CASE CONSTRUCTION

B-SERIES 2

MOTOR GRADERS

845B | 865B | 885B

B-SERIES 2
MOTOR GRADERS

1842 CASE is founded.
1869 The first CASE portable steam engine – road construction is born!
1957 The first factory-integrated loader/backhoe in the world: a CASE industry first.
1958 The first CASE 4-WD wheel loader, the W9, is introduced.
1967 CASE enters excavator market.
1998 Ride control on loader backhoes and skid steer loaders: another CASE first.

HERITAGE
A TRADITION OF INDUSTRY FIRSTS

2011 All around visibility cab introduction on 800 series and FPT TIER III Engine installation (“B series”)

2012 Torque converter introduction on flagship model 885B

2015 CASE graders enter the European market with the new T4 final /EU Stage IV models.

2022 Machine productvity and reliability improve with the introduction of the new CASE Graders B series 2

2022 C Series is launched with the T4 engine

MAIN REASONS
TO CHOOSE THE B-SERIES 2

TORQUE CONVERTER LOCK-UP
The CASE transmission combines the torque converter's typical smoothness, for fine grading, with the direct drive solution for full power transfer.

LOAD-SENSING HYDRAULIC SYSTEM
Balanced flow for all applications and for simultaneous moldboard movements.

«A-SHAPE» FRAME
Optimized effort distribution in all conditions ensures a long operating life.

MULTI-RADIUS BLADE
Lower power absorption and optimized rolling effect.

REAR MOUNTED CAB

Best-in-class controllability and comfort: the operator is always in line with the working direction.

EASY ACCESS

The easy serviceability is in the CASE: all the main checks can be easily performed from ground level; all the service points are grouped and positioned to facilitate servicing.

VARIABLE POWER CURVE

The FPT Engine always delivers the power required for every task. On the 845B and 885B two power curves are available, while on the 865B three engine settings ensure even better performances.

EXTERNALLY DRIVEN CIRCLE TEETH

The external pinion is not subject to shocks while working in heavy grading, while the slewing ring's external teeth prevent the accumulation of residual material, extending the overall working life.

HIGH VERSATILITY

The wide variety of options enables every customer to tailor their grader to match the requirements of the most demanding applications.

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TORQUE CONVERTER LOCK-UP

The machine drives faster with no extra torque

The lock-up system overrides the torque converter operation in machines featuring the B-Series' type of engine and transmission coupling. When it is activated, the lock turns the hydraulic coupling into a direct (rigid) coupling. The Lock-up system is automatically activated according to operating conditions, when the transmission electronics unit's torque and engine speed readings reach preset values. The Lock-up is usually activated in travel applications where no extra torque is required from the torque converter and the machine runs at a higher speed.

LOAD-SENSING HYDRAULIC SYSTEM

Highly responsive & precise control

The load-sensing hydraulic system helps maintain a balanced flow for all applications and for simultaneous moldboard movements. It ensures highly responsive and precise control, as well as easy and smooth operation. A directly activated axial piston pump only delivers the required amount of oil where it is needed, so that no power is wasted. The control valves ensure pressure compensation, enabling parallel lifting and lowering of the moldboard. A dedicated switch on the cab floor enables the operator to obtain maximum output from the hydraulic circuit independently from engine revolutions for faster reaction (Full Flow Mode).

MOLDBOARD
PRECISION TECHNOLOGY

“A-SHAPE” FRAME
Longer working life

The durable front A-frame drawbar and high-strength circle provide outstanding stability. The A-frame drawbar features a heavy-duty boxed frame design that supports the circle with a wide stance, extending the life of the circle and drawbar components.

MULTI RADIUS BLADE
Productivity with less power

The CASE radius design of the reinforced involuted moldboard consists of three different radiuses. This enables a more efficient and continuous cutting mixing and rolling, and extends the life of the blade. The efficient mixing effect on the spread-out material iimproves the consistency and longevity of the road surface.

EXTERNALLY DRIVEN CIRCLE TEETH

Insensitive to shocks
CASE motor graders are designed with external circle teeth, which are easier to clean and provide a larger contact area. This prevents component wear and provides more leverage when turning the blade under load. As a result, there is no need for slip clutches or shear pins, which require repositioning or repairs.

