (87 L)	26 gal. (98 L)
Cooling system	22 qt. (20.8 L)	22 qt. (20.8 L)	32 qt. (30.3 L)
ELECTRICAL SYSTEM	12-volt with 95-amp alternator	12-volt with 95-amp alternator	12-volt with 95-amp alternator
PROPELLING SYSTEM	Hydrostatic	Hydrostatic	Hydrostatic
TRANSMISSION	Variable displacement pump with fixed displacement motor on each wheel	Variable displacement pump with 2-speed variable displacement motor on each wheel	Variable displacement pump with 2-speed variable displacement motor on each wheel
FINAL DRIVE	Roller chain - dual reduction	Roller chain/planetary	Roller chain/planetary
TIRES			
Drive Wheels (Standard)	19.5L X 24 bar or turf tread	19.5L X 24 bar or turf tread	23.1 X 26 turf tread or 18.4L X 28 bar tread
Tail Wheels	14L X 16.1	14L X 16.1	14L X 16.1
CAB			
Glass	73 sq. ft. (6.8 m^2), tinted	73 sq. ft. (6.8 m^2), tinted	73 sq. ft. (6.8 m^2), tinted
Steering column	5-position tilt	5-position tilt	5-position tilt
Seat	Deluxe, fully-adjustable	Deluxe, fully-adjustable	Deluxe, fully-adjustable
Air Conditioning	Standard, 22,000 btu	Standard, 22,000 btu	Standard, 22,000 btu
Instrumentation	Gauges for engine coolant temperature, fuel level, voltage, oil pressure and flotation pressure	15 function monitor, analog flotation pressure gauge & digital speedometer	15 function monitor, analog flotation pressure gauge & digital speedometer
OPTIONAL EQUIPMENT	Windshield wiper Instructor's seat Header reverse kit Rotary screen kit Speedometer kit Hydraulic guard angle kit Draper header adapter kit Weight carrier kit	Windshield wiper Weight carrier kit Draper header adapter kit	Windshield wiper Double windrower kit



DH CENTER DELIVERY AND SHIFTABLE DRAPER HEADER

(For use with SP110 and SP80 tractors)

MODEL	DH HEADER
CUTTING WIDTH	
Center Delivery	18 ft – (5.5 m)
Shiftable or Center Delivery	22 ft – (6.7 m) 25 ft – (7.6 m) 30 ft – (9.1 m)
WEIGHT*	18 ft – 1540 lbs (695 kg) 22 ft – 1735 lbs (790 kg) 25 ft – 1900 lbs (880 kg) 30 ft – 2320 lbs (1060 kg)
CUTTERBAR	
Speed	1300 spm
Stoke	3.34 in. (85 mm)
Drive	Gearbox
Number of sickles	One
REEL	
Type	metal bat or pickup reel
Number of Bats	5
Diameter	52 in. (1320 mm)
Drive	Hydraulic and chain
Speed	0 – 60 rpm
DRAPER	
Drive	Hydraulic
Speed (adjustable from cab)	0 to 600 ft/min (0 to 183 m/min)
Width	41 in. (1041 mm)
Type	Rubberized draper with reinforced slats

*with heaviest reel available for each width

AUGER HEADER (For use with SP110 and SP80 tractors)

MODEL	AH DUAL SICKLE
CUTTING WIDTH	14 ft. (4.3 m) 16 ft. (4.9 m) 18 ft. (5.5 m)
OVERALL WIDTH	
14 ft.	188.4 in. (4786 mm)
16 ft.	212.4 in. (5396 mm)
18 ft.	236.4 in. (6005 mm)
HEADER WEIGHT	
14 ft.	3850 lb. (1746 kg)
16 ft.	4100 lb. (1860 kg)
18 ft.	4400 lbs. (1996 kg)
LIFT RANGE	-3 to 26 in. (-76 to 660 mm)
FLOTATION	Hydraulic
HEADER DRIVE	Hydraulic
CUTTERBAR DRIVE	Timed gearboxes w/half swaybar
NUMBER OF SICKLES	2
SPEED	1840 spm
STROKE	3 in. (76 mm)
GUARD ANGLE (adjustable)	5 to 12 degrees
REEL	
Bats	5
Diameter	42 in. (1067 mm)
Drive	Belt & chain
Speed	65 to 75 rpm
AUGER TYPE	Dual opposed rotation
Diameter	9 in. (229 mm) - 2
Speed	330 rpm - upper 525 rpm - lower

DISC HEADER (For use with SP165 tractor only)

MODEL	DKH15	DKH12
GENERAL	15 ft.	12 ft.
Cutting width	15 ft., 3 in. (4648 mm)	12 ft. (3658 mm)
Overall width	186 in. (4724 mm)	150 in. (3810 mm)
Weight	4280 lbs. (1941 kg)	3490 lbs. (1583 kg)
Lift range	-3.3 in. to 25.1 in. (-84 to 638 mm)	-3.3 in. to 25.1 in. (-84 to 638 mm)
Flotation	Radial and vertical hydraulic	Radial and vertical hydraulic
Header tilt	Hydraulic, adjustable from the cab	Hydraulic, adjustable from the cab
Tilt angle	0 to 10 degrees	0 to 10 degrees
Drive	Dual fixed-displacement hydraulic motors	Dual fixed-displacement hydraulic motors
CUTTERBED	15 ft.	12 ft.
Type	spur gear	spur gear
Number of discs	10	8
Number of knives	20 (2 per disc)	16 (2 per disc)
DISC SPEED	2600 rpm	2600 rpm
Knife tip speed	184 mph (296 km/h)	184 mph (296 km/h)
Knives	Swingaway, reversible	Swingaway, reversible
CUTTING HEIGHT	.75 to 3 in. (19 to 76 mm)	.75 to 3 in. (19 to 76 mm)
HAY CONDITIONER		
Type	Engaging rolls, steel on steel	Engaging rolls, steel on steel
Roll diameter	7.75 in. (197 mm)	7.75 in. (197 mm)
Length	110 in. (2794 mm)	110 in. (2794 mm)
Speed	1280 rpm	1280 rpm
CROP DISCHARGE	40 to 96 in. (1016 to 2438 mm)	40 to 96 in. (1016 to 2438 mm)
OPTIONAL EQUIPMENT	High skid shoe kit / Swathboard actuator kit	High skid shoe kit / Swathboard actuator kit

DISC MOWER-CONDITIONERS

Challenger offers a line of innovative mower-conditioners, fast, efficient and rugged, available in a variety of sizes and conditioner types. These versatile machines are designed with the latest in engineering and innovation.

PTD10 – 9 ft.-2 in. (2.8 m) width of cut
PTD12 – 12 ft. (3.7 m) width of cut
PTD15 – 15 ft.-3 in. (4.7 m) width of cut

CUT AND CRIMP

The new Challenger PTD Series mower-conditioners are fast in the field, but gentle with your valuable crop. All models have a modular spur gear cutterbed design so each gear assembly and adjacent idler gear can be individually removed and serviced, without the need to disassemble the entire cutterbar. Both drive gear bearings and idler bearings on the cutterbar are pre-lubricated and sealed.

The cutterbed is set into a "cradle" which keeps it from twisting or flexing which can dramatically shorten the cutterbed life. Because of the gear-to-gear drive system, these machines have a low profile for closer cutting.

The header flotation is operated with multiple springs on each side that allow the head to float radially and vertically to follow the contours of uneven fields for a cleaner cut. The multiple springs deliver a much more responsive flotation system than single spring models.

The conditioner rolls are mounted to the header rather than to the frame, so the crop feeds uniformly into the conditioner rolls. The rolls are wide enough for the crop to spread out evenly for uniform crimping.

The forming shields can quickly and easily be set to the operator's preference with minimal effort and without tools. The operator can create any output, from a narrow, fluffy windrow to a full width swath, depending on specific needs.

