

**LOADER BACKHOE
851EX**

CASE
CONSTRUCTION



**HIGH ON PRODUCTIVITY.
HIGHEST FUEL EFFICIENCY.**

www.casece.com

**EXPERTS FOR THE REAL WORLD
SINCE 1842**

MAIN REASONS TO CHOOSE THE 851EX



EXCELLENT VISIBILITY

Excellent visibility for all operations with loader or backhoe.
Fully openable front and rear glasses for excellent cab ventilation.



EASY ACCESS

Traditionally CASE backhoe Loader are recognized for easy components as well as cab accessibility.

All the controls are easy to reach for maximum performances and safety.



STRAIGHT LOADER ARM

Above any limit the CASE loader ensure highest loading capacity in the market combined with best in class tipping height.

The self leveling mechanism during the lifting phase makes the operator more productive, precise and provides better driving comfort.



FAST LOADING CYCLE

The return to dig mode (Standard option) guarantees precise automatic loader repositioning and easy to control loading operations.



HIGH EFFICIENCY

The S8000 FPT engine with high power and torque density provides the best-in-class performances in any application either with backhoe or front loader.



EXTENDAHOE

Improved backhoe operation:

The extendahoe is the perfect solution for working conditions where the digging depth is crucial.

It enlarges the backhoe capacity making the CASE backhoe loader comparable with a middle size excavators.



HIGHEST PRODUCTIVITY

“S-tyled backhoe”: The new Backhoe represents the continuity of CASE DNA.

Performances: lifting capacity, digging depth, digging force raises a new standard on this machine segment.

High productivity thanks to closed center hydraulic system and high flow oil pump.



EASY MAINTENANCE

All the main check point can be easily reached from the ground.

The front tilting engine hood and the perfect components layout ensures fast routine operations.



EAGLE EYE TELEMATICS

You get real-time performance metrics, idle-time analytics, scheduled maintenance intervals and programmable security alerts sent to any computer, anytime, anywhere.



POWERSHUTTLE TRANSMISSION WITH TORQUE CONVERTER

The power shuttle transmission with torque converter allows smooth cycles and stall free operations.

The electro hydraulic reversing as well as the cutoff button ensures comfortable and fast travelling.

THE FEATURES



EXCELLENT VISIBILITY

Face all the grounds

Best-in-Class Spacious Cabin and large glazed windows provide outstanding all round visibility and superior operator comfort.



EASY ACCESS

A place for everything and everything in its place

The ergonomic layout of operator controls enhances operator comfort and productivity. Easy access to the cab with ergonomically placed grab rails, walk-up steps and large platform.



EXTENDAHOE

Extend your business!

The extendahoe allows the operator to increase overall backhoe loader capacity keeping the same strength of the standard dipper. The CASE backhoe loader with extendahoe can reach the capacity of a middle class excavator, but with higher flexibility and better transportability. The inner sliding makes the periodical free play setting easy to be done without special tooling requirements.



HIGHEST PRODUCTIVITY

Decades of heritage in backhoe design

The new backhoe's 'S'tyled boom will boost your productivity. The boom delivers excellent breakout forces. The heavy duty front axle further boosts productivity especially when working in rough terrains. The Heavy Duty structures will enhance the reliability and the durability of your machine.



EASY MAINTENANCE

Check points easily reachable

CASE knows that the easier it is to perform routine maintenance, the more likely it will get done. The easy serviceability due to the large access area available when opening the new tiltable front engine hood, is a hallmark of CASE Backhoe Loader machine design. To improve serviceability, the machine layout has been optimized to provide an easy access to all main components.



THE EXPERT PRODUCTIVE PARTNER



EAGLE EYE TELEMATICS

Machine under control

CASE brings to you a revolutionary technology, “EAGLE EYE” for enhancing the performance and efficiency of your machine. This is an Asset Monitoring system that combines Internet, Cellular and GPS technologies.

