

CASE II
AGRICULTURE

OPTUM[®]
SERIES TRACTORS







OPTUM SERIES TRACTORS

2 Models | 271–300 (Peak: 290–313) Engine Horsepower

GET THE OPTIMUM BALANCE OF POWER, SIZE AND VERSATILITY.

The Case IH Optum series redefines the standard for all-purpose tractors by delivering innovative design, versatility and high horsepower to meet all your demands. Case IH FPT engines with the latest emissions technology produce the power you need for tillage, cutting and baling hay. Narrow in transport with reactive steering and a fuel efficient, responsive CVXDrive™ continuously variable transmission, Optum series tractors easily handle the demands of haulage and other roading applications. Plus, multiple implement interfaces increase versatility for row crop applications and high-volume hay and forage operations. Experience Optum series tractors and raise your expectation of all-purpose.

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ENGINEERED TO MEET YOUR DEMANDS.

POWER.

- 271–300 (peak: 290–313) engine horsepower
- CVXDrive transmission
- 6.7-L, 6-cylinder engine

VERSATILITY.

- 4-Speed rear PTO
- 2-Speed front PTO (optional)
- Front and rear hydraulic options
- Front and rear hitch options

TECHNOLOGY.

- ISOBUS Class 3 technology
- AFS AccuGuide™ autoguidance
- AFS Pro 700 display
- Advanced end-of-row technology

COMFORT.

- MultiControl Armrest
- Reactive steering
- Best-in-class seat options
- Cab suspension
- Suspended front axle





PROVEN ENGINE PERFORMANCE.

Optum series tractors balance strength and efficiency with horsepower that delivers heft for any application, including tillage, planting, haulage, mowing and baling. It all begins with the Case IH FPT 6.7-L engine – the same proven engine technology found in Maxxum®, Puma® and Magnum™ series tractors.



IDLE ENGINE SPEED MANAGEMENT.

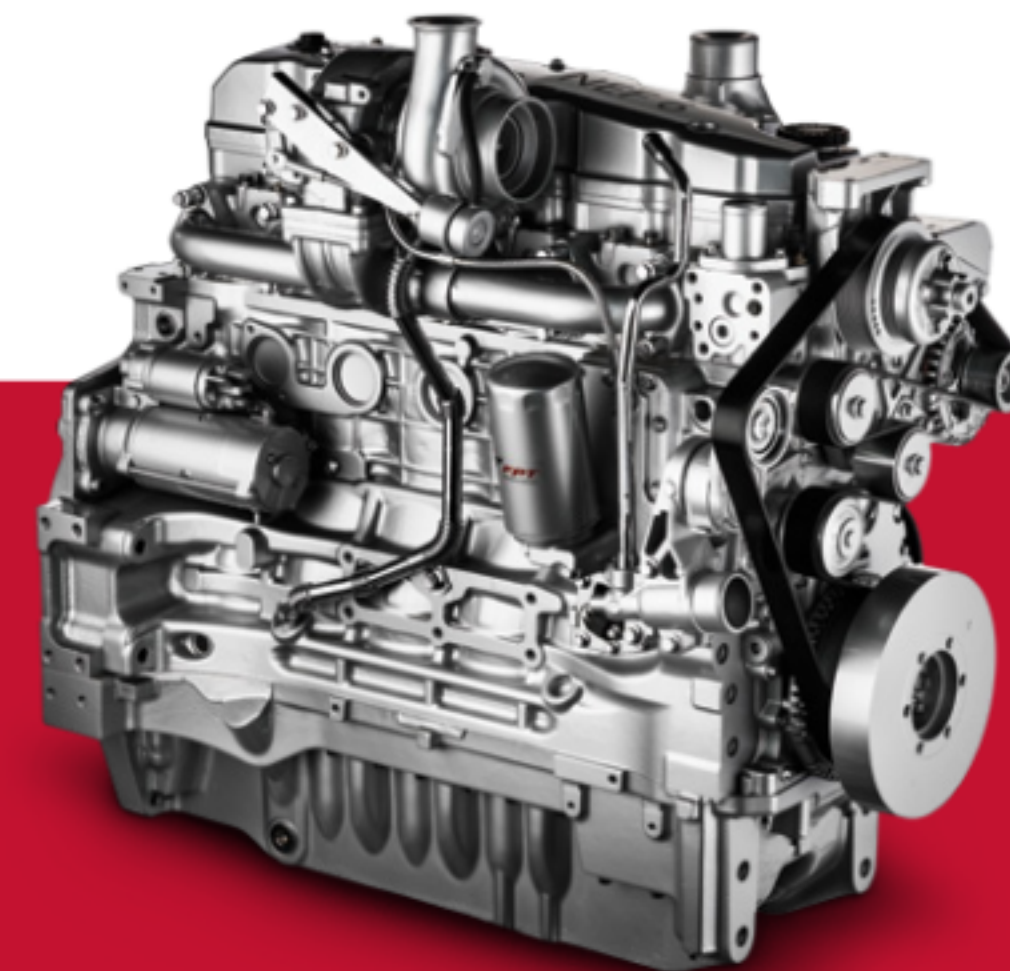
Optum series tractors include a **low idle feature to reduce fuel consumption** and operating costs. When minimal power is demanded and the operator exits the cab, the engine will reduce from an idle of 850 rpm to 650 rpm.

