



Fendt 828 Vario

Datasheet DLG PowerMix

Applicant

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Test performed by

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Test No.

11-033



February 2011
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Specifications

Engine	
Manufacturer	Deutz AG
Standard of emission*	III B
Exhaust aftertreatment	
– NOx-Emission	SCR
– Particulate-Emission	–
Exhaust gas recuperation	without AGR
Number of cylinders*	6
Bore*	101 mm
Stroke*	126 mm
Displacement*	6056 cm ³
Rated speed*	2100 min ⁻¹
Power (ECE R120)*	
– Rated power	191 kW
– Maximum power	206 kW
– Engine speed at maximum power	1700 min ⁻¹
Main fan	
– Diameter	650 mm
– Number of fan blades	9

Transmission	
Manufacturer	AGCO Fendt
Type of construction	CVT
Ranges	–
Gears	
– forward	–
– reverse	–
Design speed*	60 km/h

Power Take Off				
Profile	PTO shaft changeable			
Transmission ratio*				
– Standard pto speed	540	540E	1000	1000E
– Engine speed	– min ⁻¹	– min ⁻¹	1882 min ⁻¹	1579 min ⁻¹

Chassis			
Front axle			
– Manufacturer	DANA		
– Type	rigid axle, suspended		
Tires		front	rear
– Manufacturer/Model	Michelin MultiBib	Michelin MachXBib	
– Tire size	540/65 R34	650/85 R38	
Axle load		front	rear
– Permissible*	6500 kg	10500 kg	14000 kg
– Empty weight	3620 kg	5610 kg	9230 kg

Hydraulic	
Sytem*	pressure and flow controlled Load-Sensingsystem
Fluid type*	HD SAE 10 W 40
Capacity*	102 l
Extractable*	80 l
Auxiliary valves	
– Number	8
– Max. flowrate*	140 l/min
Max. pressure	200 bar

Fitted options	
Free return flow	yes
Air condition	yes
Air compressor	no
Front hydraulic power lift	yes
Front pto	no

Test conditions

Axle load with ballast	front	rear
Axle load	4840 kg	6760 kg
Ballast		
– on frame	1250 kg	1015 kg
– on axle	– kg	– kg
Axle load distribution	42 %	58 %

Tire pressure	front	rear
	1,2 bar	1,2 bar

* Manufacturer's data

Results of measurement at pto dynamometer

Full load

Rated speed	
– Pto power	179.2 kW
– Absolute fuel consumption	40.7 kg/h
– Spec. fuel consumption	227 g/kWh
– Spec. AdBlue consumption	21 g/kWh
– Ratio AdBlue to fuel	7.1 Vol-%

Maximum power

– Engine speed	1700 min ⁻¹
– Pto power	196.3 kW
– Absolute fuel consumption	42.6 kg/h
– Spec. fuel consumption	217 g/kWh
– Spec. AdBlue consumption	18 g/kWh
– Ratio AdBlue to fuel	6.6 Vol-%

1000 rpm at pto

– Engine speed	1882 min ⁻¹
– Pto power	193.8 kW
– Absolute fuel consumption	42.5 kg/h
– Spec. fuel consumption	219 g/kWh
– Spec. AdBlue consumption	17 g/kWh
– Ratio AdBlue to fuel	6.2 Vol-%

Part load

Full throttle, 80% of power at rated speed	
– Absolute fuel consumption	33.7 kg/h
– Spec. fuel consumption	235 g/kWh
– Spec. AdBlue consumption	23 g/kWh
– Ratio AdBlue to fuel	7.6 Vol-%

90% of rated speed, 80% of power at rated speed

– Absolute fuel consumption	31.5 kg/h
– Spec. fuel consumption	220 g/kWh
– Spec. AdBlue consumption	22 g/kWh
– Ratio AdBlue to fuel	7.7 Vol-%

