



# CLAAS AXION 950 CMATIC

## Datasheet DLG PowerMix

### Applicant

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### Test performed by

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### Test No.

2012-279



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## Specifications

Engine			
Manufacturer	FPT (Cursor 9)		
Stage of emission	III B		
Exhaust aftertreatment device			
Nitrous gaseous emission	Selective Catalytic Reduction (SCR)		
Particulate matter emission	-		
Time for regeneration DPF (average)	-**	min	
Time between regeneration:			
- maximum*	-**	h	
- under PowerMix conditions*	-**	h	
- checked	-**		
Exhaust gas recuperation			
	-		
Number of cylinders*			
	6		
Bore*		117	mm
Stroke*		135	mm
Displacement*		8710	cm <sup>3</sup>
Rated speed*		2150	min <sup>-1</sup>
Power by*		ECE R24	standard
Rated power	272	kW	- kW
Maximum power	287	kW	- kW
at engine speed	1800	min <sup>-1</sup>	- min <sup>-1</sup>
Loss of power during regeneration	-**		
Main fan			
Diameter	760	mm	
Number of fan blades	11		
Transmission			
Manufacturer	ZF (Ecom 3.0)		
Type of construction	Continuous		
Ranges			
	-		
Gears			
Forward	-		
Reverse	-		
Design speed		40	km/h

Power take off				
Profile	Form 3: 20 tooth (1 3/4")			
Transmission ratio*				
Standard pto speed	540	540E	1000	1000E
Engine speed [min <sup>-1</sup> ]	-	-	1890	1600
Chassis				
Front axle				
Manufacturer	Dana			
Type	Rigid axle, suspended			
Tires		front	rear	
Manufacturer	Michelin AXIOBIB		Michelin AXIOBIB	
Tire size	620/75 R30		710/75 R42	
Axle load		front	rear	total
Permissible*	9000 kg		11500 kg	18000 kg
Empty weight	5780 kg		7280 kg	13060 kg
Hydraulic				
System*	Load Sensing PFC (Pressure and Flow Compensated)			
Supply of oil	Common with transmission oil			
Fluid type*	CLAAS AGRISHIFT GA12			
Capacity*	105		l	
Extractable*	60		l	
Auxiliary valves				
Number	8			
Max. flowrate*	150		l/min	
Max. pressure*	200		bar	
Fitted options				
Free return flow	Yes			
Air condition	Yes			
Air compressor	Yes			
Front hydraulic power lift	Yes			
Front pto	No			
	-			
	-			

## Test conditions

Axle load	front	rear
With ballast	6105 kg	8480 kg
Ballast		
on frame	450 kg	1025 kg
on axle	- kg	- kg
Axle load distribution		
	42 %	58 %
Tire pressure		
	front	rear
	1,2 bar	1,2 bar

## Remarks

\* Manufacturer's data

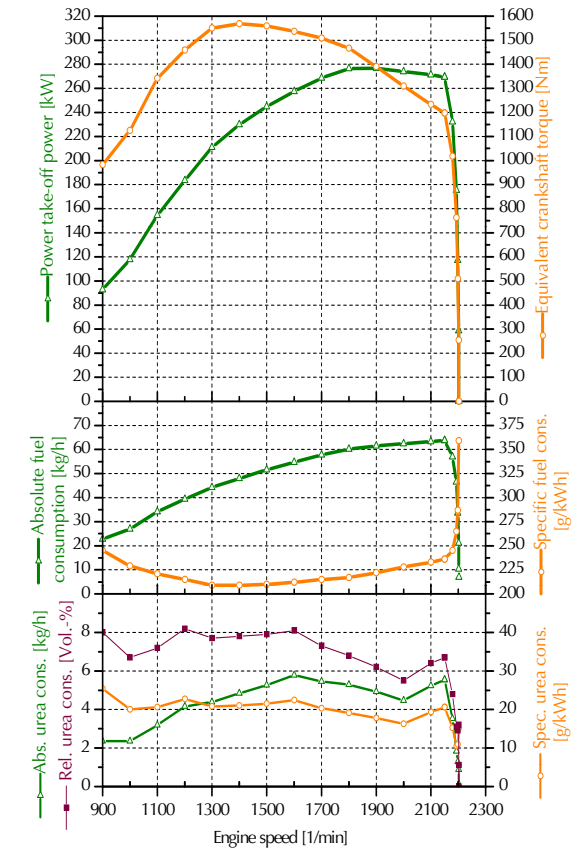
\*\* No Diesel-Particulate-Filter (DPF)

