## **SUGARCANE HARVESTERS – A8000 SERIES**





# **ETREME**CHOPPER **SMART**CRUISE

## A8000 SERIES. THE EVOLUTION OF THE LEADER.

#### A PIONEER, A BENCHMARK AND A LEADER IN THE SUGAR-ETHANOL INDUSTRY.

The high performance of Case IH sugarcane harvesters results from over 50 years of product research and development, and significant investments to offer advanced solutions to the sector.

The technological innovations offered by our harvesters provide not only high productivity and reliability, but also contribute to delivery of a raw material in accordance with industry specifications.

Case IH is present where agriculture is the most advanced, and has its global plant installed in Piracicaba, Brazil, from where it exports its harvesters to the five continents.

Ensuring efficient fuel consumption, the A8000 Series harvesters are equipped with the Smart Cruise intelligent engine, which optimises fuel usage and makes harvester operation even simpler.

The A8000 Series incorporates all the reliability of more than 25 years of the A7000 Series with a unique Case IH technological package.

When harvesting in the most adverse conditions, the simplicity of operation and maintenance, low operating cost and excellence in after-sales service make Case IH the most cost effective option.



#### PRODUCTIVITY AND AVAILABILITY FOR YOUR HARVEST.

## **SMART CRUISE** THE CASE IH INTELLIGENT ENGINE.

Smart Cruise – the Case IH intelligent engine – works by optimising fuel use. Its main benefits are:

- A reduction in diesel fuel consumption without operational losses.
- Less stress on the hydraulic system.
- Less reliance on the operator to adjust the engine speed.

Customers who tested the Smart Cruise reported fuel consumption savings of up to 26% compared to machines without Smart Cruise.





Significant improvements to reduce the temperature of lubricant oil on the turbine journals were implemented, increasing the service life of the component.





1 - By increasing the number of fins, the engine oil cooling performance has been increased, ensuring greater engine reliability and performance.

2 - New turbocharger with central water-cooled body provides a reduction in the temperature of the journal lubrication oil, increasing the service life of the turbocharger.



- of the harvester.
- Positive pressure on the engine box.
- Fixed air intake screen with easy access opening for maintenance.

- facilitating maintenance.

## COOLING SYSTEM.



• Radiator Cooling package located on the upper part

- Fan with hydraulic and reversible drive for
- cleaning impurities from the air intake screen.
- New door latch system and access platforms,

#### **GREATER COOLING CAPACITY** AND FEWER CLEANING STOPS **REQUIRED.**

The cooling system includes a radiator cooling package comprised of an engine coolant radiator, intercooler, hydraulic oil radiator, and air conditioning condenser.

This system is located on the upper part of the harvester, which minimises contact with mineral and vegetable impurities. In addition, the system exerts positive pressure on the engine box, thereby decreasing the entry of impurities. Greater access to the engine is another factor that stands out with this new design.

Air for radiator ventilation enters through a wide fixed screen, and the fan is hydraulically driven and reversible. To keep the air intake screen clean at all times, the fan is automatically reversed every 10 minutes, expelling all impurities captured in the air intake screen.

The operator may also reverse the fan through a button in the cab at any time in the event of any irregularities in the engine coolant or hydraulic oil temperatures.

- Greater cooling capacity.
- Less contact with impurities.
- Greater harvester availability due to the selfcleaning system.



#### FASTER HARVESTING, INCLUDING IN HIGH AGRICULTURAL YIELD AREAS.

The Extreme Chopper enables harvesting with greater speed, even in high productivity areas, and plant cane. The result is greater operational yield and lower fuel consumption (litres/tonne of sugarcane harvested). The Extreme Chopper provides 39% more power compared to the earlier chopper, increased chopper drum speed from 180 rpm to 205 rpm, and billet length adjustment from the cab.

**CASIE** 

Heavy Duty chopper flywheel with simple mounting – greater inertia.
One motor for each drum – longer service life for the gears that only synchronise the blades.

# **ETREME**CHOPPER

- 39% more power.
- Easier harvesting in plant cane and high productivity areas.
- Billet length can be adjusted from the cab.
- Highly efficient with high-fibre sugarcane varieties.



