

John Deere 6215R

Tractor Test No. 2003/15

APPLICANT

Matra, branch of Robert Aebi AG
Industriering 19
3250 Lyss

TRACTOR

Manufacturer John Deere
Model John Deere 6215R
Approval certificate no. 4JA3 57

SUSPENSION AND BRAKES

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

DRIVER PROTECTION

Integrated safety cab
hydraulic suspended

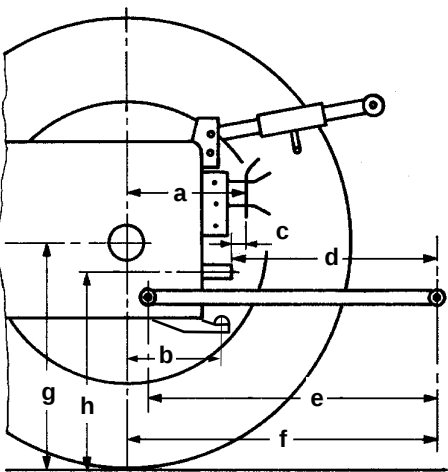


TYRES

		Track width
front	600/70 R28	1900 mm
rear	710/70 R42	1820 mm

DIMENSIONS

Length	— mm
With front mounting	5650 mm
Front overhang from steering wheel	3130 mm
Width	2550 mm
Height	3150 mm
Wheelbase	2800 mm
Ground clearance	540 mm
Turning diameter	13,7 m (without four-wheel drive) 14,7 m (with four-wheel drive)



Rear

a	850 mm
b	— mm
c	230 mm
d	660 mm
e	1080 mm
f	1280 mm
g	900 mm
h	880 mm

Front

d	— mm
e	770 mm
f	1460 mm
g	740 mm
h	— mm

TEST EQUIPMENT

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

WEIGHT

in test equipment

Front	3540 kg	40 %
Rear	5370 kg	
Total	8910 kg	

Permissible front axle load	6180 kg
Permissible rear axle load	10270 kg
Permissible total weight	13450 kg

Payload	4540 kg
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Towed weight, braked	36 000 kg
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CAPACITIES

Fuel tank	405 l	
AdBlue tank	20 l	
Engine oil	23,5 l	(change interval 750 h)
Gearbox and Hydraulic oil 75 (103) l		(change interval 1500 h)



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ENGINE (Manufacturer's data)

Manufacturer	John Deere		
Model	6068HL501B		
Injection	Diesel direct injection		
	CommonRail		
Supercharging	Exhaust gas turbocharger and air-to-air intercooling		
	External cooled exhaust gas recirculation		
Exhaust emission treatment	DOC + DPF + SCR		
Bore/stroke	106,5 / 127 mm		
Cylinders / capacity	6 / 6788 cm ³		
Cooling	Water, viscous fan		

