

Case Construction Equipment Graders



		836C	856C
ENGINE TIER 4 FINAL "Hi-eSCR"			
Maximum Power (ISO 14396/ECE R120)			
From 1st to 3rd gear		102 kW/138 hp	129 kW/173 hp
From 4th to 6th gear		115 kW/156 hp	142 kW/190 hp
Governed	rpm	2100	2100
Make & model		NEF 6 cyl. CR TAA 4V	NEF 6 cyl. CR TAA 4V
Aftertreatment system		SCR only	SCR only
Donaldson air filter with dust ejector		std	std
Type		diesel, common rail, dual power, turbocharged and intercooler	diesel, common rail, dual power, turbocharged and intercooler
Displacement	l	6.7	6.7
Number of cylinders		6	6
Bore & stroke	mm	104x132	104x132
Maximum torque at 1400 rpm	Nm	725	850
		Remote engine oil filter for easy replacement, - 25°C outside temperature start as standard equipment, the engine complies with 97/68/EC standards TIER 4 Final	Remote engine oil filter for easy replacement, - 25°C outside temperature start as standard equipment, the engine complies with 97/68/EC standards TIER 4 Final
TORQUE CONVERTER			
		Single-stage torque converter integrated into shift gearbox. Automatic matching of output torque to changing travel conditions	Single-stage torque converter integrated into shift gearbox. Automatic matching of output torque to changing travel conditions
Converter ratio		1.87: 1	1.91: 1
		Cooling by heat exchanger	Cooling by heat exchanger
TRANSMISSION			
		Full powershift transmission with 6 forward and 3 reverse gears. Electric single-lever shift with reverse-lock in ranges 3-6.	Full powershift transmission with 6 forward and 3 reverse gears. Electric single-lever shift with reverse-lock in ranges 3-6.
		Gear - Forward - Reverse	Gear - Forward - Reverse
		1. - 5.4 - 5.7 2. - 8.3 - 13.3 3. - 12.6 - 29.2 4. - 19.2 - / 5. - 27.9 - / 6. - 39.9 - /	1. - 5.0 - 5.4 2. - 7.7 - 12.6 3. - 11.8 - 27.9 4. - 17.9 - / 5. - 26.0 - / 6. - 38.0 - /
Tractive effort (adherence coefficient 0.8)		836C / 836C AWD	856C / 856C AWD
	kN	66 / 85	95 / 117
AXLE FRONT		836C / 836C AWD	856C / 856C AWD
		Oscillating axle with wheel spindle steering and hydraulic wheel lean adjustment	Oscillating axle with wheel spindle steering and hydraulic wheel lean adjustment
Axle oscillation		± 15° / ± 15°	± 15° / ± 15°
Wheel lean		± 21.45° / ± 21.45°	± 20.3° / ± 20.3°
Ground clearance		485 mm / 485 mm	554 mm / 554 mm
AXLE REAR TANDEM			

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		CASE tandem grader axle with automatic No-Spin differential. Oscillating tandem drives with heavy-duty roller chains. Planetary reduction	CASE tandem grader axle with automatic No-Spin differential. Oscillating tandem drives with heavy-duty roller chains. Planetary reduction
Oscillation		± 15°	± 15°
Tandem box dimensions:			
Height	mm	599	590
Width	mm	201	199
Wall thickness	mm	20	20
Chain pitch	mm	50.8	50.8
Tandem wheelbase	mm	1241	1572.6
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.	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.	Hydraulic dual-circuit accumulator pump braking system with four oil cooled disc brakes. Disc brake acting on transmission.
STEERING			
		836C / 836C AWD	856C / 856C AWD
		Operated from the adjustable steering and control console. Front-wheel spindle steering, all hydraulic, volume control.	Operated from the adjustable steering and control console. Front-wheel spindle steering, all hydraulic, volume control.
Steering wheel lock. left/right		40° / 40°	42.5° / 42.5°
Articulated frame with 2 double-flow steering cylinders: Articulation angle		± 28° / ± 28°	± 28° / ± 28°
Minimum turning radius: across tyres across front blade	mm	6600 / 6800 7300 / 7600	7300 / 7300 8100 / 8000

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TYRES			
		405/70 R20 SPT9 Dunlop	17.5 R25 XHA MICHELIN (transport width<2500 mm)
		420/75 R20 XMCL TL Michelin	17.5 R25 XTLA G2 MICHELIN
		455/70 R20 SPT9 Dunlop	17.5 - 25 EM SGL TL GOODYEAR (transport width<2500 mm)
		405/70 R24 SPT9 Dunlop	
MOLDBOARD CONTROL			
		<p>“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.</p>	<p>“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.</p>
A-FRAME			
		Robust welded box section A-frame	Robust welded box section A-frame
L-profile cross section	mm	125x120x8	140x140x10
SLEWING RING			
		Internal gearing, sealed roller-mounted, backlash-free, self-adjusting. Driven by hydraulic motor and moldboard mechanism	Internal gearing, sealed roller-mounted, backlash-free, self-adjusting. Driven by hydraulic motor and moldboard mechanism
Diameter	mm	1150	1350
Action radius		360°	360°
MOLDBOARD			
		Multiradius wear-resistant, high-grade steel with hardened rounded guides. Replaceable, split main and side blades.	Multiradius wear-resistant, high-grade steel with hardened rounded guides. Replaceable, split main and side blades.
Width	mm	2440/3050/3355	3350/3665/3960
Blade height/thickness	mm	526/15	603/20
Cutting edge height/thickness	mm	152/19	152/19
Bolt diameter	mm	16	16
MOLDBOARD SETTINGS			
Shifting:			
to the right	mm	491	755
to the left	mm	708	645
Reach across tyres w/o articulated steering:			
right horizontal	mm	1865	2375