## CAB. TECHNOLOGY THAT MAKES OPERATION, MAINTENANCE AND MANAGEMENT EASIER.

To facilitate operation, the cab enables the operator to electronically control steering and the transmission with a single joystick. This eliminates the levers on track machines and the steering wheel in tyre machines. Besides reducing the effort required of the operator, this system makes it possible to manoeuvre in smaller areas, without putting excessive stress on the chassis.



The exclusive Cruise Control provides automatic control and memorisation of the ground speed, which increases harvest efficiency, and reduces operator fatigue.

Another advantage of controlling the transmission and electronic steering with the *joystick* is the high precision obtained by the optional automatic pilot, as communication takes place through modules ("automatic pilot" module and the "transmission and steering" module). All units are Case IH AFS AccuGuide ready, allowing for the optional installation of GPS guidance.





It is possible to view up to 12 windows per screen on the single Pro 700 monitor and the customer has six programmable screens. The Pro 700 enables engine monitoring and, with a friendly and interactive interface, it is also possible to set and monitor harvesting functions.

The right-hand side console is ergonomically positioned, has buttons to activate all harvesting functions and enables monitor navigation. Its multi-function lever enables easy activation of the suspension, the crop dividers and the automatic base cutter control (Auto Tracker), among other functions.

The factory-fitted GPS displays the vehicle's speed and enables georeferencing of the harvested area, working in conjunction with the onboard computer (Data Logger).

The A8000 Series has a fully functional, operator friendly design to facilitate maintenance. The cab and roof are hinged and easy to raise. The monitor is a great tool for managing operations, sending messages about faults and irregularities in both the engine and the other harvester components. Thus, diagnosis is faster and more accurate.

The cab is wired for radio, CD/MP3 Player and cruise control and has fuse protection for all circuits.

#### BENEFITS



Right-hand side console with multifunction lever

• Easy access to the engine and components located in the top part of the cab. • Reduced time spent on maintenance due to faster, more precise diagnostics. • Easy to install accessories and options • Greater harvester availability.



Electronic engine diagnostic socket



## **ADVANCED FARMING SYSTEMS (AFS).** HARVESTING PRECISION AND CONTROL.



- Best harvesting operation control.
- Makes it easier to identify opportunities for improvements related to the harvester, logistics, area systematisation and operation faults.
- Excellent tool to support decision making for the controller and planning areas.
- The ability to group records into tasks based on the operator, the area, the plantation conditions, the sugarcane variety and more.

To make management easier, Case IH is the only sugarcane harvester manufacturer to provide an on-board computer (Data Logger) as standard. The computer communicates with the best precision agriculture *software* in the market: Case IH AFS Desktop Software.

A broad range of parameters (hydraulic oil temperature, fuel consumption, engine revolutions, etc.) can be selected and recorded while working using an *interactive*, *easy-to-use interface*.

#### Every three seconds, a georeferenced point is

recorded to indicate the harvester's current location for the parameters selected. This allows for map creation and monitoring of the harvesting operation as a whole. The frequency of recordings may also be increased to once every one or two seconds. The data recorded by the on-board computer are stored in a pen drive and are later downloaded and analysed using the Case IH AFS Desktop Software.

#### PRECISION AND CONTROL IN HARVESTING.

With the optional factory-fitted GPS and on-board computer (Data Logger), customers can monitor and record several georeferenced parameters and create analytical reports and maps with the best precision agriculture software on the market, Case IH AFS Desktop.

The A8000 Series also features optional Case IH AFS AccuGuide that increases day and night operational performance, helps increase sugar cane ration longevity and allows for the use of a planting map with a precision of up to 2.5 cm, using an RTK antenna.





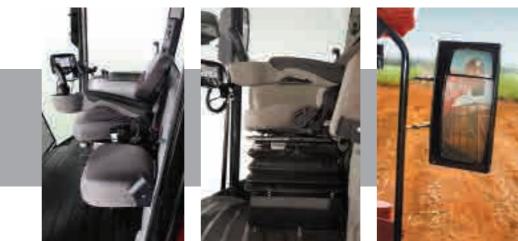
#### **GREATER COMFORT AND VISIBILITY.**

The operator is surrounded by comfort in the A8000 Series cab. The broad windscreen The lighting design was specifically sized for sugarcane harvest: it allows the operator a broad view without obscuring the view of the operator of the tractor pulling the load. is equipped with wipers and washers and there are four rear-view mirrors, two externally mounted and split, that provide added operational safety.