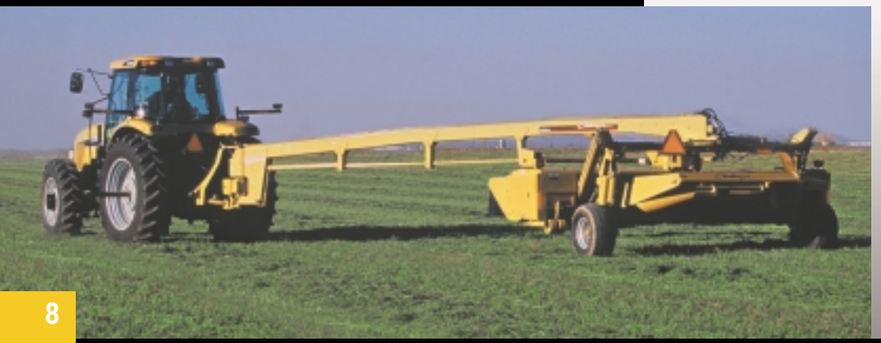
SOLID CONSTRUCTION

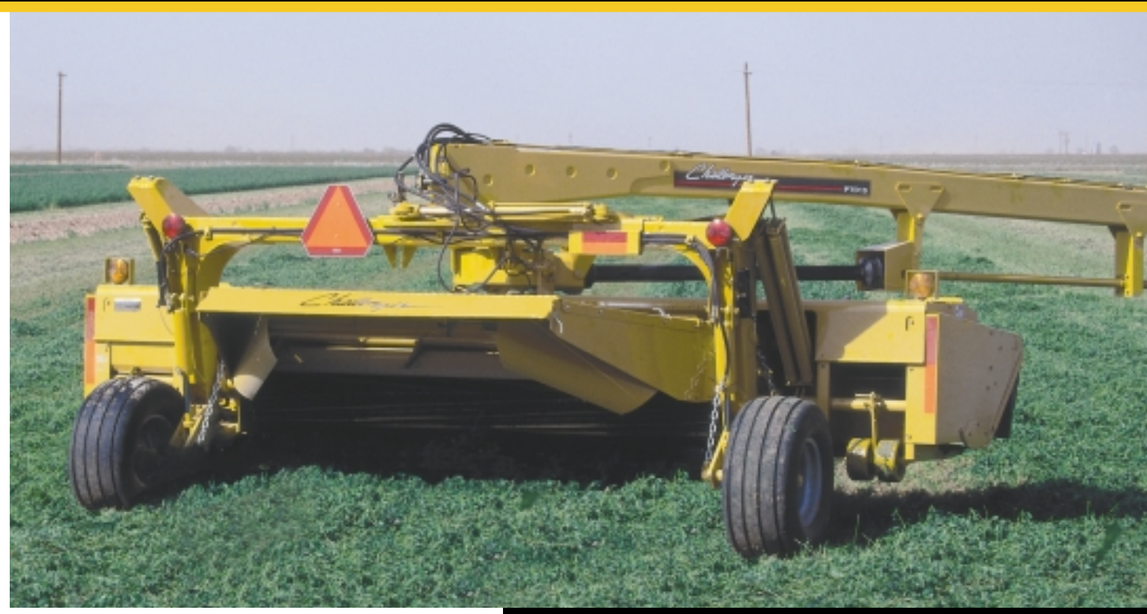
Every Challenger mower-conditioner features a rugged box-beam heavy-duty mainframe that carries and supports the header, suspended like a self-propelled header. That gives these machines better ground clearance, vertical and radial flotation. The PTD Series mower-conditioners are rugged enough to handle dense, heavy, matted crop, even in the toughest conditions.

SMOOTH OPERATING

All models have a unique eccentric linkage that allows the conditioner rolls to temporarily separate, eject a slug, then reset automatically. The PTD12 and PTD15 models feature a special turbulence reduction roll. This roll steps the crop to the pinch point of the conditioner rolls. The conditioner rolls are positioned rearward, which leaves an open area in front of the turbulence roll that allows the air to escape, offering improved cutoff and feeding in light crop conditions.

A highly maneuverable drawbar swivel hitch is available on the PTD12. The PTD15 offers an equally maneuverable 2-point mounted swivel hitch. During tight turns, two double-stacked gearboxes are positioned to transfer power to the drive shaft without chatter or damage to the driveline.





MODEL PTD10

The PTD10 is a side-pull rotary disc mower-conditioner that maintains high capacity, even in tough crop conditions.

This model operates with six counter-rotating discs that cut a 9 ft.-2 in. (2.8 m) swath. The PTD10 comes with either rubber-on-steel conditioning rolls, or TiCor reinforced rubber rolls.

MODEL PTD12

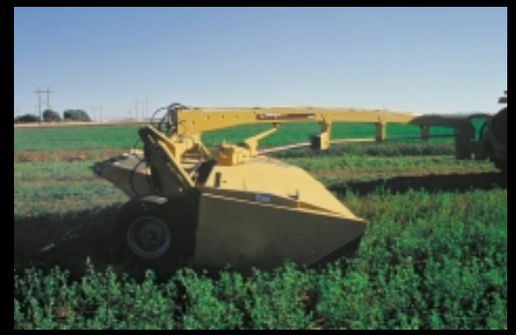
The PTD12 is a center-pivot rotary disc mower-conditioner, with 8 discs for a 12-foot (3.7 m) cut. It's designed for the large operator who wants the capacity of a self-propelled windrower, a narrow transport width, and a lower overall cost.

The PTD12 can be equipped with rubber-on-steel, TiCor or steel-on-steel conditioning rolls, depending on the operator's needs.

MODEL PTD15

The PTD 15 model is a high-capacity center-pivot disc mower-conditioner that delivers fast, clean cutting with 10 discs and a 15 ft.-3 in. (4.7 m) width of cut. It operates with steel-on-steel rolls.

It's great for the large operation which can utilize this machine's unmatched capacity.



DISC MOWER-CONDITIONERS (PTD) & SICKLE MOWER-CONDITIONERS (PTS)

MODEL	PTD10	PTD12	PTD15	PTS12	PTS14 / PTS16
FRAME CONFIGURATION	L-Frame	Center-pivot	Center-pivot	Center-pivot	Center-pivot
Cutting width	9 ft. 2 in. (2743 mm)	12 ft. (3658 mm)	15 ft. 3 in. (4648 mm)	12 ft. (3658 mm)	14 ft. (4267 mm)-PTS14 16 ft. (4876.8 mm)-PTS16
Overall width	119 in. (3023 mm)	150 in. (3810 mm)	186 in. (4724 mm)	163 in. (4140 mm)	188.4 in. (4786 mm)-PTS14 212.4 in. (5396 mm)-PTS16
Overall length	18 ft. 8 in. (5690 mm)	23 ft. 7 in. (7210 mm)	30 ft. (9144 mm)	268 in. (6807 mm)	304 in. (7722 mm)
Tread width	98 in. (2490 mm)	134 in. (3404 mm)	136 in. (3454 mm)	152.5 in. (3874 mm)	155.5 in. (3950 mm)
Weight	3782 lbs. (1715 kg)	5850 lbs. (2654 kg)*	7010 lbs. (2974 kg)	5990 lbs. (2717 kg)	6510 lbs. (2953 kg)-PTS14 6900 lbs. (3130 kg)-PTS16
Header flotation	Radial & vertical	Radial & vertical	Radial & vertical		
Tires	11L X 15	11L X 15	31 X 13.5L-15	9.5L X 15	11L - 15 -PTS14 31 X 13.5L-15 -PTS16
DISC CUTTERBED					
Cutterbed design	Modular spur gear	Modular spur gear	Modular spur gear		
Cutting height	1.3 to 3 in. (32 to 76 mm)	1.3 to 3 in. (32 to 76 mm)	1.3 to 3 in. (32 to 78 mm)		
Number of discs	6	8	10		
Number of knives	12 (2 per disc)	16 (2 per disc)	20 (2 per disc)		
Disc speed	2600 rpm	2600 rpm	2600 rpm		
Knife tip speed	184 mph (296 km/h)	184 mph (296 km/h)	184 mph (296 km/h)		
Knives	Swingaway, reversible	Swingaway, reversible	Swingaway, reversible		
SICKLE CUTTERBAR					
Drive	N. A.	N. A.	N. A.	1 Belt & half swaybar	Timed gearbox/half swaybars
Cutting height	N. A.	N. A.	N. A.	1 to 5 in. (28- 127 mm)	1 to 5 in. (28 - 127 mm)
NUMBER OF SICKLES	N. A.	N. A.	N. A.	1	2
REEL					
Bats	N. A.	N. A.	N. A.	5	5
Diameter	N. A.	N. A.	N. A.	42 in. (1067 mm)	42 in. (1067 mm)
Speed	N. A.	N. A.	N. A.	65 to 75 rpm	65 to 75 rpm
AUGER					
Type	N. A.	N. A.	N. A.	Dual opposed rotation	Dual opposed rotation
Diameter	N. A.	N. A.	N. A.	9 in. (229 mm)	9 in. (229 mm)
Speed	N. A.	N. A.	N. A.	274 rpm - upper 462 rpm -lower	325 rpm - upper 520 rpm-lower
HAY CONDITIONER TYPE	Engaging rolls	Engaging rolls	Engaging rolls	Engaging rolls	Engaging rolls
DIAMETER (Rubber on steel)					
Upper roll	8 in. (203 mm)	8 in. (203 mm)	N. A.	8 in. (203 mm)	8 in. (203 mm)-PTS14
Lower roll	7.75 in. (198 mm)	7.75 in. (198 mm)	N. A.	7.75 in. (198 mm)	7.75 in. (198 mm)-PTS14
STEEL ON STEEL	N. A.	7.75 in. (198 mm)-both	7.75 in. (198 mm)-both	7.75 in. (198 mm)-both	7.75 in. (198 mm)-both
TICOR ROLLS	8 in. (203 mm)-both	8 in. (203 mm)-both	N. A.	8 in. (203 mm)-both	N. A.
LENGTH	75.3 in. (1911 mm)	110 in. (2794 mm)	110 in. (2794 mm)	110 in. (2794 mm)	110 in. (2794 mm)
SPEED	900 rpm	1100 rpm	1280 rpm	1630 spm	1840 spm
WINDROW / SWATH WIDTH	30 to 72 in. (762 to 1828 mm)	36 to 106 in. (914 to 2692 mm)	36 to 106 in. (914 to 2692 mm)	40 to 110 in. (1016 to 2794 mm)	40 to 110 in. (1016 to 2794 mm)
TRACTOR REQUIREMENTS					
Tractor type	Equipped w/cab	Equipped w/cab	Equipped w/cab		
Horsepower (min.)	70 PTO hp (52 kW)	85 PTO hp (63 kW)	120 PTO hp (89 kW)	75+ hp (56+ kW)	75+ hp (67 kW)
PTO	540 rpm	1000 rpm	1000 rpm	540 or 1000 rpm	540 or 1000 rpm
Hydraulics	One double-acting remote; one single-acting remote w/float	One double-acting remote; one single-acting remote w/float	Three double-acting remotes	One double-acting remote; one single-acting remote w/float	One double-acting remote; one single-acting remote w/float
OPTIONAL EQUIPMENT	High skid shoes, TiCor conditioner rolls	High skid shoes, Hydraulic header tilt, TiCor conditioner rolls, Steel on steel conditioner	High skid shoes, Three-point tow bar Three-point drawbar (For tractors w/o 3-point hitch)	Gauge wheel kit, Crop divider kit, Header reverse kit, Center skid shoe, Narrow windrow kit, Quick hitch kit, Hay conditioner close-up kit, TiCor conditioner rolls, Conversion pump for 1000 rpm	Gauge wheel kit, Crop divider kit, Header reverse kit, Center skid shoe, Narrow windrow kit, Quick hitch kit, Hay conditioner close-up kit, Conversion pump for 540 rpm

*Steel on steel conditioner adds 70 lbs (31.8 kg), while TiCor rolls add 120 lbs. (54.5 kg).

