



OECD approval number

2/1 787

Restricted Code

OECD approval date

07/10/1998

Make

Caterpillar

Model

Challenger 85E

Type

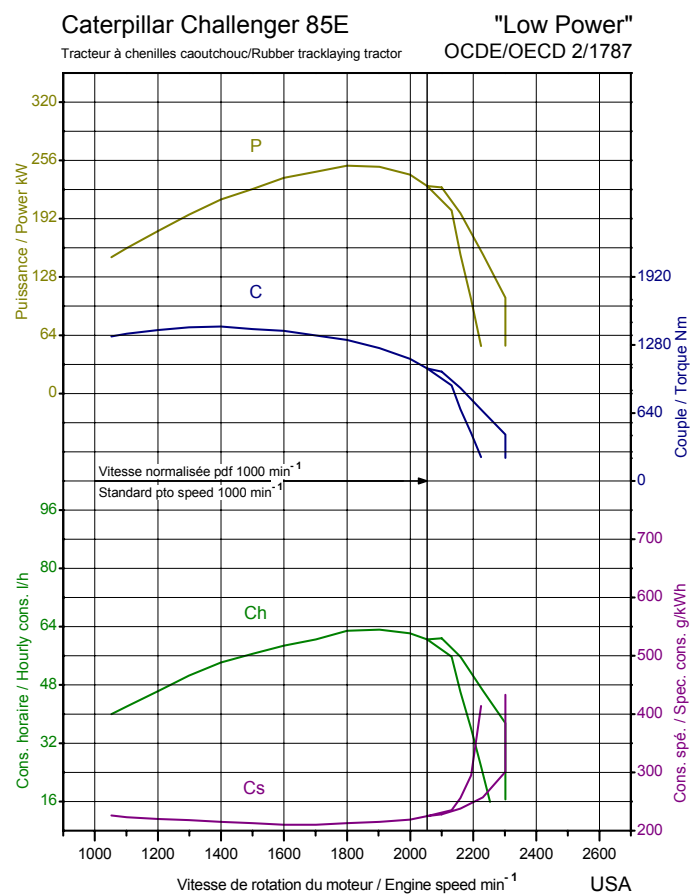
Rubber tracklaying tractor

30 km/h

Manufacturer Caterpillar Agricultural Products Inc.

Testing station:

Nebraska Tractor Test Laboratory, Lincoln, USA



Engine, Transmission, Power take-off Specifications

<i>Make, Model</i>	Caterpillar	3196
<i>Type, Supercharging</i>	Direct injection	Yes
<i>Cylinders, Disposition</i>	6	vertical in line
<i>Capacity, Cooling</i>	11946 cm ³	Liquid
<i>Gear box</i>		Mechanical powershift
<i>Number of forward and reverse speeds</i>	10	2
<i>Speed at rated engine speed</i>	from 4.50	to 28.90 km/h
<u>Standard Power take-off speed</u>	<u>540 min⁻¹</u>	<u>1000 min⁻¹</u>
<i>Power take-off speed at rated engine speed</i>		1024 min ⁻¹
<i>Diameter of the shaft</i>		45 mm
<i>Number of splines</i>		20

Power take-off TestTwo hours test at maximum power

<i>Power, Engine and Power take-off speed</i>	250.3 kW	1800 min ⁻¹	876 min ⁻¹
<i>Hourly and specific consumption</i>		62.87 l/h	213 g/kWh

Test at maximum power at rated engine speed

<i>Power, Engine and Power take-off speed</i>	226.1 kW	2100 min ⁻¹	1023 min ⁻¹
<i>Hourly and specific consumption</i>		60.84 l/h	228 g/kWh

Test at standard Power take-off speed

<i>Power, Engine and Power take-off speed</i>	227.9 kW	2054 min ⁻¹	1000 min ⁻¹
<i>Hourly and specific consumption</i>		60.52 l/h	225 g/kWh

Torque rise

<i>Maximum torque, Engine speed corresponding</i>		1455.0 Nm	1400 min ⁻¹
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Drawbar Test

<i>Track length and track width</i>	8529 mm	762 mm
<u>Test with tractor</u>	<u>unballasted</u>	<u>ballasted</u>
<i>Total Mass</i>	15833 kg	17493 kg
<i>Maximum drawbar pull</i>	151.6 kN	163.3 kN
<i>at speed of</i>	3.92 km/h	3.85 km/h
<i>Maximum power</i>	243.6 kW	243.9 kW
<i>at speed of</i>	9.18 km/h	9.22 km/h

Hydraulic Performance and Power Lift Test

<i>Hydraulic system</i>			Closed centre
<u>At maximum hydraulic power</u>			
<i>Flow rate, Pressure, Power</i>	147.3 l/min	18.1 MPa	44.5 kW