New Holland T7.315 AutoCommand

Datasheet DLG PowerMix

Applicant
CNH Industrial Austria GmbH
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Austria
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Test performed by
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Specifications

Engine

Manufacturer	**FPT**		
Stage of emission	**IV**		
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*	**104**	**mm**	
Stroke*	**132**	**mm**	
Displacement*	**6728**	**cm³**	
Rated speed	**2100**	**min^{-1}**	

Power by ECE R 120	**standard**	**boost**
Rated power	221 kW	- kW
Maximum power	230 kW	- kW
at engine speed	1800 min^{-1}	- min^{-1}
Loss of power during regeneration	-**	

Main fan		
Diameter	660	mm
Number of fan blades	9	

Transmission

Manufacturer	**CNH Industrial**
Type of construction	**Continous variable Transmission**
Ranges	**FWD 4 / Rev 2**
Gears	
Forward	_
Reverse	_
Design speed	**50 km/h**

Power take off

Profile	**Form 3: 20 tooth (1 ¾")**			
Transmission ratio*				
Standard pto speed	540	540E	1000	1000E
Engine speed [min^{-1}]	1931	1598	1853	1583

Chassis

Front axle		
Manufacturer	CNH Industrial	
Type	Rigid axle, suspended	

Tires	**front**	**rear**
Manufacturer	Michelin AXIOBIB	Michelin AXIOBIB
Tire size	IF 650/60 R34	IF 710/75 R42

Axle load	**front**	**rear**	**total**
Permissible*	7500 kg	11600 kg	16000 kg
Empty weight	5040 kg	6345 kg	11385 kg

Hydraulic

System*	**Load Sensing CCLS (Pressure and Flow Compensated)**	
Supply of oil	**Common with transmission oil**	
Fluid type*	**MAT 3525**	
Capacity*	**148**	**l**
Extractable*	**70**	**l**
Auxiliary valves		
Number	5	
Max. flowrate*	220	l/min
Max. pressure*	**215**	**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	**5400 kg**	**7600 kg**
Ballast		
on frame	870 kg	950 kg
on axle	- kg	- kg
Axle load distribution	**42 %**	**58 %**
Tire pressure	**front**	**rear**
	1,2 **bar**	1,2 **bar**

Remarks

* Manufacturer´s data

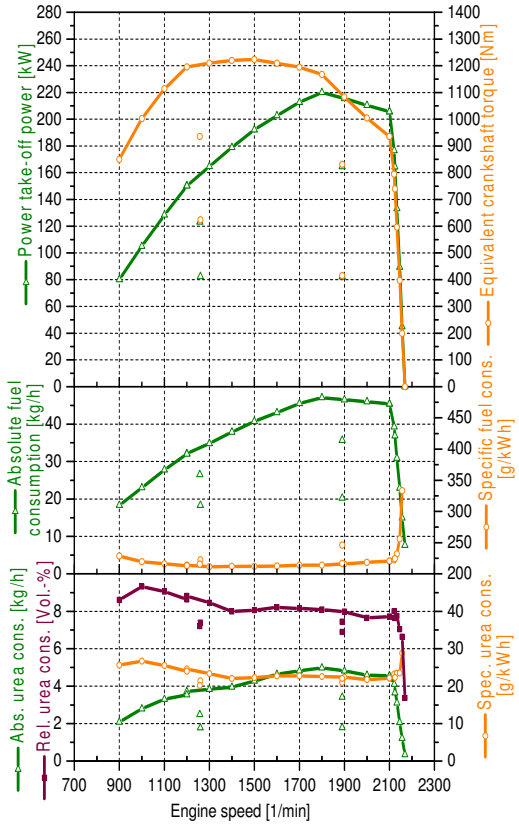
** No Diesel-Particulate-Filter (DPF)

Results of measurement at pto dynamometer – standard

Full load	
Rated speed	
Pto power	205,7 kW
Absolute fuel consumption	45,4 kg/h
Specific fuel consumption	221 g/kWh
Specific urea consumption	22,1 g/kWh
Ratio urea to fuel	7,7 Vol-%
Maximum power	
Engine speed	1800 min^{-1}
Pto power	220,1 kW
Absolute fuel consumption	47,1 kg/h
Specific fuel consumption	214 g/kWh
Specific urea consumption	22,6 g/kWh
Ratio urea to fuel	8,1 Vol-%
Maximum torque	
Engine speed	1500 min^{-1}
Pto power	192,1 kW
Absolute fuel consumption	40,7 kg/h
Specific fuel consumption	212 g/kWh
Specific urea consumption	22,3 g/kWh
Ratio urea to fuel	8,1 Vol-%
1000 rpm at pto	
Engine speed	1853 min^{-1}
Pto power	218,2 kW
Absolute fuel consumption	46,9 kg/h
Specific fuel consumption	215 g/kWh
Specific urea consumption	22,7 g/kWh
Ratio urea to fuel	8,1 Vol-%

