

# PowerMix Datasheet

DLG TEST REPORT 7552

Performance and fuel consumption  
in field and transport operations

## Fendt 724 DP



**FENDT**  
**724 DP**  
**PowerMix**  
DLG Test Report 7552

	Boost	Standard	
Rated power*	193	-	kW
Maximum power*	193	-	kW
According to*	ECE-R120		

	Boost	Standard	
Rated power	177	-	kW
Maximum power	180	-	kW
According to	OECD Code 2		

	Diesel	AdBlue	
Energy efficiency	242	26.1	g/kWh
Consumption per hectare	5.4	0.4	l/ha
Area output	9.2		ha/h

	Diesel	AdBlue	
Energy efficiency	321	33.8	g/kWh
Consumption per 100 kilometre per ton	3.7	0.3	l/100tkm
Haul capacity (40km/h)	997		tkm/h

\* Manufacturer information

# Assessment in brief

The DLG PowerMix is a standardized test procedure in which the German Agricultural Society (DLG) measures the energy efficiency of tractors under conditions that replicate real-life field and transport operations. Testing is carried out on the DLG roller test bench. The resulting data provide a transparent basis for evaluating tractor performance and overall efficiency under consistent and repeatable conditions. The scatter plots below illustrate the results in fuel consumption and productivity.

## Field work:

The DLG PowerMix test results for tractors in the power class of 193 kW +/- 20 kW indicate a specific fuel consumption range of 242 g/kWh to 295 g/kWh under standardized field load conditions. The tractor evaluated in this test showed a specific fuel consumption of 242 g/kWh.

## Transport work:

In the DLG transport test, tractors within the same power range have achieved specific fuel consumption values between 321 g/kWh and 430 g/kWh. The tested machine showed a fuel consumption of 321 g/kWh.



# Performance and fuel consumption during field and transport operations

Performance and fuel consumption during exemplary field work	Engine speed	Driving speed	Delivered 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 <sup>1</sup> ploughing, heavy tine cultivator	1171	6.8	124	30.5	36.5	8.0	247	25.8
Z1G <sup>1</sup> cultivator, disc harrow	1405	9.5	144	36.0	43.1	8.0	250	26.0
Z2P <sup>1</sup> mech. seed drill, planter	1144	8.7	96	23.7	28.4	7.9	246	25.5
Z2G <sup>1</sup> stubble working, seed bed combination	1217	11.5	108	26.9	32.2	8.4	249	27.1
Z3K milling, rotary harrows seeding combination	1420	5.9	149	33.3	39.8	8.3	223	24.2
Z3M cut 1. step, cultivator-rotary harrows-seeding combination	1399	14.6	150	34.9	41.9	8.3	233	25.2
Z4K pneumatic seeding drill, milling as plant care, mulch	1254	5.9	106	23.7	28.4	8.3	224	24.5
Z4M cut 2. step, direct seeding machine	1239	15.6	111	26.2	31.4	8.5	236	26.0
Z5K plant protector, mineral fertiliser, tedder, swather	1263	5.9	61	15.1	18.1	8.1	248	26.5
Z5M cut 3. step, airseeder	1258	15.7	64	16.9	20.2	8.5	263	29.0
Z6MS self-loading wagon, manure spreading	1388	5.8	112	26.7	32.0	8.4	238	26.1
Z7PR high pressure baler, round baler or square baler	1394	8.3	97	24.0	28.8	8.4	247	27.0
							<b>242</b>	<b>26.1</b>

<sup>1</sup> scaled with PTO Power 179.8 KW

	Energy efficiency		Consumption per hectare		Area output
	Diesel g/kWh	AdBlue g/kWh	Diesel l/ha	AdBlue l/ha	ha/h
Heavy pulling work <sup>1</sup>	249	25.91	11.6	0.9	4.0
Medium-duty pulling work <sup>1</sup>	248	26.3	7.1	0.6	5.0
Heavy PTO work	228	24.7	4.7	0.4	12.2
Medium-duty PTO work	230	25.3	3.3	0.3	13.0
Light PTO work	256	27.7	2.1	0.2	13.0
Traction+PTO+hydraulic work	243	26.6	3.8	0.3	8.0

Test conditions fieldwork	Ballasting		Axle load distribution				Total weight	Tire pressure		PTO shaft
	Front	Rear	Front	Rear		kg	Front	Rear	1000/1000E	
	kg	kg	kg	kg	%		bar	bar		
Heavy pulling work	1800	2966	5800	42	8166	58	13966	1.2	1.2	-
Medium-duty pulling work	0	0	3605	39	5540	61	9145	1.2	1.2	-
Heavy PTO work	0	0	3605	39	5540	61	9145	1.2	1.2	1000
Medium-duty PTO work	0	0	3605	39	5540	61	9145	1.2	1.2	1000E
Light PTO work	0	0	3605	39	5540	61	9145	1.2	1.2	1000E
Traction+PTO+hydraulic work	0	0	3605	39	5540	61	9145	1.2	1.2	1000E