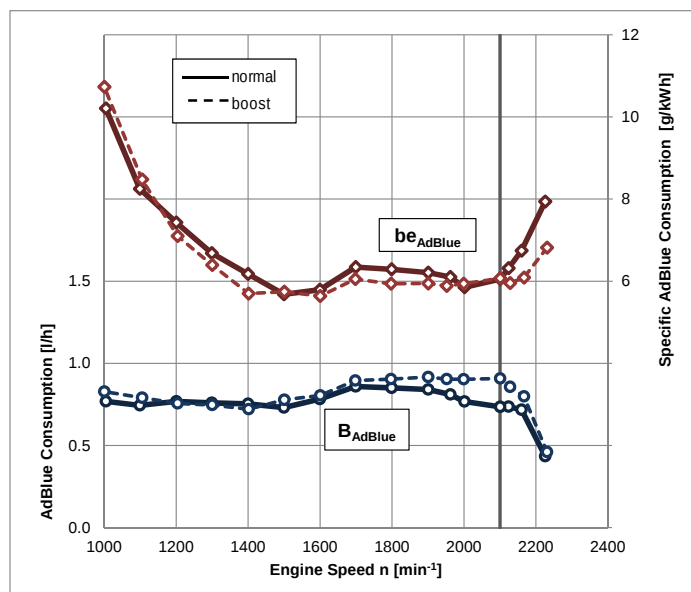
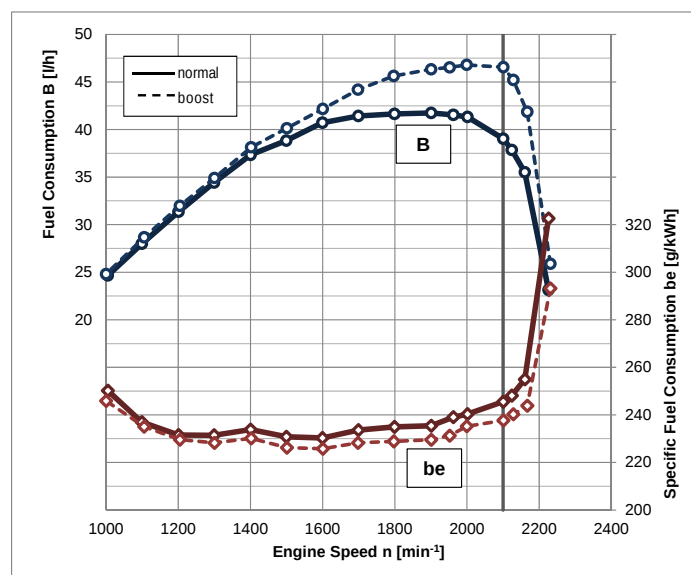
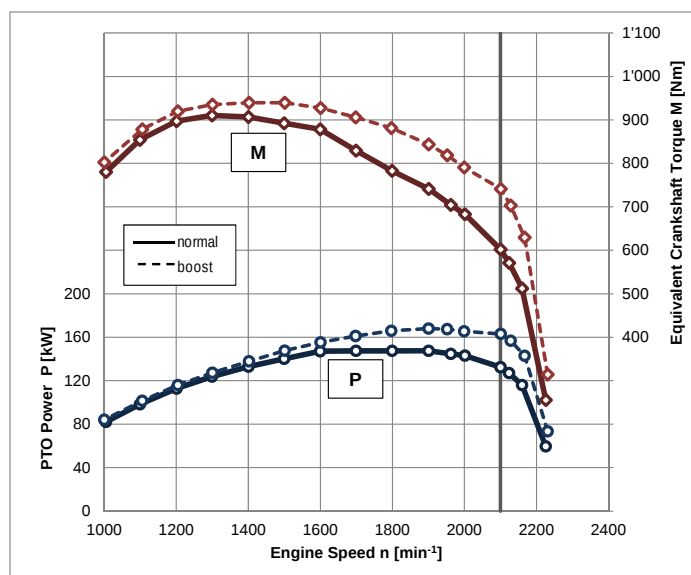
Rated power	158 kW (215HP)	ECE R120
With boost	188 kW (256 HP)	ECE R120

Rated engine speed	2100 min ⁻¹
Exhaust stage	IV

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: 10.11.2014

- air temperature 20 °C
- relative atmospheric humidity 35 %
- atmospheric pressure 949 mbar

John Deere 6215R

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	1076	132,5	180,1	246	39,0	6	0,7
	boost			163,0	221,7	238	46,6	6	0,9
Maximum power	normal	1900	974	147,6	200,6	236	41,7	6	0,8
	boost			168,0	228,4	230	46,3	6	0,9
Normal speed PTO	normal	1952	1000	144,7	196,7	239	41,5	6	0,8
	boost			167,4	227,6	231	46,5	6	0,9

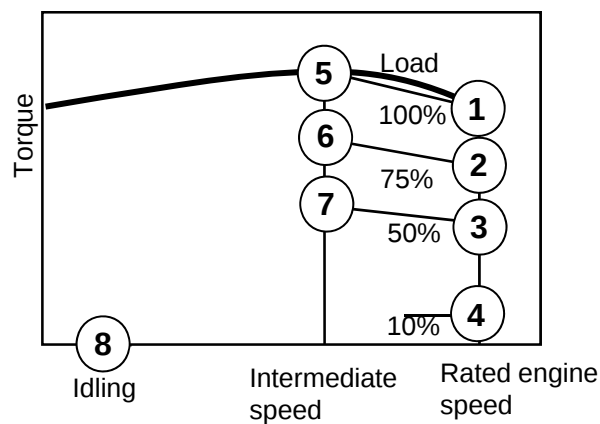
Max. torque	910 Nm at 1300 min ⁻¹	<u>Boost</u> 939 Nm, at 1400 min ⁻¹
Torque increase	51 % at 38 % speed drop	27 % at 33 % speed drop
Starting torque	130 %	108 %
Idling speed	850 min ⁻¹	
Cutoff speed	2250 min ⁻¹	

Partial load values

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

			<u>Boost</u>	
PTO shaft	Fuel	AdBlue	<i>Fuel</i>	<i>AdBlue</i>
1000 min ⁻¹	292 g/kWh, 21,5 l/h	8 g/kWh, 0,5 l/h	270 g/kWh, 23,1 l/h	5 g/kWh, 0,4 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	238	46,6	6	0,9
2	245	36,0	6	0,7
3	269	26,4	7	0,5
4	640	12,6	14	0,2
5	226	40,1	5	0,7
6	229	30,5	5	0,5
7	241	21,4	6	0,4
8	-	2,3	-	0,0

EMISSIONS

Exhaust gas emissions

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

▪ Hydrocarbons HC	0,00 g/kWh*
▪ Nitrogen oxides NOx	0,13 g/kWh*
▪ Carbon monoxide CO	0,01 g/kWh*
▪ Particulate number Pn	4,0x10 ¹⁰ #/kWh*
▪ Cycle consumption	
Fuel	251 g/kWh* (27,2 l/h)
AdBlue	6 g/kWh* (0,5 l/h)