The operator seat features pneumatic height adjustment, horizontal and lumbar adjustment, arm rest and operator weight indicator scale. The cab also has a training seat, thermal/acoustic insulation, pressurisation and air conditioning.

#### BENEFITS

- rear of the harvester.
- The operator does not need to turn around to view the rear of the harvester.
- Plenty of internal space.



The perfect location of the monitor and controls enables clear visibility day and night and allows the operator to easily monitor the operation of all harvester functions.

- Excellent day and night visibility, both from the front and the
- Ergonomic adjustment for all operators.
- Easier instructions and operational training.
- Comfort for the operator in all operating conditions.



- Comfortable cab with excellent visibility.
- Split external rear-view mirrors.
- Operator's seat.
- Training seat.
- External lighting designed specifically for sugarcane crops.

#### FEEDING SYSTEM. EFFECTIVE IN THE HARSHEST CONDITIONS.

CASEM

The 45° crop dividers are even better. A new bolted base shoe reduces the need for welding in the field and increases harvester availability. The rotating toe is smaller, to reduce the possibility of soil disturbance.

The side trim knife (standard) prevents the adjacent stool from being ripped out and contributes to better feeding of the basecutter.

The side trim knives feature hydraulic adjustment from the cab (optional). Their hydraulic circuits have been changed from series to parallel to ensure greater efficiency, regardless of the power required by the topper. The front feed roller has larger fins to provide greater efficiency in guiding and feeding the sugarcane stalks to the basecutter.

The base cutter features vertical slats that are bolted to the legs and easy to replace. As an optional item, Case IH offers a three piece leg for areas that need to be improved for mechanised harvesting.

The Auto Tracker, automatic base cut height control (factory-fitted), is the only system on the market that senses basecutter pressure and height to ensure precise, uniform cutting with reduced losses and stool damage.

The feed roller motors have fewer hoses, to make maintenance easier. The new Extreme Chopper is more powerful, contributing to faster harvesting in plant cane, even in high productivity areas.



Side trim knife



Top floating feed rollers

Floating sidewalls

- Side trim knife with (optional) hydraulic height adjustment.
- Crop dividers with (optional) hydraulic tilt.
- New floating sidewall design minimises losses when harvesting single rows and improves cane stalk feeding.
- Optional Open Buttlifter reduces the entry of mineral impurities inside the harvester.
- Feed rollers:
- top floating: able to feed high stalk volumes;
- fewer hoses: easy maintenance.
- Extreme Chopper more power and capacity when harvesting in high productivity areas.

New crop divider bolted shoe and side trim knife with (optional) hydraulic height adjustment.





## CLEANING SYSTEM. BETTER CLEANING AND HIGHER LOAD DENSITY.

The topper is equipped with a new extended mast that allows cutting of the tops in the tallest sugarcane crops. Its 40% more powerful motor increases productivity in high yield areas.

The exclusive Antivortex system reduces vegetable impurities and cane loss and increases load density. With it, the power demanded by the primary extractor has been reduced by about 30 hp compared to the conventional system.

A new structure with a rectangular profile has been developed to support the primary extractor, that is, to increase strength and avoid cracking.

The secondary extractor, with a 360° turning angle, allows the hood to be directed in any position and allows trash to be thrown away from the transport.

- Primary extractor with the unique Antivortex design and fan speed and hood position adjustable from the cab.
- Heavy duty wear ring: longer component service life.





• The shredder topper (optional) cuts and shreds the leaf and the tops into 100 mm pieces and distributes them evenly over the ground.



- High chain speed: high productivity.
- adjustment precision.
- Extension (optional): longer reach and less compaction.



## UNLOADING SYSTEM. STURDINESS AND RELIABILITY.

The elevator features a reinforced structure and is fitted with the reliable and stronger Back-Hoe slewing system, featured on the Case 580M backhoe loader and the A7000 Series, and renowned worldwide.