90% of rated speed, 40% of power at rated speed

– Absolute fuel consumption	17.6 kg/h
– Spec. fuel consumption	245 g/kWh
– Spec. AdBlue consumption	26 g/kWh
– Ratio AdBlue to fuel	8.3 Vol-%

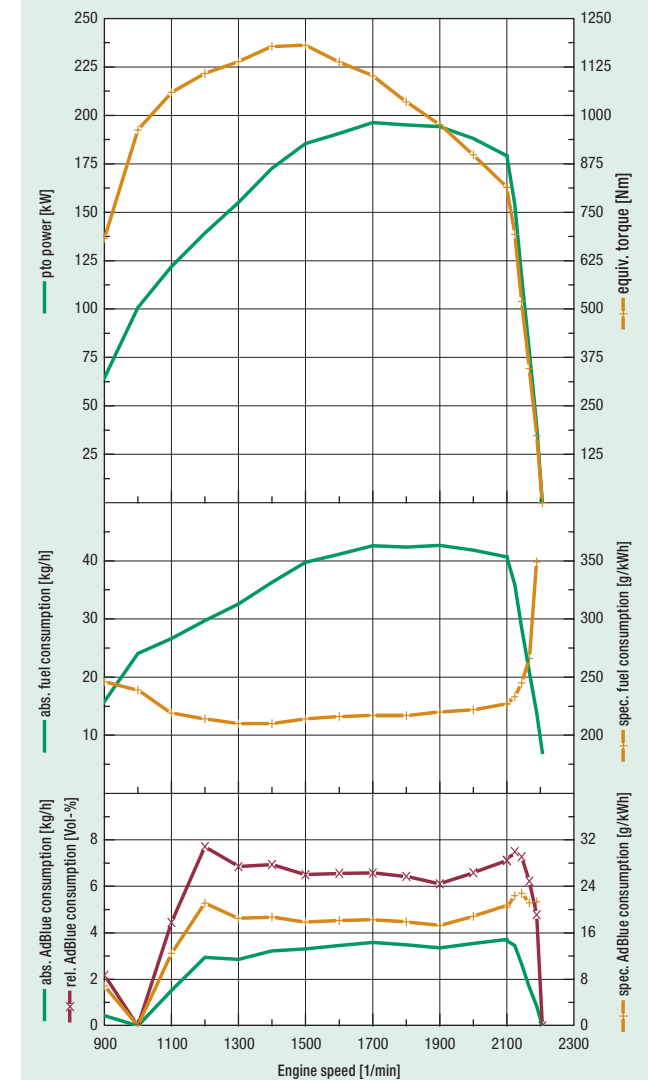
60% of rated speed, 40% of power at rated speed

– Absolute fuel consumption	15.6 kg/h
– Spec. fuel consumption	217 g/kWh
– Spec. AdBlue consumption	20 g/kWh
– Ratio AdBlue to fuel	7 Vol-%