B-SERIES 2
MOTOR GRADERS

ATTACHMENTS
THE ART OF VERSATILITY

FRONT COUNTERWEIGHT

FRONT PUSH PLATE

RIPPER

FRONT DOZER BLADE

HIGH VERSATILITY

CASE offers a variety of versatile grader attachments and accessories, including:

- Front counterweight
- Ripper
- Scarifier
- Front push plate - light 492kg - heavy 800kg
- Front dozer blade
- Rear pull hook
- Additional lighting packages
- Lift cylinder accumulators
- Float control
- Moldboard extensions

B-SERIES 2
MOTOR GRADERS

VARIABLE POWER CURVE
for excellent performance

From the unique moldboard design that rolls a superior mix and the fuel-efficient, turbocharged Tier 3 engine that delivers operating speeds of up to 38,8-44,1 km/h (depending on model), to the spacious rear-mounted cab that provides exceptional visibility on the machine's working components, the CASE B-Series 2 motor graders are designed for productivity. For an even greater performance, Dual Power maximizes operation at higher speeds thants to the double (845B/885B) or triple (865B) engine curve, which flattens from the 4th gear.

EASY ACCESS
Maintenance made easy

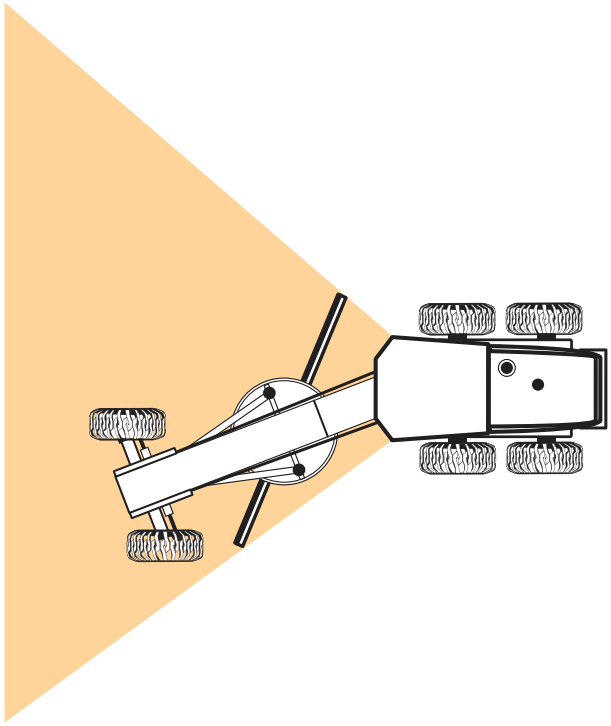
When you invest in CASE equipment, you look for duration. We make it simple. CASE B Series 2 motor graders are no exception. From the one-piece, flip-up hood and reversible fan option that blows debris out of the cooler, to ground-level site gauges and service points, the machine is designed for easy daily maintenance. It's done in just a matter of minutes, so you can obtain the effective performance and long life you want from your machine.

MAINTENANCE

1. Engine air filter
2. Fuel tank refill
3. External circle teeth
4. Hydraulic test ports
5. Tandem oscillation grease zerks
6. Dual batteries
7. Hydraulic oil level gauge
8. Electric flip-up hood
9. Oil drain hose

B-SERIES 2
MOTOR GRADERS

CAB
COMFORT RULES



REAR MOUNTED CAB
Aligned with performance

The CASE front articulation design, unique in the industry, allows for the cab to be mounted further back on the machine. With this design, the operator remains in a centered position while the gooseneck is articulated, increasing visibility on the moldboard, circle, saddle and tires.

The front articulation enables the operator to see both the rear and front half of the machine without having to look to the side when the machine is articulated. In addition, it allows for a tight turning radius, ideal for working in cul-de-sacs and tight spaces.

MASSIVE CAB, MASSIVE COMFORT
Stress free operation

The Isomount cab reduces noise and vibration, and consequently operator fatigue. Couple that with a deluxe suspension seat with lumbar control and any operator will be not only comfortable, but more productive.

The sloping rear hood, breakaway heavy-duty side mirrors, and floor-to-ceiling glass with defrost rear window allow for outstanding visibility to the rear and to the front.

