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2011

Test 2014: New Holland Workmaster 75

Nebraska Tractor Test Lab

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NEBRASKA TRACTOR TEST 2014

NEW HOLLAND WORKMASTER 75 DIESEL

8 SPEED

POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed—(PTO speed—686 rpm)					
66.89 (49.88)	2500	4.69 (17.75)	0.494 (0.300)	14.27 (2.81)	
Maximum Power (1 hour)					
68.18 (50.84)	2201	4.31 (16.33)	0.446 (0.271)	15.80 (3.11)	
Standard Power Take-off Speed(540 rpm)					
66.69 (49.73)	1967	4.01 (15.19)	0.424 (0.258)	16.62 (3.27)	

VARYING POWER AND FUEL CONSUMPTION

66.89 (49.88)	2500	4.69 (17.75)	0.494 (0.300)	14.27 (2.81)	Air temperature
61.21 (45.64)	2692	4.58 (17.35)	0.528 (0.321)	13.36 (2.63)	73°F (23°C)
46.24 (34.48)	2713	3.88 (14.67)	0.591 (0.359)	11.93 (2.35)	Relative humidity
31.09 (23.18)	2722	2.92 (11.07)	0.663 (0.403)	10.64 (2.10)	9%
21.53 (16.06)	2730	2.32 (8.77)	0.758 (0.461)	9.30 (1.83)	Barometer
-- --	2797	1.22 (4.98)	--- ---	-- --	28.94"Hg (98.00kPa)

Maximum Torque - 202 lb.-ft. (274 Nm) at 1400 rpm
Maximum Torque rise - 43.8%
Torque rise at 2000 rpm - 24%

TRACTOR SOUND LEVEL WITHOUT CAB

	Front Wheel Drive Engaged dB(A)	Disengaged dB(A)
At no load in 4th (L4) gear	93.1	92.9
Bystander		---

TIRES AND WEIGHT

Rear Tires—No., size, ply & psi (kPa)
Front Tires—No., size, ply & psi (kPa)
Height of Drawbar
Static Weight with operator—Rear
—Front
—Total

Tested Without Ballast

Two 16.9-30; 6:16 (110)
Two 11.2-24; 6:16 (110)
19.0 in (480 mm)
3425 lb (1554 kg)
2540 lb (1152 kg)
5965 lb (2706 kg)

Location of tests: Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln Nebraska 68583-0832

Dates of tests: December 7 to 9, 2011

Manufacturer: New Holland Tractors (I) Pvt Ltd
Udyog Kendra, Plot No. 3 Greater Noida - 201303 U.P. India

FUEL, OIL and TIME: Fuel No. 2 Diesel
Specific gravity converted to 60°/60° F (15°/15°C) 0.8463
Fuel weight 7.047 lbs/gal (0.845 kg/l)
Oil SAE 15W40 API service classification CI-4
Transmission and hydraulic lubricant New Holland M2C134D fluid
Front axle lubricant New Holland M2C134D fluid
Total time engine was operated 8.5 hours

ENGINE: Make FPT Diesel **Type** four cylinder vertical with turbocharger
Serial No. 27202
Crankshaft lengthwise
Rated engine speed 2500
Bore and stroke 3.898" x 4.094" (99.0 mm x 104.0 mm)
Compression ratio 17.0 to 1
Displacement 195 cu in (3200 ml)
Starting system 12 volt
Lubrication pressure
Air cleaner two paper elements
Oil filter one full flow cartridge
Fuel filter one paper element
Muffler underhood
Exhaust vertical
Cooling medium temperature control one thermostat

ENGINE OPERATING PARAMETERS: Fuel rate: 31.1 - 33.3 lb/h (14.1 - 15.1 kg/h)
High idle: 2700 - 2800 rpm
Turbo boost: nominal 16.7 - 19.6 psi (115 - 135 kPa) as measured 18.3 psi (126 kPa)

CHASSIS: Type front wheel assist
Serial No. 1131667
Tread width rear 59.7" (1517 mm) to 80.2" (2036 mm) front 59.6" (1515 mm) to 79.6" (2022 mm)
Wheelbase 87.0" (2210 mm)
Hydraulic control system direct engine drive
Transmission selective gear fixed ratio
Nominal travel speeds mph (km/h) first 1.85 (2.98) second 2.79 (4.49) third 4.08 (6.57) fourth 5.28 (8.49) fifth 6.67 (10.74) sixth 10.04 (16.16) seventh 14.70 (23.66) eighth 18.99 (30.56) reverse 2.67 (4.29), 9.59 (15.43)
Clutch single dry disc operated by foot pedal
Brakes single wet disc operated by two foot pedals which can be locked together
Steering hydrostatic
Power take-off 540 rpm at 1967 engine rpm
Unladen tractor mass 5790 lb (2626 kg)

HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: None

OECD Static test

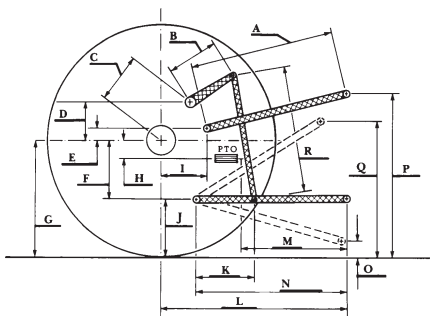
Maximum force exerted through whole range: 2460 lbs (10.9 kN) (at frame)
3394 lbs (15.1 kN) (at link ends)
2393 psi (171 bar)

i) Sustained pressure of the open relief valve: 2393 psi (171 bar)
ii) Pump delivery rate at minimum pressure and rated engine speed: 9.5 GPM (35.8 l/min)

iii) Pump delivery rate at maximum hydraulic power: 9.3 GPM (35.2 l/min)
Delivery pressure: 2086 psi (144 bar)
Power: 11.3 HP (8.4 kW)

HITCH DIMENSIONS AS TESTED - NO LOAD

	inch	mm
A	29.6	753
B	9.1	230
C	13.4	341
D	13.2	335
E	15.2	385
F	5.3	135
G	27.4	695
H	0.0	0
I	3.9	100
J	22.1	560
K	19.4	493
L	33.8	858
M	23.5	598
N	33.4	848
O	8.0	203
P	46.1	1170
Q	32.4	823
R	25.3	642



REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD, SAE and Nebraska test procedures. This tractor did not meet the manufacturer's claim of 10.4 GPM (39.3 lpm) hydraulic flow. For the maximum power tests, the fuel temperature at the primary fuel filter was maintained at 104°F (40°C).

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. **2014**, January 18, 2012.

Roger M. Hoy
Director

M.F. Kocher
D.R. Keshwani
P.J. Jasa
Board of Tractor Test Engineers



New Holland Workmaster 75 Diesel
Institute of Agriculture and Natural Resources
University of Nebraska-Lincoln