

3520

Sugar Cane Harvester



9.0 L Engine

The John Deere 3520 is the best-selling harvester globally. No other chopper harvester can match its performance, reliability, comfort, options, and ease of use.

The 3520 gets through the toughest conditions and is powered by the proven 337 hp (375 hp optional) John Deere 4 Valve PowerTech™ 9.0L engine developed specifically for agricultural applications.

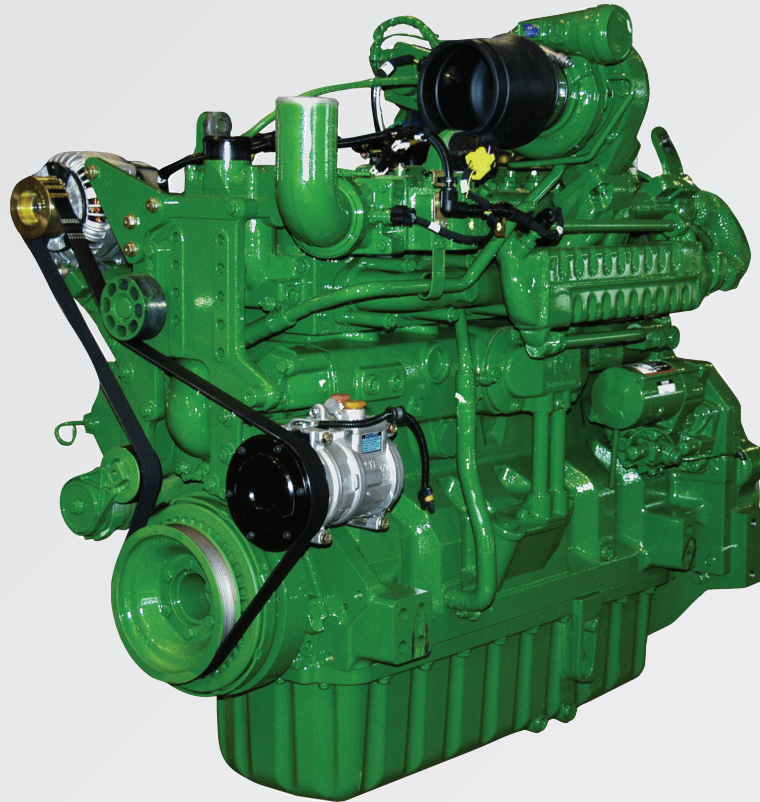
The true test of strength is not what the harvester can do at rated engine power, but what it can do above it. When you lug down this harvester, it develops as much as 10% power bulge. This extra muscle is what truly keeps you moving in tough conditions.

Reliable, powerful, and easy on fuel, the John Deere 9.0L reshapes the boundaries of power.

The self-cleaning cooling package eliminates the need for regular stops to remove trash from the cooling system's air intake surfaces, providing longer operating time during your season.

The 3520 comes with an impressive list of standard features and available options that will easily fulfill your needs and expectations.

There is no match for the 3520's powerful performance around the world.



Larger Engine Displacement

Self Priming Fuel Pump

Environmentally Friendly

4 Valve Cylinder Head

Forged Steel Pistons

Tier II or Tier III Certified

Field Cruise™

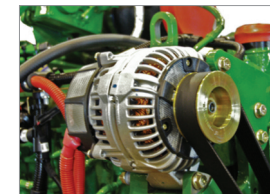
The Exclusive Field Cruise™ is now standard. It allows the operator to set the Engine speed at 2000 RPM in low tonnage fields to save in fuel.



Composite ejector pre-cleaner maximizes removal of dust. Larger capacity air filter reduces service intervals.



Muffler location provides less heat build up in the engine compartment.



200 Amp alternator replaces our previous 140 Amp for increased capacity.

Cab & Technology

New Steering & Propulsion System makes the 3520 easier to operate.

New Operators can now be trained in less time. They will adapt easier if they have previously operated a tractor or any other farm equipment with a steering wheel.

On the track units, the two propulsion control levers have been replaced by a steering wheel common to most John Deere equipment and a propulsion and multifunction lever that has also taken the place of the joystick of previous models.

The same operator interface is used on the wheel units. It is no longer necessary for the operator to move the left hand off of the steering wheel to make a change in speed or direction.

