DLG Tractor Datasheet PowerMix

Performance and fuel consumption during field and transport applications

Steyr Profi 6145 S-Control 8

DLG Test Report 7028



	Boost	Standard	
Rated power	121	107	kW
Maximum power	129	117	kW
According to	UNECE R 120		

	Boost	Standard	
Rated power	106	92	kW
Maximum power	120	107	kW
According to	OECD Code 2		

	Diesel	AdBlue	
Energy efficiency	266	24	g/kWh
Consumption per hectare	6,0	0,4	l/ha
Area output	5,7		ha/h

	Diesel	AdBlue	
Energy efficiency	464	33	g/kWh
Consumption per 100 kilometre per tonne	4,3	0,3	l/100km/t
Haul capacity	690		tkm/h

Measurement results overview

Power Take-Off (PTO) power according to OECD Code 2			Engine speed	Power Take-Off Power	Specific consumption		Diesel consumption	Ratio AdBlue to diesel
					Diesel	AdBlue		
			min^{-1}	kW	g/kWh		l/h	Vol-%
Standard mode								
Rated power			2200	92	248	24	27,1	7,4
Maximum power			1800	107	222	21	28,2	7,5
Maximum torque			1499	95	217	22	24,3	7,8
Torque increase	50	%						
Drop in speed	32	%						
Overcapacity	15	kW						
Starting torque	134	%						
Boost mode								
Rated power			2200	106	239	24	30,1	7,7
Maximum power			1800	120	219	22	31,1	7,7
Maximum torque			1500	110	214	22	27,8	7,8
Torque increase	52	%						
Drop in speed	32	%						
Overpcapacity	14	kW						
Savings potential through speed reduction for the same power output								
80 % of standard rated power, instead of full throttle only at 90 % of rated speed			2255	74	266	24	23,3	6,8
			1976		248	21	21,6	6,5
Savings in %					**-7**	**-11**	**-7**	**-5**
40 % of standard rated power, instead of 90 % of rated speed only with 60 % of rated speed			1985	37	309	25	13,6	6,2
			1318		252	24	11,0	7,3
Savings in %					**-19**	**-4**	**-19**	**18**

PowerMix - Field work	Engine speed	Delivered net power	Specific consumption		Consumption / hectare		Area output
			Diesel	AdBlue	Diesel	AdBlue	
	min^{-1}	kW	g/kWh		l/ha		ha/h
Heavy pulling work	1710	73	275	25	12,6	0,9	2,2
Medium pulling work	1476	62	271	25	7,7	0,5	3,0
Heavy PTO shaft work	1610	91	240	22	5,5	0,4	6,4
Medium PTO shaft work	1456	72	249	23	3,6	0,3	7,9
Light PTO shaft work	1464	43	288	25	2,3	0,2	8,8
Drawbar + PTO + Hydraulic work	1715	71	276	25	4,0	0,3	5,8
Overall result at field work			**266**	**24**	**6,0**	**0,4**	**5,7**

PowerMix - Transport work	Engine speed	Delivered net power	Specific consumption		Consumption / 100 kilometre / tonne		Transport power
			Diesel	AdBlue	Diesel	AdBlue	
	min^{-1}	kW	g/kWh		l/100km/t		tkm/h
Heavy transportwork	1942	70	350	30	6,8	0,5	426
Light transportwork at 40 km/h	1588	25	579	36	1,8	0,1	955
Optional: light transportwork at 50 km/h	1990	33	625	45	2,0	0,1	1197
Optional: light transportwork at 60 km/h	-	-	-	-	-	-	-
Overall result transport work at 40 km/h			**464**	**33**	**4,3**	**0,3**	**690,2**