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MOTOR GRADERS

ENGINE		845B	865B	885B
Brand		FPT F4HE9687W	FPT F4HE9687C	FPT F4HE9687K
Type		Electronic common rail fuel system, water cooled, 4 cycle,direct injection, turbocharged and charge air cooled.		
Cylinders			6, in-line	
Bore/Stroke	mm		104 x 132	
Displacement	l (cm^3)		6.7 (6728)	
Horsepower @ 2200 rpm				
Gross (SAE J1995)				
Low Curve*	kW	112	144	164
Imperial	hp	150	193	220
Metric	hp	152	196	223
Medium Curve***	kW	-	153	-
Imperial	hp	-	205	-
Metric	hp	-	208	-
High Curve**	kW	129	164	175
Imperial	hp	173	220	234
Metric	hp	175	223	238
Net (SAE J1349)				
Low Curve*	kW	104	133	153
Imperial	hp	140	178	205
Metric	hp	141	181	208
Medium Curve***	kW	-	142	-
Imperial	hp	-	190	-
Metric	hp	-	193	-
High Curve**	kW	119	153	163
Imperial	hp	160	205	219
Metric	hp	162	208	222
Max Torque @1500/1600 rpm				
Gross (SAE J1995)				
Low Curve *	Nm	659	830	924
Medium Curve***	Nm	-	880	-
High Curve**	Nm	758	930	984
Net (SAE J1349)				
Low Curve	Nm	591	380	864
Medium Curve***	Nm	-	788	-
High Curve	Nm	678	930	924
POWERTRAIN				
Rear axle				
Vertical ground clearance	mm	380	380	359
Differential		Planetary with limited slip differential	Planetary with controlled differential hydraulic lock	Planetary with controlled differential hydraulic lock
Brakes			Disk, bathed in oil	
Number of disks per brake		5	5	6
Tandem				
Type	mm		Welded Plate (2204 x 631 x 200.5)	
Oscillation			20° in each direction	
Command chain pitch	mm		50.8	
Thickness of the internal and external side wall	mm		19	
HYDRAULIC SYSTEM				
Type			Closed center, load sensing	
Hydraulic pump			Piston pump, variable displacement pressure and flow compensated, load sensing	
Rated flow	l/min(gpm)		186 (49)@ 2200 rpm	
Pressure cut off	bar		193	
Control Valve			9 sections	

Notes: *Gears 1^{st}, 2^{nd} F e 1^{st},2^{nd} R
** Gears 3^{rd}, 4^{th}, 5^{th}, 6^{th} F e 3^{rd} R
*** Gears 3^{rd}, 4^{th} F e 3^{rd} R

TRANSMISSION				
Make/Model		ZF TC LOCK UP 6WG – 160	ZF TC LOCK UP 6WG – 160	ZF TC LOCK UP 6WG – 210
Type			Full Powershift, torque converter	
Gears			6 forward / 3 reverse	
Self-diagnostic system			On board	
Speeds (Forward/Reverse)				
1st	km/h	5,0/5,3	5,2/5,5	4,5/4,8
2nd	km/h	7,7/12,6	8,1/13,1	6,9/11,7
3rd	km/h	11,9/29,2	12,4/30,3	11,1/27,4
4th	km/h	18,4/-	19,2/-	16,9/-
5th	km/h	27,7/-	28,7/-	25,9/-
6th	km/h	42,8/-	44,1/-	38,8/-
ELECTRICAL SYSTEM		**845B**	**865B**	**885B**
Power			24 V	
Alternator			90 A	
Batteries			2x100 Ah - low maintenance	
STEERING				
Type			Hydrostatic	
Steering wheel turns (lock to lock)			4.5/3.2	
Pump capacity @ 2200 rpm	l/min		41.8	
Pressure release valve	psi(bar)		2530 (175 integral with priority valve	
Cylinders			2	
Supplemental steering	SAE 1011, ISO5012		Integral with steering system after Supplemental steering	
Steering angle			42°	
ARTICULATION				
Type			Hydraulically activated (with a lock valve)	
Angle			25° to the left/right	
Controls			Hydraulic	
CAPACITIES				
Engine	l		15	
Engine with filter	l		16	
Fuel	l		360	
Transmission	l	25	25	29
Transmission with filter	l	26	26	31
Engine water cooling system	l		32	
Hydraulic oil tank	l		90	
Total hydraulic system	l		148	
Circle turn housing	l		2.8	
Tandem case (each)	l		69	
SADDLE				
Locking system			Two cylinders	
Saddle positions			5	
FRAME				
Type - Front section			Box section	
Size	mm		254 x 298	
Type - Rear section			Beam (welded)	
Size	mm	190 x 327	220.5 x 327	220.5 X 327
DRAWBAR				
Type			“A” frame welded construction with center mounted circle turn motor	
Connection with the frame			Shim adjustable spherical joint	
CIRCLE				
Type			Welded construction	
Maximum ouside diameter	mm		1752.6	
Rotation			360°	
Speed	rpm		1.2	
N° of supports in phenolic resin			4	