With the new steering system the operator can easily keep the harvester centered on the row and make corrections quicker and more precisely. Turning on the headland is faster and easier; by just a single motion to the steering wheel the track harvester will turn into the next row.

The 3520 has a variety of features to provide all day & night comfort and convenience... so you feel as good at the end of the shift as you do at the start. Inside the cab, an expansive area of glass gives operators a clear view of the topper, crop dividers, side wagons and sugar cane. Thick acoustic insulation seals around the door and windows keeping the cab quiet. Once you are in the air-suspended seat, you'll see that all the major machine and harvesting controls are within easy reach.



Progressive customers are utilizing Global Positioning System (GPS) technology for advanced applications, such as field documentation and machine guidance. An expanded product line from John Deere offers a wide range of complete systems and accuracy levels that can be combined to create a powerful management tool for tillage, planting, crop care, and harvesting operations.

AutoTrac™, a hands-free steering system, automatically steers the machine through the fields while harvesting. This system helps to maximize productivity, reduce operator strain, decrease stubble damage, and prevent row crossing in heavy lodged cane. It is especially useful for keeping the harvester centered on the row during night time operation and when opening a field.

John Deere offers different levels of accuracy depending on the signal selected. The SF2 signal delivers a 15-minute pass-to-pass accuracy of +/- 10 cm (4 inches), 95 percent of the time. It can also be upgraded to operate at Real Time Kinematic (RTK) level of accuracy of under 2.5 cm (one inch) repeatable when it is paired with the appropriate RTK base station.

All 3520 Track harvesters now come from the factory with integrated AutoTrac™ components, thus making this machine AutoTrac™ ready. This designation indicates that the electrical harnessing and electro-hydraulic steering components required to operate with AutoTrac™ have been installed. Simply add additional GreenStar™ components, such as a display, AutoTrac™ activation and StarFire™ receiver to complete the system. Additionally the 3520 Wheel units are ready for use with the AutoTrac™ Universal (ATU) Steering kit. Please contact your local dealer for other components needed to complete either AutoTrac™ system.



Versatile Displays support multiple languages and can be customized by the operator. Diagnostic Trouble Codes have user-friendly text.



Satellite signals are captured by the optional StarFire iTC Receiver, providing precise information. Standard HID light packages provide superior night time visibility.



Your entry into the world of John Deere Ag Management Solutions begins with the GS2 Display.

Front End

The New Parallel Linkage Crop Dividers

consistently maintain the proper orientation to the ground. The benefit is that it minimizes whole stalk losses under the crop divider toe as the row height varies and reduces dirt content. The Gauge Wheel option will sustain the appropriate and even height for the crop divider, thus reducing the occasions of plowing dirt and being lifted over lodged stalks. Additionally this option has a float position that allows the crop divider cylinder to move freely as the wheel travels along the ground.

Large diameter crop divider scrolls gently lift and feed cane into the harvester throat with a much lower approach angle, avoiding the “bulldozing effect” seen with other harvesters.

Standard dual scrolls with side knives help harvest long, heavy, down cane. The standard inside scrolls rotate to lift and center the cane as it is being harvested. Outside scrolls rotate in the opposite direction of the inside scrolls to push the cane of the adjacent row away from the machine.

Stalks not separated upon reaching the standard side knives are cut before the harvester pulls them from the ground.

The hydraulic crop dividers and knock down rollers tilt (standard) turns a twenty-minute field adjustment into an on-the-move operation. The toe tilted down lifts the sprawling crop, ensuring all cane is fed into the machine. In standing cane, the toe angled up reduces soil content. The knock down roller positioned in the outer position facilitates feeding heavy lodged cane.

The deep-tooth paddles of the knockdown rollers prevent wrapping of cane leaves and vines.

The hydraulically driven crop dividers’ knockdown rollers are independently mounted on the upper side of each crop divider. These rollers help gently guide long, wrapping cane to the center of the harvester’s throat, which minimizes cane build-up at the top of the crop divider.