Technical data

Engine				
Manufacturer			**FPT**	
Stage of exhaust emission			**IV**	
Rated engine speed			**2200**	**min^{-1}**
Engine power according				
UNECE-R 120	**Standard**		**Boost**	
Rated power	107	kW	121	kW
Maximum power	117	kW	129	kW
at engine speed	1800	min^{-1}	1800	min^{-1}
Boost activation requirement				
Load at the power take-off and driving speed > 0,5 km/h or driving speed above 20 km/h				
Exhaust aftertreatment device				
Nitrous gaseous emission*			Selective Catalytic Reduction (SCR)	
Particulate emission			-	
Time for regeneration (average)			-	min
Regeneration interval:				
- maximum*			-	h
Replacement intervals			none	
Exhaust gas recuperation			**none**	
Exhaust-gas turbocharger			**1 with fixed geometry**	
Number of cylinders			**6**	
Bore*			**104**	**mm**
Stroke*			**132**	**mm**
Displacement*			**6728**	**cm³**
Main fan				
Diameter			550	mm
Number of fan blades			9	
Fan Type	Visctronic (electronically controlled fan drive)			
Tank volume				
Diesel / AdBlue	190 l	/	31 l	

Transmission				
Manufacturer			**CNH**	
Type of construction			**Dual clutch transmission**	
Number of ranges			**3**	
Number of gears				
Forward			8	
Reverse			8	
Design speed			**50**	**km/h**

Chassis				
Front axle				
Manufacturer			CNH	
Type			Rigid axle, suspended	
Axle load	**front**		**rear**	**total**
Unladen masses	3040	kg	4040 kg	7080 kg
Permissible*	4900	kg	7300 kg	10500 kg
Technically permissible*	4900	kg	7300 kg	10500 kg

Dimensions				
Length w/o front linkage*			**4556**	**mm**
Width*			**2840**	**mm**
Height*			**3005**	**mm**
Wheelbase*			**2642**	**mm**
Distance hitch points to PTO shaft (lower links horizontal)*	**Front**		**Rear**	
	715	**mm**	**625**	**mm**
Distance axle to hitch points (lower links horizontal)*	**Front**		**Rear**	
	851	**mm**	**1188**	**mm**
Turning circle*			**12700**	**mm**

Rear PTO Shaft				
Profile				**6 spline (1 ⅜")**
Transmission ratio*				
PTO mode	540	540E	1000	1000E
Engine speed [min^{-1}]	-	1592	1893	1621

Front PTO Shaft				
Profile				**6 spline (1 ⅜")**
Transmission ratio*				
PTO mode	540	540E	1000	1000E
Engine speed [min^{-1}]	-	-	1893	-

Hydraulic power lift				
	front		**rear**	
Category	II or IIIN		III	
Lifting force at the hitch points exerted through full range	2511	daN	5778	daN

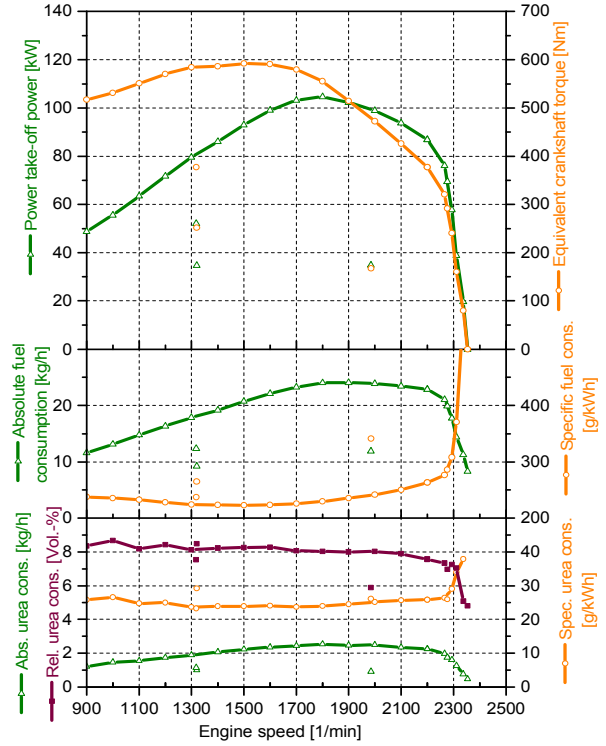
Hydraulic power				
System*	**CCLS (Closed Centre Load Sensing System)**			
Hydraulic oil	**Common with transmission**			
Total capacity*			**78**	**l**
Removable*			**38**	**l**
Hydraulic flow				
Maximum pump delivery*			125	l/min
Optional*			-	l/min
Max. flow at one rear remote*			93	l/min
Maximum pressure*			**205 ±5**	**bar**