# Results of measurement at pto dynamometer – standard

Full load	
<b>Rated speed</b>	
Pto power	269,5 kW
Absolute fuel consumption	63,7 kg/h
Specific fuel consumption	236 g/kWh
Specific urea consumption	20,6 g/kWh
Ratio urea to fuel	6,7 Vol-%
<b>Maximum power</b>	
Engine speed	1900 min <sup>-1</sup>
Pto power	276,7 kW
Absolute fuel consumption	61,5 kg/h
Specific fuel consumption	222 g/kWh
Specific urea consumption	17,8 g/kWh
Ratio urea to fuel	6,2 Vol-%
<b>Maximum torque</b>	
Engine speed	1400 min <sup>-1</sup>
Pto power	229,9 kW
Absolute fuel consumption	48,0 kg/h
Specific fuel consumption	209 g/kWh
Specific urea consumption	21,0 g/kWh
Ratio urea to fuel	7,8 Vol-%
<b>1000 rpm at pto</b>	
Engine speed	1890 min <sup>-1</sup>
Pto power	276,6 kW
Absolute fuel consumption	61,4 kg/h
Specific fuel consumption	222 g/kWh
Specific urea consumption	17,9 g/kWh
Ratio urea to fuel	6,2 Vol-%

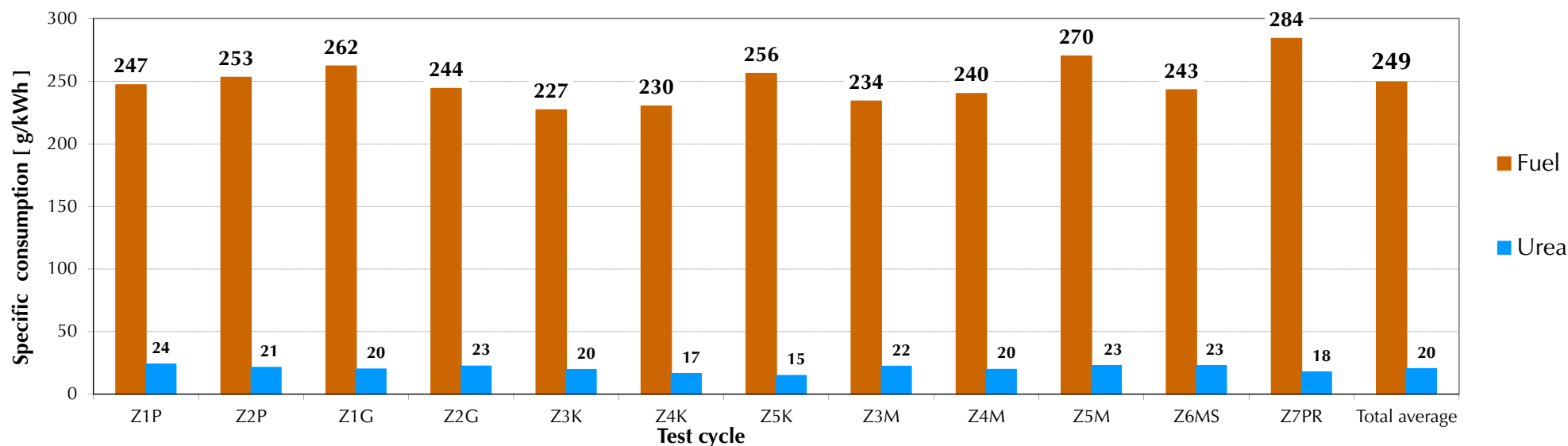
Part load	
<b>Full throttle, 80 % of power at rated speed</b>	
Absolute fuel consumption	54,2 kg/h
Specific fuel consumption	251 g/kWh
Specific urea consumption	12,7 g/kWh
Ratio urea to fuel	3,9 Vol-%
<b>90 % of rated speed, 80 % of power at rated speed</b>	
Absolute fuel consumption	49,7 kg/h
Specific fuel consumption	230 g/kWh
Specific urea consumption	16,8 g/kWh
Ratio urea to fuel	5,6 Vol-%
<b>90 % of rated speed, 40 % of power at rated speed</b>	
Absolute fuel consumption	28,1 kg/h
Specific fuel consumption	260 g/kWh
Specific urea consumption	15,2 g/kWh
Ratio urea to fuel	4,5 Vol-%
<b>60 % of rated speed, 40 % of power at rated speed</b>	
Absolute fuel consumption	24,1 kg/h
Specific fuel consumption	223 g/kWh
Specific urea consumption	21,4 g/kWh
Ratio urea to fuel	7,4 Vol-%
<b>60 % of rated speed, 60 % of power at rated speed</b>	
Absolute fuel consumption	34,5 kg/h
Specific fuel consumption	214 g/kWh
Specific urea consumption	17,4 g/kWh
Ratio urea to fuel	6,3 Vol-%