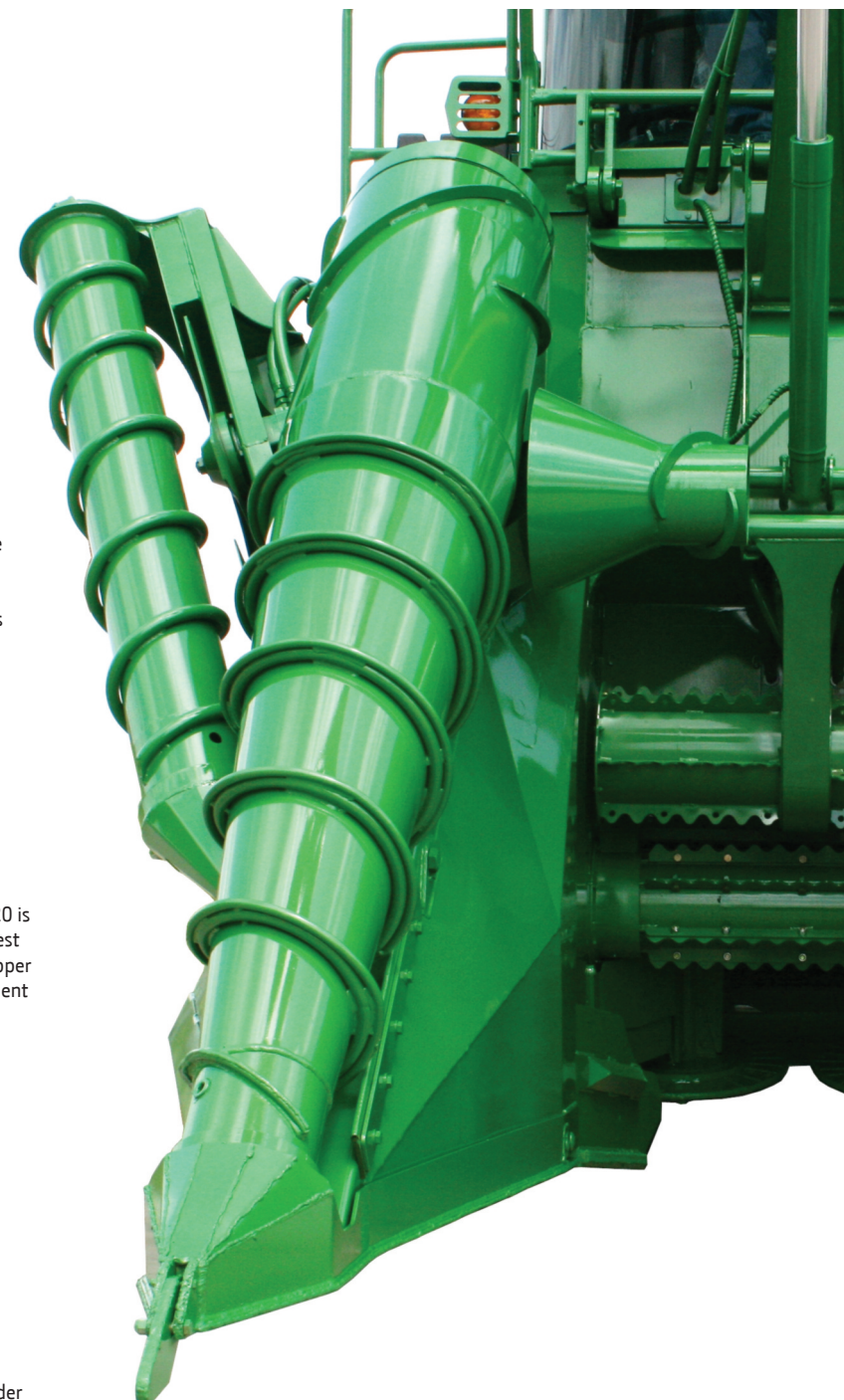
New Parallel Linkage Crop Dividers adapt to ground unevenness for cleaner cane and reduce losses.