CHALLENGER SICKLE MOWER-CONDITIONERS.

Now, there's a lineup of sickle mower-conditioners from Challenger designed for the operator who wants outstanding performance, rugged dependability and dealer service and support he can count on. The new sickle mower-conditioners are available in three sizes.

PTS12 – 12 ft. (3.7 m) width of cut
PTS14 – 14 ft. (4.3 m) width of cut
PTS16 – 16 ft. (4.9 m) width of cut

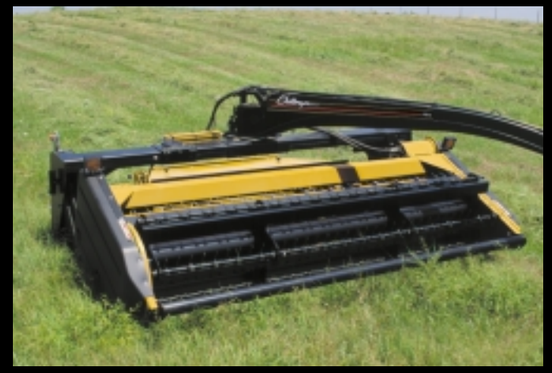
FAST CUTTING

The Challenger PTS model headers are mounted on the solid, heavy-duty box-beam frame, like a self-propelled header. So they follow the contours, floating vertically and radially, for optimum performance even in rough fields.

The PTS Series mower-conditioners feature a half-swaybar sickle drive with counterbalanced flywheel that drives the sickles in a smooth, reciprocal motion. Peak starting, stopping and cutting loads are reduced.

The angle of the sickle can be adjusted for optimum cutting. The dual sickles overlap at the center of the header, for efficient cutting without crop stripping. Flat sickle hold-downs allow a close tolerance between the sickle and guards for cleaner cutting with less maintenance. The sickle sections are bolted instead of riveted, so broken sections can be easily replaced in the field.

Wedge-lock reel tine tube bearings are standard on all models. The PTS16 is available with a deluxe reel that includes sealed tine tube bearings and tine tubes that can be split between spiders.



GENTLE CONDITIONING

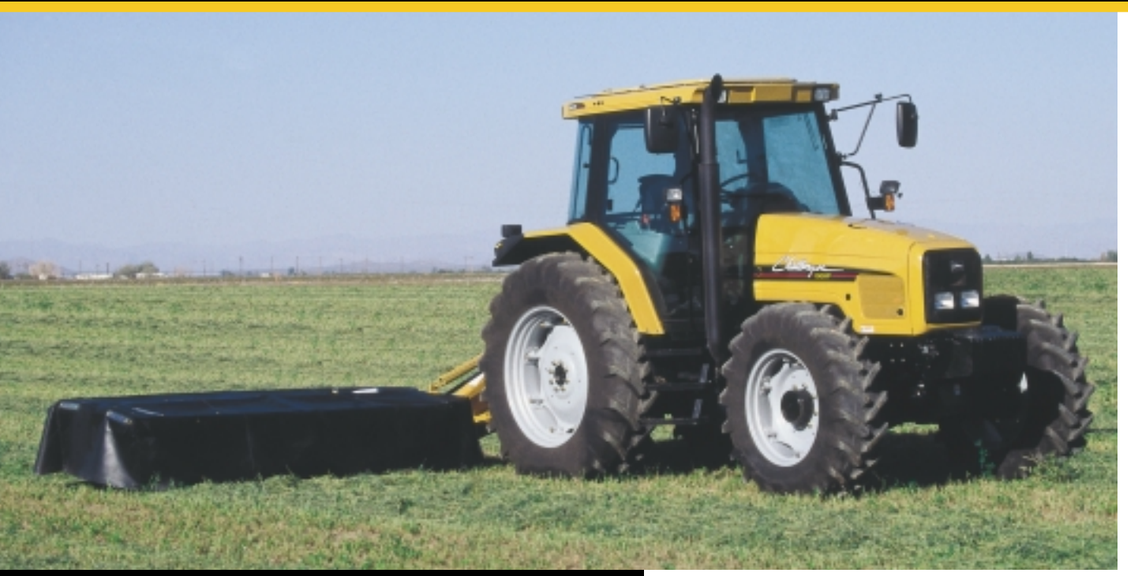
The conditioner is mounted to the header rather than the frame, so crop always feeds into the conditioner rolls at a consistent angle, for uniform conditioning. Counter-rotating dual augers gently distribute crop "butt-first" over the full width of the conditioning roll, for uniform conditioning and even distribution in light or heavy crops.

Conditioner rolls are available from the factory in a steel-on-steel or rubber-on-steel configuration. The 110-inch conditioner roll crimps, rather than crushes, the crop so the stems lose moisture evenly without losing nutritious leaves.

When the conditioner hits a slug or clump, the roll opens to let it pass, then automatically resets. Challenger mower-conditioners have an adjustable swath shield, so you can select fluffy windrows or wide, fast-drying swaths.

FIVE-BAT REELS

These headers have five-bat reels as standard equipment. That means each bat takes a smaller "bite" than a four-bat reel, for smoother feeding, and less plugging and bunching at the conditioner roll. The reel speeds can be easily adjusted to field conditions. A header reverse kit is available as an option.



Challenger three-point hitch-mounted disc mowers are built with field-proven cutterbar technology. Whatever you're cutting, alfalfa, fescue, Bermuda or orchard grass, these mowers are designed to deliver years of quick, clean cuts and dependable service under the toughest field conditions.

HTD7 - 6 ft. – 8 in. (2.0 m) cutterbar, 5 discs
HTD8 - 7 ft. – 10 in. (2.4 m) cutterbar, 6 discs
HTD9 - 9 ft. – 2 in. (2.8 m) cutterbar, 7 discs

QUICK CUTTING

When you're dealing with tough, tangled crop, these machines will cut right through, at speeds other mowers can't match. The low-profile discs on the cutterbar turn at 3,000 rpm for smooth, clean cuts.

These mowers have a standard 6-spline 540-rpm PTO drive, with overrunning clutch, that transfers power to the cutterbar via a heavy-duty V-belt drive. The cutterbar has a segmented hex driveshaft to reduce wear on the drive components and minimize repair time. The overrunning clutch, standard on all models, allows the mower to freewheel until it coasts to a stop, reducing wear on the tractor PTO clutch.

The HTD7 connects to any Category I or Category II 3-point hitch, and the HTD8 and HTD9 fit any Category II 3-point hitch. All models require an enclosed cab for operator protection and a single acting remote valve to lift the mower for transport.

MODULAR DESIGN

Each rotary disc on the cutterbar is a self-contained module, driven by the segmented hex driveshaft and pinion gears. These segments, bolted together, form the cutterbar. The modular cutterbar drive requires less horsepower than competitive designs, so these mowers can be operated with smaller tractors.

The modular cutterbar allows individual modules to be quickly removed and serviced, without the need to disassemble the entire cutterbar. This design saves time on upkeep, reduces downtime and cuts maintenance costs, too. All bearings, gears and lubricants are encased in each unit.

Each disc has two swing-away double-edged knives that are reversible for twice the blade life. The discs are oval, for increased overlap. The lubricant is encased in each unit, gears stay lubricated, without "starving", regardless of the angle of the mower, up to 90 degrees.

DISC MOWERS

MODELS	HTD7	HTD8	HTD9
GENERAL			
Cutting width	6 ft. 8 in. (2.0 m)	7 ft. 10 in (2.4 m)	9 ft. 2 in. (2.8 m)
Weight	1026 lbs. (465 kg)	1120 lbs. (508 kg)	1235 lbs (560 kg)
CUTTERBED			
Cutterbar design	Modular component shaft drive	Modular component shaft drive	Modular component shaft drive
Cutting height	1.5 to 3.25 in. (38.1 to 82.6 mm)	1.5 to 3.25 in. (38.1 to 82.6 mm)	1.5 to 3.25 in. (38.1 to 82.6 mm)
Cutterbar operating range	-25 to +30 degrees	-30 to +30 degrees	-30 to +30 degrees
Number of discs	5	6	7
Number of knives	10 (2 per disc)	12 (2 per disc)	14 (2 per disc)
Disc speed	3000 rpm	3000 rpm	3000 rpm
Knife tip speed	175.8 mph (282.9 km/h)	175.8 mph (282.9 km/h)	175.8 mph (282.9 km/h)
Knives	Swingaway, reversible	Swingaway, reversible	Swingaway, reversible
Drive	Hexshaft	Hexshaft	Hexshaft
Protection	Spring-loaded breakaway	Spring-loaded breakaway	Spring-loaded breakaway
DRIVE SYSTEM			
Drive protection	Overrunning clutch	Overrunning clutch	Overrunning clutch
Gearcase drive	3V section banded belt	4V section banded belt	4V section banded belt
TRACTOR REQUIREMENTS			
Tractor type	Equipped w/ cab	Equipped w/ cab	Equipped w/ cab
Horsepower	35 hp (26.1 kW)	40 hp (30 kW)	45 hp (33.6 kW)
3-Point hitch	Category I or II	Category II	Category II
PTO	540 rpm	540 rpm	540 rpm
Hydraulics	One single-acting remote	One single-acting remote	One single-acting remote
OPTIONS	Topping skids Swathboard Tall crop divider Offset hitch	Topping skids Swathboard Tall crop divider	Topping skids Swathboard Tall crop divider

