

# DLG Tractor Datasheet PowerMix

Performance and fuel consumption during field and transport applications

## Fendt 724 Vario Gen6

DLG Test Report 7292



	Boost	Standard	
Rated power	-	174	kW
Maximum power	-	181	kW
According to	UNECE R 120		

	Boost	Standard	
Rated power	-	153	kW
Maximum power	-	165	kW
According to	OECD Code 2		

	Diesel	AdBlue	
Energy efficiency	263	10,7	g/kWh
Consumption per hectare	5,9	0,2	l/ha
Area output	8,6		ha/h

	Diesel	AdBlue	
Energy efficiency	371	15,4	g/kWh
Consumption per 100 kilometre per tonne	4,3	0,1	l/100tkm
Haul capacity	984		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
		min <sup>-1</sup>	kW	Diesel	AdBlue	l/h	Vol-%
				g/kWh			
<b>Standard mode</b>							
Rated power		2100	153	253	9,3	46,5	2,8
Maximum power		1700	165	231	9,6	46,1	3,1
Maximum torque		1400	146	227	9,6	40,0	3,2
Torque increase	44	%					
Drop in speed	33	%					
Overcapacity	12	kW					
Starting torque	128	%					
<b>Boost mode</b>							
Rated power		-	-	-	-	-	-
Maximum power		-	-	-	-	-	-
Maximum torque		-	-	-	-	-	-
Torque increase	-	%					
Drop in speed	-	%					
Overcapacity	-	kW					
<b>Savings potential through speed reduction for the same power output</b>							
80 % of standard rated power, instead of full throttle only at 90 % of rated speed		2129	122	263	6,7	38,7	1,9
		1889		246	6,8	36,3	2,1
<b>Savings in %</b>				<b>-6,5</b>		<b>-6,2</b>	
40 % of standard rated power, instead of 90 % of rated speed only with 60 % of rated speed		1890	61	272	7,1	20,0	2,0
		1260		240	9,5	17,7	3,0
<b>Savings in %</b>				<b>-11,8</b>		<b>-11,5</b>	

PowerMix - Field work	Engine speed	Delivered net power	Specific consumption		Consumption / hectare		Area output
	min <sup>-1</sup>	kW	Diesel	AdBlue	Diesel	AdBlue	ha/h
			g/kWh		l/ha		
Heavy pulling work	1534	112	278	12,1	12,9	0,4	3,4
Medium pulling work	1391	93	277	11,1	7,9	0,2	4,5
Heavy PTO shaft work	1640	137	248	9,4	5,2	0,1	11,2
Medium PTO shaft work	1341	100	249	11,5	3,6	0,1	12,0
Light PTO shaft work	1358	57	273	10,3	2,3	0,1	12,0
Drawbar + PTO + Hydraulic work	1491	100	256	9,9	3,6	0,1	8,6
<b>Overall result at field work</b>			<b>263</b>	<b>10,7</b>	<b>5,9</b>	<b>0,2</b>	<b>8,6</b>

PowerMix - Transport work	Engine speed	Delivered net power	Specific consumption		Consumption per 100 km and per t		Transport power
	min <sup>-1</sup>	kW	Diesel	AdBlue	Diesel	AdBlue	tkm/h
			g/kWh		l/100tkm		
Heavy transportwork	1829	109	353	14,9	7,0	0,2	660
Light transportwork at 40 km/h	1380	36	490	19,2	1,6	0,0	1308
Optional: light transportwork at 50 km/h	1669	45	531	17,7	1,8	0,0	1602
Optional: light transportwork at 60 km/h	-	-	-	-	-	-	-
<b>Overall result transport work at 40 km/h</b>			<b>371</b>	<b>15,4</b>	<b>4,3</b>	<b>0,1</b>	<b>984</b>

# Technical data

Engine*		
Manufacturer	Deutz	
Stage of exhaust emission	V	
Rated engine speed	2100 min <sup>-1</sup>	
Engine power according		
UNECE-R 120	Standard	Boost
Rated power	174 kW	- kW
Maximum power	181 kW	- kW
at engine speed	1900 min <sup>-1</sup>	- min <sup>-1</sup>
Boost activation requirement		

## Exhaust aftertreatment device

Nitrous gaseous emission	Selective Catalytic Reduction (SCR)	
Particulate emission	Diesel Particulate Filter (DPF), Diesel Oxidation Catalysator (DOC)	
Time for regeneration (average)	35 min	
Regeneration interval:		
- maximum	500 h	
Replacement intervals	-	

## Exhaust gas recuperation

externally

## Exhaust-gas turbocharger

Wastegate-Turbocharger

## Number of cylinders

6

## Bore

101 mm

## Stroke

126 mm

## Displacement

6056 cm<sup>3</sup>

## Main fan

Diameter 620 mm

Number of fan blades 11

Fan Type visco fan

## Tank volume

Diesel / AdBlue 400 l / 38 l

## Transmission\*

Manufacturer Fendt

Type of construction Vario ML 180 (CVT)