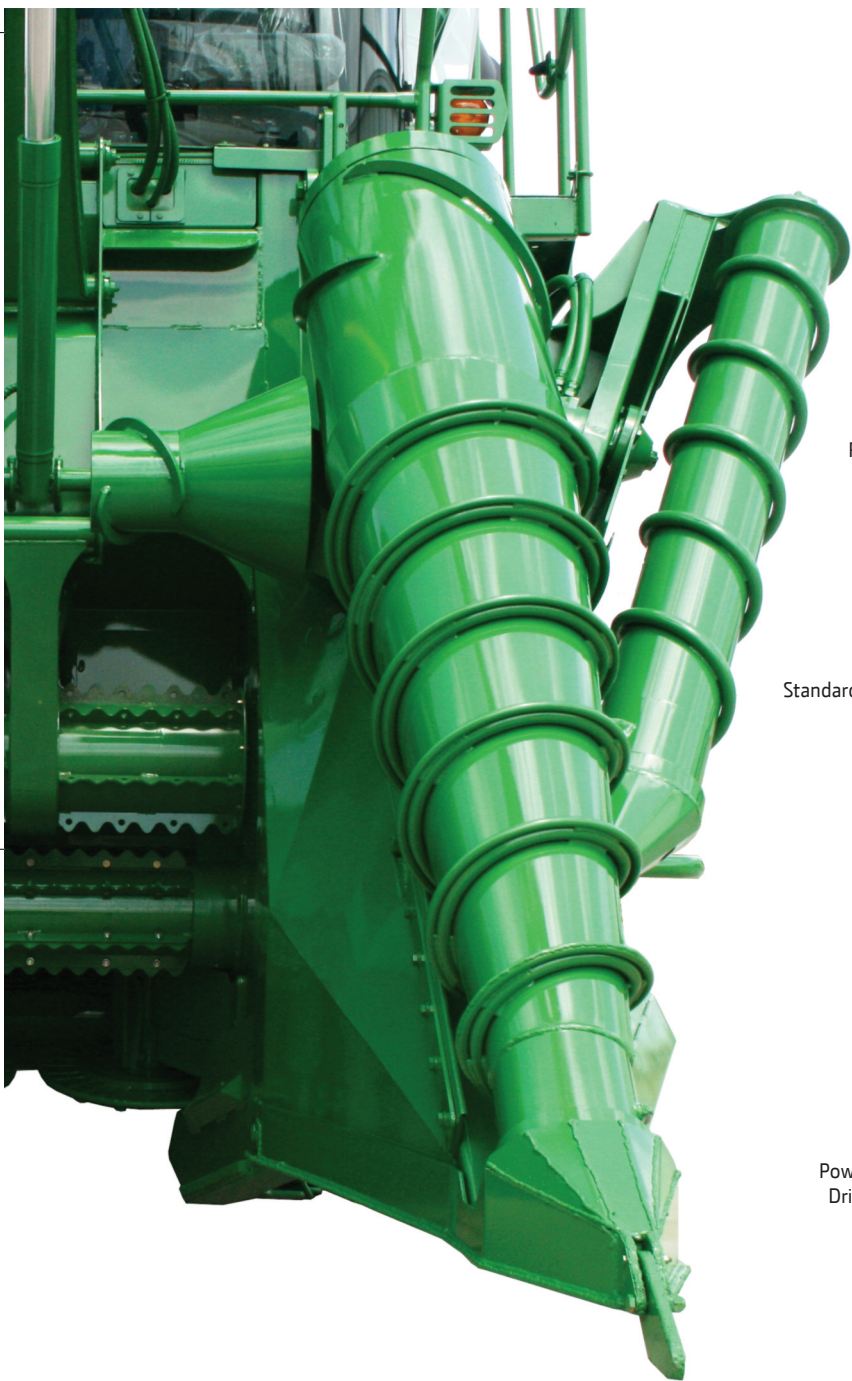
New optional Gauge Wheels enhance crop dividers operation.

With the unmatched 5.20 meter topper reach, the 3520 is capable of handling the tallest cane. Optional Shredder Topper facilitates residue management

Standard Side Knives for tangled cane

Exclusive standard crop divider knock down rollers improve feeding





Robust basecutter options to meet global crop conditions

Standard large 24" (61 cm) diameter discs or optional 22" (56 cm)

Reliable simple design with superior serviceability

Powerful Hydraulic Piston Motor Driven 15" Differential Chopper

ISO Compliant chopper cover



Basecutter, Feedrollers & Chopper

Benchmark for cutting and feeding in the global market.

The basecutter and chopper are on one high pressure hydrostatic circuit, driven by a piston pump that maximizes efficiency and performance.

The basecutter is driven by a hydraulic piston motor.

The basecutter is a center driven design with just four gears to balance the load and reduce wear.

Grease lubricated lower bearings drastically reduces or eliminates oil leaks.

Three paddle buttlifter minimizes soil intake and mud build-up.