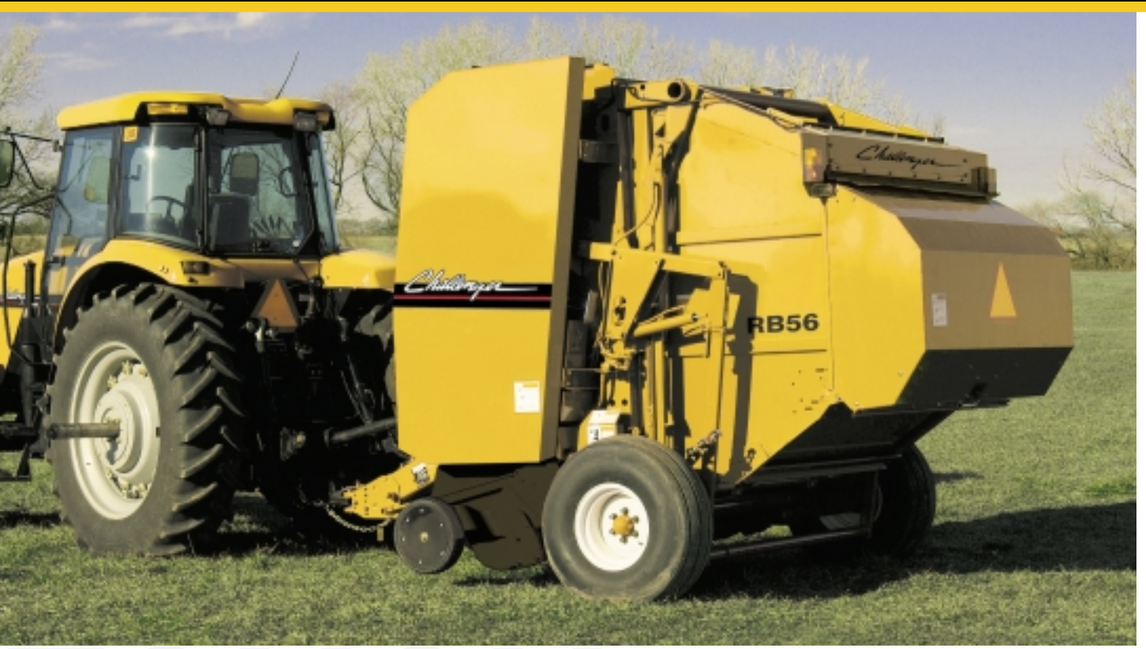
SMOOTH

CLOSE CUTTING

A floating 3-point hitch system and low-profile cutterbar keep the bed level for a close, even cut, without scalping, even over soft or wet ground. The standard inner flotation spring and outer flotation spring (optional on the HTD7) support the cutterbar to reduce drag and increase efficiency. This relieves pressure on the skid shoes for longer wear life.

If the mower hits a rock, limb, stump or other obstruction, a spring-loaded breakaway releases the cutterbar and swings it to the rear to avoid damage. The spring tension is adjustable, and when tripped, the operator simply backs the tractor up to reset the breakaway.

A heavy curtain, with a reinforced frame, surrounds the cutterbar. All models are equipped with a hydraulic lift cylinder that allows the operator to raise and lower the cutterbar from field height to transport or storage height without leaving the tractor seat. A transport lock valve secures the cutterbar in the raised position for transport, storage and maintenance. It prevents the cutterbar from lowering unexpectedly if hydraulic pressure is lost.



TOUGH

BEST BALERS IN THE BUSINESS

Challenger heavy-duty large round balers are the finest in the industry, built solid, for years of demanding service. With several models to choose from, there's a baler for every operation. These are the best in the business.

RB34 – 39 in.(991 mm) x 52 in. (1321 mm) bales
RB44 – 47 in. (1194 mm) x 52 in. (1321 mm) bales
RB45 – 46.5 in. (1181 mm) x 60 in. (1524 mm) bales
RB46 – 46.5 in. (1181 mm) x 72 in. (1829 mm) bales
RB56 – 61.5 in. (1562 mm) x 72 in. (1829 mm) bales

BUILT TOUGH

Challenger round balers are built to last, with rugged steel channel and high-strength welded box beams to resist twisting and increase durability.

SOLID, CONSISTENT BALES

These balers feature a low-profile pickup that collects hay that other machines would miss. Challenger pickups handle crop gently, with less lifting and shaking, as it moves to the bale chamber. An open-throat design feeds the delicate crop directly into a vertical bale chamber, for consistent bale starts without plugging, bunching or stripping leaves.

The RB46 and RB56 balers also have a deluxe pickup system, with infinite height adjustment, electro-hydraulic wide pickup lift, flotation springs and centering augers. Pickups on the RB34, RB44 and RB45 are easily adjusted with a simple manual lever next to the baler tongue. All five models have a pickup declutcher for bale overfill protection.

Each baler has separate bale density and belt tension arms for uniform, consistent bales. The RB44, RB45, RB46 and RB56 balers feature hydraulic bale density and belt tension. The RB34 controls belt tension and bale density via four rugged coil springs.

Both the RB46 and RB56 feature a self-contained hydraulic system that includes a hydraulic pump, hydraulic reservoir, oil filter and control valve. This reduces the tractor hydraulic requirements.

TIED UP TIGHT

The RB46 and RB56 models feature hydraulic twine-tying systems, the RB45 has a manual tractor hydraulic actuated mechanism, and the RB44 has an electronically activated twine-tying mechanism. The RB34 baler features a manual twine-tie system as standard equipment and an optional electric twine-tie kit is available. It has a twine arm indicator that provides a visual monitor of the twine arm position. All five balers have twin tube twine arms that apply two ties simultaneously, saving time, reducing misses and increasing productivity.

The RB45, RB46 and RB56 can be equipped with an optional mesh wrap system that retains more leaves, keeps bales drier and maintains palatability, especially when left in the field. A silage version is also available on the RB45 and RB46.

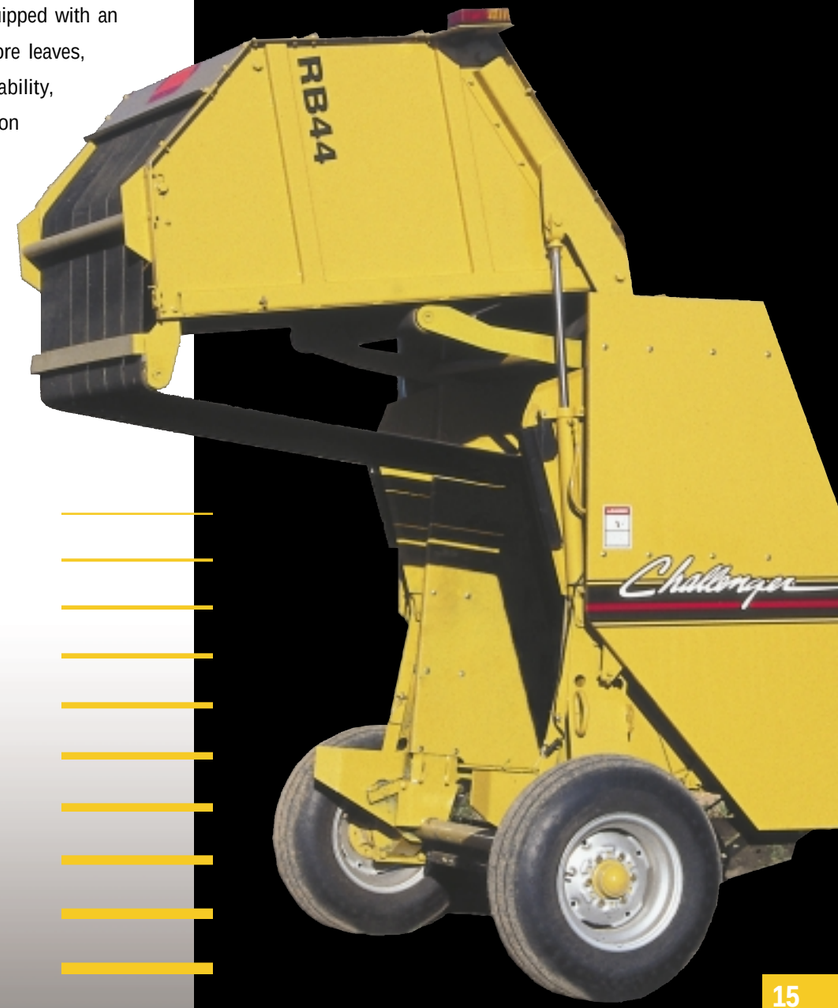
MONITORS

The RB46 and RB56 models feature a modern control box that monitors and regulates key baler functions. The RB44 and RB45 have an electric monitor/control box. These monitoring systems, mounted in the tractor cab, keep the operator informed of basic baler functions. The RB34 has an easily visible bale size indicator and an adjustable sound alert that signals the operator when the bale size is reached.