MORE POWER AND BETTER FUEL ECONOMY.

Patented **Tier 4 B/Final – Stage V** emissions requires **no exhaust gas recirculation** and is maintenance free.

HIGH-PRESSURE COMMON RAIL FUEL SYSTEM.

Optum series tractors feature a high-pressure common rail fuel system to **provide peak engine performance no matter what the demand**. Efficient and more complete fuel combustion provides more power, faster throttle response, better fuel economy, less noise, and lower exhaust emissions.



6-cylinder engine

DETAILS THAT DELIVER PROVEN PERFORMANCE.

Optum series tractors operate with a Case IH FPT 6.7-L, 6-cylinder, turbocharged, aftercooled engine. Inlet and exhaust manifolds are positioned on opposite sides of the Optum cross-flow cylinder head, allowing the use of large intake and exhaust ports for optimum air/fuel mixing and combustion.

BIG TANKS FOR LONG DAYS.

Optum diesel fuel tanks come standard with 166 gallon capacity, and diesel exhaust fluid (DEF) tanks come with 25.4 gallon capacity. The wide filler opening allows for faster, easy filling from ground level. Plus, both diesel and DEF tanks are located at the left side steps of the tractor for convenience and simplicity.



PRODUCTIVE POWER IN THE FIELD AND ON THE ROAD.

Whatever your job demands, Optum series tractors deliver efficient power to meet every need with multiple hydraulic pump, hitch and PTO options.

HYDRAULIC PUMPS.

Hydraulic pump options of 43.5 gpm or 58 gpm provide more flow at lower engine rpms. **Choose 4 (standard) or 5 (optional) electronic remotes**, each capable of delivering 36.7 gpm of flow. Add power beyond and a case drain for additional versatility for tillage, planting and spreading applications.

HITCH OPTIONS.

- **Rear 3-Point Hitch:** Several rear hitch options offer the flexibility to meet the needs of many demanding 3-point hitch applications. Max lift capacity of the rear 3-point hitch is 19,180 lb.
- **Front 3-Point Hitch:** Front hitch options allow triple mowers and other implements to be mounted to the front of the tractor – for covering more acres per hour. Lift capacity for front hitch is 9,892 lb.

PTO OPTIONS.

- **Standard 4-Speed Rear PTO:** The in-cab, electronically shiftable 4-speed rear PTO includes the 540, 540E, 1000 and 1000E modes for maximum productivity, versatility and efficiency. The economy PTO speeds are fuel saving features that maintain PTO speed at a lower engine speed.
- **Optional 2-Speed Front PTO:** The optional in-cab, electronically shiftable 2-speed PTO includes the 1000 and 1000E modes for fuel savings. Available with clockwise or counterclockwise rotation to meet any implements' needs.



Overview of flowrate and timer settings on the AFS Pro 700 display.

ADVANTAGES.

- Maximum rear lift capacity of 19,180 lb.
- Up to 5 remote valves located at the rear with an option to add 3 additional mid-mounts.
- Up to 58 gpm pump flow for high-demand implements.
- Fully integrated front linkage with industry leading lift capacity of up to 9,892 lb.



POWER TO THE GROUND.

Go up to 30 mph smoothly and without torque interruption with CVXDrive continuously variable transmission technology, standard on Optum series tractors. Operation is the same used in Maxxum®, Puma®, and Magnum™ CVXDrive series tractors.

OPTIMAL EFFICIENCY.

The CVXDrive uses proven Case IH technology to deliver uninterrupted power to the ground, adapted with four ranges to be more efficient and deliver more power for tough jobs. The operator simply sets the split throttle to the appropriate minimum and maximum engine rpms, and the **Case IH CVXDrive automatically adjusts to maintain ground speed under varying engine loads.**

EASY START AND STOP.