Its perforated flooring helps clean the billets. Its top extension of 300 mm (standard) reduces compaction, distributes the load better and allows for greater flexibility when positioning the transporter. The same benefits are provided by the top extension of 600 mm, totalling 900 mm (optional).

Two-hose piping for oil flow, at the top of the elevator, has a reduced number of connections and low risk of faults. A bin guard (optional) protects against damage from the elevator on the transporter providing a longer service life for the structure. The hydraulically-actuated bin flap allows for better load distribution in the transporter.

The chain tension adjustment system with threaded adjusters provides greater precision and makes it easier to adjust the chains. The head shaft with greater diameter results in a low incidence of billet losses.

• Bolt-adjusted chain: less need for maintenance and greater

- Optional spring-loaded bin guard increases the working life of the elevator structure.
- Hydraulically-actuated bin flap better load distribution.

## HYDRAULIC SYSTEM.

#### HYDRAULIC SYSTEM. OPTIMISED, EFFICIENT AND RELIABLE.

Case IH pioneered the introduction of hydraulic systems on sugarcane harvesters and continues to invest in simplifying and improving the efficiency of these systems.

In the A8000 Series, the hydraulic system has been optimised with a new layout and fewer hoses. This way, there is less exposure and interference, fewer ruptures and fewer stoppages to repair the system.

All the hydraulic system oil is filtered through the return filters before going back into the tank. The inorganic glass fibre filtering element has a retention capacity of 10 microns absolute.

The A8000 Series hydraulic system is comprised of two 3-stage pumps to drive the harvest functions of the harvester, and two electronically-controlled variable pumps to drive the transmissions.



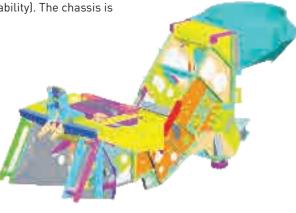
3-stage Parker Pump – greater oil flow to the motors of the chopper.

# STRUCTURAL SYSTEM.

## CHASSIS. DEVELOPED TO WORK IN THE MOST ADVERSE CONDITIONS.

A8000 Series Case IH sugarcane harvesters feature many structural components from the A7000 Series, which is a product that has been on the market for over 25 years. More than 2500 of these harvesters have been produced in Brazil alone (tradition and reliability). The chassis is one of those components.

- "Wide Throat" chassis with a front opening of 1.10 m.
- Structures reinforced where necessary, designed using structural analysis of finite elements.
- Fuel and hydraulic oil tanks integrated into the chassis greater stability regardless of fuel and hydraulic oil levels.
- New locking systems, radiators, engine box and topper mast.
- New platforms, new guard rails and protection grates.



