NEBRASKA TRACTOR TEST 1837B  
CASE IH DX 55 DIESEL  
ALSO CASE IH FARMALL 55 DIESEL  
12 SPEED

Location of Test: Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln Nebraska 68583-0832  
Dates of Test: April 29-30, 2004  
Manufacturer: CNH America LLC, 700 State Street, Racine, