

# John Deere 6115R

Tractor Test No. 1984/13

## APPLICANT

Matra, branch of Robert Aebi AG  
Industriering 19  
3250 Lyss

## TRACTOR

Manufacturer: John Deere  
Model: John Deere 6115R  
Approval certificate no.: 4JA3 33

## 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

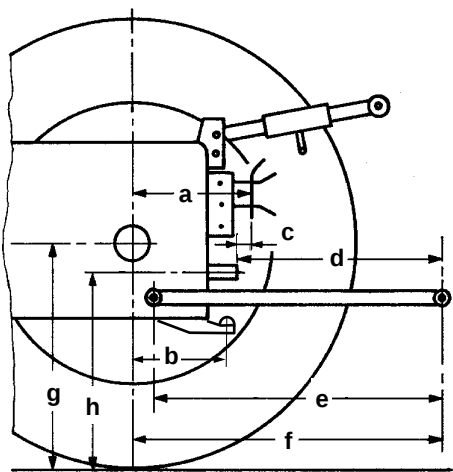


## TYRES

|                   |              |
|-------------------|--------------|
|                   | Track width: |
| front: 540/65 R24 | 1830 mm      |
| rear: 600/65 R38  | 1810 mm      |

## DIMENSIONS

|                                     |                                                                     |
|-------------------------------------|---------------------------------------------------------------------|
| Length:                             | 4450 mm                                                             |
| With front mounting:                | — mm                                                                |
| Front overhang from steering wheel: | — mm                                                                |
| Width:                              | 2440 mm                                                             |
| Height:                             | 2800 mm                                                             |
| Wheelbase:                          | 2580 mm                                                             |
| Ground clearance:                   | 430 mm                                                              |
| Turning diameter:                   | 11,0 m (without four-wheel drive)<br>11,9 m (with four-wheel drive) |



### Rear

a: 730 mm  
b: 550 mm  
c: 190 mm  
d: 610 mm  
e: 1010 mm  
f: 1150 mm  
g: 800 mm  
h: 740 mm

### Front

d: — mm  
e: — mm  
f: — mm  
g: — mm  
h: — mm

## TEST EQUIPMENT

- air-conditioning compressor

## WEIGHT

in test equipment

|        |         |      |
|--------|---------|------|
| Front: | 2320 kg | 40 % |
| Rear:  | 3430 kg |      |
| Total: | 5750 kg |      |

|                              |         |
|------------------------------|---------|
| Permissible front axle load: | 4600 kg |
| Permissible rear axle load:  | 7000 kg |
| Permissible total weight:    | 9500 kg |

|          |         |
|----------|---------|
| Payload: | 3750 kg |
|----------|---------|

|                       |           |
|-----------------------|-----------|
| Towed weight, braked: | 34 000 kg |
|-----------------------|-----------|

## CAPACITIES

|               |           |                          |
|---------------|-----------|--------------------------|
| Fuel tank     | 220 l     |                          |
| AdBlue tank   | — l       |                          |
| Engine oil    | 16 l      | (change interval 500 h)  |
| Gearbox and   |           |                          |
| Hydraulic oil | 50 (65) l | (change interval 1500 h) |

# John Deere 6115R

## ENGINE (Manufacturer's data)

Manufacturer: John Deere  
Model: 4045HL495  
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<sup>3</sup>  
Cooling: Water, viscous fan

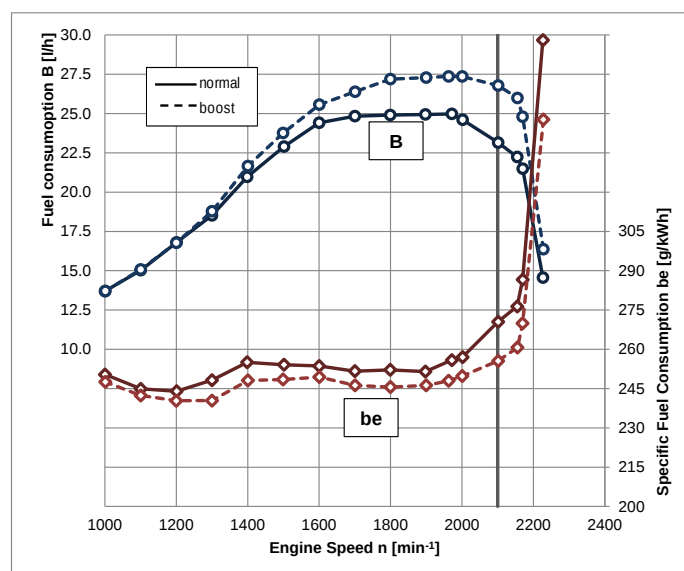
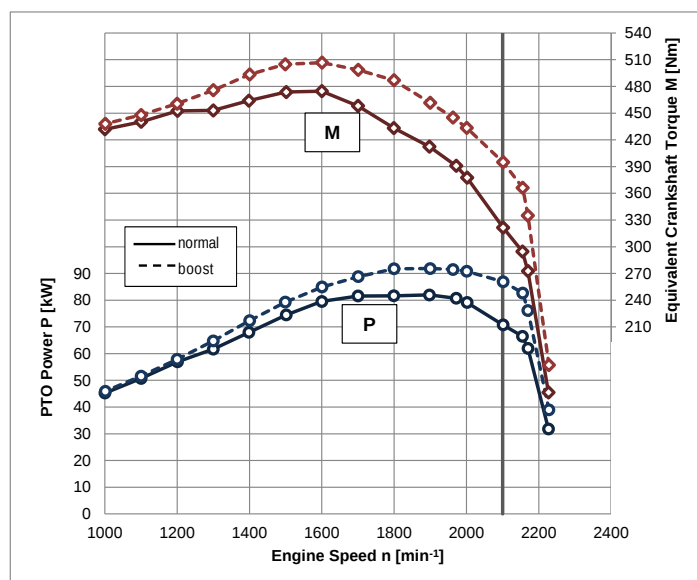
Rated power: 85 kW (115 PS) 97/68EG  
With boost: 99 kW (135 PS) 97/68EG