## Graphical analysis



<b>Torque rise</b>	31 %
<b>Engine speed drop</b>	35 %
<b>Pulling off torque</b>	94 %

## Results at DLG PowerMix



Load type	Test cycle		Engine speed [min <sup>-1</sup> ]	Driving speed [km/h]	Total power [kW]	Absolute fuel consumption		Average values			Relative additional fuel for DPF regeneration* [%]	Calculated spec. Fuel cons. with DPF regeneration** [g/kWh]
						[kg/h]	[l/h]	Specific fuel consumption [g/kWh]	Spec. urea cons. [g/kWh]	Ratio urea to fuel [Vol-%]		
<b>Drawbar work</b>	Plough 100 %	Z1P	1410	6,9	192	47,1	55,9	247	24	7,5	No DPF	No DPF
	Plough 60 %	Z2P	1262	8,5	144	36,3	43,2	253	21	6,5	No DPF	No DPF
	Cultivator 100 %	Z1G	1853	9,4	225	58,3	69,7	262	20	5,9	No DPF	No DPF
	Cultivator 60%	Z2G	1294	11,2	162	39,4	47,2	244	23	7,1	No DPF	No DPF
<b>Drawbar + PTO work</b>	Rotary harrow 100 %	Z3K	1669	5,5	229	51,2	61,2	227	20	6,7	No DPF	No DPF
	Rotary harrow 70 %	Z4K	1441	5,8	166	37,6	44,9	230	17	5,5	No DPF	No DPF
	Rotary harrow 40 %	Z5K	1441	5,9	95	23,9	28,6	256	15	5,0	No DPF	No DPF
	Mower 100 %	Z3M	1653	14,3	229	53,6	64,2	234	22	7,3	No DPF	No DPF
	Mower 70 %	Z4M	1440	15,7	172	41,3	49,4	240	20	6,4	No DPF	No DPF
	Mower 40 %	Z5M	1441	15,7	99	26,7	32,0	270	23	6,5	No DPF	No DPF
<b>Drawbar- + PTO + Hydraulic work</b>	Manure spreader	Z6MS	1576	6,5	181	43,2	51,6	243	23	7,2	No DPF	No DPF
	Baler	Z7PR	1894	9,7	158	42,5	51,0	284	18	4,9	No DPF	No DPF
<b>Total average DLG PowerMix</b>								<b>249</b>	<b>20</b>	<b>6,4</b>	<b>No DPF</b>	<b>No DPF</b>

\* Ratio of additional fuel for regeneration to total fuel consumption during two regenerations; calculated with maximum operating hours during regeneration (see Specification-Engine)