# Performance and fuel consumption in transport operations

PowerMix - Transport work	Motor speed	Delivered effective power	Specific consumption		Consumption per 100 km and per ton		Transport performance
	min <sup>-1</sup>	kW	Diesel	AdBlue	Diesel	AdBlue	tkm/h
			g/kWh		l/100tkm		
Heavy transportation work	1403	125	307	32.7	6.0	0.5	760
Light transport work at 40 km/h	1129	34	415	42.6	1.4	0.1	1234
Light transport work at 50 km/h	1191	44	436	46.6	1.5	0.1	1554
Light transport work at 60 km/h	1370	57	439	46.8	-	-	-
<b>Overall result transportation work 40 km/h</b>			<b>321</b>	<b>33.8</b>	<b>3.7</b>	<b>0.3</b>	<b>997</b>
<b>Overall result transportation work 50 km/h</b>			<b>324</b>	<b>34.4</b>	<b>3.8</b>	<b>0.3</b>	<b>1157</b>
<b>Overall result transportation work 60 km/h</b>			<b>326</b>	<b>34.5</b>	-	-	-
Idle consumption	1.9	l/h					
Trailer weight	30855	kg					

Test conditions Transport use	Ballasting		Axle load distribution				Total weight	Tire pressure	
	Front	Rear	Front	Rear		kg	Front	Rear	
	kg	kg	kg	%	kg		%	bar	bar
Transportation work	-	-	3605	39	5540	61	9145	1.6	1.6

Tires	Front	Rear
Manufacturer/Type	Nokian/ Soil King	Nokian/ Soil King
Tire size	600/70 R30	710/70 R42
Equipment		
Pressureless return		Yes
A/C		Yes
Compressor		Yes
Front power lift		Yes
Front PTO (can be disengaged)		No

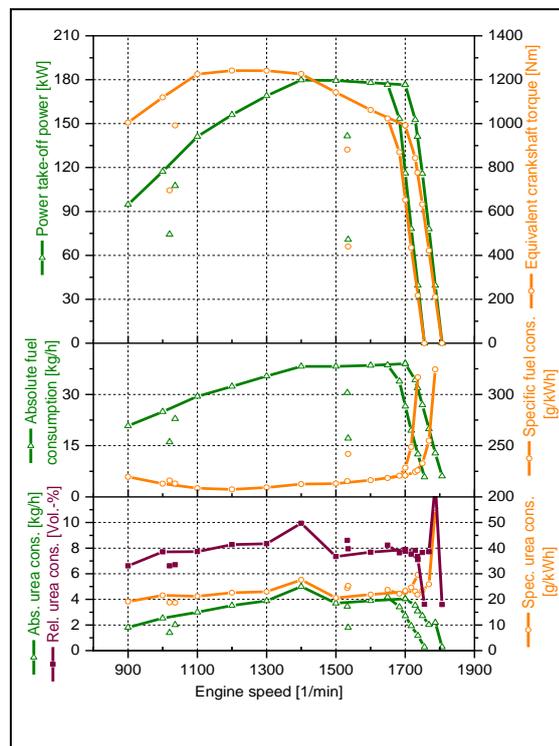


# Power Take-Off Power according to OECD Code 2

Measuring point	Engine speed 1/min	PTO power kW	Equiv. Torque Nm	Absolute consumption				Ratio AdBlue to Diesel Vol-%	specific consumption	
				Diesel		AdBlue			Diesel g/kWh	AdBlue g/kWh
				kg/h	l/h	kg/h	l/h			
<b>Rated power</b>										
Boost	1700	176.6	992	39.0	46.6	4.1	3.7	7.9	221	22.9
Standard	-	-	-	-	-	-	-	-	-	-
<b>Maximum power</b>										
Boost	1400	179.8	1,226	38.2	45.7	4.0	3.6	7.9	213	22.0
Standard	-	-	-	-	-	-	-	-	-	-
<b>Maximum torque</b>										
Boost	1200	156.0	1,241	32.3	38.7	3.5	3.2	8.3	207	22.6
Standard	-	-	-	-	-	-	-	-	-	-
<b>1000 PTO shaft rotation</b>										
Boost	1649	176.7	1,023	38.6	46.1	4.2	3.8	8.2	218	23.7
Standard	-	-	-	-	-	-	-	-	-	-
<b>Part loads at full throttle</b>										
80 % of boost rated pw.	1736	141.2	777	31.9	38.1	3.1	2.8	7.4	226	21.8
80 % of standard rated pw.	-	-	-	-	-	-	-	-	-	-
<b>Part loads with governor control set to 90% of rated engine speed</b>										
80 % of boost rated pw.	1533	141.5	882	30.5	36.4	3.5	3.1	8.6	215	24.4
80 % of standard rated pw.	-	-	-	-	-	-	-	-	-	-
40 % of boost rated pw.	1535	70.8	440	17.1	20.5	1.8	1.6	8.0	242	25.3
40 % of standard rated pw.	-	-	-	-	-	-	-	-	-	-
<b>Part loads with governor control set to 60% of rated engine speed</b>										
60 % of boost rated pw.	1036	107.6	992	22.9	27.3	2.0	1.8	6.7	213	18.7
60 % of standard rated pw.	-	-	-	-	-	-	-	-	-	-
40 % of boost rated pw.	1020	74.4	696	16.1	19.2	1.4	1.3	6.6	216	18.8
40 % of standard rated pw.	-	-	-	-	-	-	-	-	-	-