* Manufacturer data

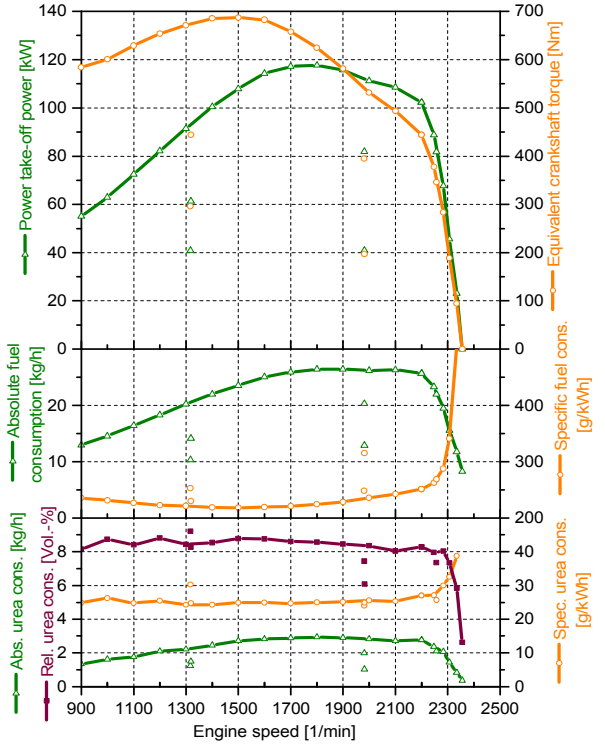
Power Take-Off Power according to OECD Code 2

Measuring point	Engine speed	PTO power	Equiv. Torque	Absolute consumption				Ratio AdBlue to fuel	specific consumption	
				fuel		AdBlue			fuel	AdBlue
	1/min	kW	Nm	kg/h	l/h	Kg/h	l/h	Vol-%	g/kWh	
Rated power										
Boost	2200	106	461	25,4	30,1	2,5	2,3	7,7	239	24
Standard	2200	92	401	22,9	27,1	2,2	2,0	7,4	248	24
Maximum power										
Boost	1800	120	637	26,3	31,1	2,6	2,4	7,7	219	22
Standard	1800	107	570	23,8	28,2	2,3	2,1	7,5	222	21
Maximum torque										
Boost	1500	110	699	23,5	27,8	2,4	2,2	7,8	214	22
Standard	1499	95	603	20,5	24,3	2,1	1,9	7,8	217	22
1000 PTO shaft rotation										
Boost	1893	119	597	26,4	31,2	2,6	2,4	7,8	222	22
Standard	1893	106	536	24,0	28,4	2,3	2,1	7,5	226	22
Part loads at full throttle										
80 % of boost rated pw.	2239	85	362	21,7	26,1	2,0	1,9	7,2	256	24
80 % of standard rated pw.	2255	74	312	19,6	23,3	1,7	1,6	6,8	266	24
Part loads with governor control set to 90 % of rated engine speed										
80 % of boost rated pw.	1982	85	409	20,4	24,4	1,8	1,7	6,9	240	21
80 % of standard rated pw.	1976	74	356	18,3	21,6	1,5	1,4	6,5	248	21
40 % of boost rated pw.	1981	42	204	12,6	15,1	0,9	0,9	5,9	297	22
40 % of standard rated pw.	1985	37	178	11,4	13,6	0,9	0,8	6,2	309	25
Part loads with governor control set to 60 % of rated engine speed										
60 % of boost rated pw.	1319	64	460	14,2	17,1	1,4	1,2	7,1	224	21
60 % of standard rated pw.	1316	55	401	12,6	15,0	1,2	1,1	7,2	229	21
40 % of boost rated pw.	1318	42	307	10,3	12,4	1,0	0,9	6,8	243	23
40 % of standard rated pw.	1318	37	267	9,3	11,0	0,9	0,8	7,3	252	24

Standard mode



Boost mode



PowerMix - performance and fuel consumption during field and transport applications