The Active Stop feature provides a **powered neutral that prevents tractor movement, even with fully loaded trailers on steep slopes.** This feature is also useful when attaching implements to the hitch, in round baling, and for chores that require frequent starting and stopping.

ADVANTAGES.

- Four forward ranges and two reverse ranges optimize mechanical efficiency.
- Double clutch technology delivers a smooth ride and high fuel efficiency.
- Double planetary final drives increase durability and reliability in heavier applications.
- Automatic range shift maximizes mechanical efficiency at working field speeds.
- Three programmable target speed settings.
- Ultimate transmission speed control for all applications, from 98 ft. per hour to 30 mph.





ALL-PURPOSE TRACTOR, MULTI-PURPOSE APPLICATIONS.

Case IH engineers designed Optum series tractors to meet your demands for power, weight, comfort and hydraulic capacity. Combined with fuel-saving technologies, these tractors deliver efficient power and maximum uptime in a variety of applications.



PLANTING & SEEDING.

Up to 58 gpm hydraulic flow and up to 5 remote valves give you the capability to run planters and seeders. Plus, AFS AccuGuide autoguidance maintains straight, repeatable rows.

HAY & FORAGE.

Optum series tractors have the power and versatility to handle the demands of large volume hay and forage applications, including triple mowers and large square balers.

HAULAGE.

Optum series tractors come standard with reactive steering, cab suspension and front axle suspension. Options like tire pressure monitoring, anti-lock brakes system, front axle brakes and an exhaust brake make Optum the ultimate tractor for slurry and grain cart applications.

TILLAGE.

With up to 313 peak horsepower and many available tire combinations, Optum series tractors meet the demands of tillage tools. Plus, AFS AccuGuide autoguidance eliminates skips and overlap, increasing efficiency.



SETTING A NEW STANDARD.

With standard features like front axle suspension, reactive steering, Advanced end-of-row technology and 4-speed PTO, the Optum series raises the bar for all-purpose tractors.



MAXIMUM EFFICIENCY.

- **Economy PTO (front and rear options)** maintains PTO speed at a lower engine rpm.
- **Diesel Saver™ Automatic Productivity Management (APM)** provides maximum fuel efficiency, managing engine rpm and CVXDrive transmission speed.
- **Dual wheel capability** on both rear and front axles reduce slip as well as compaction.

PRECISION FARMING.

- **ISOBUS Class 3 technology** enables the tractor and implement to work together for greater job optimization. (optional)
- **AFS AccuGuide autoguidance** reduces overlap, allowing you to cover more acres in less time. (optional)
- **AFS Pro 700 display** allows you to control key equipment functions and track important information.

ENHANCED SAFETY.

- **Reactive steering** provides feedback for increased control, especially during transport.
- Spring applied, hydraulically released parking brake automatically activates when the shuttle lever is shifted to park, for **worry-free parking brake application**.
- **Hydraulic PTO brake** stops the movement of powered implements as soon as the PTO is switched off.
- **Anti-lock braking system (ABS)** allows you to apply brakes with maximum force while maintaining steering and control. (optional)
- **Advanced ABS braking** allows you to use a single brake pedal to assist turning in the field. It prevents the inner wheel from locking, minimizing field damage due to tire scuffing. (optional)
- **Exhaust brake** helps to reduce brake wear when hauling heavy loads on steep terrain. (optional)

BETTER VISIBILITY, DAY...

Optum series tractors provide outstanding visibility in all directions with its SurroundVision™ cab. The roofline extends beyond glass to provide extra shade from the sun. Plus, optional rear glass tint helps reduce glare while the optional high visibility roof window/panel adds 4.5 square feet of upward visibility.



...AND NIGHT.

Choose from multiple lighting packages that provide brighter, longer lasting light to meet the demands of any job—day or night.

Light Package	Standard	Optional Package 1	Optional Package 2
Roof-mount LED (work)	4 pair F/R	4 pair F/R	2 pair F/3 pair R
Hood-mount halogen (transport)	2	2	2
Hood-mount LED (work)	6	6	6
Grab rail-mount LED (work)		2	2
Rear post-mount LED (work)		2	2

Optional transport lighting package are available containing 2 additional high-mount, low-beam road lights and are ideal for Optum series tractors with a front implement.

A MONITORING SYSTEM THAT HELPS MAINTAIN OPTIMAL PERFORMANCE.