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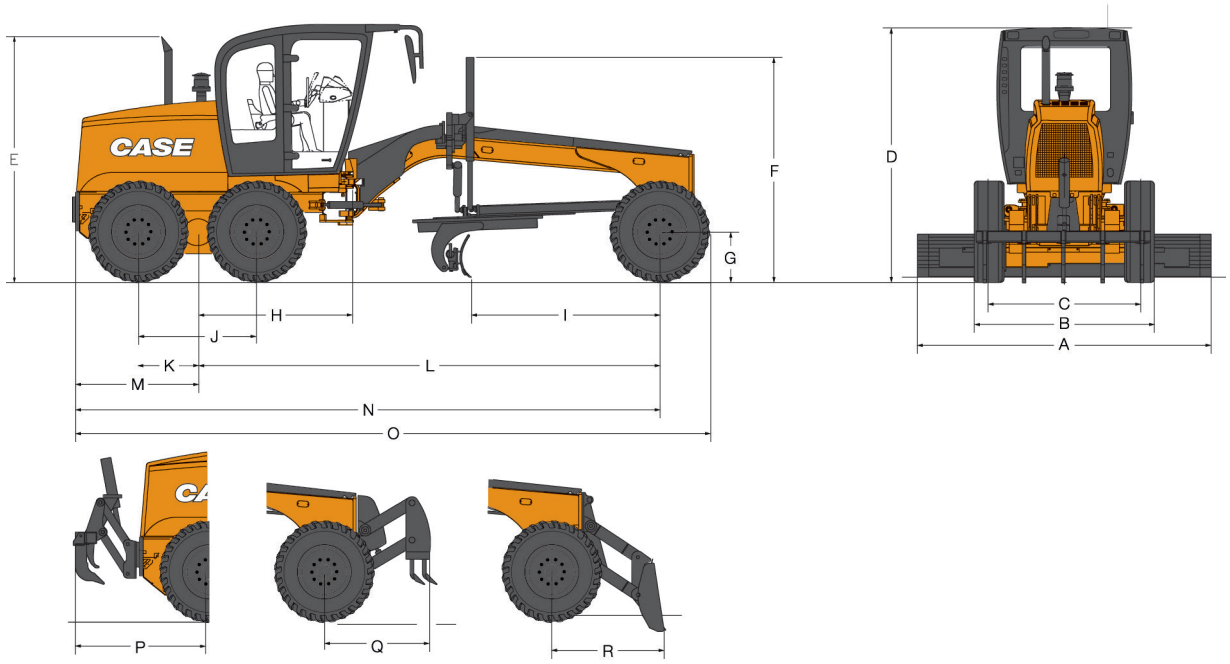
MOTOR GRADERS

MOLDBOARD		845B	865B	885 B
Type			High-carbon steel	
Form			Involute curve	
Width	mm	3658	3962	4267
Thickness	mm		22	
Cutting edge			2, interchangeable	
Blade pitch positions				
Normal pitch			47°	
Minimum pitch			42°	
Maximum pitch			87°	
Blade side shift				
Right	mm		686	
Left	mm		533	
Maximum bank-cutting angle (left and right)			90º	
Ground penetration (max.)	mm		711.2	
Lift above ground (max.)	mm		444.5	
Blade side shift and pitch			Hydraulic type	
FRONT SCARIFIER				
Cutting width	mm		1168	
Teeth			5 (opt, 11)	
Spacing between teeth	mm		229 (opt ,114.5)	
Lift above ground	mm		527	
Maximum penetration	mm		318	
Weight	kg		570	
REAR RIPPER				
Type			Parallelogram	
Cutting width	mm	2165	2195	2340
Ripper teeth		3	3 (opt, 5)	3 (opt, 5)
Scrifier teeth		5	5 (opt, 9)	5 (opt, 9)
Lift above ground - Ripper teeth	mm	703	518	518
Maximum penetration - Ripper teeth	mm	306	437	437
Weight (3/5 teeth)	kg	815	795	850/890
DOZER BLADE				
Type			Front mounted	
Width	mm		2762	
Height	mm		953	
Lift above ground	mm		622	
Penetration	mm		165	
Weight	kg		1165	