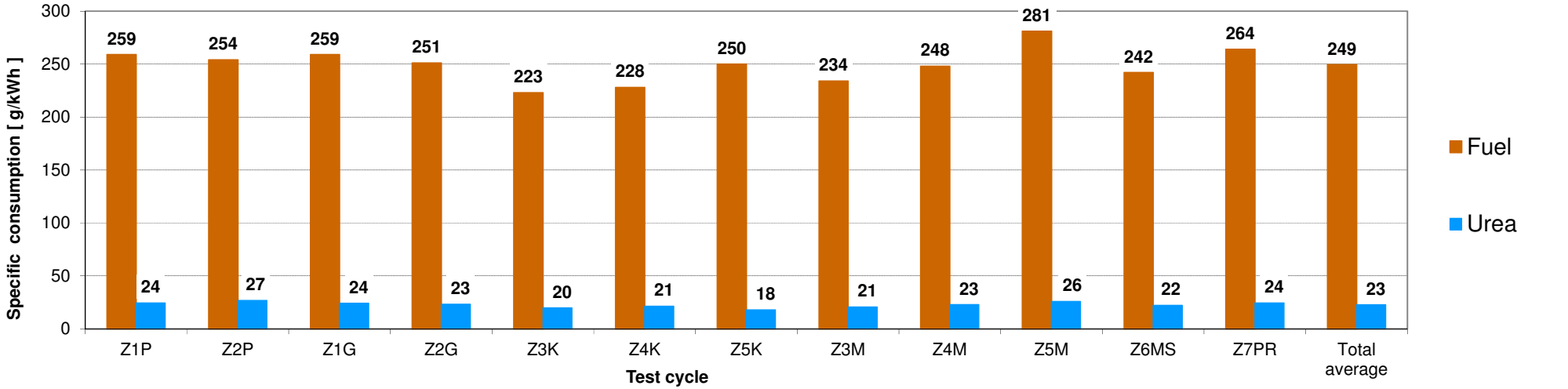
Part load	
Full throttle, 80 % of power at rated speed	
Absolute fuel consumption	36,9 kg/h
Specific fuel consumption	224 g/kWh
Specific urea consumption	22,3 g/kWh
Ratio urea to fuel	7,6 Vol-%
90 % of rated speed, 80 % of power at rated speed	
Absolute fuel consumption	35,7 kg/h
Specific fuel consumption	217 g/kWh
Specific urea consumption	21,0 g/kWh
Ratio urea to fuel	7,4 Vol-%
90 % of rated speed, 40 % of power at rated speed	
Absolute fuel consumption	20,2 kg/h
Specific fuel consumption	246 g/kWh
Specific urea consumption	22,1 g/kWh
Ratio urea to fuel	6,9 Vol-%
60 % of rated speed, 40 % of power at rated speed	
Absolute fuel consumption	18,3 kg/h
Specific fuel consumption	222 g/kWh
Specific urea consumption	21,4 g/kWh
Ratio urea to fuel	7,4 Vol-%
60 % of rated speed, 60 % of power at rated speed	
Absolute fuel consumption	26,5 kg/h
Specific fuel consumption	215 g/kWh
Specific urea consumption	20,2 g/kWh
Ratio urea to fuel	7,2 Vol-%