FULLY AUTOMATIC

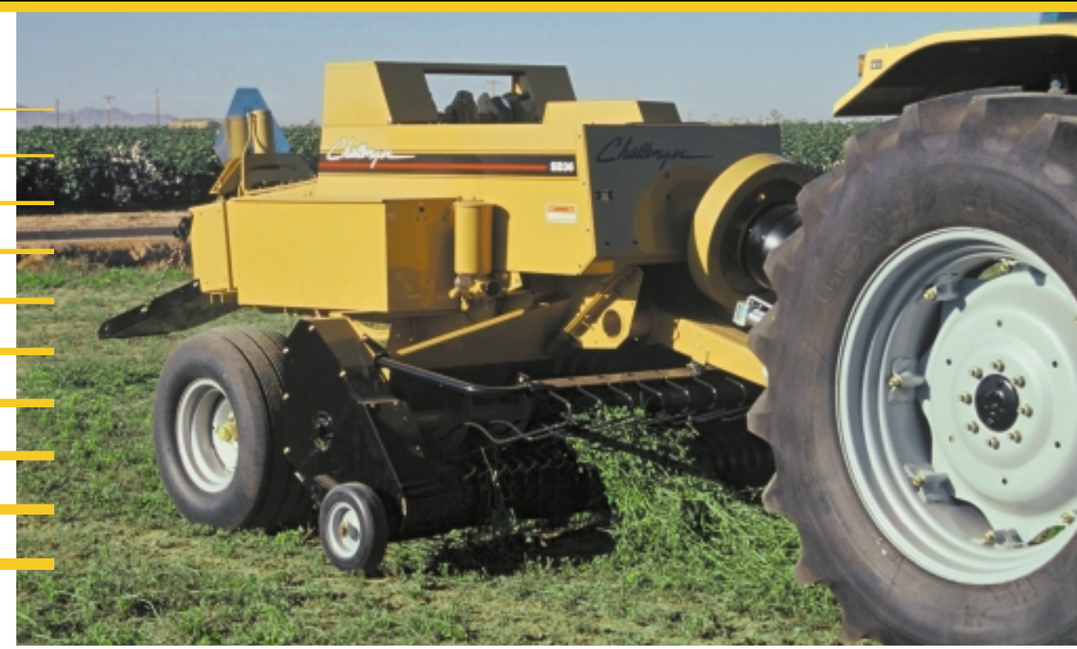
The RB46 and RB56 models can be set to bale your field with minimal input and stress on the operator. Simply follow steps illustrated on the control panel, stop when indicated, and push a button.

The baler automatically ties the bale, declutches the pickup and belts, opens the tailgate, ejects the bale, closes the tailgate and re-engages the baler. You're ready to start the next bale. These are fully automatic balers!



ROUND BALERS

MODEL	RB34	RB44	RB45	RB46	RB56
DIMENSIONS AND WEIGHTS					
Width (Overall) IN (mm)	74.5 (1892)	86 (2184)	110.6 (2808)	102.5 (2604)	117.5 (2985)
Length (Overall) IN (mm)	132 (3353)	140 (3556)	149 (3768)	149 (3768)	155 (3937)
Height (Overall) IN (mm)	84 (2134)	86 (2184)	103 (2616)	115 (2921)	115 (2921)
Weight (Approx.) LB (kg)	2780 (1261)	3420 (1551)	5720 (2595)	6325 (2869)	6800 (3085)
Tongue Weight (Empty) LB (kg)	500 (227)	500 (227)	1100 (499)	1150 (522)	1150 (522)
Tire Size	7.60 x 15, 4 Ply	9.5L x 15, 6 Ply	31 x 13.5-15, 8 Ply	14L x 16.1	14L x 16.1
BALE SIZE					
Diameter (Minimum) IN (mm)	30 (762)	30 (762)	30 (762)	32 (813)	32 (813)
Diameter (Maximum) IN (mm)	52 (1321)	52 (1321)	60 (1524)	72 (1829)	72 (1829)
Width IN (mm)	39 (991)	47 (1194)	46.5 (1182)	46.5 (1182)	61.5 (1562)
Volume (Maximum) FT3 (m3)	47.9 (1.4)	58 (1.6)	72 (2.2)	110 (3.1)	145 (4.11)
Weight, Hay (Approximate) LB (kg)	Up to 550 (250)	Up to 1000 (454)	1140 (518)	1644 (746)	2200 (998)
BALE CHAMBER					
Width IN (mm)	39.4 (1000)	47 (1194)	47 (1182)	47 (1182)	61.5 (1562)
Number of Belts	5	6	6 Laced	6 Laced or Endless	8 Laced or Endless
Belt Width IN (mm)	4.8 (122)	7 (178)	7 (177)	7 (177)	7 (177)
Belt Length IN (mm)	364 (9246)	366 (9296)	475 (12,065)	547 (13,894)	547 (13,894)
Number of Bale Forming Rollers	13	13	16	16	16
Type of Rollers	11 Round Steel, 1 Square Steel 1 Crowned Rubber Drive Roller	11 Round Steel, 1 Square Steel 1 Crowned Rubber Drive Roller	14 Round Steel, 1 Starting Roll 1 Crowned Rubber	14 Round Steel, 1 Starting Roll 1 Crowned Rubber	14 Round Steel, 1 Starting Roll 1 Crowned Rubber
Bale Overfill Protection	Pickup Declutcher	Pickup Declutcher	Pickup Declutcher	Declutches Baler	Declutches Baler
Bale Size Indicator	Yes	Yes	Yes	Yes	Yes
Bale Full Audio Alert	On Baler Audio	Buzzer Control Box	Buzzer Control Box	On Monitor	On Monitor
PICKUP					
Width					
Outside (End to End) IN (mm)	41.5 (1054)	53 (1346)	78 (1972)	78 (1972)	92 (2339)
Inside (Panel to Panel) IN (mm)	38 (965)	52.9 (1343)	66 (1680)	66 (1680)	83.6 (2133)
Tine to Tine IN (mm)	33.8 (858)	44.2 (1122)	60 (1518)	60 (1518)	75.3 (1914)
Tine Bars	3	3	4	4	4
Tine Spacing IN (mm)	2.6 (66)	2.6 (66)			
Number of Tines	21 Double	27 Double	48 Double	48 Double	60 Double
Tine Control	Cam Track	Cam Track	Dual Cam Track	Dual Cam Track	Dual Cam Track
Windguard	Standard	Standard	Rod	Rod	Rod
BALE WRAPPING MECHANISM					
Type	Manually-Rope Actuated Twine	Electrically Actuated Twine	Manual Tractor Hydraulic Actuated	Automatic Hydraulic Actuated	Automatic Hydraulic Actuated
Number of Twine Balls	2	4	Up to 8	Up to 8	Up to 8
Type of Twine	Plastic or Sisal	Plastic or Sisal	Plastic or Sisal	Plastic or Sisal	Plastic or Sisal
Twine Arm	One, Dual Twine	One, Dual Twine	Dual	Dual	Dual
DRIVES					
Pickup	Belt and Chain	Belt and Chain	Chain	Chain	Chain
Forming Belts	Roller Chain	Roller Chain	Roller Chain	Chain	Chain
Gearbox	540 rpm, 90 Degrees	540 rpm, 90 Degrees	540 or 1000 rpm	540 or 1000 rpm	540 or 1000 rpm
TRACTOR REQUIREMENTS					
Min. PTO hp (kW)	30 (22)	45 (34)	65 (48)	70 (52)	70 (52)
PTO Speed rpm	540	540	540 or 1000 (w/ Kit)	540 or 1000 (w/ Kit)	540 or 1000 (w/ Kit)
Hydraulics	One Double–Acting Remote Valve	One Double–Acting Remote Valve	Two Double-Acting Valves	None Required	None Required
Electrical System	12 V DC	12 V DC	12 V DC	12 V DC	12 V DC
Tractor Tire Spacing					
Front & Rear IN (mm) Minimum	41 (1041)	53 (1346)	65 (1651)	65 (1651)	65 (1651)
OPTIONAL KITS (Field Installed)	Fire Extinguisher Windrow Gathering Wheels Bale Ramps Electrically Actuated Twine Threader	Fire Extinguisher Windrow Gathering Wheels Bale Ramps Bale Ejector (Also Requires Bale Ramps)	Fire Extinguisher Short Crop Kit Silage Kit Hydraulic Bale Ejector Bale Ramps Hydraulic Pickup Lift Hydraulic Tractor Remote Valve	Fire Extinguisher Silage Kit Short Crop Kit	Fire Extinguisher Short Crop Kit



Challenger centerline balers are technologically advanced, fast and rugged with the features you want and need to produce high quality bales. They produce popular-sized bales that are easy to handle, small enough to be stacked and fed by hand, and solid enough for long-distance hauling and storage.

These hard-working balers are the finest in the industry, loaded with unique engineering design concepts and innovations. They deliver unmatched maneuverability, high capacity and consistent bale size and shape.

SB34 – **14 in. (356 mm) x 18 in. (457mm) bales up to 52 in. (1.3 m) in length**

SB36 – **14 in. (356 mm) x 18 in. (457mm) bales up to 52 in. (1.3 m) in length**

SB44 – **16 in. (406 mm) x 18 in. (457mm) bales up to 52 in. (1.3 m) in length**

SERIOUS BALERS

Small rectangular balers from Challenger are built with unitized welded box construction and high-strength steel main frame, axles, hitch and other components. That virtually eliminates twisting and increases durability.

