

DLG Tractor Datasheet PowerMix

Performance and fuel consumption during field and transport applications

Fendt 942 Vario Gen6

DLG Test Report 7042



AGCO
FENDT 942 VARIO GEN6
PowerMix
DLG Test Report 7042



Boost Standard

Rated power	-	305	kW
Maximum power	-	305	kW
According to	UNECE R 120		



Boost Standard

Rated power	-	277	kW
Maximum power	-	277	kW
According to	OECD Code 2		



Diesel AdBlue

Energy efficiency	237	32	g/kWh
Consumption per hectare	5,4	0,5	l/ha
Area output	13,7 ha/h		



Diesel AdBlue

Energy efficiency	383	45	g/kWh
Consumption per 100 kilometre per tonne	4,5	0,4	l/100km/t
Haul capacity	1041 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	1700	277	211	24	69,4	8,6
Maximum power	1700	277	211	24	69,4	8,6
Maximum torque	1350	257	206	25	62,8	9,2
Torque increase	17	%				
Drop in speed	21	%				
Overcapacity	0	kW				
Starting torque	93	%				
Boost mode						
Rated power	-	-	-	-	-	-
Maximum power	-	-	-	-	-	-
Maximum torque	-	-	-	-	-	-
Torque increase	-	%				
Drop in speed	-	%				
Overcapacity	-	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	1742	222	216	25	56,8	8,9
	1535		209	24	55,3	8,7
Savings in %			-3	-6	-3	-2
40 % of standard rated power, instead of 90 % of rated speed only with 60 % of rated speed	1532	111	236	25	31,1	8,2
	1021		212	38	28,0	13,7
Savings in %			-10	51	-10	67

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	1418	214	245	27	11,4	1,0	6,3
Medium pulling work	1181	157	242	35	6,9	0,8	7,6
Heavy PTO shaft work	1387	226	223	26	4,8	0,4	18,0
Medium PTO shaft work	1121	160	224	37	3,4	0,4	18,3
Light PTO shaft work	1143	97	248	35	2,1	0,2	20,3
Drawbar + PTO + Hydraulic work	1259	158	239	31	3,9	0,4	11,6
Overall result at field work			237	32	5,4	0,5	13,7

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	1626	164	356	40	7,2	0,6	988
Light transportwork at 40 km/h	1015	29	580	82	1,9	0,2	1094
Optional: light transportwork at 50 km/h	1201	38	610	80	2,1	0,2	1367
Optional: light transportwork at 60 km/h	1448	47	643	67	2,3	0,2	1649
Overall result transport work at 40 km/h			383	45	4,5	0,4	1041

Technical data

Engine			
Manufacturer	MAN		
Stage of exhaust emission	V		
Rated engine speed	1700	min ⁻¹	
Engine power according			
UNECE-R 120	Standard	Boost	
Rated power	305 kW	0	kW
Maximum power	305 kW	0	kW
at engine speed	1600-1700 min ⁻¹	0	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	Diesel Particulate Filter (DPF), Diesel Oxidations Katalysator (DOC)		
Time for regeneration (average)	35 min		
Regeneration interval:			
- maximum*	1000 h		
Replacement intervals	-		
Exhaust gas recuperation			
	none		
Exhaust-gas turbocharger			
	1 variable geometry (VTG)		
Number of cylinders			
	6		
Bore*			
	115	mm	
Stroke*			
	145	mm	
Displacement*			
	9037	cm ³	
Main fan			
Diameter	800	mm	
Number of fan blades	9		
Fan Type	Hägele reversible fan		
Tank volume			
Diesel / AdBlue	625 l	/	70 l
Transmission			
Manufacturer	AGCO Fendt		
Type of construction	Continuously Variable Transmission (CVT)		
Number of ranges			
	1		
Number of gears			
Forward	-		
Reverse	-		
Design speed			
	60	km/h	
Chassis			
Front axle			
Manufacturer	Dana		
Type	independent wheel suspension		
Axle load			
	front	rear	total
Unladen masses	4712 kg	7068 kg	11780 kg
Permissible*	8500 kg	11500 kg	20000 kg**
Technically permissible*	9500 kg***	13000 kg	- kg ****