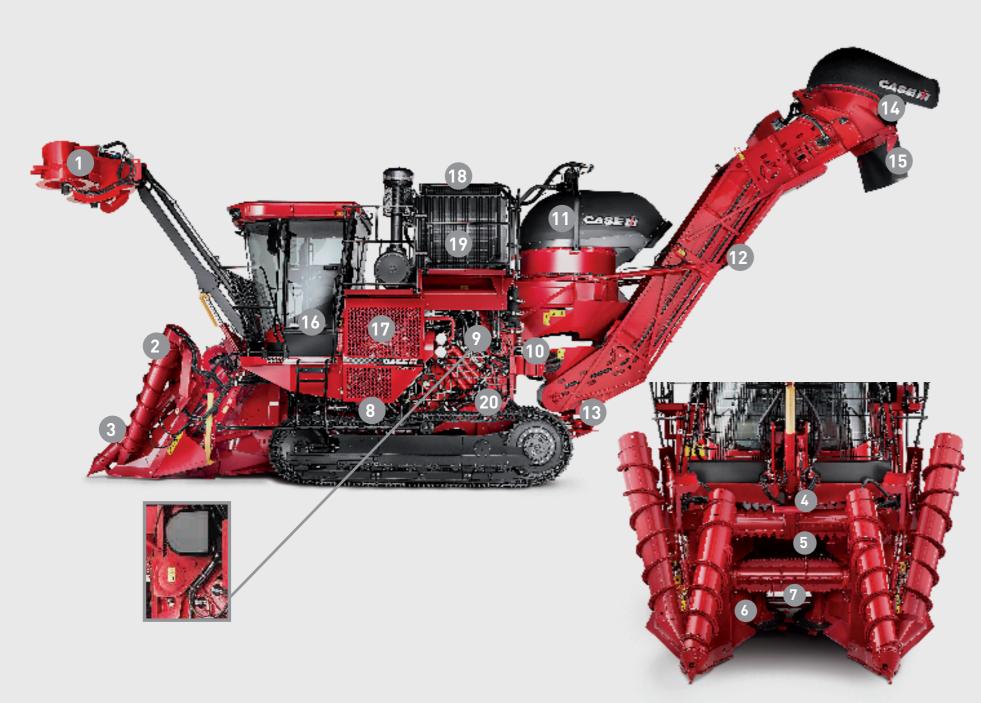
#### MODELS. A8000 - TYRES

- Lower maintenance cost.
- Higher travel speed (20 km/h).

#### A8800 - TRACKS

- Greater traction capacity.
- Greater stability.
- Shoes with agricultural *design* minimise compaction in the root zones.

### SUGARCANE HARVESTERS CASE IH – A8000 SERIES.



- New locking system.

- sugarcane crops.
- row from being ripped out.
- New hydraulic circuit in parallel.
- directions to separate the rows. • New rotating toe dimension.
- New shoe with bolted base.
- Provides less soil disturbance and faster maintenance.
- Stronger support.
- the cab (optional).
- interwoven sugarcane. • New, larger dimension slats. • Higher feeding efficiency.

1 **Topper –** Cuts off the tops and the leaf of the sugarcane, spreading them evenly over the ground. In addition to cutting, the shredder topper (optional) shreds the tops and leaf into 100 mm pieces.

• The new topper motor is 40% more powerful. • New extended and stronger mast. Greater efficiency in the highest, heaviest

2 Side Trim Knives – With eight blades and hydraulic position adjustment, cuts the ends of tangled and matted sugarcane that was not separated by the crop divider spirals, preventing the stools of the adjacent

• Guaranteed power regardless of other circuits.

3 Crop Dividers - Gently raise and separate the row of sugarcane being harvested from the adjacent rows to minimise stool damage. Each crop divider is comprised of two spirals that turn in opposite

**4 Knockdown Roller –** Guides and tilts the sugarcane stalk to be cut, making the cutting and machine feeding operation easier. Hydraulically adjusted from

5 Front Feed Roller – Helps feed the sugarcane stalks to the base cutter. Has fins that help untangle

- 6 Base Cutter Cuts the sugarcane stalks at ground level and guides their lower ends to the buttlifter roller. The Auto Tracker (standard) automatically controls the base cut depth.
- New bolted basecutter leg slats.
- New three piece leg (optional).
- Better feeding.
- 7 Buttlifter Roller Lifts the stalks cut by the base cutter, guiding the stalks into the machine up to the feed rollers. Features (optional) open slats to allow for removal of a large part of the soil stuck to the cut sugarcane.
- 8 Feed Rollers (roller train) Transport and horizontally distribute the sugarcane stalks to the chopper drums. They are essential for cleaning soil from the sugarcane stalks.
- Fewer hoses.
- Easier maintenance.
- New connecting tie rod on the bottom of the chassis.
- **9 Chopper –** Cut the sugarcane and throw the billets to the primary extractor cleaning chamber. Drums are available with three or four blades.
- 39% more power.
- New motors.
- Greater feeding efficiency in high productivity areas.
- **10 Primary Extractor –** Cleans the billets, removes the trash and other impurities. Features a fan with revolutionary and exclusive Antivortex *design system*.
- New unique Heavy Duty wear ring.
- New support structure for the set.
- Longer component life.
- **11 Elevator Bowl –** Receives the sugarcane billets coming out of the extractor cleaning chamber and feeds the elevator chain.