The feedroller path is straight and opens wide to reduce cane breakage and improve feeding to the chopper. Large deep paddle lower rollers improve the removal of dirt and mud. Access is easy with externally mounted bearings and bolt-on cradle stops with rubber shock absorber pads.

Externally mounted chopper bearings allow the chopper shafts to easily slide out from the side and have no splines to wear.

An 8 blade overlap chopper is also available, which improves feeding, increases the life of the blades and facilitates trash removal in the primary extractor.

The sill roller facilitates billet movement, augments cleaning, and avoids "back feeding."

ISO compliance assures operator safety for all harvesting and maintenance functions.

Elevator & Cleaning

The 3520 features a high capacity structural tube frame elevator for extended durability. The top and bottom idler sprockets reduce wear and prolong the elevator chain life. The tall side walls and reversible slats will handle the heaviest cane keeping billets from “boiling down”.

Like its predecessor, elevator hoses are routed inside the solid frame promoting longer life by improving protection and minimizing exposure.

A nitrogen accumulator is featured on the elevator hydraulic circuit to reduce elevator stress during operation.

Unique primary and secondary hood designs increase the 3520 cleaning capability to match customer needs consistently, delivering the cleanest cane in the market.

The largest primary extractor fan in the industry cleans at lower speeds, reducing horsepower consumption and noise levels. The new hood shape directs trash downward on a steeper angle reducing trash build-up at the cooling package.

Bolt-on elevator extensions provide extended reach for wider row spacing. The available extensions are 30.5 cm (12”) for wheel and track units and 61 cm (24”) for track only.



High Capacity Elevator

- Specially designed for high yield sugar cane
- High sidewalls and 18 cm (7”) reversible slats
- Accumulator on elevator circuit
- Sprockets on every curve
- Without head shaft
- Grease cylinder chain adjustment



Primary Extractor

- Four-blade, 152 cm (5') diameter extractor
- It is not necessary to remove the hydraulic motor for transport
- New Hood shape
- Balance-free blades/hub exclusive design
- Motor drive support system with four rubber-mounted legs improves fan stability and reduces vibrations
- Operates efficiently at low RPM providing quality cleaning and low cane losses
- Efficient hydraulic system with variable displacement piston pump and piston motor

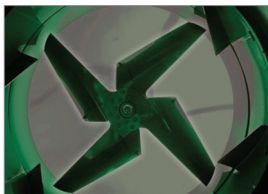


Secondary Extractor

- Unique design allows trash to be thrown away from the wagon more efficiently
- 360° turning radius that can be set at any position
- Ideal fan speed allows the best cleaning with low horsepower consumption
- Hydraulically adjustable bin flap



Heavy duty elevator swing table designed to withstand the heaviest loads and toughest field conditions.



Balance-free hub blades on the primary extractor make time-consuming balancing a thing of the past.



Now standard on all units, the taller wear liner covers more exposed area.

Parts & Serviceability



Unrestricted engine access from three different service locations.



Large air filter reduces maintenance intervals and increases life.



The reversible fan with automatic cleaning cycle operates without a rotary screen and blower motor.



Reinforced Heavy Duty track frame



Hydraulic hand pump tilting cab provides true access to engine.



AutoTrac™ allows precise day and night harvest operation.



Only John Deere gives you more standard features.

You have made the first step in improving efficiency in the field. Less down time means more money in your pocket and more value for your investment.

Service operations are now easier and more readily accessible than ever with the new ISO Compliant design that will save time for your technicians, whether entering the cab, changing oil, replacing filters, or checking the battery.

Top-quality parts and components are used to build your harvester, so why use anything other than these same top-quality parts to keep your investment up and running? Genuine John Deere Parts are the answer to all your maintenance needs.

John Deere offers superior parts service, so you achieve maximum uptime with the minimum investment.

Factors such as cane variety, operator skill, weather conditions, soil type, drainage issues and more make each farm unique. John Deere wants to work with you to customize your equipment package.

Choose options to maximize productivity and profits.



Grease cylinder for easy chain tension adjustment.



Nitrogen accumulator minimizes shock loads to elevator hydraulic system.



Reduced number of grease points, hydraulic hoses and connections improve reliability and lower maintenance cost.