Dimensions			
Length w/o front linkage*	5575 mm		
Width*	2750 mm		
Height*	3425 mm		
Wheelbase*	3150 mm		
Distance hitch points to PTO shaft (lower links horizontal)*	Front	Rear	
	622 mm	755 mm	
Distance axle to hitch points (lower links horizontal)*	Front	Rear	
	1325 mm	1372 mm	
Turning circle*	12200 mm		
Rear PTO Shaft			
Profile	6 spline (1 3/4")		
Transmission ratio*			
PTO mode	540	540E	1000 1000E
Engine speed [min ⁻¹]	-	1274	1604 1286
Front PTO Shaft			
Profile	6 spline (1 3/8")		
Transmission ratio*			
PTO mode	540	540E	1000 1000E
Engine speed [min ⁻¹]	-	-	1618 -
Hydraulic power lift			
	front	rear	
Category	III	III / IV	
Lifting force at the hitch points exerted through full range	5584 daN	12410 daN	
Hydraulic power			
System*	CCLS (Closed Centre Load Sensing System)		
Hydraulic oil			
	transmission and hydraulic separate		
Total capacity*	122	l	
Removable*	90	l	
Hydraulic flow			
Maximum delivery* (2 pumps in parallel)	220+210	l/min	
Optional* (1 pump with either ...)	165 / 220	l/min	
Max. flow at one rear remote*	170	l/min***	
Maximum pressure*	205 ±5 bar		

* Manufacturer data

** at 40 km/h

*** up to 25 km/h

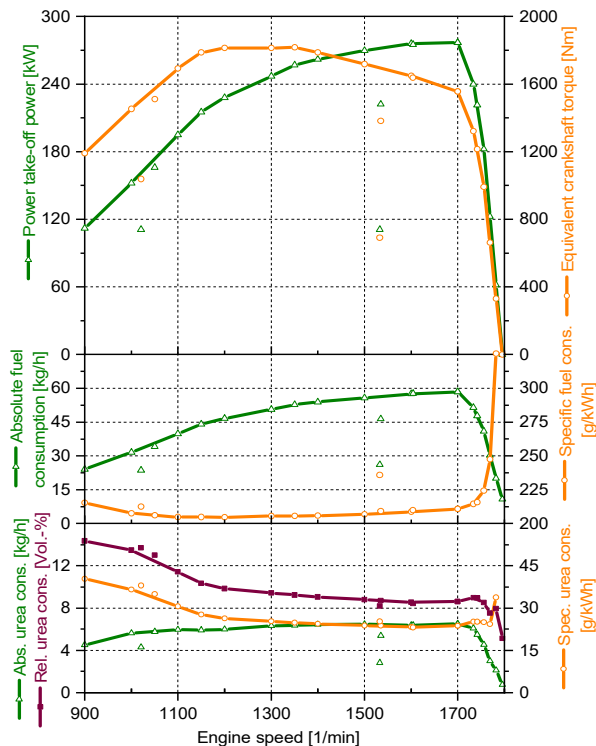
**** with 3/4" couplings

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
				kg/h	l/h	Kg/h	l/h			
1/min	kW	Nm	kg/h	l/h	Kg/h	l/h	Vol-%	g/kWh	g/kWh	
Rated power										
Boost	-	-	-	-	-	-	-	-	-	-
Standard	1700	17	1.555	58,4	69,4	6,5	6,0	8,6	211	24
Maximum power										
Boost	-	-	-	-	-	-	-	-	-	-
Standard	1700	277	1.555	58,4	69,4	6,5	6,0	8,6	211	24
Maximum torque										
Boost	-	-	-	-	-	-	-	-	-	-
Standard	1350	257	1.816	52,8	62,8	6,3	5,8	9,2	206	25
1000 PTO shaft rotation										
Boost	-	-	-	-	-	-	-	-	-	-
Standard	1604	275	1.637	57,7	68,7	6,4	5,8	8,4	210	23
Part loads at full throttle										
80 % of boost rated pw.	-	-	-	-	-	-	-	-	-	-
80 % of standard rated pw.	1742	221	1.214	47,8	56,8	5,5	5,1	8,9	216	25
Part loads with governor control set to 90 % of rated engine speed										
80 % of boost rated pw.	-	-	-	-	-	-	-	-	-	-
80 % of standard rated pw.	1535	222	1.383	46,5	55,3	5,4	4,8	8,7	209	24
40 % of boost rated pw.	-	-	-	-	-	-	-	-	-	-
40 % of standard rated pw.	1532	111	691	26,1	31,1	2,8	2,5	8,2	236	25
Part loads with governor control set to 60 % of rated engine speed										
60 % of boost rated pw.	-	-	-	-	-	-	-	-	-	-
60 % of standard rated pw.	1050	166	1.510	34,2	40,7	5,7	5,3	13,0	206	35
40 % of boost rated pw.	-	-	-	-	-	-	-	-	-	-
40 % of standard rated pw.	1021	111	1.038	23,6	28,0	4,3	3,8	13,7	212	38