This system helps you keep an eye on every significant detail such as:

- Real Time Location of the Machine
- Operating hours
- Cumulative Hour Meter Reading
- Warning Text Alerts for Critical Parameters



POWERSHUTTLE TRANSMISSION WITH TORQUE CONVERTER

Smooth riding

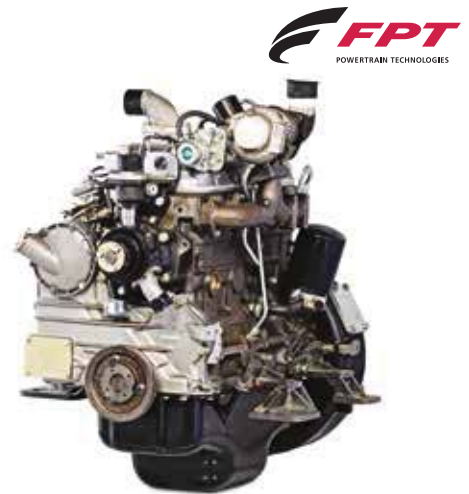
The power shuttle transmission provides four speeds forward and reverse. Hydraulically shifted clutches allow on-the-go direction and travel speed shifts. Modulation valves deliver smooth speed and directional shifts. 4WD improves performances especially with the loader or when job site conditions are muddy and extra traction is mandatory. The new 2-cylinder steering front axle is mounted above the center pivot and can oscillate to ± 8 degrees, so that all four wheels stay on the ground ensuring great stability even in toughest conditions and with highest front loads.



HIGH EFFICIENCY

A legacy of high performance

The new generation engine, developed by FPT Industrial, provides outstanding performance like faster response time and up to 10% better fuel economy thanks to its Internal EGR Technology.



FAST LOADING CYCLE

Get the job done easily with the RTD function

The standard return-to-dig-option automatically sets the bucket back to digging position, flat to the ground. Operator's life gets easier and long operating days more comfortable.



STRAIGHT LOADER ARM

Lowest operating costs ever

CASE engineers used an innovative systems integration approach to design and improve loader arm design to meet customer needs in loading applications. The straight loader arm design with optimized line routings provides excellent visibility, best-in-class tipping height.

APPLICATIONS

Many customers will find the CASE 851EX backhoe loader to be the optimal choice. With its high capacity for power, versatility and reliability combined with minimal ownership and operating costs, it will support you in a wide variety of applications. For more information, please contact your dealer.



URBAN

Light construction

Light construction projects, such as small buildings, local utility lines or local road networks, typically require machines capable of doing a high variety of jobs and switching between tasks quickly. The CASE 851EX is ideally suited to these jobs: reliable, fuel efficient, productive, easy to service and versatile, it can do it all with low operating costs. The standard unit is hydraulic hammer ready: this further extends the variety of applications to include work hard road surfaces or frozen earth.



LANDSCAPING

Environment care

CASE builds some of the most reliable, responsive, and comfortable landscaping equipment in the industry. Whatever the task, from landscape and hardscape installation to ground keeping, you can depend on CASE to help your team work faster, not harder.



TAILORED MADE SOLUTIONS



ROADS AND BRIDGES

Valuable partner

The CASE 851EX is an ideal asset in any road construction site - from large scale superhighway projects right down to local road building jobs. Equipped with a 4x1 bucket, it can load and spread material with ease, while the backhoe can tackle digging tasks with a standard wide bucket or install kerbstones using a narrow trench bucket. Loading, excavating, transportation – whatever the task, the CASE 851EX has power capacity to complete it with a minimal operating costs.



AGRICULTURE

Wide field

Backhoe loaders are increasingly popular among farmers due to their exceptional versatility. They can carry out construction work such as the erection of cowsheds and barns or repair and construction of rural roads and pure agricultural tasks such as delivery forage to stables or fertilizer onto fields. This results in high operating efficiency and low production costs. The CASE 851EX stands out as one of the most efficient backhoes for agriculture applications in the industry.