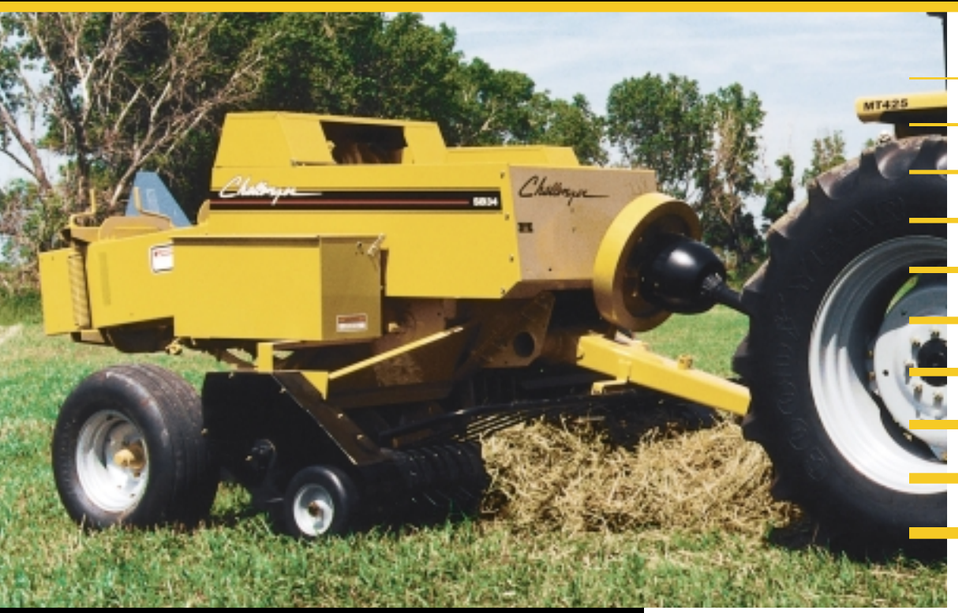
Power transmission is directed from the driveshaft through an overrunning clutch, then through a dual plate slip clutch. This allows the baler flywheel to freewheel when the tractor PTO is shut off, reducing wear to the PTO. The slip clutch also reduces the shock load on the PTO by allowing slight slippage on each plunger stroke.

A constant velocity driveline lets you turn sharply without driveline chatter and vibration. That means faster turnarounds in the field and reduced wear and tear on the drive train.

STRAIGHT CHUTERS

These new Challenger rectangular balers don't look like…or work like…other brands. With a low-profile, centerline design, they are towed in line with the drawbar. The pickup is squarely up front, so the crop follows a straight line from the pickup, through the baler and out the back.

There's no rough handling or shaking, no right angle turns or cross-conveying mechanisms. And the wide, low-profile pickup, with centering augers, lifts the crop only about half as high as other balers do. Your crop is handled carefully, gently, without losing valuable, nutritious leaves.



PRECISION PICKUP

The low-profile pickups are designed to give you a clean sweep. Multiple rows of teeth and narrow-channel strippers get the hay other machines can miss. 12-inch (305 mm) gauge wheels on each end allow the pickup to follow the contour of the field without bouncing. The pickup flotation is adjustable for uneven terrain.

Centering augers move the crop to the center of the pickup, keeping the amount of crop even on each side. Crop fills the bale chamber evenly, for uniformly dense bales, and no "banana bales" even with light or uneven windrows

LOW-PROFILE, HIGH CLEARANCE

These Challenger balers have a compact, low-profile design, but have high ground clearance. With the low-profile design, the operator has a clear view of the entire baling process. And each of these machines has an overall width of less than 9 feet (2.7 m) so they're easy to transport, more maneuverable in the field, and narrow enough to get through gates and across narrow bridges.

CONSISTENT BALES

These machines have a precise bale length mechanism that consistently builds bales from 12 inches (305 mm) to 52 inches (1.3 m) long. The rugged knotters can handle plastic or sisal twine, and they're equipped with large capacity twine boxes. The knotter trip arm works with the bale meter wheel, for positive, consistent bale length.

MODEL SB34

The Challenger Model SB34 is a good fit for the smaller acreage operation. It turns out 14 in. (356 mm) x 18 in. (457 mm) bales. The low-profile pickup on the SB34 is 75.9 inches (1.9 m) wide. It also has a 100 strokes per minute plunger, and seven sealed ball-bearing plunger rollers.

The SB34 has a four-ball twine capacity, with standard mechanical density control. It's available with hydraulic density control, hydraulic pickup lift and an optional hydraulic-driven bale thrower.

MODEL SB36

The Challenger SB36 baler, with a higher capacity pickup and heavy-duty construction, is designed for large farms and custom operators. It delivers 14 in. (356 mm) x 18 in. (457 mm) bales. It has a 75.9-inch (1.9 m) low-profile pickup, 100 stroke per minute plunger and eight sealed ball-bearing plunger rollers.

A spring tension density control system is standard, and a factory-installed hydraulic density control is optional. It has a six-ball twine capacity, and can be outfitted with an optional hydraulic bale thrower and hydraulic pickup.

MODEL SB44

The Challenger Model SB44 baler produces consistent 16 in. (406 mm) x 18 in. (457 mm) bales, making it a favorite of high volume hay producers and custom operators who transport a lot of hay. It has a broad 77.5-inch (1.9 m), low-profile pickup, with high-speed, 100 strokes per minute plunger, and eight sealed ball-bearing plunger rollers.

The SB44 has a six-ball twine capacity and hydraulic bale density is standard.

CONSISTENT DENSITY

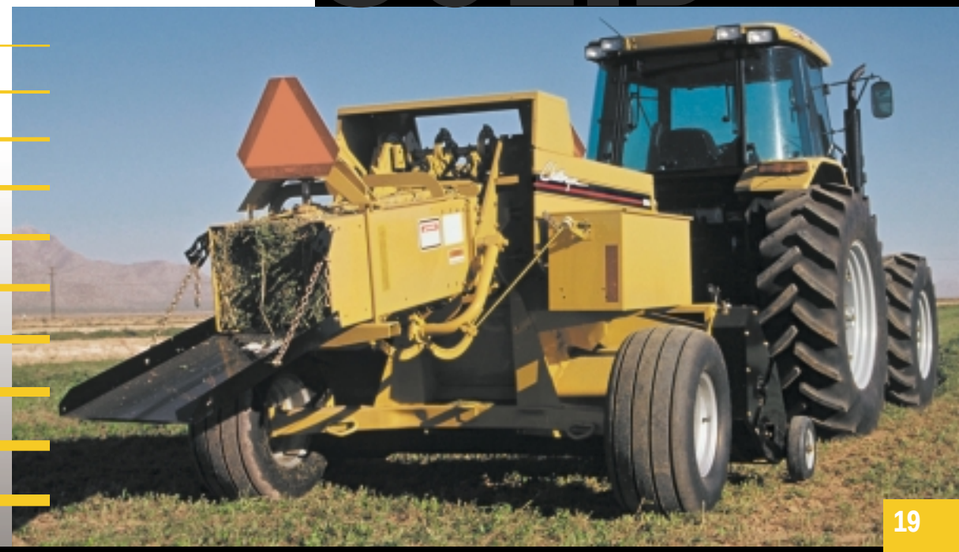
With the unique design of the Challenger balers, crop is picked up and gently fed into the preforming chamber. As each flake is formed, the stuffer pushes the formed flake into the bale chamber, where it is trimmed and compressed into the bale.

The preformed flake process means shorter plunger strokes when forming a bale. In a single day, this can literally save miles of travel by the plunger and plunger rollers, increasing service life and reducing maintenance costs.

Adjustable hay resistor doors on the sides of the bale chamber apply pressure from the sides, not just the top and bottom. These balers are equipped with a tension spring density control system or an optional hydraulic density control system that automatically maintains consistent bale weight.

One charge creates one flake, so you get uniform flake size and more consistent bales. And this system means that nutritional leaves are distributed throughout the bale, not just on the sides and bottom.

SOLID



PRECISION

SMALL RECTANGULAR BALERS

MODELS	SB34	SB36	SB44
DIMENSIONS AND WEIGHTS			
Overall width	101 in. (2565 mm)	101 in. (2565 mm)	104 in. (2652 mm)
Overall Length			
w/o Bale chute	168 in. (4267 mm)	168 in. (4267 mm)	202 in. (5121 mm)
w/ Bale chute	204 in. (5182 mm)	204 in. (5182 mm)	244 in. (6187 mm)
w/ Bale thrower	240 in. (6096 mm)	240 in. (6096 mm)	N. A.
Overall height	65 in. (1651 mm)	65 in. (1651 mm)	66 in. (1676 mm)
Weight	3050 lbs. (1383 kg)	3300 lbs. (1497 kg)	4375 lbs. (1985 kg)
BALE SIZE			
Cross section	14 x 18 in. (356 x 457 mm)	14 x 18 in. (356 x 457 mm)	16 x 18 in. (406 x 457 mm)
Length	12 to 52 in. (305 to 1321 mm)	12 to 52 in. (305 to 1321 mm)	12 to 52 in. (305 to 1321 mm)
Density control	Spring-loaded rails	Spring-loaded rails or hydraulic	Hydraulic
PLUNGER			
Speed	100 strokes per min.	100 strokes per min.	100 strokes per min.
Length of stroke	21.7 in. (550 mm)	21.7 in. (550 mm)	23 in. (584 mm)
Rollers	7 sealed ball-bearing rollers	8 sealed ball-bearing rollers	8 sealed ball-bearing rollers
PICKUP			
Width-panel to panel	75.9 in. (1928 mm)	75.9 in. (1928 mm)	77.5 in. (1968 mm)
-tine to tine	70.2 in. (1782 mm)	70.2 in. (1782 mm)	70.2 in. (1782 mm)
Number of tines	84 on 3 tine bars	112 on 4 tine bars	112 on 4 tine bars
Tine spacing	2.6 in. (66 mm)	2.6 in. (66 mm)	2.6 in. (66 mm
Centering augers	13 in. (330 mm)	11 in. (280 mm)	12.5 in. (318 mm)
Protection	Belt drive	Torque limiter	Slip and overrunning clutch
FEEDING SYSTEM			
Stuffer	Crank-type w/4 tines	Crank-type w/4 tines	Crank-type, cam-controlled with 3 tines
Protection	Shearbolt	Shearbolt	Shearbolt
TYING MECHANISM			
Number of knotters	2	2	2
Twine type	Plastic or sisal	Plastic or sisal	Plastic or sisal
Twine	4 balls	6 balls	6 balls
Protection	Shearbolt	Shearbolt	Shearbolt
TIRES			
Flotation	11L x 14	31 x 13.5-15	31 x 13.5-15
Pickup	3 x 12	3 x 12	4 x 16
TRACTOR REQUIREMENTS			
Horsepower (Min.)	35 hp (26 kW)	35 hp (26 kW)	50 hp (37 kW)
PTO	540 rpm	540 rpm	540 rpm
Weight (Min.)	4,550 lbs. (2068 kg)	4,550 lbs. (2068 kg)	6,500 lbs. (2954 kg)
Hydraulics	None for standard baler	None for standard baler	One double-acting remote
OPTIONAL KITS			
	Hydraulic pickup lift Hydraulic bale tension Bale chute extension Bale chute quarter turn Wagon hitch kit Bale thrower Light kit	Hydraulic pickup lift Hydraulic bale tension Bale chute extension Bale chute quarter turn Wagon hitch kit Bale thrower Light kit	Bale chute Bale chute extension Light kit Knotter lubrication system Bale chute quarter turn