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	
				kg/h	l/h		Diesel	AdBlue
				1/min	km/h		kW	kg/h
Z1P ploughing, heavy tine cultivator	1333	7,5	210	51,2	61,0	8,9	244	28
Z1G cultivator, disc harrow	1503	9,4	218	53,6	63,9	8,5	246	26
Z2P mech. seed drill, planter	1143	8,6	147	35,5	42,3	12,2	242	39
Z2G stubble working, seed bed combination	1219	11,6	167	40,6	48,4	10,2	242	32
Z3K milling, rotary harrows seeding combination	1391	5,5	225	49,0	58,4	9,2	218	26
Z3M cut 1. step, cultivator-rotary harrows-seeding combination	1383	14,0	227	51,8	61,8	8,9	228	26
Z4K pneumatic seeding drill, milling as plant care, mulch	1132	5,6	160	35,0	41,8	12,4	218	35
Z4M cut 2. step, direct seeding machine	1110	14,2	160	36,9	44,0	12,8	230	38
Z5K plant protector, mineral fertiliser, tedder, swather	1145	6,0	95	22,8	27,2	9,5	241	30
Z5M cut 3. step, airseeder	1142	15,9	100	25,4	30,3	11,9	255	39
Z6MS self-loading wagon, manure spreading	1256	5,7	170	39,7	47,4	10,2	234	31
Z7PR high pressure baler, round baler or square baler	1261	7,6	146	35,5	42,3	9,9	243	31
							237	32

Performance and fuel consumption during exemplary transport work	Engine speed	Driving speed	Delivered net power	Diesel consumption		Ratio AdBlue to diesel	Specific consumption	
				kg/h	l/h		Diesel	AdBlue
				min ⁻¹	km/h		kW	kg/h
ZTB Transportwork at full load (uphill)	1626	36	164	58,4	70,7	8,6	356	40
ZTE40 Transportwork at flat section with 40 km/h	1015	40	29	16,8	21,0	9,9	580	82
ZTE50 Transportwork at flat section with 50 km/h	1201	50	38	23,0	28,4	9,2	610	80
ZTE60 Transportwork at flat section with 60 km/h	1448	61	47	30,5	37,4	7,6	643	67
Idle	650	-	-	2,0	2,4	-	-	-
							383	45

Test conditions

Tires	front	rear
Manufacturer	Michelin AxioBib	Michelin AxioBib
Tire size	IF 710/60 R 34	IF 900/60 R 42
Fitted options		
Free return flow		yes
Air condition		yes
Air compressor		yes
Front hydraulic power lift		yes
Front PTO (disengageable)		no
		-
		-

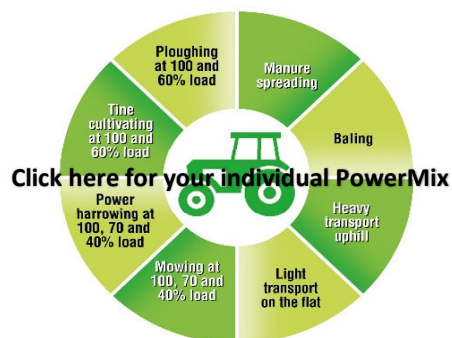
PowerMix	Ballast		Axle load distribution				Gross weight	Tire pressure		PTO mode	Boost power available
	front	rear	front	rear		front		rear			
	kg	kg	kg	%	kg	%		kg	bar		
Performance and fuel consumption during exemplary field work											
heavy drawbar work	2500	3800	8605	45	10490	55	19095	1,2	1,2	-	-
medium havy drawbar w.	0	0	5590	44	7205	56	12795	1,2	1,2	-	-
heavy PTO work	0	0	5590	44	7205	56	12795	1,2	1,2	1000	-
medium heavy PTO work	0	0	5590	44	7205	56	12795	1,2	1,2	1000E	-
light PTO work	0	0	5590	44	7205	56	12795	1,2	1,2	1000E	-
Drawbar + PTO + hyd.	0	0	5590	44	7205	56	12795	1,2	1,2	1000E	-
Performance and fuel consumption during exemplary transport work											
Transport work	0	0	5590	44	7205	56	12795	1,6	1,6	-	-

Applicant

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Test no. 2019-00552



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