Rated engine speed: 2100 min<sup>-1</sup>  
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:

- air temperature: 20 °C
- relative atmospheric humidity: 22 %
- atmospheric pressure: 953 mbar



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Federal Department of Economic Affairs,  
Education and Research EAER  
Agroscope

Swiss Confederation

# John Deere 6115R

## Full load test values

|                  |        | Speed [min <sup>-1</sup> ] |      | 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 | 70,8  | 96,2  | 271              | 23,2           | —                  | —              |
|                  | boost  |                            |      | 86,9  | 118,2 | 256              | 26,8           | —                  | —              |
| Maximum power    | normal | 1900                       | 968  | 81,6  | 111,0 | 252              | 24,9           | —                  | —              |
|                  | boost  |                            |      | 91,8  | 124,9 | 246              | 27,3           | —                  | —              |
| Normal speed PTO | normal | 1962                       | 1000 | 80,7  | 109,7 | 256              | 25,0           | —                  | —              |
|                  | boost  |                            |      | 91,5  | 124,4 | 248              | 27,4           | —                  | —              |

Max. torque: 475 Nm at 1600 min<sup>-1</sup>  
Torque increase: 48 % at 24 % speed drop  
Starting torque: 134 %  
Idling speed: 850 min<sup>-1</sup>  
Cutoff speed: 2250 min<sup>-1</sup>

Boost  
507 Nm, at 1600 min<sup>-1</sup>  
28 % at 24 % speed drop  
111 %

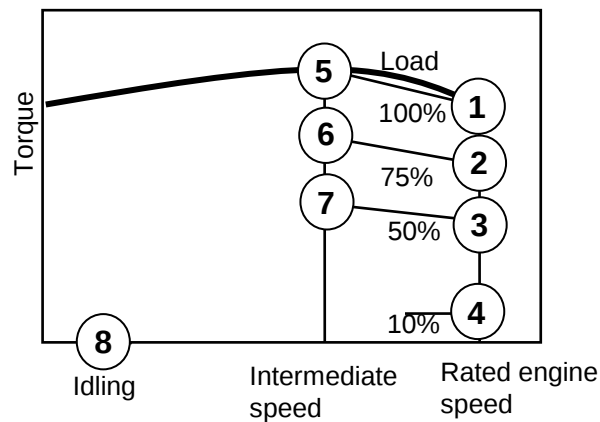
## Partial load values

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

PTO shaft    Fuel                      AdBlue  
1000 min<sup>-1</sup>: 326 g/kWh, 13,5 l/h — g/kWh, — l/h  
1000E min<sup>-1</sup>: — g/kWh, — l/h — g/kWh, — l/h

Boost  
Fuel                      AdBlue  
317 g/kWh, 14,7 l/h — g/kWh, — l/h  
— g/kWh, — l/h — g/kWh, — 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               | 256              | 26,8           | —                  | —              |
| 2               | 271              | 21,3           | —                  | —              |
| 3               | 308              | 16,2           | —                  | —              |
| 4               | 767              | 8,1            | —                  | —              |
| 5               | 249              | 25,0           | —                  | —              |
| 6               | 247              | 18,7           | —                  | —              |
| 7               | 267              | 13,4           | —                  | —              |
| 8               | —                | 1,8            | —                  | —              |

## EMISSIONS

### Exhaust gas emissions

- Black smoke 0,05 SZ (BOSCH)

### Emissions according to ISO 8178-4, C1

(with boost)

- Hydrocarbons HC 0,01 g/kWh\*
- Nitrogen oxides NOx 2,81 g/kWh\*
- Carbon monoxide CO 0,02 g/kWh\*
- Particulate number Pn 3,6E10 #/kWh\*
- Cycle consumption
  - Fuel 278 g/kWh\* (16,5 l/h)
  - AdBlue — g/kWh\* ( — l/h)