- **12 Elevator –** Chain and flights carry the billets up the elevator to the secondary extractor. It has a perforated floor to allow dirt and other impurities to be removed.
- **13 Slew Table:** With increased strength, slews the elevator for unloading, up to 85° each side. "Back Hoe" type slewing system.
- 14 Secondary Extractor Performs a second cleaning of the billets by removing any remaining dirt and trash ensuring cleaner sugarcane.
- **15** *Bin Flap* Directs the unloading of the sugarcane billets, helping to evenly distribute the load.
- 16 New Cab Designed to increase comfort and ease of harvester operation. Ergonomically-positioned controls with activation of the transmission and steering through a *joystick*
- Optional factory-fitted GPS and on-board computer.
- Greater comfort and visibility.
- Easier maintenance.
- New lighting design specific for sugarcane.
- 17 Engine Case IH C9, 9 litres, Tier III, 358 hp at 2100 rpm, turbo charged, with Common Rail electronic injection system. Smart Cruise – the Case IH intelligent engine – optimising fuel usage.
- 18 Cooling System: Cooling Package With the radiator package located on the upper part of the harvester to reduce contact with dirt and trash. Wide air intake area with hydraulic/reversible fan drive (self-cleaning system).
- New locking system

#### 19 New Access Platforms

- Easy servicing
- Safety and ergonomics

#### 20 Protective Grills

• Safety and ergonomics for maintenance

#### SPECIFICATIONS.

#### Engine

**Case IH C9 –** Nominal/maximum power: 358 hp (260 kW) at 2100 rpm Cylinders: 6 in line. Aspiration: water-cooled turbo aftercooler. Cylinder displacement: 9 L. Injection system: Common rail, Tier 3. Alternator: 185 A 12 V. Smart Cruise – fuel use optimisation *software*.

#### **Cooling System**

Radiator package (Cooling Package)

Location: upper part of the harvester

Fixed screen with wide air intake

New locking system

Fan with hydraulic and reversible drive

#### **Operator Cab**

Two doors

Air conditioner and heater

Air-suspension seat

Training seat

Ergonomically-positioned controls

Pro 700 monitor

Engine monitoring fully integrated with the monitor

Monitoring of all harvester functions integrated with the monitor

Customisable screens

Irregularity or fault warning through the monitor

Integrated on-board computer (Data Logger)

Emergency stop system in the absence of operator

Windscreen wiper and washer

Rearview mirrors (two external split)

Cab and instrument panel illumination

Joystick-operated electronic steering and transmission

Multifunctional lever to control the functions below: - basecutter height; - topper and crop dividers; - harvesting system drives.
Fuse protection for all electrical circuits
Reverse alarm with safety light
Giroflex (rotating safety beacon)
8 Quartz halogen headlights mounted on cab
Hinged cab for access
Cab pre-wired for radio
Cab pre-wired for automatic pilot
Transmission
Hydrostatic with variable speed forward and reverse
Operation: electronic control via CAN
Machine speed on tyres: 0 to 20 km/h
Machine speed on tracks: 0 to 9 km/h
Brakes
Multiple disks - automatic operation upon loss of pressure or engine shut off
Manual parking brake
Cab pedals with independent activation (A8000)
Hydraulic System
With manifold control valves
All the oil is filtered before returning to the tank
Hydraulic tank with locking filler cap
Return line filters for the entire hydraulic system
Specific filters for suction filtering of transmission hydraulic oil
Positive drive valves (A8000)

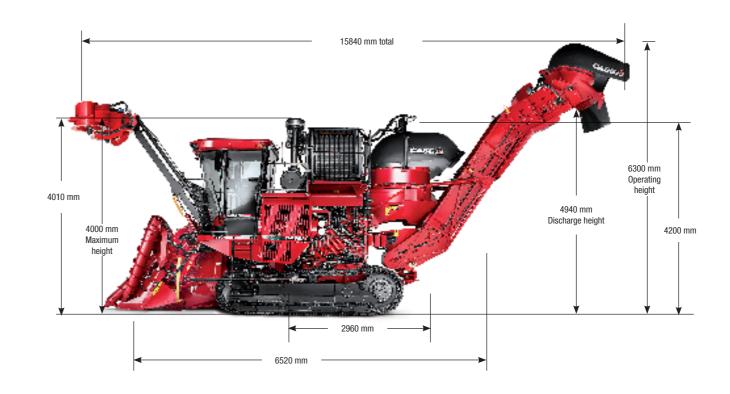
#### Crop Dividers Dual crop dividers Tilt angle: 45° Vertical side trim Tilt angle adjustm Height adjustmen Rotating point Fixed point: availa Floating sidewalls Bolted bottom we Elevator Elevator chain dri Unloading to any Extension: 300 mr Hydraulically-actu Optional spring-lo Bolt-adjusted cha Total turning angl Perforated floor Slew table: Back Width: 850 mm Frame: tubular Reinforced flights 2 Quartz halogen Primary Extracto Hydraulically-driv Fan diameter: 128