* With reference to PTO power

Noise level

- Noise level at driver's ear 72,0 dB(A)
- Passing noise 81,0 dB(A)

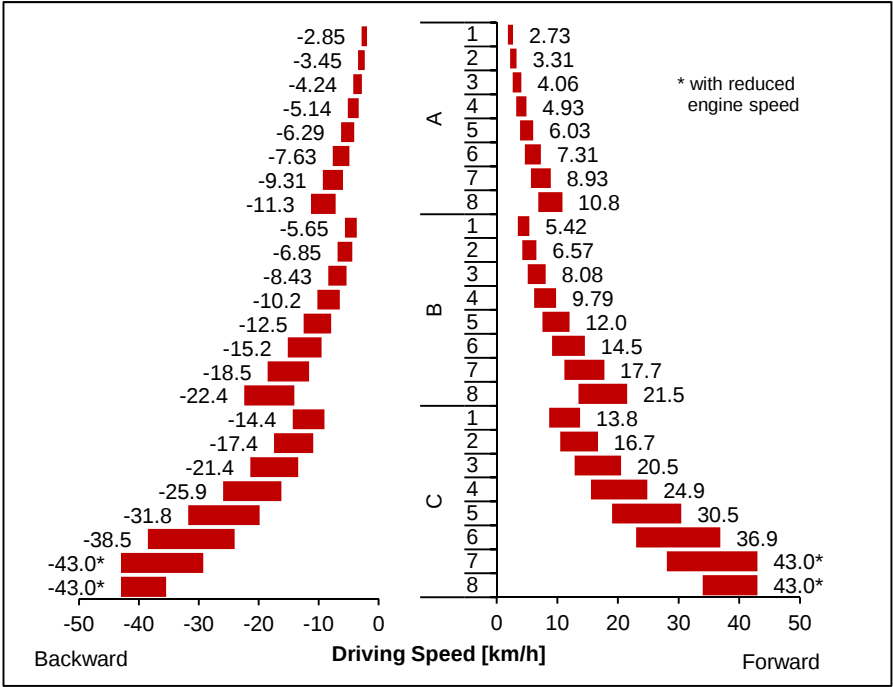
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TRANSMISSION

Travel gear

- Dual-clutch
- 24 forward and 24 reverse gears
- 3 gears
- 8 powershift
- Powershift reverse gearbox

Driving speed at rated engine speed
(tyre radius r = 975 mm)



PTO transmission

Rear

- Wet multi-plate clutch, electro-hydraulic engagement

Front

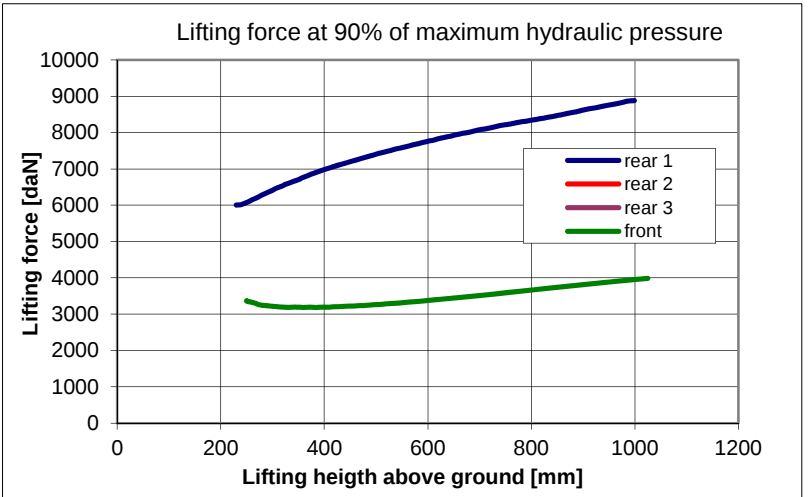
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	Rear						Front
PTO shaft	430	540	540E	1000	1000 E	Ground speed	1000
Engine speed	-	1950	1721	1950	-	-	-

HYDRAULICS

Remote hydraulics

- max. oil pressure 203,9 bar
- max. flow rate 117,0 l/min
- flow rate 112,4 l/min at 173,3 bar
- max. hydraulic power 34,2 kW (111,5 l/min and 183,9 bar)
- max. flow rate through a single coupler 117,0 l/min
- max. quantity of oil taken 27 (55) l



3-Point Hitch

Rear

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

Front

3-Point Hitch, category II / III

		Lifting force at 90% pressure	
Measurement		Lifting movement	
Rear	Lower link, short	770 mm	6000 daN
	Lower link, medium		
	Lower link, long		
Front		775 mm (250 mm to 1025 mm)	3180 daN