



JOHN DEERE

ENGINE PERFORMANCE CURVE

Rating: Gross Power

Application: Industrial
Intermittent / Continuous

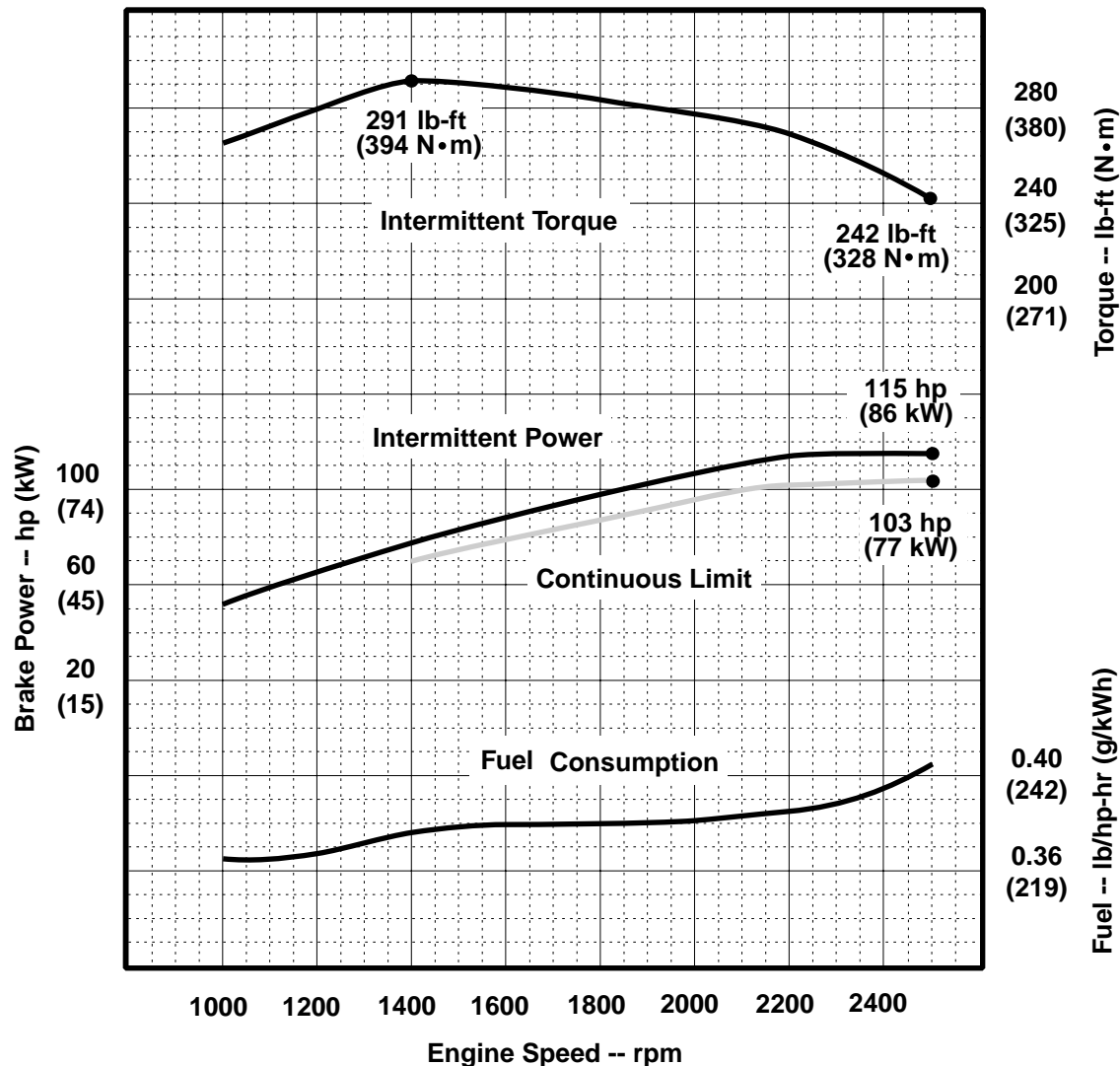
PowerTech 4.5 L Engine

Model: 4045TF275

115 hp @ 2500 rpm

86 kW @ 2500 rpm

[See Option Code Tables]



Air Intake Restriction 12 in.H₂O (3 kPa)
Exhaust Back Pressure 30 in.H₂O (7.5 kPa)

Gross power guaranteed within + or - 5% at SAE J1995 and ISO 3046 conditions:

- 77 °F (25 °C) air inlet temperature
- 29.31 in.Hg (99 kPa) barometer
- 104 °F (40 °C) fuel inlet temperature
- 0.853 fuel specific gravity @ 60 °F (15.5 °C)

Conversion factors:

- Power: kW = hp x 0.746
- Fuel: 1 gal = 7.1 lb, 1 L = 0.85 kg
- Torque: N·m = lb-ft x 1.356

All values are from currently available data and are subject to change without notice.