Graphical analysis



Torque rise	31 %
Engine speed drop	29 %
Pulling off torque	107 %

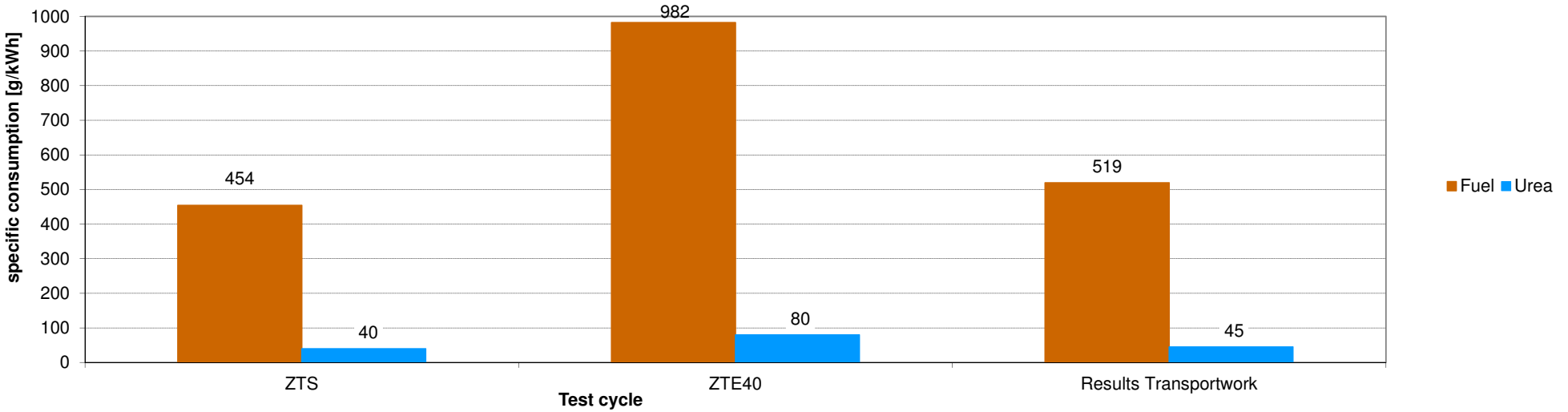
Results at DLG PowerMix



Load type	Test cycle		Engine speed [min^{-1}]	Driving speed [km/h]	Total power [kW]	Average values: Absolute fuel consumption [kg/h]	Absolute fuel consumption [l/h]	Specific fuel consumption [g/kWh]	Spec. urea cons. [g/kWh]	Ratio urea to fuel [Vol-%]	Relative additional fuel for DPF regeneration* [%]	Calculated spec. Fuel cons. with DPF regeneration** [g/kWh]
Drawbar work	Plough 100 %	Z1P	1567	7,2	158	40,9	49,6	259	24	7,2	No DPF	No DPF
	Plough 60 %	Z2P	1294	8,7	118	29,8	35,9	254	27	8,0	No DPF	No DPF
	Cultivator 100 %	Z1G	1715	9,4	173	44,6	53,3	259	24	7,1	No DPF	No DPF
	Cultivator 60%	Z2G	1466	11,7	136	33,8	40,6	251	23	7,1	No DPF	No DPF
Drawbar + PTO work	Rotary harrow 100 %	Z3K	1618	5,4	180	39,6	47,8	223	20	6,8	No DPF	No DPF
	Rotary harrow 70 %	Z4K	1429	5,8	133	29,9	36,1	228	21	7,2	No DPF	No DPF
	Rotary harrow 40 %	Z5K	1429	5,8	76	18,6	22,5	250	18	5,4	No DPF	No DPF
	Mower 100 %	Z3M	1608	14,2	180	42,2	51,2	234	21	6,7	No DPF	No DPF
	Mower 70 %	Z4M	1389	15,8	132	32,7	39,5	248	23	7,0	No DPF	No DPF
	Mower 40 %	Z5M	1406	15,9	76	21,2	25,7	281	26	7,0	No DPF	No DPF
Drawbar- + PTO + Hydraulic work	Manure spreader	Z6MS	1574	6,4	144	34,4	41,6	242	22	6,9	No DPF	No DPF
	Baler	Z7PR	1577	9,5	123	31,3	37,9	264	24	7,0	No DPF	No DPF
Total average DLG PowerMix								**249**	**23**	**7,0**	**No DPF**	**No DPF**

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

Results DLG-PowerMix - Transport work



Load type	Test cycle		Engine speed [min^{-1}]	Driving speed [km/h]	Total power [kW]	Absolute fuel consumption [kg/h]	[l/h]	Specific fuel consumption [g/kWh]	Spec. urea cons. [g/kWh]	Ratio urea to fuel [Vol-%]	Relative additional fuel for DPF regeneration** [%]	Calculated spec. Fuel cons. with DPF regeneration** [g/kWh]
			Average values									
Transportwork	only hill section	ZTS	1673	36,8	97	44,2	53,0	454	40	7,0	*)	*)
	flat section 40 km/h	ZTE40	1418	41,0	18	17,7	21,4	982	80	6,6	*)	*)
Idle * **		ZLL	842	-	-	1,8	2,2	-	-	-	-	-
Result DLG-PowerMix - Transporttest flat section with 40 km/h (50 % ZTS : 40 % ZTE40 : 10 % ZLL) ****								**519**	**45**	**6,7**	***)**	***)**

Optional tests (e.g. ZTS with reduced (R) engine speed, flat section with additional speed settings)												
Transportwork	only hill section	ZTSR	-	-	-	-	-	-	-	-	-	-
	flat section 50 km/h	ZTE50	1602	51,0	25	24,1	29,0	978	81	6,3	*)	*)
	flat section 60 km/h	ZTE60	-	-	-	-	-	-	-	-	-	-
Optional results based on	**hill section with reduced engine speed ZTSR (50 % ZTSR : 40 % ZTE40 : 10 % ZLL)** ****							**-**	**-**	**-**	***)**	***)**
	flat section with 50 km/h ZTE50 (50 % ZTS : 40 % ZTE50 : 10 % ZLL) ****							**524**	**45**	**6,7**	***)**	***)**
	flat section with 60 km/h ZTE60 (50 % ZTS : 40 % ZTE60 : 10 % ZLL) ****							**-**	**-**	**-**	***)**	***)**

* No activ regenerating diesel-particel-filter (DPF)

** Relation of additional fuel consumption caused by regeneration to conventional fuel consumption within two regeneration cycles; calculated for the maximum regeneration interval (see technical data - engine)

** * 70 % in parking position w/o driver, 30 % w/ inserted drive position and w/ driver, e.g. waiting at traffic lights

** ** single results are weighted as follows: 50 % ZTS, 40 % ZTE und 10 % ZLL
The fuel consumption in cycle ZLL is taken into the final result by a calculation based on the real measured fuel consumption during the test.