



# New Holland T7.270 Auto Command

## Datasheet DLG PowerMix

### Applicant

New Holland Agricultural  
Equipment SpA  
Via Plava 80  
I-10135 Torino  
[www.newholland.com](http://www.newholland.com)

### Test performed by

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### Test No.

10-268



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## Specifications

Engine		
<b>Manufacturer</b>	CNH/FPT	
<b>Standard of emission*</b>	III B	
<b>Exhaust aftertreatment</b>		
– NO <sub>x</sub> -Emission	SCR	
– Particulate-Emission	–	
<b>Exhaust gas recuperation</b>	without EGR	
<b>Number of cylinders*</b>	6	
<b>Bore*</b>	104 mm	
<b>Stroke*</b>	132 mm	
<b>Displacement*</b>	6728 cm <sup>3</sup>	
<b>Rated speed*</b>	2200 min <sup>-1</sup>	
<b>Power (ECE R120)*</b>	<b>w/o Boost</b>	<b>with Boost</b>
– Rated power	168 kW	192 kW
– Maximum power	183 kW	198 kW
– Engine speed at maximum power	1800 min <sup>-1</sup>	1800 min <sup>-1</sup>
<b>Main fan</b>		
– Diameter	620 mm	
– Number of fan blades	9	

Transmission	
<b>Manufacturer</b>	CNH
<b>Type of construction</b>	CVT
<b>Ranges</b>	4
<b>Gears</b>	
– forward	–
– reverse	–
<b>Design speed*</b>	50 km/h

Power Take Off				
<b>Profile</b>	21 splines (1 3/8")			
<b>Transmission ratio*</b>				
– Standard pto speed	540	540E	1000	1000E
– Engine speed	– min <sup>-1</sup>	– min <sup>-1</sup>	1893 min <sup>-1</sup>	1700 min <sup>-1</sup>

Chassis			
<b>Front axle</b>			
– Manufacturer	CNH		
– Type	rigid axle, suspended		
<b>Tires</b>			
	<b>front</b>	<b>rear</b>	
– Manufacturer/Model	Continental Contract AC 65	Continental Contract AC 65	
– Tire size	540/65 R30	650/65 R42	
<b>Axle load</b>			
	<b>front</b>	<b>rear</b>	<b>total</b>
– Permissible*	6000 kg	9500 kg	13000 kg
– Empty weight	3480 kg	4990 kg	8470 kg

Hydraulic	
<b>Sytem*</b>	Closed center, common supply of oil
<b>Fluid type*</b>	Ambra Multi G (NH 410 B), 10W-30
<b>Capacity*</b>	84 l
<b>Extractable*</b>	33 l
<b>Auxiliary valves</b>	
– Number	4
– Max. flowrate*	150 l/min
<b>Max. pressure</b>	210 bar

Fitted options	
<b>Free return flow</b>	yes
<b>Air condition</b>	yes
<b>Air compressor</b>	yes
<b>Front hydraulic power lift</b>	no
<b>Front pto</b>	no

## Test conditions

Axle load with ballast	front	rear
<b>Axle load</b>	3910 kg	6500 kg
<b>Ballast</b>		
– on frame	990 kg	950 kg
– on axle	– kg	– kg
<b>Axle load distribution</b>	38 %	62 %

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

\* Manufacturer's data

## Results of measurement at pto dynamometer – without boost

Full load	
<b>Rated speed</b>	
– Pto power	148,6 kW
– Absolute fuel consumption	35,3 kg/h
– Spec. fuel consumption	238 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

Maximum power	
– Engine speed	1800 min <sup>-1</sup>
– Pto power	166,6 kW
– Absolute fuel consumption	37,1 kg/h
– Spec. fuel consumption	223 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

1000 rpm at pto	
– Engine speed	1900 min <sup>-1</sup>
– Pto power	163,0 kW
– Absolute fuel consumption	36,9 kg/h
– Spec. fuel consumption	226 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

Part load	
<b>Full throttle, 80% of power at rated speed</b>	
– Absolute fuel consumption	30,0 kg/h
– Spec. fuel consumption	252 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