Optum series tractors feature an optional Tire Pressure Monitoring System (TPMS) that allows you to view the tire pressure of up to 16 individual tractor and implement tires—all from your cab.



OPTIMAL PERFORMANCE.

Maximum tractor productivity and **fuel efficiency** require **proper weighting, ballasting and tire pressure.** Maintaining these also allows for minimal soil impact.

TPMS allows you to monitor tractor and implement tire pressure from the AFS Pro 700 display—and alerts you when tire pressure is low.

MONITOR UP TO 16 TIRES.

The tire pressure monitoring system (TPMS) is designed to let drivers know the inflation condition of each tire.

The TPMS system tracks the pressure of up to 16 tires using various sensor locations and indication methods. It provides direct measurement of tire pressures and compares the measured pressure to a pre-set target pressure to let drivers know when tires are under/over inflated.

The TPMS system includes a receiver mounted in the headliner of the cab and TPMS sensors which replace the existing valve stem covers (shown in the picture above).

OPTIMAL PERFORMANCE.

The tire pressure is color coded based on the difference between ideal pressure and actual pressure.





MyCaseIH.com

Search FAQs, troubleshooting tips and maintenance guides to keep your operation running smoothly. View all of your supported equipment and devices, access your AFS Connect dashboard, see equipment alerts, view applications, and more—all in one place.



TECHNOLOGY IN THE FIELD.

Optum series tractors are available with Advanced Farming Systems (AFS) technology from the factory, delivering an integrated precision farming solution that gives you more control over every operation. Case IH AFS has been at the forefront of precision farming – allowing you to control the entire crop production cycle and the data it produces.



AUTOGUIDANCE.

- **AFS AccuGuide autoguidance** uses differential corrections to guide and steer your tractor for year-to-year repeatable accuracy. Choose from the many guidance correction signals available to best match your operation and accuracy needs.

SECTION AND RATE CONTROL.

- **ISOBUS Class 3** communicates information between implement and tractor and allows the implement to control tractor functions like ground speed and hydraulics.
- **ISO Task Controller** uses the AFS Pro 700 display to control variable rate technology of drives and pumps, and section control abilities with your ISO 11783 compliant implements.

AFS CONNECT.

- **AFS Connect™** farm management gives you instant access to real-time data so you can manage your machines from a remote location and make informed decisions that increase efficiency and turn potential into profit.
- **2-Way File Transfer** seamlessly transfers precision data to your home computer or trusted adviser.
- **AFS Connect Farm App:** View and monitor your equipment and field information in one place, all on your mobile device or tablet.



AFS PRO 700 DISPLAY KEY FEATURES:

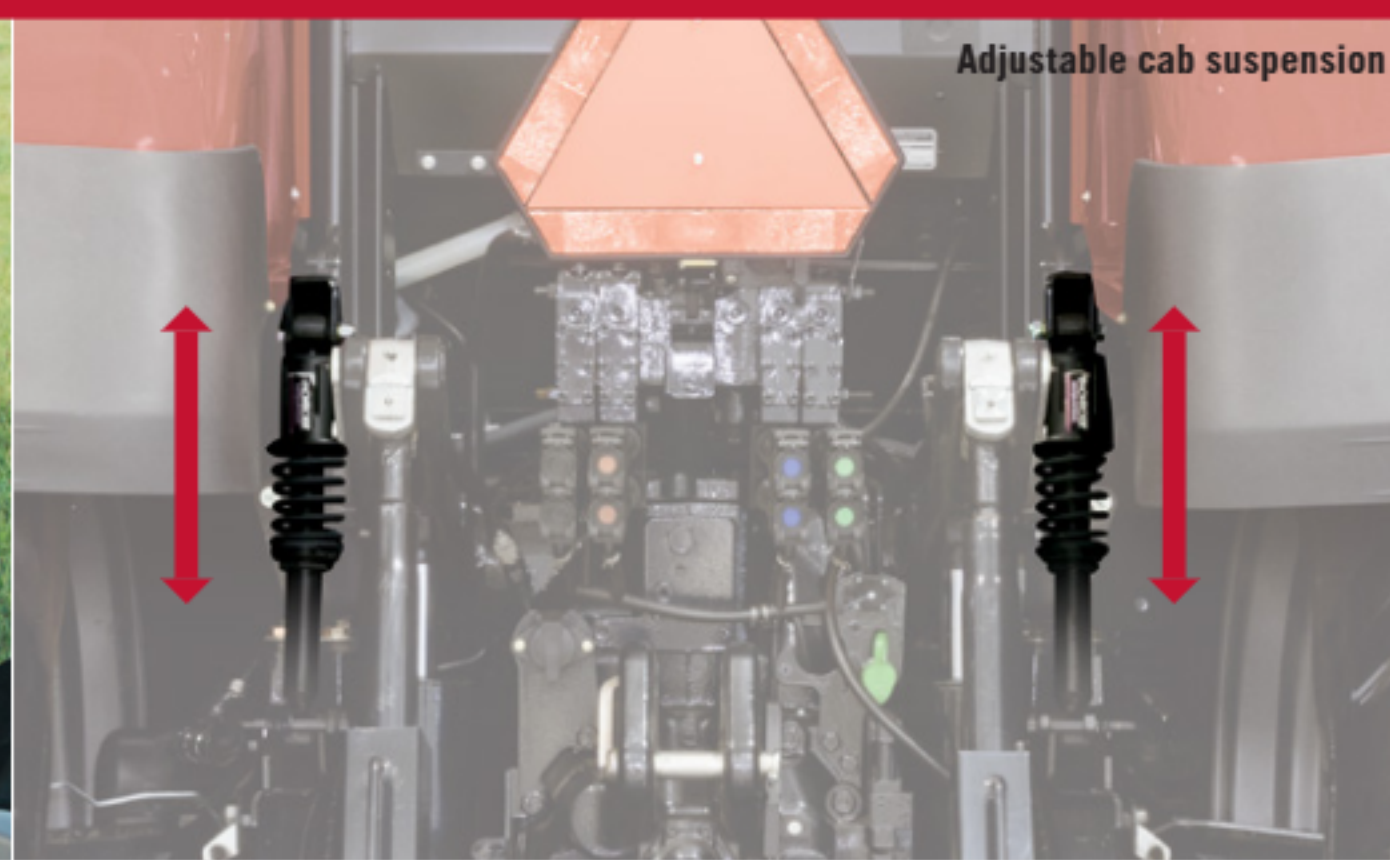
- Monitor and adjust remote valve flows and timers.
- Monitor tractor performance and program maintenance reminders.
- ISO 11783 compliant—allowing you to monitor any ISO compliant Case IH or competitive implement data and functions.
- Record important data and maps to use for future management decisions.
- Monitor and/or control important data with up to six run screens.
- Programmable advanced end-of-row technology.
- Provides three video inputs to monitor implements and ease vehicle back-up, increasing safety.

DESIGNED FOR COMPLETE COMFORT.

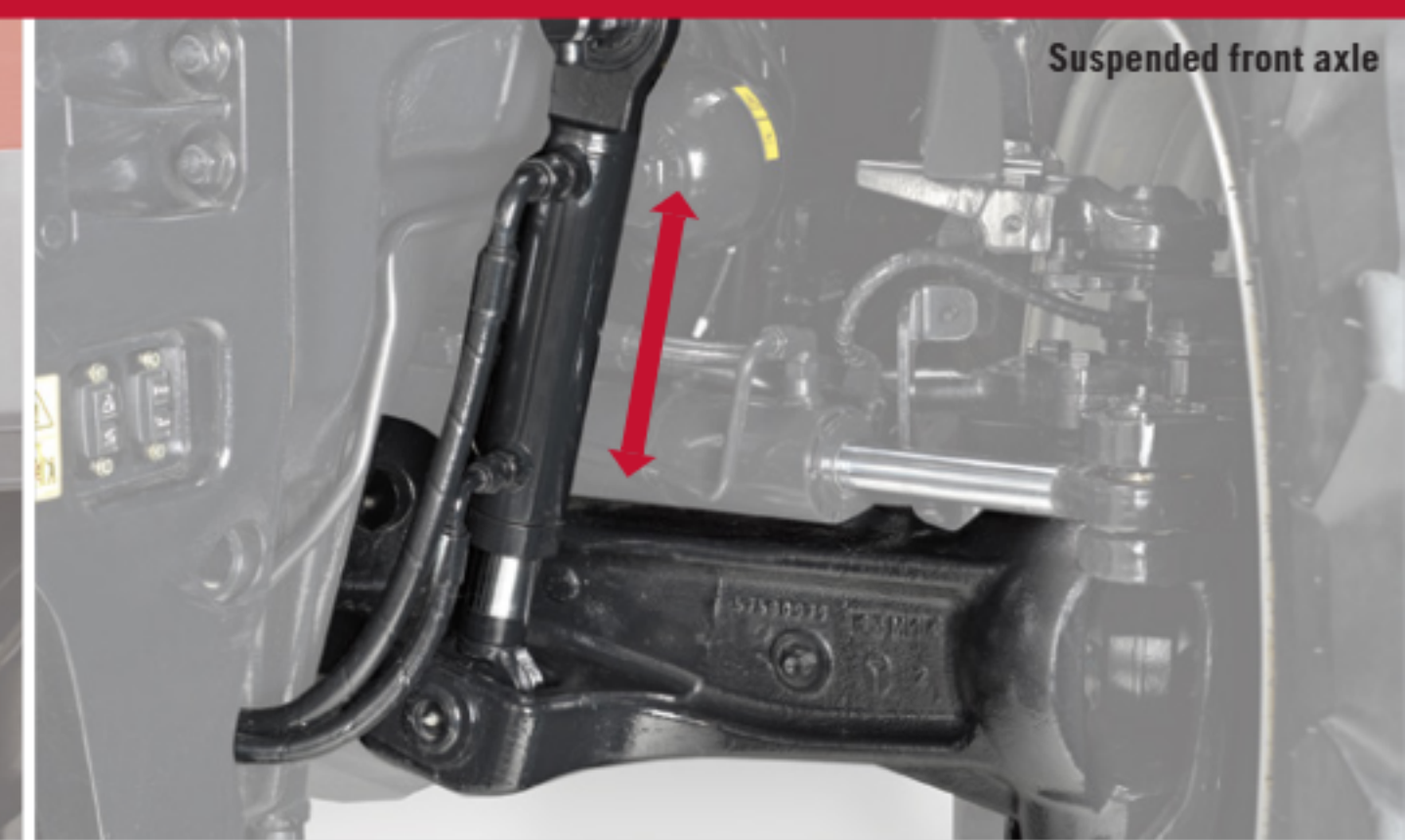
With features like the MultiControl Armrest that places control at your fingertips, best-in-class comfort packages designed for maximum support, and reactive steering for increased control, the Optum operator environment helps maximize productivity and makes long days seem short.