60% of rated speed, 60% of power at rated speed

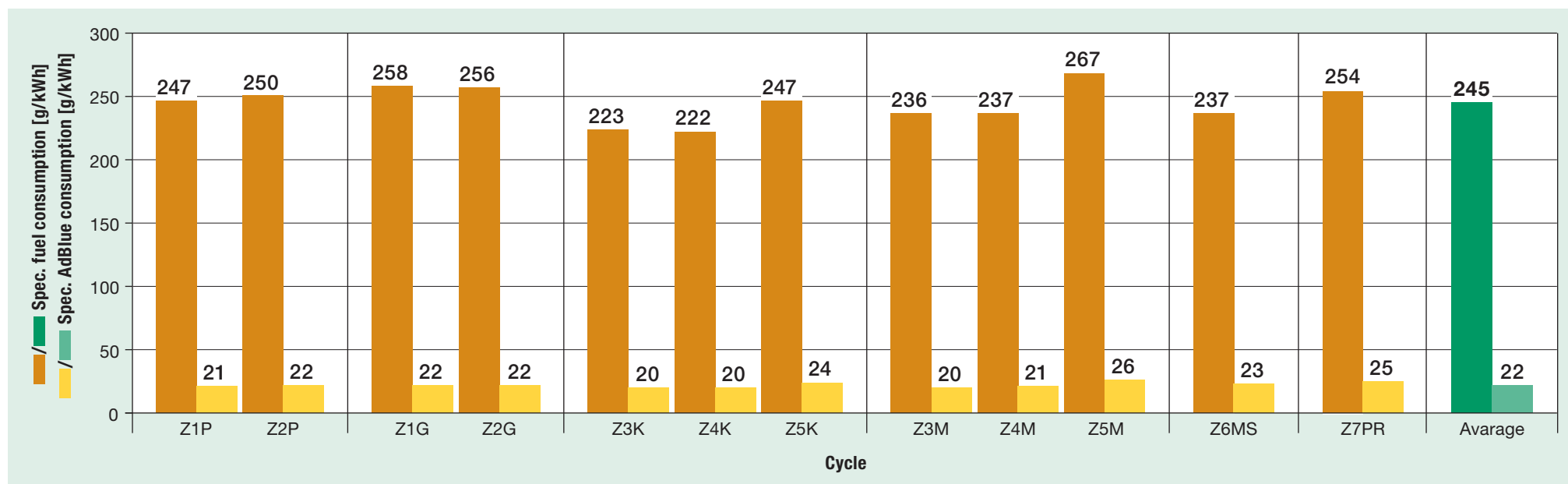
– Absolute fuel consumption	22.7 kg/h
– Spec. fuel consumption	211 g/kWh
– Spec. AdBlue consumption	19 g/kWh
– Ratio AdBlue to fuel	7.1 Vol-%

Graphical analysis



Torque rise	45 %
Engine speed drop	29 %
Pulling off torque	118 %

Results of DLG PowerMix



Main focus	Cycle		Average Value				
			Engine speed	Driving speed	Spec. fuel consumption	Spec. AdBlue consumption	Ratio AdBlue to fuel
Drawbar work	Plough 100 %	Z1P	1342 min ⁻¹	6.7 km/h	247 g/kWh	21 g/kWh	6.6 Vol-%
	Plough 60 %	Z2P	1350 min ⁻¹	8.6 km/h	250 g/kWh	22 g/kWh	6.7 Vol-%
	Cultivator 100 %	Z1G	1747 min ⁻¹	9.5 km/h	258 g/kWh	22 g/kWh	6.4 Vol-%
	Cultivator 60 %	Z2G	1312 min ⁻¹	11.2 km/h	256 g/kWh	22 g/kWh	6.7 Vol-%
Pto work	Rotary harrow 100 %	Z3K	1625 min ⁻¹	5.7 km/h	223 g/kWh	20 g/kWh	6.8 Vol-%
	Rotary harrow 70 %	Z4K	1393 min ⁻¹	5.8 km/h	222 g/kWh	20 g/kWh	7 Vol-%
	Rotary harrow 40 %	Z5K	1412 min ⁻¹	5.8 km/h	247 g/kWh	24 g/kWh	7.4 Vol-%
	Mower 100 %	Z3M	1587 min ⁻¹	14.8 km/h	236 g/kWh	20 g/kWh	6.3 Vol-%
	Mower 70 %	Z4M	1395 min ⁻¹	15.4 km/h	237 g/kWh	21 g/kWh	6.8 Vol-%
	Mower 40 %	Z5M	1408 min ⁻¹	15.4 km/h	267 g/kWh	26 g/kWh	7.2 Vol-%
Hydraulic work	Manure spreader	Z6MS	1542 min ⁻¹	6.7 km/h	237 g/kWh	23 g/kWh	7.4 Vol-%
	Baler	Z7PR	1544 min ⁻¹	9.6 km/h	254 g/kWh	25 g/kWh	7.4 Vol-%
Total average at DLG PowerMix					245 g/kWh	22 g/kWh	6.9 Vol-%