SPECIFICATIONS

851EX

ENGINE

Engine model code _____ FPT S8000
 Type _____ Turbocharged
 Bore x stroke _____ 104 x 115 mm
 Displacement _____ 3.9 L
 Compression ratio _____ 18.3:1
 Horsepower - rated at 2200 RPM _____ 96 HP
 Maximum torque at 1300 RPM _____ 420 NM
Engine speeds
 Rated speed, full load _____ 2200 RPM
 Low idle speed (at no load) _____ 950 RPM

ELECTRICAL SYSTEM

Battery _____ 12 volts, 130 Ah
 Alternator Output _____ 65A

POWER TRAIN

Transmission - Standard

Model _____ CARRARO 2WD TLB1
 Type _____ 4 forward and 4 reverse travel gears
 with power Shuttle

Transmission - Optional

Make & Model _____ CARRARO 4WD TLB1
 Type _____ 4 forward and 4 reverse travel speeds
 with power Shuttle

Gear	Forward	Reverse
1st	6.2	7.4
2nd	10	12
3rd	20.7	Not Recommended
4th	39.2	Not Recommended

All speeds are in KMPH with standard tyres

REAR AXLE

2 Wheel Drive (Standard)

Make & Model _____ CARRARO 28.32M
 Type _____ Rigid

4 Wheel Drive (Optional)

Model _____ CARRARO 28.32M
 Type _____ Rigid

FRONT AXLE

2 Wheel Drive (Standard)

Model _____ CNH PS1300
 Type _____ Steering
 Front Axle Oscillation _____ 21°

4 Wheel Drive (Optional)

Model _____ Carraro 26.17
 Type _____ Steering
 Front Axle Oscillation _____ 16°

BRAKES

Service Brakes

Type _____ Wet multi-discs
 No. of discs _____ 4

Parking Brakes

Type _____ Manual, with lever

HYDRAULIC SYSTEM

Type _____ Gear pump
 Flow rate _____ 151 lpm @2200 RPM
 Pressure _____ 210 Bar

STEERING

Type _____ Power Steering
 System pressure _____ 140 Bar
 Displacement _____ 125 cc
Turning radius (Outside of the Bucket)
 With Brake _____ 4.6 m
 Without Brake _____ 5.6 m
Tread width
 Front _____ 1.9 m
 Rear _____ 1.7 m

SERVICE CAPACITIES

Engine Oil _____ 9.1 Ltr
 Transmission Oil _____ 22 Ltr
 Rear Axle Oil _____ 17 Ltr
 Hydraulic Oil _____ 110 Ltr
 Fuel Tank _____ 129 Ltr
 Coolant _____ 20 Ltr

TYRE SIZE

Recommended Tyre Size
 Standard - Front _____ 9.0x16 - 16 PR
 Standard - Rear _____ 16.9x28 - 12 PR
 Heavyduty - Front _____ 12.5x18 - 12 PR
 Heavyduty - rear _____ 14x25 - 20 PR

BUCKETS

Loader buckets

Type _____ Standard
 Heaped capacity (SAE capacity) _____ 1.2 Cu
 mWidth _____ 2.3 m
 Weight _____ 485 kg

Backhoe buckets

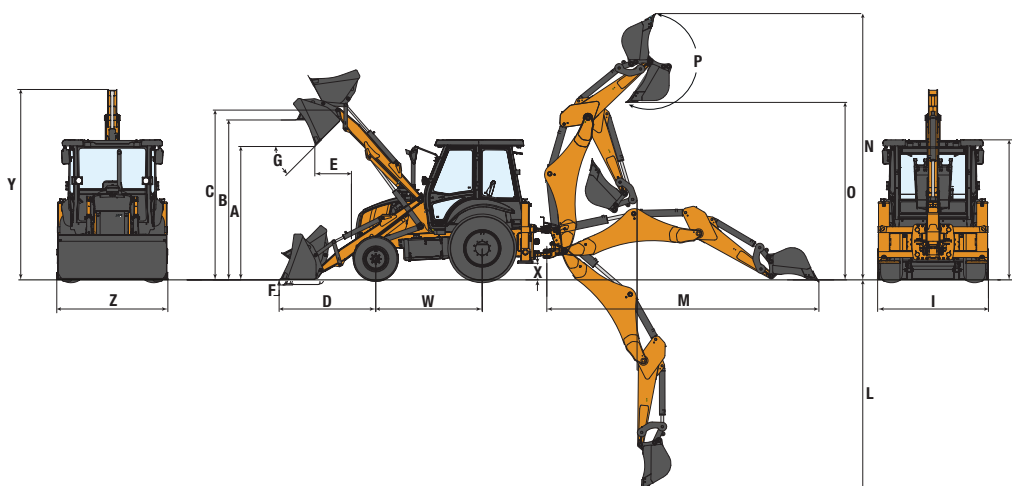
Heaped capacity (SAE capacity) _____ 0.30 Cu m
 Width _____ 0.9 m
 Weight _____ 248 kg