MultiControl Armrest and dual motion driver seat



Adjustable cab suspension



Suspended front axle

MULTICONTROL ARMREST.

All Optum series tractors feature innovative functionality and easy operation with the MultiControl Armrest, the same advanced technology found on Case IH Maxxum, Puma, Magnum and Steiger® tractors. **The MultiFunction Handle places 85% of the controls operators use most at their fingertips**, allowing the operator to stay focused on the task while reducing fatigue and stress.

SEAT OPTIONS.

Choose from four seat options, all designed for maximum comfort.

- **The Standard Comfort package** features low-frequency air suspension seat with a fabric cover and manual armrest adjustment.
- **The Deluxe Fabric or Leather Comfort package** features a low-frequency suspension and dynamic dampening system with automatic shock absorbers. The seat is heated and passively ventilated with an active carbon layer that provides a cooling effect. The backrest extension swivels with the operator for easy rear viewing and added comfort.
- **The Active Leather Comfort package** combines active suspension, a dynamic dampening system, and active air pressure to make adjustments automatically on the go. The seat holds the driver in a neutral position even in rough terrain. It features active ventilation and heat, and has automatic weight adjustment, making for a more comfortable ride.

CAB AND FRONT AXLE SUSPENSION.

The standard Optum cab suspension offers superior operator comfort both on the road and in the field by reducing the shock loads to the operator. This reliable, mechanical system offers **five adjustable settings and a full four inches of cab travel**.

Case IH class 4.75 suspended front axle includes two damping cylinders with just over 4.3" travel and 8° oscillation. Combined with suspension on the front and rear linkages, and cab and driver's seat, Optum series tractors provide a smoother ride that isolates the driver from bumps and jolts.



A Instructional Seat: Ideal when training new operators or the seatback folds down to provide a work surface. *(shown folded down)*

B Single-Piece Molded Floor: Easy-to-clean floor covering reduces noise and vibration.

C Foot Throttle: Standard on all Optum tractors

D Tilt and Telescopic Steering Column: Adjustable to suit any size operator.

E Storage Compartments: Standard front storage box is semi-refrigerated by the console vent.

F Adaptive Steering Control (ASC): Custom lock to lock steering wheel turns through Pro 700 display.

G Integrated Control Unit (ICU): Shows key tractor performance with programmable display options.

H Right-Hand Door: Fully opening and operational. Standard on all models.

I AFS Pro 700: Fully integrated control center for performance monitoring, machine and implement control, guidance, yield monitoring and application and rate control.