These balers feature an in-line design that keeps hay moving in a straight line from the wide, low-profile pickup through to the bale chute. They deliver big, solid, bales that stack tight for transport and storage.

CHALLENGER LARGE RECTANGULAR BALERS

Challenger large rectangular balers are the finest in the industry, designed with the latest engineering and innovation, built solid, for years of demanding service. They're well suited to the custom operator, beef and dairy producers and hay and straw operations.

LB33 – 34.4 in. (874mm) x 31.5 in. (800mm) bales up to 98.4 in. (2499 mm) in length

LB34 – 34.4 in. (874mm) x 47.3 in. (1200 mm) bales up to 98.4 in. (2499 mm) in length

LB44 – 50 in. (1270 mm) x 46.5 in. (1181 mm) bales up to 108 in. (2743 mm) in length

BUILT TOUGH

The new Challenger balers are built tough, with the main frame, axle and hitch constructed of high-strength welded box beams to resist twisting and increase durability.

An equal-angle hitch links the baler to the tractor and allows tight turns with minimum driveline vibration and chatter. The baler hitch is equipped with a swivel ball that forms a solid connection with the drawbar to reduce movement and wear.

CONSISTENT, COMPACT BALES

The hydraulic pickup lift on these balers lets the operator raise and lower the pickup from the tractor seat. Every baler features hydraulic pickup and density control, with hydraulic cylinders that automatically exert pressure from the left, right and top of the bale chamber. Centering augers gently feed the crop toward the packer chamber where packer fingers pull the crop into the pre-charge chamber. The crop is held in a prepacker chamber until the flake has reached a proper density, then, a sensor activates the stuffer fingers to move the charge into the bale chamber for final compression.

On some competitive balers, the stuffer operates every one or two plunger strokes. With the Challenger, one charge produces one flake, so density is always consistent, for solid, well-formed bales, regardless of crop conditions or ground speed. Simple, reliable chain drives transfer power to the operating functions. The pickup and packer drives are protected by a slip clutch to prevent damage from overloads or foreign objects in the windrows.

A microprocessor monitors every baler function, from plunger load to bale count and number of flakes per bale. The operator can make any necessary adjustments from the tractor cab, using sealed touch switches on the monitor.

The LB33 and LB34 balers can also be equipped with a precutter as a factory-installed option.

TIED UP TIGHT

The double knotter systems on the Challenger balers tie two knots per needle cycle for less wear and less chance of twine breaking or misses. The LB34 and LB44 balers have 6 knotters, the LB33 uses 4. A knotter fan kit, available as an option on all models, is driven by an independent hydraulic pump and motor and equipped with its own reservoir and filter for excellent reliability.

A crank and locking device allows the operator to accurately adjust the bale length. A bale ejector system is standard equipment on the LB34 and optional on the LB33.

WELL-OILED MACHINES

These balers are equipped with a lubrication system that automatically directs grease to all key lubrication points, including the packer crank. Intervals are adjustable, or the lubrication system can be operated manually.

MODEL LB34

The Challenger LB34 produces big, solid bales 34.4 inches (874 mm) x 47.3 inches (1200 mm) up to 98.4 inches (2499 mm) long and weighing up to 1,500 pounds (680 kg) of hay, 2000 pounds (908 kg) of silage or 1000 pounds (454 kg) of straw. For maximum truck payload, they stack two bales wide by three high. This machine can also package silage bales.

The LB34 has a low-profile 87.9-inch (2232 mm) width pickup, with heavy-duty bearings, central bulkhead and cam arms on each end of the assembly.

Large flotation tires, the automatic lubrication system and bale ejector are all standard on the LB34. A factory-installed steerable tandem axle with four, 500/50 – 17 flotation tires is optional.

MODEL LB33

The Challenger Model LB33 creates uniform bales 34.4 inches (874 mm) x 31.5 inches (800 mm) up to 98.4 inches (2499 mm) in length. The bales can weigh up to 1000 pounds (454 kg) of hay, 1500 pounds (680 kg) of silage or 600 pounds (272 kg) of straw. For easy transport, these bales can be truck-loaded three wide and three high.

This smaller baler is built with the same rugged construction as the two larger models, with a wide, low-profile 77.5-inch (1969 mm) width pickup. Swing-open panels on each side give the operator complete access to the entire side of the baler. It has an automatic density control system and slot cleaners on the top and bottom of the plunger.

The LB33 can be equipped with an optional pre-cutter, bale ejector, roller bale chute, pan chute and Model BA3 bale accumulator. The more maneuverable bale size makes it ideal for bunk feeding, mixer wagons and silage bales.

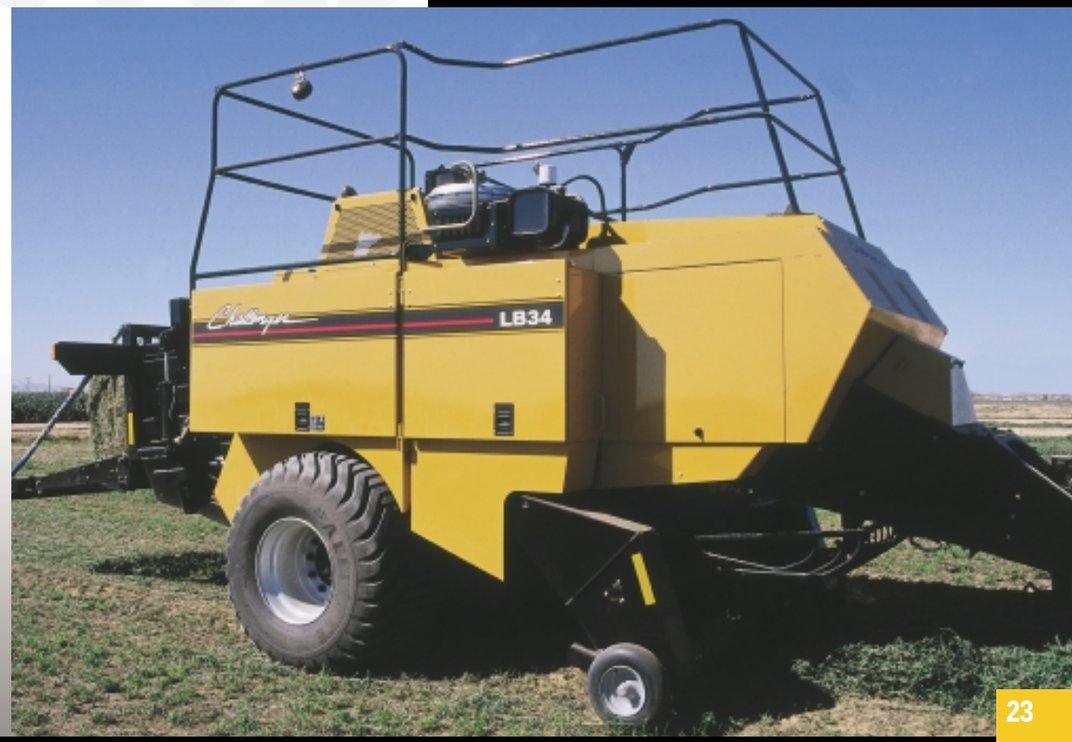
21.5L x 16.1 ribbed flotation tires are standard, and 600/50-22.5 flotation tires, or steerable tandem axles with 500/50-17 tires, are optional.

RUGGED

MODEL LB44

The Challenger Model LB44 baler produces solid, consistent, square-shouldered bales 50 inches (1270 mm) x 46.5 inches (1181 mm) up to 108 inches (2743 mm) in length, weighing up to 2000 pounds (908 kg) of hay and 1400 pounds (636 kg) of straw. These bales load onto a truck bed two wide and two high for efficient hauling and handling. To produce hay by the semi truckload day after day takes some serious heavy-duty machinery.