\* With reference to PTO power

### Noise level

- Noise level at driver's ear: 73,0 dB(A)
- Passing noise: 83,0 dB(A)



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Federal Department of Economic Affairs,  
Education and Research EAER  
Agroscope

Swiss Confederation

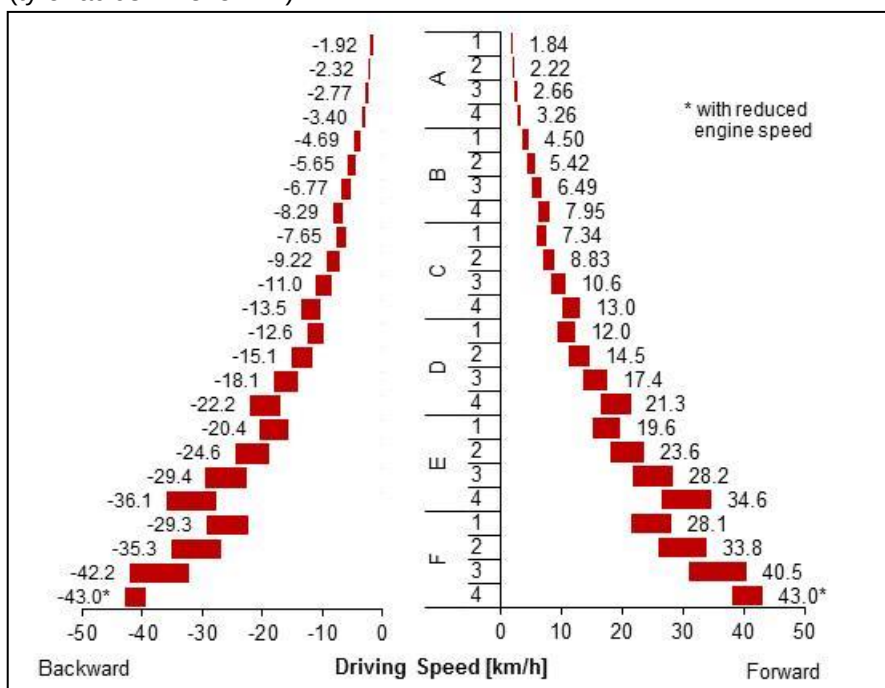
# John Deere 6115R

## 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  $r = 825$  mm)



## PTO transmission

### Rear

- Wet multi-plate clutch, electro-hydraulic engagement

### Front

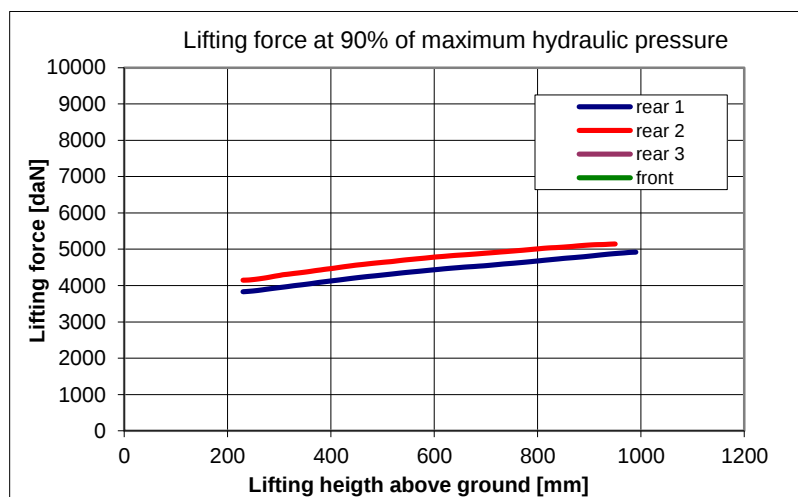
—

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

## HYDRAULICS

### Remote hydraulics

- max. oil pressure: 205,2 bar
- max. flow rate : 117,4 l/min
- flow rate: 111,8 l/min at 174,4 bar
- max. hydraulic power: 34,4 kW (108,3 l/min and 190,7 bar)
- max. flow rate through a single coupler: 112,9 l/min
- max. quantity of oil taken: 27 (42) l



## 3-Point Hitch

### Rear

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

### Front

-

|             |                    | Lifting force at 90% pressure |          |          |
|-------------|--------------------|-------------------------------|----------|----------|
| Measurement | Lifting movement   | Continuous                    | Maximum  |          |
| Rear        | Lower link, short  | 760 mm                        | 3830 daN | 4930 daN |
|             | Lower link, medium | 720 mm                        | 4145 daN | 5150 daN |
|             | Lower link, long   |                               |          |          |
| Front       | -                  | -                             | -        | -        |

Explanatory notes on tractor test at:  
[www.traktorentest.ch](http://www.traktorentest.ch)



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Federal Department of Economic Affairs,  
Education and Research EAER  
Agroscope

Swiss Confederation