Motor Graders 856C

- Overview

CASE 856C MOTOR GRADER

The mid-sized, 173-hp CASE 856C motor grader features one of the most intelligent, load-sensing hydraulic circuits on the market and an innovative moldboard design to provide reliable traction and balanced blade performance in challenging underfoot conditions, on slopes and with uneven load demands. This Tier 4 Final grader is available machine control-ready for precision fleets, features a variety of intuitive controls to maximize productivity and comes standard with ProCare, the industry's most comprehensive machine support program.

Standard Equipment:

- Battery main switch
- Cab equipped with two fully swinging doors for both side access, tinted safety glasses, front and rear sunshield
- Switchable back-up alarm
- Radio
- Rotating beacon
- Caliper disc parking brake operating on transmission
- NEF STAGE V engine with electronic management and “DualPower”
- DOC & SCRoF exaust gas aftertreatment
- Cold start
- Control levers for precise and simultaneous moldboard operations
- Front counterweight
- Front wheel spindle steering with adjustable steering column
- Heating system
- High grade steel moldboard with hardened rounded guides
- Hydraulic and dual-circuit accumulator brake system operating on tandem wheels

- Hydraulically adjustable for 90° bank slope
- Hydrostatic front-wheel drive with E.D.C.V. Electronic Drive*
- Control volume and hydraulic differential *
- Internal gearing, sealed, backlash-free and self-adjusting slewing ring operating on 360°
- “Load Sensing” hydraulic system with variable displacement pump
- Moldboard cutting angle hydraulically adjustable
- Oscillating front axle with hydraulic lean adjustement
- Oscillating tandem axle with automatic no-spin differential
- Powershift transmission with 6 forward and 3 reverse speeds, with integrated torque converter
- Rear counterweight
- Road traffic lights
- Rops/Fops suspened cab, mounted on rear frame
- Standard cab
- Heated and air suspended seat

- Creep mode “AWD” version only
  Only on 836C AWD and 856C AWD
- CASE “SiteWatch”

Specifications:

ENGINE STAGE V “Hi-eSCR2”

Maximum Power (ISO 14396/ECE R120)

From 1st to 3rd gear **129 kW/173 hp**

From 4th to 6th gear **142 kW/190 hp**

Governed **2100 rpm**

Make & model **FPT N67 NEF 6 cyl.**

Aftertreatment system **DOC+SCRoF**

Donaldson air filter with dust ejector **std**

Type **diesel, common rail, dual power, turbocherged and intercooler**

Displacement **6.7 l**

Number of cylinders **6**

Bore & stroke **104x132 mm**

Maximum torque at 1400 rpm **850 Nm**

Remote engine oil fi lter for easy replacement

- 25°C outside temperature start as standard equipment

The engine complies with (EU) 2016/1628 regulations STAGE V.

TORQUE CONVERTER

Single-stage torque converter integrated into shift gearbox

Automatic matching of output torque to changing travel conditions

Converter ratio **1.91: 1**

Cooling by heat exchanger

TRANSMISSION

Type **Full powershift transmission with 6 forward and 3 reverse gears. Electric single-lever shift with reverse-lock in ranges 3-6.**

Tractive effort (adeherence coefficient 0.8) **95 kN**

AXLE FRONT

Oscillating axle with wheel spindle steering and hydraulic wheel lean adjustment

Axle oscillation **± 15°**

Wheel lean **± 20.3°**

Ground clearance **554 mm**

AXLE REAR TANDEM

CASE tandem grader axle with automatic No-Spin differential

Oscillating tandem drives with heavy-duty roller chains

Planetary reduction

Oscillation **± 15°**

Tandem box dimensions

Height **590 mm**

Width **199 mm**

Wall thickness **20 mm**

Chain pitch **50.8 mm**

Tandem wheelbase **1572.6 mm**

ALL WHEEL DRIVE

Selectable in addition to the hydrodynamic rear-wheel drive.

Hydrostatic front-wheel drive with E.D.C.V. (Electronic Drive Control Volume).

A bi-directional swash plate pump (forward/ reverse) drives wheel-hub mounted motors in each of the front wheels.