J MultiFunction Handle: Simplifies operation by placing 85% of the controls operators use most in one hand.

K MultiControl Armrest: Provides access to all tractor controls and moves with the seat.

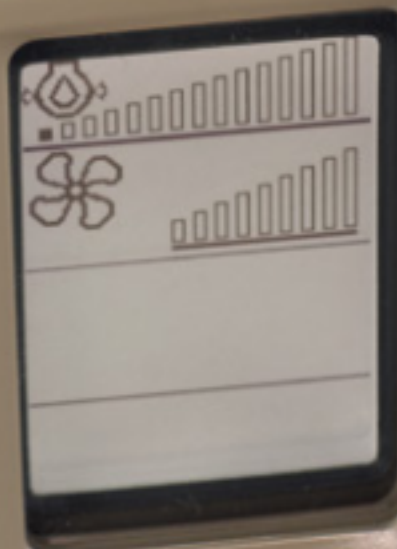
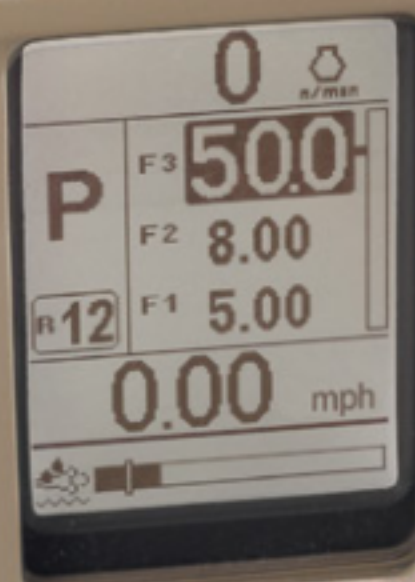
Additional Features Not Shown:

High Visibility Roof Window/Panel: Adds 4.5 square feet of upward visibility. (Optional)

HVAC Control Panel: Backlit panel provides nighttime visibility.

Radio Antenna Amplifier: Built into the roof cap for improved reception and protection against detachment.

Optional Electronic Joystick: Operates front or rear remotes (configuration dependent).



INTUITIVE OPERATION.

You've got every situation under your command.

We know how busy you and your operators are, so we make sure you don't waste time getting used to a new control layout when you switch tractors. That's why in every Case IH tractor, from a Maxxum to a Steiger, you will find the same control layout. The Optum control center is based on the MultiControl Armrest and AFS Pro 700 display, which are both integrated into the driver's seat armrest. This means that they are ergonomically placed within easy reach so you literally have the key controls of the tractor at your fingertips at all times.

The MultiFunction Handle is neatly configured and backlit so that it is very easy to use, even if you are using it for the first time. You have a grasp of every situation because this lever puts all the functions you need in the palm of your hand.

The Integrated Control Panel (ICP), located in the center portion of the armrest, contains the most frequently used settings for traction, engine speed, and the 3-point hitch. Also included in the ICP, under the armrest pad, are the advanced adjustable knobs for the hitch settings.

The tractor performance monitor is located in the right-hand "A" post integrated control unit. Combined with the AFS Pro 700 display, the Optum control layout provides you with a clear overview and real control for safe and stress-free operation.





A Integrated Control Unit
(located on the right-hand cab "A" pillar)

B AFS PRO 700 Display

C MultiFunction Handle

D Remote Valve Controls and Joystick

E Integrated Control Panel (ICP)

F Front-/Rear PTO On/Off

G Emergency Brake Control Lever

H Electronic Draft Control (EDC) Panel
(Located below the armrest pad)

I CVXDrive Split Throttle
(See page 10 for details)

MAXIMIZE YOUR TIME BEHIND THE WHEEL WITH MINIMAL TIME UNDER THE HOOD.

Optum series tractors are engineered with rugged Case IH components proven to provide years of reliable service. Case IH quality replacement parts, maintenance programs and service expertise are designed to boost equipment efficiency and protect your investment – season after season.



MAINTENANCE THAT'S QUICK, EASY AND AT EYE LEVEL.

Check engine and transmission oil without raising the hood. Plus, radiator and coolers fold out for easy cleaning. You can expect high performance, reliability and long life when you choose Genuine Case IH products*:

- **No.1 Engine Oil™** offers best-in-class drain intervals and provides maximum protection in oxidation, shear stability and proven performance life for heavy-duty, high-temperature operations.

GENUINE CASE IH FILTERS.

Genuine Case IH filters offer the same convenient 600-hour service interval. They meet precise engineering, material and manufacturing specifications for Optum series tractors.