Number of ranges 2

Number of gears -

Forward 0,02 km/h to 50 km/h

Reverse 0,02 km/h to 33 km/h

Design speed 50 km/h

## Chassis\*

### Front axle

Manufacturer ZF

Type planetary driven steering axle

Axle load front rear total

Unladen masses 3190 kg 4790 kg 7980 kg

Permissible 6000 kg 9500 kg 14000 kg

Technically permissible 9000 kg\*\* 9500 kg - kg

## Dimensions\*

Length w/o front linkage 5240 mm

Width 2550 mm

Height 3065 mm

Wheelbase 2783 mm

Distance hitch points to PTO shaft (lower links horizontal) Front Rear

567 mm 644 mm

Distance axle to hitch points (lower links horizontal) Front Rear

1118 mm 1248 mm

Turning circle 12400 mm

## Rear PTO Shaft\*

Profile 6 spline (1 3/4")

## Transmission ratio

PTO mode 540 540E 1000 1000E

Engine speed [min<sup>-1</sup>] 1867 1499 1903 1528

## Front PTO Shaft\*

Profile 6 spline (1 3/8")

## Transmission ratio

PTO mode 540 540E 1000 1000E

Engine speed [min<sup>-1</sup>] 1954 - 1939 -

## Hydraulic power lift\*

front rear

Category 2 3N/3

Lifting force at the hitch points exerted through full range 27 kN 85,9 kN

## Hydraulic power\*

System CCLS (Closed Center Load Sensing System)

Hydraulic oil transmission and hydraulic separate

Total capacity 79 l

Removable 64 l

## Hydraulic flow

Maximum delivery 110 l/min

Optional 154 / 195 l/min

Max. flow at one rear remote 100 l/min

Maximum pressure\* 200 bar

\* Manufacturer data

\*\* up to 8 km/h during use of front loader

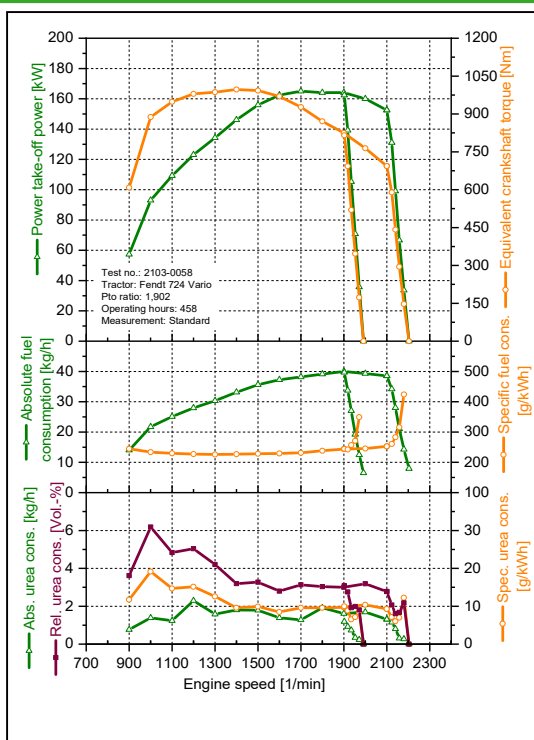


# Power Take-Off Power according to OECD Code 2

Measuring point	Engine speed 1/min	PTO power kW	Equiv. Torque Nm	Absolute consumption				Ratio AdBlue to fuel Vol-%	specific consumption	
				fuel		AdBlue			fuel g/kWh	AdBlue g/kWh
				kg/h	l/h	Kg/h	l/h			
<b>Rated power</b>										
Boost	-	-	-	-	-	-	-	-	-	-
Standard	2100	153	694	38,5	46,5	1,3	1,3	2,8	253	9,3
<b>Maximum power</b>										
Boost	-	-	-	-	-	-	-	-	-	-
Standard	1700	165	927	38,2	46,1	1,3	1,4	3,1	231	9,6
<b>Maximum torque</b>										
Boost	-	-	-	-	-	-	-	-	-	-
Standard	1400	146	997	33,2	40,0	1,8	1,3	3,2	227	9,6
<b>1000 PTO shaft rotation</b>										
Boost	-	-	-	-	-	-	-	-	-	-
Standard	1902	162	815	39,7	47,9	1,2	1,5	3,1	244	10,0
<b>Part loads at full throttle</b>										
80 % of boost rated pw.	-	-	-	-	-	-	-	-	-	-
80 % of standard rated pw.	2129	122	547	32,1	38,7	1,1	0,8	1,9	263	6,7
<b>Part loads with governor control set to 90 % of rated engine speed</b>										
80 % of boost rated pw.	-	-	-	-	-	-	-	-	-	-
80 % of standard rated pw.	1889	122	617	30,1	36,3	1,0	0,8	2,1	246	6,8
40 % of boost rated pw.	-	-	-	-	-	-	-	-	-	-
40 % of standard rated pw.	1890	61	308	16,6	20,0	0,3	0,4	2,0	272	7,1
<b>Part loads with governor control set to 60 % of rated engine speed</b>										
60 % of boost rated pw.	-	-	-	-	-	-	-	-	-	-
60 % of standard rated pw.	1256	91	694	20,7	25,0	0,7	0,9	3,4	227	10,2
40 % of boost rated pw.	-	-	-	-	-	-	-	-	-	-
40 % of standard rated pw.	1260	61	463	14,7	17,7	0,4	0,5	3,0	240	9,5