OPTIONAL BUCKETS

	Capacity (SAE L)
Loader HD	630
Loader HD	760
Loader GP	900
Loader GP	1000
Loader coal handling	1200
Loader Garbage handling (without teeth)	1500
Bull Clam	1000
Backhoe Trenching	80
Backhoe Trenching	120
Backhoe Trenching	180
Backhoe Trenching	260
Backhoe Trapezoidal	300
Ditch Cleaning (without teeth)	300

SPECIFICATIONS

851EX



LOADER GENERAL DIMENSIONS

	851EX
A Dump height	2658 mm
B Load over height	3275 mm
C Hinge pin height	3580 mm
D Reach at ground	2080 mm
E Reach at full height-bucket dumped	837 mm
F Below ground level-dig depth	106 mm
G Dump angle	45°
Bucket capacity	1.2 cu m
Loader bucket breakout force	6570 kgf
Pay load	2041 kg
Maximum lifting capacity @ max height	3700 kg

BACKHOE GENERAL DIMENSIONS

	851EX
L Max.dig depth	4700 mm
M Reach ground level to swing center	5895 mm
N Max working height	5675 mm
O Max load over height	3820 mm
Dipper Cylinder Diameter	
P Bucket rotation	204°
Bucket breakout force	5630 kgf
Dipper digging force	3760 kgf
T Max lift capacity	1530 kgf
Safe working load @ 3.2 mtr radius	1100 kg

OVERALL DIMENSIONS AND WEIGHTS

	851EX
Overall operating weight	8230 kg
W Wheel base	2175 mm
X Minimum ground clearance	399 mm
Y Overall height (Transport Position)	3800 mm
Z Width over bucket (Trasnsport Position)	2277 mm

BOTTOM DUMP BUCKET

This multipurpose bucket is ideal for (6 operations) diggin, loading, dozing, backfilling, grading and grab operation.

	851EX
Bucket widht Outside	2277 mm
Width of dozer blade	2300 mm
Maximum Clamp opening	977 mm
Bucket capacity (SAE HEAPED)	1.0 cu m
Dump height	2720 mm

STANDARD AND OPTIONAL



STANDARD

- Speedometer, RPM Meter, Digital Hour Meter
- Fuel Level Indicator, Engine Coolant Gauge
- New Generation Electrical Switches
- 2 Front & 4 Rear Lights
- Direction Indicator, Parking Light
- Spacious Battery Box
- FM Radio
- Eagle Eye Telematics Solution
- Lifting Hook
- Licence Plate



OPTIONALS

- 4 Wheel Drive (4X4 Traction)
- Heavy Duty Tyres (14X25-20PR)
- Bottom Dump Bucket (6 in 1 operation)
- Dozer & Backfill Blade
- Heat Ventilation and Air Conditioning (HVAC)
- Extended Dipper (Extend Hoe)
- Ripper Tooth
- Wood Log Grapple
- Limestone Scraper

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PARTS AND SERVICE

Wide network of customer support across the world.

No matter where you work, we're here to support and protect your investment and exceed your expectations. You can count on Case and your Case dealer for full-service solutions-productive equipment, expert advice, flexible financing, genuine Case parts and fast service. We're here to provide you with the ultimate ownership experience. To locate a Case dealer or learn more about Case equipment or customer service, go to www.casece.com

CASE Customer Assistance
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NOTE: CASE provides specific outfits for various countries and many optional fittings (OPT). The illustrations on this or other leaflets may relate to standard or optional fittings. Please consult your CASE dealer for any information in this regard and any possible updating on components. CNH Industrial reserves the right to modify machine specifications without incurring any obligation relating to such changes.

