

John Deere 6110RC

Tractor Test No. 2002/14

APPLICANT

Matra, branch of Robert Aebi AG
Industriering 19
3250 Lyss

TRACTOR

Manufacturer John Deere
Model John Deere 6110RC
Approval certificate no. 4JA3 50

SUSPENSION AND BRAKES

Central four-wheel drive with powershift transmission
Front axle suspension (disengageable)
Wet disc brake on rear axle
Automatic all-wheel activation
Mechanical parking brake

DRIVER PROTECTION

Integrated safety cab

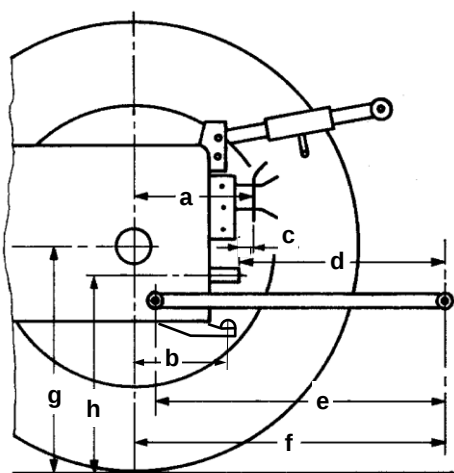


TYRES

		Track width
front	480/65 R24	1720 mm
rear	540/65 R38	1720 mm

DIMENSIONS

Length	— mm
With front mounting	4900 mm
Front overhang from steering wheel	2720 mm
Width	2290 mm
Height	2750 mm
Wheelbase	2400 mm
Ground clearance	400 mm
Turning diameter	11,1 m (without four-wheel drive) 11,9 m (with four-wheel drive)



Rear

a	710 mm
b	510 mm
c	180 mm
d	550 mm
e	950 mm
f	1080 mm
g	810 mm
h	710 mm

Front

d	— mm
e	760 mm
f	1300 mm
g	600 mm
h	— mm

TEST EQUIPMENT

- front 3-Point Hitch
- air-conditioning compressor
- air compressor

WEIGHT

in test equipment

Front	2280 kg	42 %
Rear	3160 kg	
Total	5450 kg	

Permissible front axle load	4200 kg
Permissible rear axle load	6500 kg
Permissible total weight	8200 kg

Payload	2750 kg
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Towed weight, braked	35 000 kg
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CAPACITIES

Fuel tank	205 l	
AdBlue tank	— l	
Engine oil	17 l	(change interval 500 h)
Gearbox and Hydraulic oil	52 l	(change interval 1500 h)



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ENGINE (Manufacturer's data)

Manufacturer	John Deere		
Model	4045HL490F		
Injection	Diesel direct injection		
	CommonRail		
Supercharging	Exhaust gas turbocharger and air-to-air intercooling		
	External cooled exhaust gas recirculation		
Exhaust emission treatment	DOC + closed DPF		
Bore/stroke	106,5 / 127 mm		
Cylinders / capacity	4 / 4525 cm ³		
Cooling	Water, viscous fan		

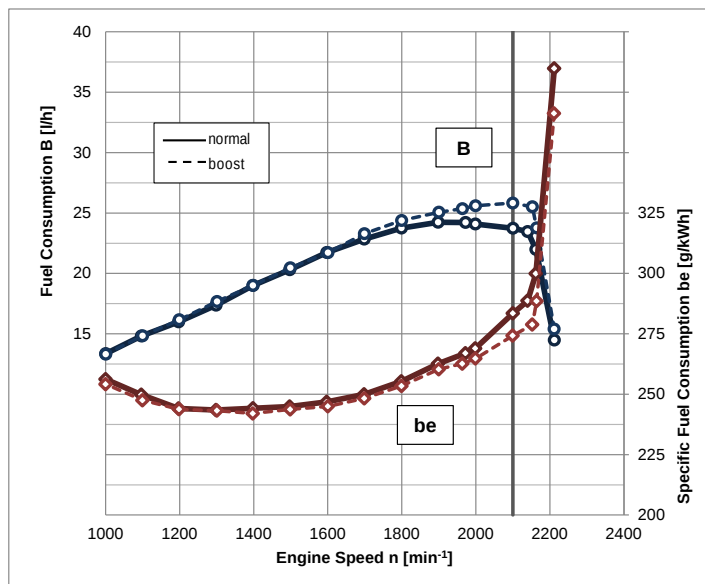
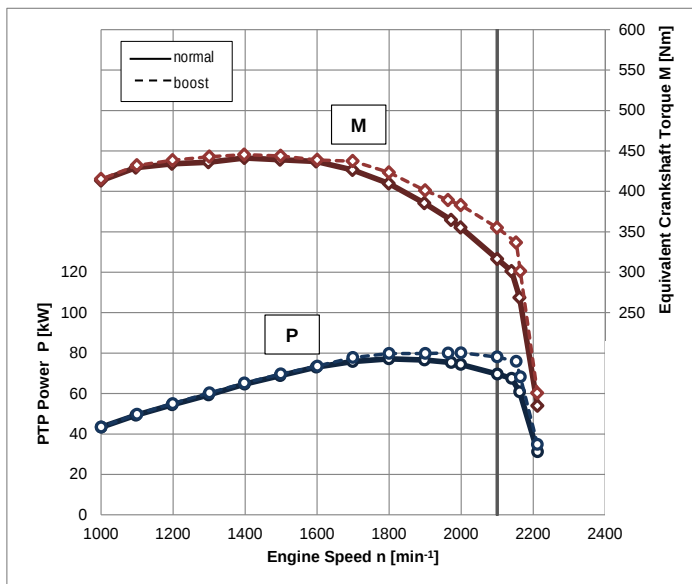
Rated power	81 kW (110 HP)	EG 97/68
With boost	88 kW (120 HP)	EG 97/68