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left horizontal	mm	1525	1685
Reach across tyres with articulated steering:			
right horizontal	mm	2490	3235
left horizontal	mm	2150	2545
Max. slope angle:			
right		117°	100°
left		76°	112°
Max. lift height above ground	mm	394	480
Max. scraping depth	mm	456	500
Cutting angle adjustment, hydr		49.5°	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.	“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	swash plate, variable displacement
Max delivery	l/min	94.5	126
Max pressure	bar	200	200
Pressure relief setting	bar	215	215
FRAME			
Front frame		stiff, welded section from high-strength, fine-grain steel	stiff, welded section from high-strength, fine-grain steel
Cross-section	mm	270 x 270	300 x 300
Wall thickness	mm	12	20
Rear frame	mm	torsion resistant frame	torsion resistant frame
Cross-section	mm	220 x 260	260 x 90
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.	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	ISO 3471
FOPS according to EEC sample testing		ISO 3449	ISO 3449
Cab noise level	dbA	77	78
External noise level	dbA	102	101
ELECTRICAL SYSTEM			
Voltage	V	24	24
Batteries	Ah	2 x 100	2 x 100
Alternator	A	90	90

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Starter	kW	4	4
CAPACITIES			
Lube oil	l	12.5	12.5
Coolant (Including: cooler and Heater)	l	32.0	32.0
Transmission (including converter and cooling)	l	27.0	27.0
Axle gear	l	31.0	36.0
Tandem	l	120.0	128.0
Worm gear	l	2	2.5
Hydraulic tank	l	70.0	90.0
Hydraulic oil, total:		836C / 836C AWD	856C / 856C AWD
	l	170.0 / 185.0	185.0 / 200.0
Fuel tank	l	278.0	278.0
AdBlue tank	l	54	54
GENERAL DIMENSIONS			
Machine with:		836C / 836C AWD	856C / 856C AWD
Front & rear counterweight	kg	11701 / 12001	14976 / 15376
Front blade & rear c/w	kg	11805 / 12105	15140 / 15540
Front c/w & rear ripper	kg	12005 / 12305	15407 / 15807
Front blade & rear ripper	kg	12109 / 12409	15571 / 15971
Max. operating weight	kg	12500 / 12800	16250 / 16650

With low profile cab the weight is reduced by: 35 kg

Equipped with:		836C / 836C AWD				856C / 856C AWD			
		Front & rear counterweight	Front blade & rear counterweight	Front counterweight & rear ripper	Front blade & rear ripper	Front & rear counterweight	Front blade & rear counterweight	Front counterweight & rear ripper	Front blade & rear ripper
Total length	mm	7697	8372	8331	8961	8592	9317	9285	10044
Wheelbase	mm	5351	5351	5351	5351	6023	6023	6023	6023
Rear attachment end	mm	1605	1605	1605	1605	1785	1785	2458	2458
Front attachment end	mm	762	1436	762	1436	809	1568	809	1568
Tandem base	mm	1241	1241	1241	1241	1572	1572	1572	1572
Standard cab height	mm	3240	3240	3240	3240	3330	3330	3330	3330
Low profile cab height	mm	3060	3060	3060	3060	3150	3150	3150	3150
Max machine height	mm	3586	3586	3586	3586	3674	3674	3674	3674
Width over tyres	mm	2303	2303	2360	2360	2549	2549	2555	2555
Blade base	mm	1997	1997	1997	1997	2504	2504	2504	2504

Dimensions referred to a machine equipped with 405/70R20 tires.

Machine height and width over tires may vary with other tires.

Dimensions referred to a machine equipped with 17.5R25EM tires.

Hydraulically controlled front dozer blade		836C / 836C AWD	856C / 856C AWD
Blade width	mm	2350	2450
Blade height	mm	765	870
Penetration depth	mm	136	174
Max. ground clearance	mm	509	547

Hydraulically controlled rear ripper for heavy duty applications		836C / 836C AWD	856C / 856C AWD
Ripping width	mm	2049	2268
Ripping depth	mm	310	371
Number of shanks	mm	3 / 5	3 / 5
Interval of shanks	mm	1000 / 500	1110 / 555

The movable moldboard scarifier can be operated in both directions		836C / 836C AWD	856C / 856C AWD
Number of shanks	n°	4	6
Scarifying width	mm	900	1080

Ripping track displacement		836C / 836C AWD	856C / 856C AWD
Left	mm	420	580
Right	mm	950	1200
Scarifying depth	mm	134	202