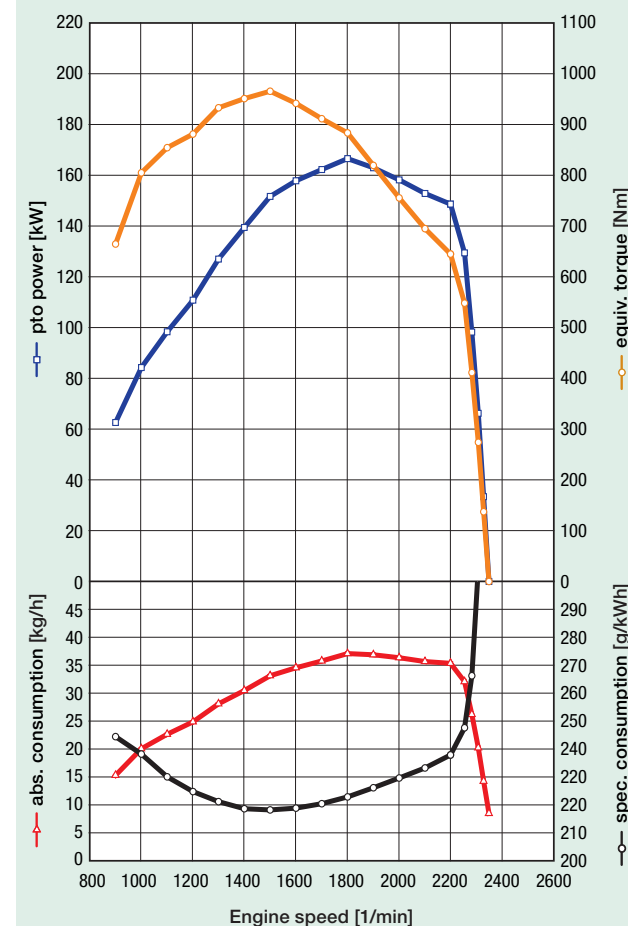
90% of rated speed, 80% of power at rated speed	
– Absolute fuel consumption	28,1 kg/h
– Spec. fuel consumption	237 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

90% of rated speed, 40% of power at rated speed	
– Absolute fuel consumption	16,9 kg/h
– Spec. fuel consumption	284 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

60% of rated speed, 40% of power at rated speed	
– Absolute fuel consumption	14,4 kg/h
– Spec. fuel consumption	242 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

60% of rated speed, 60% of power at rated speed	
– Absolute fuel consumption	20,2 kg/h
– Spec. fuel consumption	226 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

### Graphical analysis



<b>Torque rise</b>	50 %
<b>Engine speed drop</b>	32 %
<b>Pulling off torque</b>	125 %

AdBlue consumption relative to fuel consumption during test at pto dynamometer: 6,0 %

\* Measuring system under construction.

## Results of measurement at pto dynamometer – with boost

Full load	
Rated speed	
– Pto power	167,9 kW
– Absolute fuel consumption	39,5 kg/h
– Spec. fuel consumption	235 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

Maximum power	
– Engine speed	1900 min <sup>-1</sup>
– Pto power	177,7 kW
– Absolute fuel consumption	40,0 kg/h
– Spec. fuel consumption	225 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

1000 rpm at pto	
– Engine speed	1900 min <sup>-1</sup>
– Pto power	177,7 kW
– Absolute fuel consumption	40,0 kg/h
– Spec. fuel consumption	225 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

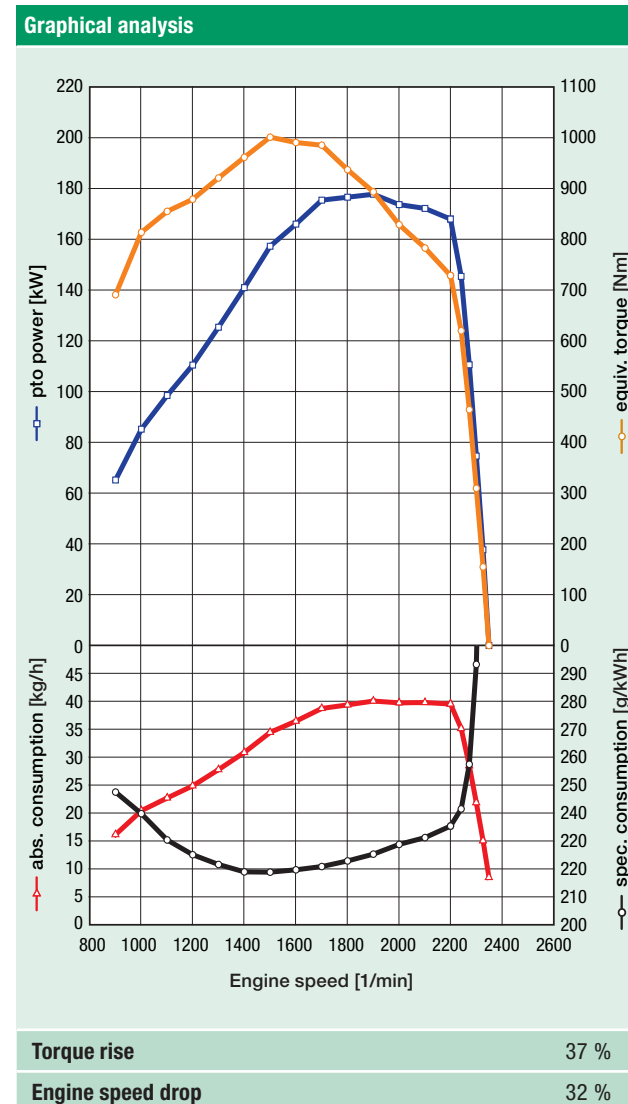
Part load	
Full throttle, 80% of power at rated speed	
– Absolute fuel consumption	33,0 kg/h
– Spec. fuel consumption	246 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