Rated engine speed	2100 min ⁻¹
Exhaust stage	IIIB

Criteria for boost activation

- Transportation work:
Speed in excess of 15 km/h
- PTO work:
PTO power and 1,0 km/h driving speed

POWER TAKE-OFF MEASUREMENT



Measurement conditions: 29.09.2014

- air temperature 21 °C
- relative atmospheric humidity 50 %
- atmospheric pressure 962 mbar

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Full load test values

		Speed [min ⁻¹]		Power		Fuel consumption		AdBlue consumption	
		Engine	PTO	kW	HP	Specific [g/kWh]	Absolute [l/h]	Specific [g/kWh]	Absolute [l/h]
Rated power	normal	2100	1070	69,6	94,6	283	23,7		
	boost			78,1	106,2	274	25,8		
Maximum power	normal	1800	917	77,6	105,6	254	23,8		
	boost	2000	1019	80,2	109,0	265	25,6		
Normal speed PTO	normal	1962	1000	75,3	102,4	267	24,2		
	boost			80,1	108,8	263	25,4		

Boost

Max. torque	441 Nm at 1400 min ⁻¹	445 Nm, at 1400 min ⁻¹
Torque increase	40 % at 33 % speed drop	25 % at 33 % speed drop
Starting torque	131 %	117 %
Idling speed	850 min ⁻¹	
Cutoff speed	2250 min ⁻¹	

Partial load values

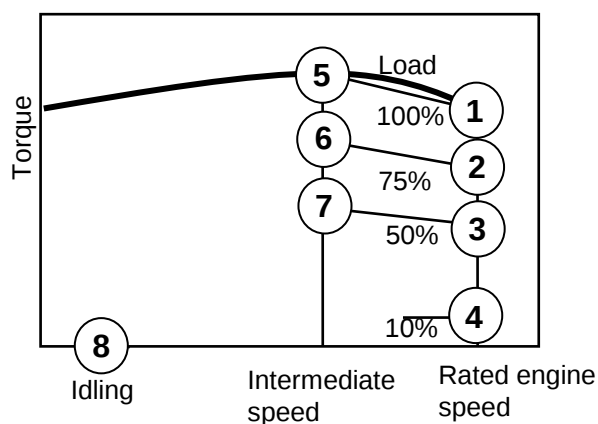
Fuel consumption with 42,5 % partial load at normal PTO speed

PTO shaft	Fuel
1000 min ⁻¹	338 g/kWh, 13,0 l/h

Boost

Fuel
329 g/kWh, 13,5 l/h

In characteristic diagram (with boost)



Measuring point	Fuel consumption		AdBlue consumption	
	Specific [g/kWh]	Absolute [l/h]	Specific [g/kWh]	Absolute [l/h]
1	274	25,8		
2	290	20,4		
3	324	15,3		
4	867	8,3		
5	242	19,0		
6	249	14,8		
7	272	10,7		
8	-	2,2		

EMISSIONS

Exhaust gas emissions

Emissions according to ISO 8178-4, C1 (with boost)

Hydrocarbons HC	0,01 g/kWh*
Nitrogen oxides NO _x	3,01 g/kWh*
Carbon monoxide CO	0,02 g/kWh*
Particulate number Pn	5,1x10 ¹¹ #/kWh*
Cycle consumption Fuel	293 g/kWh* (14,8 l/h)

Noise level

Noise level at driver's ear	74,0 dB(A)
Passing noise	80,5 dB(A)