## 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	Deliver-ed net power	Diesel consumption		Ratio AdBlue to diesel	Specific consumption	
		1/min	km/h	kW	kg/h	l/h	Vol-%	Diesel	AdBlue
		g/kWh							
Z1P	ploughing, heavy tine cultivator	1372	6,5	107	29,4	35,5	3,6	275	13,1
Z1G	cultivator, disc harrow	1695	8,7	118	33,1	39,9	3,0	281	11,2
Z2P	mech. seed drill, planter	1335	8,7	87	23,9	28,8	3,0	274	10,9
Z2G	stubble working, seed bed combination	1447	11,6	99	27,8	33,5	3,1	280	11,4
Z3K	milling, rotary harrows seeding combination	1651	5,9	136	32,8	39,6	2,9	241	9,1
Z3M	cut 1. step, cultivator-rotary harrows-seeding combination	1629	14,6	137	34,8	41,9	2,9	254	9,7
Z4K	pneumatic seeding drill, milling as plant care, mulch	1350	6,0	98	23,4	28,3	3,3	240	10,3
Z4M	cut 2. step, direct seeding machine	1331	15,9	102	26,2	31,6	3,7	258	12,6
Z5K	plant protector, mineral fertiliser, tedder, swather	1361	6,0	56	14,6	17,6	2,8	261	9,7
Z5M	cut 3. step, airseeder	1355	15,9	59	16,7	20,1	2,9	284	10,8
Z6MS	self-loading wagon, manure spreading	1486	6,8	109	27,4	33,1	3,0	251	10,0
Z7PR	high pressure baler, round baler or square baler	1496	10,0	92	23,9	28,8	2,9	261	9,9
								<b>263</b>	<b>10,7</b>

Performance and fuel consumption during exemplary transport work		Engine speed	Driving speed	Deliver-ed net power	Diesel consumption		Ratio AdBlue to diesel	Specific consumption	
		min <sup>-1</sup>	km/h	kW	kg/h	l/h	Vol-%	Diesel	AdBlue
		g/kWh							
ZTB	Transportwork at full load (uphill)	1829	20,8	109	38,3	46,2	3,2	353	14,9
ZTE40	Transportwork at flat section with 40 km/h	1380	41,3	36	17,6	21,2	3,0	490	19,2
ZTE50	Transportwork at flat section with 50 km/h	1669	50,6	45	24,1	29,1	2,5	531	17,7
ZTE60	Transportwork at flat section with 60 km/h	-	-	-	-	-	-	-	-
	Idle	800	-	-	1,3	1,6	-	-	-
								<b>371</b>	<b>15,4</b>

# Test conditions

Tires	front	rear
Manufacturer	Michelin MachXbib	Michelin MachXbib
Tire size	600/65 R28	710/70 R38
<b>Fitted options</b>		
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 kg	Tire pressure		PTO mode 1000/1000E	Boost power available yes/no
	front	rear	front		rear			front	rear		
	kg	kg	kg	%	kg	%		bar	bar		
<b>Performance and fuel consumption during exemplary field work</b>											
heavy drawbar work	1800	2070	5350	44	6890	56	12240	1,2	1,2	-	-
medium havy drawbar w.	0	0	3190	38	5140	62	8330	1,2	1,2	-	-
heavy PTO work	0	0	3190	38	5140	62	8330	1,2	1,2	1000	-
medium heavy PTO work	0	0	3190	38	5140	62	8330	1,2	1,2	1000E	-
light PTO work	0	0	3190	38	5140	62	8330	1,2	1,2	1000E	-
Drawbar + PTO + hyd.	0	0	3190	38	5140	62	8330	1,2	1,2	1000E	-
<b>Performance and fuel consumption during exemplary transport work</b>											
Transport work	0	0	3190	38	5140	62	8330	1,6	1,6	-	-

## Applicant

AGCO GmbH  
 Johann-Georg-Fendt-Str. 4  
 87616 Marktoberdorf  
 Germany  
[www.fendt.com](http://www.fendt.com)

## Test performed by

DLG TestService GmbH  
 Test Center Technology and Farm Inputs  
 Max-Eyth-Weg 1  
 64823 Groß-Umstadt  
 Germany  
[www.dlg-test.de](http://www.dlg-test.de)  
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