Standard

Boost



# Technical Data

Engine*			
Manufacturer	AGCO Fendt		
Stage of exhaust emission	V		
Rated engine speed	1700 min <sup>-1</sup>		
Motor power according to			
ECE-R120	Standard	Boost	
Rated power*	- kW	193	kW
Maximum power*	- kW	193	kW
at engine speed*	-	1400-1700	min <sup>-1</sup>
Boost activation Prerequisites			

Variabel

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	-

<b>Exhaust gas recuperation</b>	-
<b>Exhaust-gas turbocharger</b>	Wastegat turbocharger
<b>Number of cylinders</b>	6
<b>Bore</b>	110 mm
<b>Stroke</b>	132 mm
<b>Displacement</b>	7527 cm <sup>3</sup>
Main fan	
Diameter	560 mm
Number of fan blades	9
Fan Type	hydr. pushing fan
Tank volume	
Diesel / AdBlue	450 l / 48 l

Transmission	
Manufacturer	Fendt
Type of construction	CVT, VarioDrive TA 190
Number of ranges	1
Number of gears	-
Forward	0,02 km/h till 60 km/h
Reverse	0,02 km/h till 33 km/h
<b>Design-related maximum speed</b>	<b>60 km/h</b>

Chassis*			
Front axle			
Manufacturer	Dana		
Type	planetary driven steering axle		
Axle load	Front	Rear	Total
Unladen masses	3605 kg	5540 kg	9145 kg
Permissible	6900 kg	11500 kg	15000 kg <sup>2</sup>
Technically permissible	9980 kg	11500 kg	15000 kg <sup>2</sup>

Dimensions*		
Length w/o front linkage	5516 mm	
Width	2650 mm	
Height	3280 mm	
Wheelbase	2900 mm	
Distance hitch points to PTO shaft (lower links horizontal)	Front	Rear
	567 mm	702 mm
Distance axle to hitch points (lower links horizontal)	Front	Rear
	1170 mm	1306 mm
Turning circle	11800 mm	

Rear PTO Shaft*			
Profile	6 spline (1 3/4")		
Transmission ratio			
PTO mode	540	540E	1000 1000E
Engine speed [min <sup>-1</sup> ]	1618	1405	1649 1432

Front PTO Shaft*			
Profile	6 spline (1 3/8")		
Transmission ratio			
PTO mode	540	540E	1000 1000E
Engine speed [min <sup>-1</sup> ]	-	-	1647 -

Hydraulic power lift*	Front	Rear
Categorie	3N	3N/3
Lifting force at the hitch points exerted through full range	3185 kN	8901 kN

Hydraulic power*	
System	CCLS (Closed Centre Load Sensing System)
Hydraulic oil	hydraulic separate
Total capacity	95 l
Removable	80 l
Hydraulic flow	
Maximum delivery	165 l/min
Optional	220 l/min
Max. flow at one rear remote	170 l/min
<b>Maximum pressure</b>	<b>200 bar</b>

\* Manufacturer data

<sup>2</sup> up to 50 km/h



# Additional information

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### DLG-Testframe

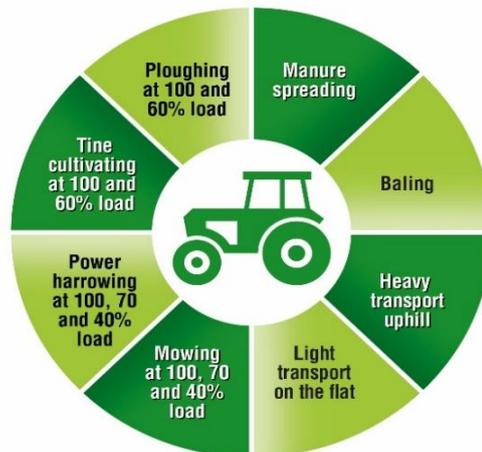
DLG-PowerMix\_2.0 (Stand 01/2025)

### Department

Vehicle technology

## Testing expertise in agricultural technology and equipment

With its methods, test frameworks and awards, the DLG Test Center for Technology and Equipment is a leader in the testing and certification of agricultural technology and equipment. The methods and test profiles are practice-oriented, manufacturer-independent and developed by neutral test commissions. They are based on state-of-the-art measurement and testing procedures, and international standards and norms are also taken into account.



<https://www.dlg.org/powermix>

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