Hydraulic No-Spin differential prevents one-sided wheel spin and proportions torque when cornering.

A microprocessor monitors and matches front- and rear-wheel drive forces.

A stepless switch allows the operator to adapt front-wheel thrust to existing job conditions.

Creep mode as standard: front traction only, for ultra low machine speed.

BRAKES

Hydraulic, dual-circuit accumulator pump braking with 4 oil bath disc brakes acting on tandem-wheels. Parking brake: disc brake acting on transmission.

STEERING

Operated from the adjustable steering and control console.

Front-wheel spindle steering, all hydraulic, volume control.

Steering wheel lock. left/right **42.5°**

Articulated frame with 2 double-flow steering cylinders: Articulation angle **± 28°**

Minimum turning radius

across tyres **7300 mm**

across front blade **8100 mm**

TYRES

17.5 R25 XHA MICHELIN (transport width<2500 mm)

17.5 R25 XTLA G2 MICHELIN

17.5 - 25 EM SGL TL GOODYEAR (transport width<2500 mm)

MOLDBOARD CONTROL

"Load Sensing" for maximising functions controllability.

Control levers for precision metering of adjustment speed.

Pressure compensation in each of the control valve units permits parallel moldboard lifting or simultaneous operation of two other functions, with no disruptive interaction.

A pedal allows the operator to switch to max. output for faster functioning (Full Flow Mode).

Unlockable check valves maintain lift/cutting angles and wheel lean cylinders constant.

A-FRAME

Robust welded box section A-frame.

L-profile cross section **140x140x10 mm**

SLEWING RING

Internal gearing, sealed roller-mounted, backlash-free, self-adjusting Driven by hydraulic motor and moldboard mechanism

Diameter **1350 mm**

Action radius **360°**

MOLDBOARD

Multiradius wear-resistant, high-grade steel with hardened rounded guides.

Replaceable, split main and side blades.

Width **3350/3665/3960 mm**

Blade height/thickness **603/20 mm**

Cutting edge height/thickness **152/19 mm**

Bolt diameter **16 mm**

MOLDBOARD SETTINGS

Shifting

to the right **755 mm**

to the left **645 mm**

Reach across tyres w/o articulated steering

right horizontal **2375 mm**

left horizontal **1685 mm**

Reach across tyres with articulated steering

right horizontal **3135 mm**

left horizontal **2545 mm**

Max. slope angle

right **100°**

left **112°**

Max. lift height above ground **480 mm**

Max. scraping depth **500 mm**

Cutting angle adjustment, hydr **50°**

HYDRAULIC SYSTEM

"Load Sensing" with variable displacement axial piston pump.

Zero oil delivery under no-function conditions and hence power savings.

Closed system with pressurised tank.

Pressure relief valve.

Hydraulic pump **swash plate, variable displacement**

Max delivery **126 I/min**

Max pressure **200 bar**

Pressure relief setting **215 bar**

FRAME

Front frame **stiff, welded section from high-strength, fine-grain steel**

Cross-section **300 x 300 mm**

Wall thickness **20 mm**

Rear frame **torsion resistant frame**

Cross-section **260 x 90 mm**

CAB

Elastically mounted, noise insulated ROPS/FOPS cab with two swinging doors.

Either side access.

Tinted glass.

Rear-frame mounted cab.

Heater/defroster nozzles.

Heated and Air Suspended seat.

Low profile Cab option reducing overall grader height by 180 mm.

ROPS according to EEC sample testing **ISO 3471**

FOPS according to EEC sample testing **ISO 3449**

Cab noise level **75 dbA**

External noise level **99 dbA**

ELECTRICAL SYSTEM

Voltage **24 V**

Batteries **2 x 100 Ah**

Alternator **90 A**

Starter **4 kW**

CAPACITIES

Lube oil **12.5**

Coolant (Including: cooler and Heater) **32.0**

Transmission (including converter and cooling) **27.0**

Axle gear **36.0**

Tandem **128.0**

Worm gear **2.5**

Hydraulic tank **90.0**

Hydraulic oil, total **185.0/ AWD 200.0**

Fuel tank **278.0**

AdBlue tank **54**