* With reference to PTO power

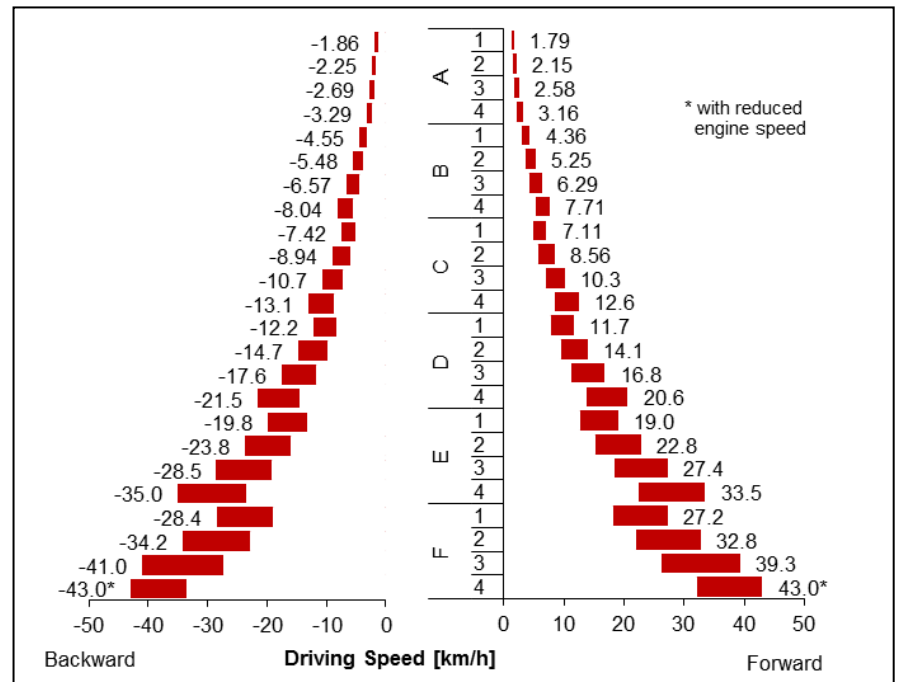
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TRANSMISSION

Travel gear

- Wet multi-disc clutch
- 24 forward and 24 reverse gears
- 6 gears
- 4 powershift stages
- Powershift reverse gearbox

Driving speed at rated engine speed
(tyre radius r = 800 mm)



PTO transmission

Rear

- Wet multi-plate clutch,
electro-hydraulic engagement

Front

▪ —

	Rear						Front
PTO shaft	430	540	540E	1000	1000 E	Ground speed	1000
Engine speed	-	1962	1496	1962	-	nein	-

HYDRAULICS

Remote hydraulics

- max. oil pressure 204,1 bar
- max. flow rate 117,6 l/min
- flow rate 112,8 l/min at 173,5 bar
- max. hydraulic power 35,1 kW
(112,2 l/min and 187,8 bar)
- max. flow rate through a single coupler 100,3 l/min
- max. quantity of oil taken 15 (25) l

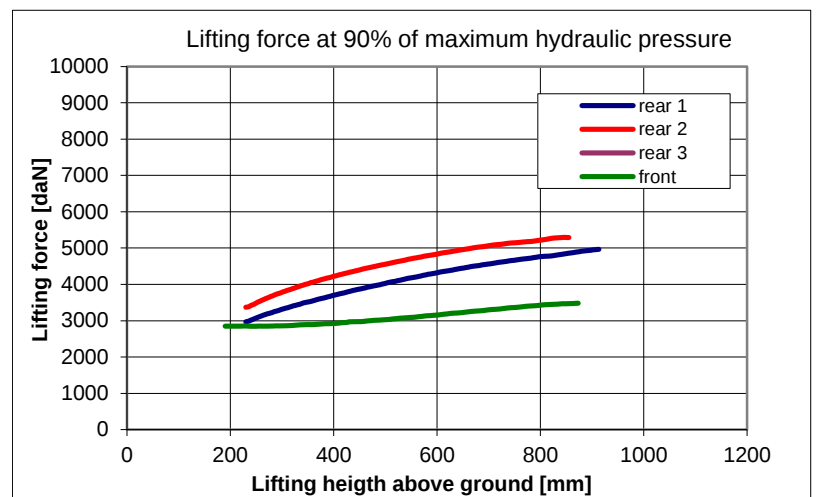
3-Point Hitch

Rear

3-Point Hitch, category II / III
Control hydraulics via lower link, (EHR)

Front

3-Point Hitch, category II



		Lifting force at 90% pressure		
Measurement		Lifting movement	Continuous	Maximum
Rear	Lower link, short	683 mm	2970 daN	4970 daN
	Lower link, medium	625 mm	3360 daN	5300 daN
	Lower link, long			
Front		683 mm (190 mm to 873 mm)	2845 daN	3480 daN