90% of rated speed, 80% of power at rated speed	
– Absolute fuel consumption	31,3 kg/h
– Spec. fuel consumption	233 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

90% of rated speed, 40% of power at rated speed	
– Absolute fuel consumption	18,3 kg/h
– Spec. fuel consumption	273 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

60% of rated speed, 40% of power at rated speed	
– Absolute fuel consumption	16,0 kg/h
– Spec. fuel consumption	238 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %

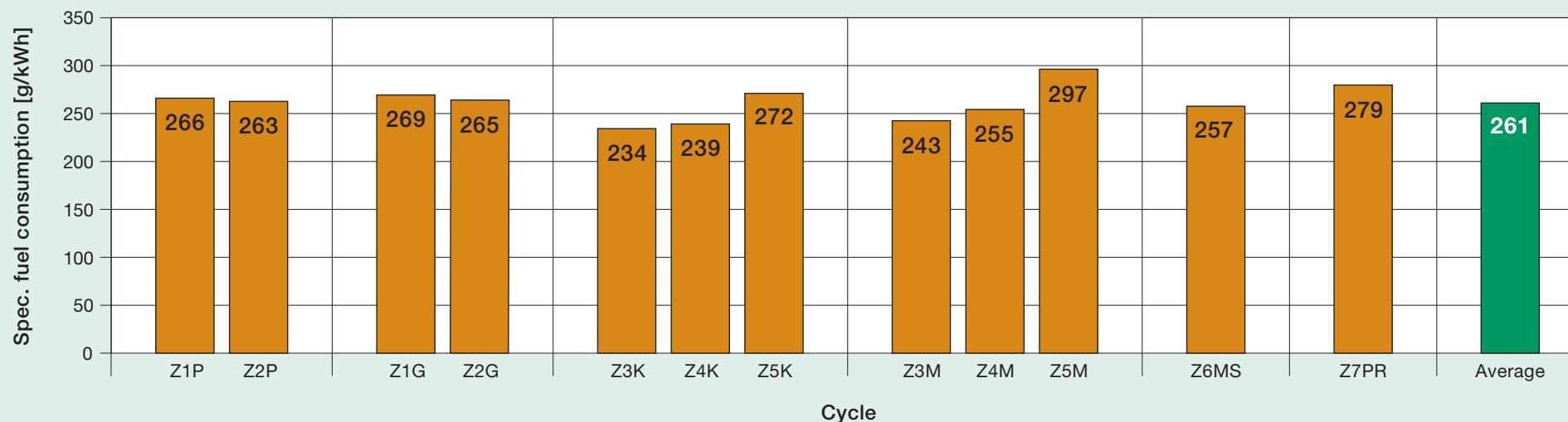
60% of rated speed, 60% of power at rated speed	
– Absolute fuel consumption	22,6 kg/h
– Spec. fuel consumption	224 g/kWh
– Spec. AdBlue consumption	–* g/kWh
– Percentage AdBlue to fuel	–* %



AdBlue consumption relative to fuel consumption during test at pto dynamometer: 6,1 %

\* Measuring system under construction.

## 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	1510 min <sup>-1</sup>	7,2 km/h	266 g/kWh	–* g/kWh	–* %
	Plough 60 %	Z2P	1307 min <sup>-1</sup>	8,6 km/h	263 g/kWh	–* g/kWh	–* %
	Cultivator 100 %	Z1G	1815 min <sup>-1</sup>	9,2 km/h	269 g/kWh	–* g/kWh	–* %
	Cultivator 60 %	Z2G	1400 min <sup>-1</sup>	11,5 km/h	265 g/kWh	–* g/kWh	–* %
Pto work	Rotary harrow 100 %	Z3K	1559 min <sup>-1</sup>	5,6 km/h	234 g/kWh	–* g/kWh	–* %
	Rotary harrow 70 %	Z4K	1423 min <sup>-1</sup>	5,8 km/h	239 g/kWh	–* g/kWh	–* %
	Rotary harrow 40 %	Z5K	1476 min <sup>-1</sup>	5,8 km/h	272 g/kWh	–* g/kWh	–* %
	Mower 100 %	Z3M	1567 min <sup>-1</sup>	14,1 km/h	243 g/kWh	–* g/kWh	–* %
	Mower 70 %	Z4M	1405 min <sup>-1</sup>	15,2 km/h	255 g/kWh	–* g/kWh	–* %
	Mower 40 %	Z5M	1463 min <sup>-1</sup>	15,4 km/h	297 g/kWh	–* g/kWh	–* %
Hydraulic work	Manure spreader	Z6MS	1587 min <sup>-1</sup>	6,7 km/h	257 g/kWh	–* g/kWh	–* %
	Baler	Z7PR	1608 min <sup>-1</sup>	9,8 km/h	279 g/kWh	–* g/kWh	–* %
<b>Average Value for all cycles</b>					<b>261 g/kWh</b>	<b>–* g/kWh</b>	<b>–* %</b>

AdBlue consumption relative to fuel consumption during DLG-PowerMix: 4,6 %

\* Measuring system under construction.