Performance and fuel consumption during exemplary field work		Engine speed	Driving speed	Delivered net power	Diesel consumption		Ratio AdBlue to diesel	Specific consumption	
								Diesel	AdBlue
		1/min	km/h	kW	kg/h	l/h	Vol-%	g/kWh	
Z1P	ploughing, heavy tine cultivator	1649	6,6	71	19,4	23,1	7,1	272	25
Z1G	cultivator, disc harrow	1772	8,5	75	20,8	24,7	7,1	277	25
Z2P	mech. seed drill, planter	1416	8,7	58	15,7	18,7	6,7	272	24
Z2G	stubble working, seed bed combination	1536	11,7	66	17,8	21,1	7,5	270	26
Z3K	milling, rotary harrows seeding combination	1583	4,9	92	21,5	25,5	7,0	233	21
Z3M	cut 1. step, cultivator-rotary harrows-seeding combination	1637	11,1	90	22,0	26,2	7,1	246	23
Z4K	pneumatic seeding drill, milling as plant care, mulch	1462	6,1	73	17,5	20,8	7,2	240	22
Z4M	cut 2. step, direct seeding machine	1450	13,8	70	18,1	21,4	7,3	257	24
Z5K	plant protector, mineral fertiliser, tedder, swather	1462	6,1	42	11,4	13,6	6,6	275	23
Z5M	cut 3. step, airseeder	1466	15,9	44	13,1	15,6	6,8	301	27
Z6MS	self-loading wagon, manure spreading	1611	6,2	77	20,2	23,9	7,2	261	25
Z7PR	high pressure baler, round baler or square baler	1820	9,3	65	19,0	22,6	6,4	291	25
								266	**24**

Performance and fuel consumption during exemplary transport work		Engine speed	Driving speed	Delivered net power	Diesel consumption		Ratio AdBlue to diesel	Specific consumption	
								Diesel	AdBlue
		min^{-1}	km/h	kW	kg/h	l/h	Vol-%	g/kWh	
ZTB	Transportwork at full load (uphill)	1942	18	70	24,4	29,0	6,7	350	30
ZTE40	Transportwork at flat section with 40 km/h	1588	39	25	14,7	17,4	4,7	579	36
ZTE50	Transportwork at flat section with 50 km/h	1990	50	33	20,6	24,5	5,6	625	45
ZTE60	Transportwork at flat section with 60 km/h	-	-	-	-	-	-	-	-
	Idle	780	-	-	1,6	1,9	-	-	-
								464	**33**

Test conditions

Tires	front	rear
Manufacturer	Michelin MULTIBIB	Michelin MULTIBIB
Tire size	480/65 R 28	600/65 R 38
Fitted options		
Free return flow		**yes**
Air condition		**yes**
Air compressor		**yes**
Front hydraulic power lift		**yes**
Front PTO (disengageable)		**yes**
		-
		-

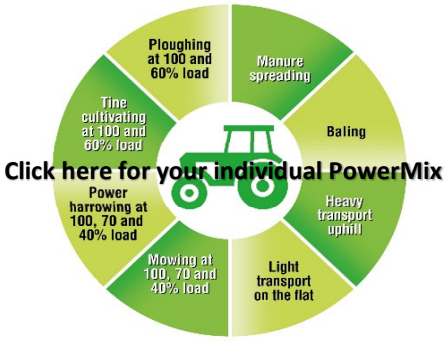
PowerMix	Ballast		Axle load distribution				Gross weight	Tire pressure		PTO mode	Boost power available
	front	rear	front		rear			front	rear		
	kg	kg	kg	%	kg	%	kg	bar	bar	1000/1000E	Yes/No
Performance and fuel consumption during exemplary field work											
heavy drawbar work	0	0	2970	43	3900	57	6870	1,2	1,2	-	no*
medium havy drawbar w.	0	0	2970	43	3900	57	6870	1,2	1,2	-	no*
heavy PTO work	0	0	2970	43	3900	57	6870	1,2	1,2	1000	yes
medium heavy PTO work	0	0	2970	43	3900	57	6870	1,2	1,2	1000E	yes
light PTO work	0	0	2970	43	3900	57	6870	1,2	1,2	1000E	yes
Drawbar + PTO + hyd.	0	0	2970	43	3900	57	6870	1,2	1,2	1000E	yes
Performance and fuel consumption during exemplary transport work											
Transport work	0	0	2970	43	3900	57	6870	1,6	1,6	-	yes

Applicant

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* see description Boost activation requirements in the technical data