OPERATING WEIGHT		845B	865B	885B
Basic machine, cab with heater and A/C, ripper and front counterweight (torque converter transmission ZF, fully service, full fuel tank, lights, standard batteries and 80 kg operator)	kg	**15353** (tires 14.00x24 G-2 10 PR Moldboard 12FT)	**16864** (tires 14.00x24 Moldboard 13FT)	**18120** (tires 17.5-25 12PR Moldboard 14FT)

GENERAL DIMENSIONS



All units fitted with 14.0 x 24-12L tires, open ROPS/FOPS cab, standard battery, full fuel tank, operator weigh 80 kg, specifications in accordance with ISO 7134.

			845B	865B	885B
A	Blade width	mm	3658	3962	4267
B	Tread width	mm	2546	2545	2583
C	Tread gauge	mm	2168	2124	2162
D	Height on top of h.p. cab	mm	3400	3400	3400
	Height on top of l.p. cab	mm	3200	3200	3200
E	Height of top of exhaust	mm	332	3323	3323
F	Height to top of blade lift cylinder	mm	3047	3047	3047
G	Tire static radius	mm	610	610	610
H	Distance between tandem center and the frame articulation pin	mm	1958	1958	1958
I	Distance between the front axle and the blade	mm	2562	2562	2562
J	Distance between the center of the rear tires	mm	1572	1572	1624
K	Distance between tandem center and the wheel	mm	786	786	812
L	Wheelbase	mm	6219	6219	6219
M	Distance between tandem center and the rear part of the equipment	mm	2064	2064	2064
N	Distance between the front wheen axle and the rear part of the equipment	mm	8283	8283	8283
O	Overall length	mm	8957	8957	8957
P	Distance between the rear tires and the ripper	mm	2196	2273	2247
Q	Distance between the front tires and the scarifier	mm	1513	1520	1520
R	Distance between the front tires and the dozer blade	mm	1619	1626	1626
	Outside tire turning radius	mm	7250	7250	7250
	Ground clearance (rear axle)	mm	380	380	380
	Ground clearance (front axle)	mm	580	580	580


CASE

STANDARD AND OPTIONS

STANDARD EQUIPMENT

OPERATOR STATION
ROPS/FOPS open cab with:
Adjustable suspension vinyl seat, with a 50.8 mm (2") seatbelt
Adjustable operator console
Pedal accelerator
Manual accelerator
Front windshield wiper with washer
Safety glass
Ceiling light
Internal and external rear-view mirrors
12 V (*) power supply
Automatic master switch
Steps on the right and left sides
(*) Only available in closed cabins

ENGINE
845B FPT F4HE9687W
865B FPT F4HE9687C
885B FPT F4HE9687K
Turbocharged, diesel
Dry air filter with primary and secondary safety elements
Air pre-filter with cyclonic dust ejector
80 A alternator
Swing-up hood, diesel

HYDRAULIC SYSTEM
Hydraulic system with load sensor, closed center
9-section control valve
Hydraulic control for all functions:
blade lifting (right and left side), circle turn, side shift of the circle, wheel lean, frame articulation, blade side shift and pitch, front and rear accessories
Diagnostics center with 8 quick couplers
Hydraulic axial piston pump
Hydraulic engine fan

BRAKES
Multidisk oil-bathed service brakes with nitrogen accumulator safety system
Disk parking brake integrated into the transmission with warning light

TIRES
14" 3-pieces rim / 17,25 x 25 - 12L - G2 tubeless

OTHERS
Standard tool kit
Drawbar / Standard circle

AXLES
Conventional differential with brakes on 4 wheels and differential locking with electrohydraulic mechanism (rear axle)

STEERING
Hydrostatic steering with integrated emergency system

INSTRUMENTS
Electronic Information Center
Indicators/gauges:
Tachometer
Direction selected F/N/R
Transmission modes - automatic/manual
Selected gear
Engine cooling temperature
Fuel level
Transmission oil temperature
Hydraulic oil temperature
Hourmeter
Fuel consumption
Engine diagnostics
Transmission diagnostics

INDICATOR LIGHTS:
Low fuel level
Floodlights
High beam
Brake pressure
Main alert
Parking brake

SOUND ALERTS:
Warning alert
Emergency alert
Reversing alert

ELECTRICAL SYSTEM
Lights
Front headlight with direction indicators (2)
Rear brake light and direction indicators (2)
Rear work light on top of the cabin (2)
Front work light on top of the cabin (2)
24 V system (Two 12 V batteries 12 V / 750 CCA)
Electronic system monitoring
Horn
Hourmeter
Reverse alarm

TRANSMISSION
ZF transmission of torque conversion type with lock up (also functions as Direct Drive), Powershift, 6 forward speeds and 3 reverse speeds, automatic gear shift, emergency electrical failure device (Limp-Home)

All ROPS/FOPS cabins are certifi ed in accordance with the SAE J1040 (ROPS) and SAE J231 (FOPS) standards.