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Sugar Cane Harvester



Engine	
Brand	John Deere
Model	6090T PowerTech (Tier II)
Cylinders	6 in line
Displacement	9.0 L
Power	251 kW / 337 hp / 342 cv
Air intake	Turbo and After-cooler (air-to-air)
Injection pump	Electronically controlled

Transmission	
Two hydrostatic pumps providing variable speed	
Wheel machine	0 to 24.6 km/h (15.3 mph)*
Track machine	0 to 9.0 km/h (5.6 mph)*
*(Top speed dependent on tire and/or hydraulic system option)	

Tank Capacities	
Fuel	568 L (150 gal)
Hydraulic oil	405 L (106 gal)

Tires	
Front	14x17.5 - 10 Ply
Rear	23.5x25 - 20 Ply Industrial w/ Ag Lug

Tracks	
Sealed track chains	
Single piece bolt-on sprocket	
457.2 mm track shoes working width	
Welded track guides with bolted wear out plates	

Primary Extractor	
Polyethylene plastic 152 cm (5 ft) hood	
Hydrostatic variable speed fan	
Vertical mount	
Direct drive fan	
Four blade fan (requires no balancing with blade change)	
Hydraulically controlled hood rotation	
Abrasive resistant steel wear ring	

Elevator	
Loading to either side	
Grease cylinder chain adjustment	
Motor driven directional discharge	
Nitrogen accumulator	

Secondary Extractor	
Polyethylene plastic hood	
Hydraulically controlled hood rotation	
Hydraulically driven flap	

Harvesting Functions	
Accumulator cushioned topper and elevator	
Large diameter tapered single scrolls (low approach angle)	
Factory hard surfaced skirts, slip-on shoes and toes	
Two adjustable knockdown rollers	
Three paddle closed buttlifter	
High drive basecutter	
Bolt-on wear plates for basecutter legs	
61 cm (24 in.) circular basecutter discs - Hard surfacing	
External feedroller and chopper bearings	
Reversible hydraulic-driven crop dividers and feedrollers system	
Deep paddle lower feedrollers with teeth and hard surfacing	
8 blade differential chopper system with 95 mm blades	

Crop Divider	
Hydraulic Crop Divider & Knockdown Roller Tilt	
Crop dividers knock down rollers	
Outer scrolls	
Side knives	

Comfort and Security	
Emergency shut-off switch for all harvesting functions	
Engine oil pressure and cooling temperature alarm	
Front tipping cab	
Pressurized cab with air conditioning and heating systems	
Air suspension operator seat	
Wide cab with training seat	
Adjustable side mirrors	
Speedometer (Track unit)	
Windshield wiper with water nozzle	
Chemical fire extinguisher	
ISO compliant rails	
Anti-slip platforms in service areas	
Command Arm ergonomically adjusts to operator	
Reverse alarm	
Working lights at the engine compartment	
Signal and warning lights	
10 operating lights (Including headlights)	
Compliant with ASAE standards	

Other Standard Features	
Assisted basecutter control (ABC)	
8 blade overlap chopper	
Billet length control valve	
Sill roller	
HID lights	
Deluxe Tool Kits	

Optional Features	
375 hp engine Tier II & III or 337 hp engine Tier III	
Sealed and lubricated track chains	
41 cm (16 in.), 51 cm (20 in.), track pads widths	
Bent track shoes	
Shredder topper	
Shredder topper with piston motor	
Standard topper Extensions	
Crop Dividers Gauge Wheels	
Crop dividers vines cutter knives	
22" basecutter disc	
Breakaway basecutter legs	
3 paddle open buttlifter	
6 blade chopper	
Primary Extractor Duraliner steel wear ring	
Swing Table Wiper	
Rear center pull hitch	
Elevator extensions	
Less secondary extractor	
Battery Remote Jump Start Terminals	
GPS Speedometer (Wheel Unit)	
Radio	
Convex Mirror	
Side windshield wipers	
Additional Floor Mat	

	A				E			
	D				G			
Model	A	B	C	D	E	F	G	H
Track	15.14m	2.97m	6.23m	4.87m	6.45m	1.88m	4.39m	2.33m
Wheel	15.14m	2.97m	6.23m	4.87m	6.45m	2.08m	4.39m	2.48m

Specifications throughout this brochure are subject to change without notification. Some photos may contain optional equipment. Some options may not be available in some markets due to legal restrictions. - Revised 02/10

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