	Fan directly driven by the hydraulic motor
rs	Rotation: 600 to 1110 rpm
	Number of blades: 4
n knives	RPM adjustment from the cab
ment: hydraulically-activated from the cab (optional)	Wear ring: Heavy Duty
ent: hydraulically-activated from the cab	Design: Antivortex
	Secondary Extractor
lable via parts (DIA <i>Kit</i> )	Fixed speed
lls	Hood slew: hydraulic
rear shoe	Turning angle: 360°
	Number of blades: 3
rive: hydraulic and reversible	Fan diameter: 940 mm
y side or to the rear	Topper
nm <i>(standard)</i>	Hydraulic accumulator charged with nitrogen
ctuated bin <i>flap</i>	Number of blades: 8
loaded bin guard to protect against damage from the transporter	Severing drum: bi-directional
nain tension	Height variation: 900 to 4000 mm
gle: 170°	Hydraulic height adjustment
	Shredder topper: optional
K Hoe type	Number of shredder blades: 34
	Basecutter
	Legs with wide, bolted slats
ts	Drive: hydraulic and reversible
n work lights mounted on elevator	Number of discs: 2 (demountable)
tor	Number of blades per disc: 5 (replaceable)
iven hood slew	Distance between centre of legs: 630 mm
280 mm	Automatic basecutter height controller (Auto Tracker): standard

## SPECIFICATIONS.

Side trim knives
Hydraulic height adjustment actuated from the cab
Serrated triangular blade in hardened steel
Number of blades: 8
Chopper
Number of blades per drum: 4
Distance between chopper drum centres: 380 mm
Thrower rubbers: standard
Adjustable deflector plates
Hydraulic and reversible drive
Blade width: 65 mm (replaceable)
Billet length adjusted from the cab
Tyres
Front: 400/60 x 15.5 - 14 ply
Rear: 23.5 x 25 - 12 ply
Tracks
Type of chain: greased
Shoes in agricultural <i>design</i>
Shoe width: 457 mm (18")
Guides: Heavy Duty
Knockdown Roller
Hydraulic and reversible drive
Hydraulic height adjustment actuated from the cab (optional)
Width: 1080 mm
Front Feed roller
Hydraulic and reversible drive
Increased slat height

<i>Kit</i> for severe conditions: available via parts	
Width: 1080 mm	
Feed Rollers	
Number of feed rollers including the buttlifter roller: 11	
Hydraulic and reversible drive	
Floating top rollers	
Roller width: 900 mm	
Buttlifter	
Hydraulic and reversible drive	
3-slat roller (optional open roller)	
Width: 900 mm	
Capacities	
Fuel: 480 L	
Hydraulic oil: 480 L	
Optional Features	
Shredder Topper	
Basecutter leg in 3 parts - (bolted)	
Elevator extension (900 mm top part)	
Case IH AFS Guide Automatic Pilot	
Track with greased chain and 16" shoe	
Sealed lubricated track with 18" shoe	
Sealed lubricated track with 16" shoe	
Chopper drums with 3 blades	
Machine weight	
A8000: 15000 kg	
A8800: 18300 kg	



SAFETY NEVER HURTS!<sup>III</sup> Always read the Operator's Manual before operating any equipment. Inspect equipment before using it, and be sure it is operating properly. Follow the product safety signs, and use any safety features provided. CNH Industrial Australia Pty Ltd reserves the right to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions and illustrative material herein are as accurate as known at time of publication, but are subject to change without notice. Availability of some models and equipment builds varies according to the country in which the equipment is used. Image: 2014 CNH Industrial Australia Pty Ltd. All rights reserved. Case IH is a registered trademark of CNH Industrial America LLC. Any trademarks referred to herein, in association with goods and/or services of companies other than CNH Industrial America LLC, are the property of those respective companies. Printed in Australia. www.caseih.com 15AUSPAT001