OPTIONS*

CAB
Closed high cab (fixed front window)
Closed high cab (front flip-down window)
Sunshade(front and rear)

OTHERS
Air conditioner for closed cab
Fire extinguisher
Windshield washer and lower windshield wipers
Rear windshield washer and wipers
Radio
Tandem lock device
Rear fogger

DRAWBAR
Drawbar / Heavy Duty circle

FRONT ATTACHMENT
Dozer Blade
Push plate
5 tooth front scarifier
6 additional teeth for the front ripper
Dozer blade float electrovalve
Front counter weight
Lighting on dozer blade

BLADE
3,658 x 622 x 22 mm blade
3,962 x 671 x 22 mm blade
4,267 x 671 x 22 mm blade
–304.8 mm right blade extension
–304.8 mm left blade extension

REAR ATTACHMENT
Medium ripper with 3 large teeth and 5 small teeth
2 additional large teeth and 4 additional small teeth
Rear pull hook
Support for lifting the machine

WORK LIGHTS
2 work lights behind the blade
2 work lights mounted in front of the moldboard
2 work lights on the front attachment

LOCK/FL OATING/ANTI-SHOCK -MOLDBOARD AND CIRCLE
Moldboard lifting cylinder lock valve
Moldboard float electrovalve (includes the lock valve)
Anti-shock electrovalve with 2 accumulators for the moldboard
Anti-shock electrovalve with 3 accumulators for the moldboard and circle

SEAT / SEATBELT
Extra quality vinyl mechanical suspension seat
Mechanical suspension fabric seat
Pneumatic mechanical suspension fabric seat
(3") 76.5 mm seatbelt

OPTIONAL EXTRAS
Revolving safety light
Luxury toolbox
Toolbox without tools, with support, mounted on the rear frame
Slow movement symbol
Electric pump for filling tires
Support for spare tire

TIRES AND MOUNTED RIMS

TUBELESS TIRES
9" Rim - single piece/14x24 tire-12L-G2
10" Rim - 3 pieces / 14x24 tire - 12L - G2
13" Rim - single piece / 17.5x25 tire - 12L - L2
14" Rim - 3 pieces / 17.5x25 tire - 16L - L3

TIRES WITH TUBES
9" Rim - single piece / 14x24 tire - 12L - G2
10" Rim - 3 pieces / 14x24 tire - 12L - G2

RADIAL TUBELESS TIRES
9" Rim - single piece / 14x24 tire - 12L - L2 XGLA2 RADIAL
10" Rim - 3 piece / 14x24 tire - 12L - L2 XGLA2 RADIAL

RIMS
9" Rim - single piece with valve
10" Rim - 3 pieces with valve
13" Rim - single piece with valve
14" Rim - 3 pieces with valve

**All the options are subject to the local availability.*

CASE CONSTRUCTION

SINCE 1842

BUILDING A STRONG CASE.

Since 1842, at CASE Construction Equipment we have lived by an unwavering commitment to build practical, intuitive solutions that deliver both efficiency and productivity.

We continually strive to make it easier for our customers to implement emerging technologies and new compliance mandates.

Today, our global scale combined with our local expertise enables us to keep customers' real-world challenges at the center of our product development.

The vast CASE dealers' network is always ready to support and protect your investment and exceed your expectations, while also providing you with the ultimate ownership experience.

Our goal is to build both stronger machines—and stronger communities. At the end of the day, we do what's right for our customers and our communities so that they can count on CASE.

CASECE.com

NOTE: Standard and optional fittings can vary according to the demands and specific regulations of each country. The illustrations may include optional rather than standard fittings - consult your CASE dealer. Furthermore, CNH Industrial reserves the right to modify machine specifications without incurring any obligation relating to such changes.

Conforms to directive 2006/42/EC

creative-farm.it 10/22