It has a low-profile pickup assembly with 83.6-inch (2125 mm) width, that rakes in crop other balers can miss. The gauge wheels maintain the pickup at a consistent height over changing contours in the field. This baler is equipped with large 28L x 26 flotation tires for minimum compaction.



LARGE RECTANGULAR BALERS

MODEL	LB44	LB34	LB33
DIMENSIONS AND WEIGHTS			
Overall width w/Flotation tires	125.5 in. (3190 mm)	117 in. (2972 mm)	100 in. (2540 mm)
Overall length			
w/o Bale chute	284.5 in. (7230 mm)	285 in. (7239 mm)	286 in. (7265 mm)
w/ Standard Bale chute	350.5 in. (8900 mm)	358 in. (9093 mm)	355 in. (8530 mm)
w/ Accumulator	409 in. (10390 mm)	409 in. (10390 mm)	409 in. (10,390 mm)
Overall height			
Top of knotter shielding	124 in. (3150 mm)	108 in. (2743 mm)	107.5 in. (2731 mm)
Top of hand railing	145 in. (3680 mm)	140 in. (3556 mm)	124.5 in. (3162 mm)
Weight			
Baler W/Single Axle	18,300 lbs. (8440 kg)	17,280 lbs. (7838 kg)	12,900 lbs. (5851 kg)
Baler W/Tandem Axle	N.A.	19,270 lbs. (8740 kg)	15,040 lbs. (6836 kg)
Bale chute	250 lbs. (113 kg)	400 lbs. (181 kg)-roller chute	134 lbs. (61 kg)-standard chute 380 lbs./(172 kg)-roller chute
BALE SIZE			
Width	46.5 in. (1180 mm)	47.3 in. (1200 mm)	31.5 in. (800 mm)
Height	50 in. (1270 mm)	34.4 in. (875 mm)	34.4 in. (875 mm)
Length	Up to 108 in. (2.8 mm)	Up to 98 in. (2500 mm)	Up to 98 in. (2500 mm)
Weight	Up to 2,000 lbs. (907 kg)*	Up to 1,500 lbs. (681 kg)-dry hay* Up to 2000 lb (907 kg)-silage hay*	Up to 1,000 lbs. (454 kg)-dry hay* Up to 1,500 lbs. (681 kg)-silage hay*
MAIN DRIVE			
Driveline category	ASAE 6	ASAE 6	ASAE 6
Protection	Slip and overrunning clutches & shearbolt	Slip and overrunning clutches & shearbolt	Slip and overrunning clutches & shearbolt
Gearbox	Enclosed, triple-reduction	Enclosed, double-reduction gears	Enclosed, double-reduction
PICKUP			
Width-effective width	83.6 in. (2125 mm)	87.9 in. (2232 mm)	77.5 in. (1968 mm)
-tine to tine	77.9 in. (1978 mm)	80.6 in. (2046 mm)	70.2 in. (1782 mm)
Overall width	110.5 in. (2810 mm)	118.1 in. (3000 mm)	107.4 in. (2729 mm)
Number of tines	120 on 5 tine bars	120 on 4 tine bars	112 on 4 tine bars
Tine spacing	3.4 in. (86 mm)	2.6 in. (66 mm)	2.6 in. (66 mm)
Protection	Slip & overrunning clutches	Slip & overrunning clutches	Slip & overrunning clutches
Pickup lift	Hydraulic cylinder	Hydraulic cylinder	Hydraulic cylinder
FEEDING SYSTEM			
Packers	Fork-type w/6 tines	Fork-type w/6 tines	Fork-type w/4 tines
Protection	Splined slip clutch	Splined slip clutch	Splined slip clutch
Charge chamber volume	Approx. 12.5 cu. ft. (0.4m3)	Approx. 9.98 cu. ft. (0.28 m3)	Approx. 6.6 cu. ft. (0.188 m3)
Stuffer	Fork-type w/6 tines	Fork-type w/6 tines	Fork-type w/4 tines
Protection	Shearbolt	Shearbolt	Shearbolt
PLUNGER			
Speed	25.4 strokes/min.	42.6 strokes/min.	41 strokes/min.
Length of stroke	30.7 in. (780 mm)	27.9 in. (710 mm)	27.9 in. (710 mm)
Mounting	4 tapered roller bearings; 2 ball roller bearings	4 tapered roller bearings; 2 ball roller bearings	4 tapered roller bearings; 2 ball roller bearings
TYING MECHANISM			
Knotters	double-knot type	double-knot type	double-knot type
Number of knotters	6	6	4
Twine storage capacity.	24 balls	30 balls	20 balls
Twine type	Polypropylene or sisal, 300 lbs. (1330 N) min. knot strength	Polypropylene or sisal, 300 lbs. (1330 N) min. knot strength	Polypropylene or sisal, 300 lbs. (1330 N) min. knot strength
AXLES	Single	Single or Tandem	Single or Tandem
TIRES			
Single Axle	28L X 26 axle	700/50-22.5	21.5L X 16.1 or 600/50-22.5 (Optional)
Tandem Axle	N.A.	500/50-17	500/50-17
Pickup	4 X 16	4 X 16	4 X 16
LIGHTS	6 working lights; amber flashing warning & turn signals; taillights	3 working lights; amber flashing warning & turn signals; taillights	3 working lights; amber flashing warning & turn signals; taillights
CONTROL AND MONITORING SYSTEM			
Type	Microprocessor-based electronic control		
Baler controls	Plunger load to control bale density, alarm volume, reset bale count		
Functions monitored	Plunger load, bale chamber tension pressure, bale count, flakes/bale, driving meter, stuffer cycles, knotter & needle performance, feeder performance, stuffer shearbolt, gearbox overheating and automatic electronic system performance checks		
TRACTOR REQUIREMENTS			
Horsepower *Minimum	135 hp (101 kW)	120 hp (90 kw)	90 hp (67 kW)
Recommended	150 hp (112 kW) and up	150 hp (112 kW)	120 hp (90 kW)
*Minimum with precutter	N.A.	150 hp (112 kW)	115 hp (86 kW)
PTO	1000 rpm	1000 rpm	1000 rpm
Weight-Minimum	20,000 lbs. (9090 kg)	19,500 lbs. (8865 kg)	15,600 lbs. (7090 kg)
Hydraulics	Two double-acting remotes	Two double-acting remotes	Two double-acting remotes
Electrical system	12 Volt DC	12 Volt DC	12 Volt DC

* Depending upon type of crop and moisture content.

BALE ACCUMULATORS

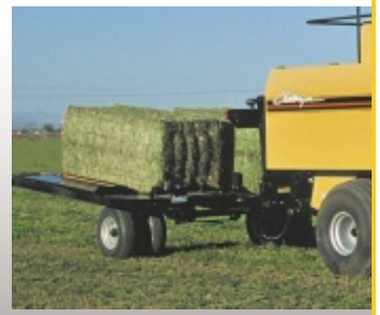
Challenger offers a pair of bale accumulators designed to work perfectly with Challenger large rectangular balers. Both accumulators feature a bale shift bar that automatically moves bales right or left to maintain a balanced load, a centralized lubrication system, dual caster wheels and caster stabilizers/.

An accumulator monitoring system is built into a tractor-mounted console to supply the operator with information about the status of the accumulator.

MODEL BA4

The Challenger Model BA4 accumulator is the perfect partner for the LB34 and LB44 balers. Outfitted with a special control unit mounted in the tractor cab, the operator can collect and group bales anywhere in the field. That can save you time, travel and reduce compaction.

The Model BA4 can carry and handle up to three large square bales at a time. This bale accumulator can also be equipped with an optional kit to weigh bales as they're produced in the field.



MODEL BA3

The Challenger BA3 accumulator is specially designed to work with the LB33 baler. It can collect up to five bales at a time, and can handle both dry bales and high-moisture silage bales.

The Model BA3 has folding decks on each side to narrow the cart to a three-bale width for baling narrow windrows, baling along fencelines and while transporting.

ACCUMULATORS

MODELS	BA4 (with Models LB44 & LB34)	BA3 (with Model LB33)
DIMENSIONS AND WEIGHTS		
Weight	3,250 lbs. (1475 kg)	3360 lbs. (1525 kg)
Length	123 in. (3125 mm)	122 in. (3100 mm)
Overall width - field	156 in. (3960 mm)	176 in. (4470 mm) (5-bale mode)
Width - transport	156 in. (3960 mm)	122 in. (3099 mm)
Height - field	46 in. (1170 mm)	48 in. (1200 mm)
BALE SIZE		
Width	46.5 in. (1180 mm)	31.5 in. (800 mm)
Height	50 in. (1270 mm)	34.4 in. (825 mm)
Bale length	81 to 102 in. (2.06 to 2.60 mm)	59 to 98 in. (1500 to 2500 mm)
Capacity	3 bales	3 or 5 bales
FRAME		
Tires	9.5L X 14	9.5L X 14
Axle type	Dual wheel caster (2) w/ stabilizing brake	Dual wheel caster (2) w/ stabilizing brake
CONTROL & MONITORING SYSTEM		
Bale shift control	Automatic or manual	Automatic or manual
Bale unload control	Operator controlled	Operator controlled
Functions monitored	Bales loaded, direction of next bale, operator alert-manual mode, bale to be unloaded & shift bar malfunction	Bales loaded, direction of next bale, auto/manual mode, operator alert for 3 and 5 bale mode, manual mode, bale to be unloaded & bale shift bar malfunction
HYDRAULICS	Solenoid valve mounted to baler	Solenoid valve mounted to baler
LUBRICATION	Centralized lubrication system	Centralized lubrication system
OPTIONS	Bale weight kit	