- **Oil Filters with MicroLoc™** synthetic media are 70% more efficient in filtering critical contaminants as compared to paper-based filters.
- **Air Filters with PowerCore®** deliver up to 3x more efficiency than conventional filters – capturing particles 1/10th the diameter of a human hair.
- **Hydraulic Filters** deliver an optimum balance of efficiency and capacity with 48% more dirt-holding capacity.**
- **Fuel Filters with MicroLoc** synthetic media deliver high-efficiency filtration in the toughest environments and an increased service life.

SERVICE SOLUTIONS.

The Ready Stock™ locker program alerts your Case IH dealer to stock the maintenance parts he knows you'll need in advance. Your dealer also provides special service solutions to help keep your Optum series tractor in peak condition, including:

- Special inspection clinics
- Service offers
- Industry-leading warranties
- Preventative maintenance programs

MyCNHiStore.com

Open for business 24/7/365. It is now easier than ever to locate the parts you need, exactly when you need them.



*Always refer to the operators manual for proper lubricant selection. **Results from a field test of CNH filter (84226263) versus competitive filter (ISO 16889).

MODEL	OPTUM 270 CVXDRIVE	OPTUM 300 CVXDRIVE
POWER		
Type	Tier 4 B/Final - Stage V	
Engine HP at Rated 2,200 rpm ISO per ECE R120 (CV)	271	300
Maximum Engine HP at 1,800 rpm ISO per ECE R120 (CV)	290	313
PTO HP at Rated 2,100 rpm* per SAE	240	267
Cylinders / Displacement	6 cylinder / 6.7L (411 cu in.)	
Number of Valves	4 per cylinder, 24 total	
Aspiration	Electronic variable geometry turbocharger (eVGT)	
ELECTRICAL		
Alternator Standard / Optional	200 amp	
Battery	12-volt, 1,300 cca	
TRANSMISSION / PTO		
Standard	30 mph (50 KPH) CVXDrive	
Creeper Speeds @ Rated Engine RPM	Minimum target speed – 98 feet per hour (0.03 kph / 0.018 mph)	
PTO	540/540E/1000/1000E electronic shifttable	
AXLES		
Standard Rear Axle	119 in. bar	
Rear Axle Options	98 or 112 in. bar or flange	
Bar Axle Diameter	4.125 in. (105 mm)	
Suspended Front Axle	Standard	
Rear Axle Tread Adjustability	60.6 in. – 124.8 in. (1 540 – 3 170 mm)	
MFD Tread Adjustability	60.1 in. – 121.7 in. (1 526 – 3 090 mm)	
Wheelbase – Standard & Suspended Front Axle	117.3 in. (2 995 mm)	
HYDRAULICS / HITCH		
System Type	Closed center, pressure flow compensating (PFC)	
Remotes – Electronic, Standard / Optional	4/5; plus power beyond – option	
Main Implement Pump Max Flow	43.5 gpm (165 L/min.) or 58 gpm (220 L/min.)	
Standard Tractor Hydraulic Total Flow	36.7 – 55.5 gpm (139 – 210 L/min.)	
Max Flow Available @ One Remote	36.7 gpm (139 L/min.)	
3-point Hitch Category	Cat 3 telescopic ends or Cat 4N telescopic ends	
Hitch Lift Capacity (Max) – Standard, 4.72 in. (120 mm) Diameter Lift Cylinders**	Up to 19,180 lb. (8 700 kg) lift capacity	
Hitch Lift Capacity (Whole Range)	15,800 lb. (7 167 kg)	
Mid-Mount Valve – Optional	1 or 3 valves available	
CAPACITIES		
Fuel Tank	166 U.S. gal. / 630 L	
Diesel Exhaust Fluid (DEF) Tank	25.4 gal. / 96 L	
Engine Oil with Filter	20 qt. / 19 L	
Hydraulic Fluid	39 U.S. gal. / 148 L	
CAB		
Cab Suspension	Standard	
Glass Area – Including Optional Hi-Visibility Roof	63.2 sq. ft. (5.9 m²)	
Cab Sound Level	70 dba	
WEIGHT		
Average Standard Weight w/ Standard front Axle	23,149 lb. (10 500 kg) - based on the standard tractor, with 18.4R50 tires and minimal fuel; without front weight bracket or operator	

*Power boost available during mobile PTO/hydraulics/transport operation.

**Max force exerted through whole range = 15,800 lbs

SAFETY NEVER HURTS!™ Always read the Operators 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 America LLC 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.

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