Notes:

Tier-2 Emission Certifications:

Certified by:

CARB; EPA; EU
Ref: Engine Emission Label

Brian L. Carlson
27 NOV 2001

* Revised Data

Curve: 4045TF275115l Sheet 1 of 3
November 2001

Engine Specification Data

Electronic Engine Controls (JDEC) Options

Performance System Option Code Table		
Option Codes		System Voltage
Injection Pump	Performance Software	
Standard Feature ECU		
161K	7288	12V
163L	7289	24V
Extended Feature ECU		
163H	7288	12V
161L	7289	24V

ECU Feature Software Option Code (8300 Group) Table Industrial Applications - Stanadyne DE10							
Option Code	Oil Pressure Sensor	Governing	Cruise Control	Engine Protection		Available Throttle Inputs	
				ECU Software	External Input	Analog	Digital
Standard Feature ECU							
8305	No	8% Droop	No	Derate Only	None	None	2-State
8308	Yes	8% Droop	No	Derate Only	None	None	2-State
8309	Yes	8% Droop	No	Derate w/shutdown	None	None	2-State
8316	No	8% Droop	No	Derate Only	None	None	Ramp
8317	Yes	8% Droop	No	Derate Only	None	None	Ramp
8318	Yes	8% Droop	No	Derate w/shutdown	None	None	Ramp
Extended Feature ECU							
8310	No	8% Droop	Yes	Derate Only	Shutdown Only	Two	2-State
8311	Yes	8% Droop	Yes	Derate Only	Shutdown Only	Two	2-State
8312	Yes	8% Droop	Yes	Derate w/shutdown	Shutdown Only	Two	2-State
8313	No	Selectable	No	Derate Only	Derate & Shutdown	Two	Adj. 3-State
8314	Yes	Selectable	No	Derate Only	Derate & Shutdown	Two	Adj. 3-State
8315	Yes	Selectable	No	Derate w/shutdown	Derate & Shutdown	Two	Adj. 3-State
8319	No	8% Droop	Yes	Derate Only	Shutdown Only	Two	Ramp
8320	Yes	8% Droop	Yes	Derate Only	Shutdown Only	Two	Ramp
8321	Yes	8% Droop	Yes	Derate w/shutdown	Shutdown Only	Two	Ramp
8322	No	Selectable	No	Derate Only	Derate & Shutdown	Two	Ramp
8323	Yes	Selectable	No	Derate Only	Derate & Shutdown	Two	Ramp
8324	Yes	Selectable	No	Derate w/shutdown	Derate & Shutdown	Two	Ramp

Performance Data

Rated Power--hp (kW) [I].....	115 (86)
[C].....	103 (77)
Rated Speed--rpm	2500
Peak Torque--lb-ft (N•m) [I].....	291 (394)
[C].....	261 (354)
Peak Torque Speed--rpm.....	1400
Low Idle Speed--rpm	800
BMEP--psi (kPa) [I].....	132 (910)
[C].....	118 (817)
Friction Power @ Rated Speed--hp (kW)	30 (22)
Altitude Capability -- ft (m)	10000 (3050)
Ratio--Air : Fuel [I].....	27.9:1
[C].....	29.8:1
Smoke @ Rated Speed--Bosch No. [I].....	< 2
[C].....	< 2
Noise--dB(A) @ 1 m [I].....	94.5*
[C].....	94.2*

Engine Speed rpm	Contin. Limit hp(kW)	Intermit. Power hp(kW)	Intermit. Torque lb-ft(N•m)	BSFC lb/hp-hr (g/kWh)
2500	103 (77)	115 (86)	242 (328)	0.404 (246)
2400	103 (77)	115 (86)	252 (342)	0.394 (240)
2200	102 (76)	113 (84)	270 (366)	0.385 (234)
2000	95 (71)	106 (79)	277 (376)	0.381 (232)
1800	87 (65)	97 (72)	283 (384)	0.381 (232)
1600	79 (59)	89 (66)	289 (392)	0.380 (231)
1400	70 (52)	78 (58)	291 (394)	0.376 (229)
1200	-----	63 (47)	277 (375)	0.368 (224)
1000	-----	51 (38)	266 (361)	0.365 (222)

All values at rated speed and power with standard options unless otherwise noted.

* Revised Data
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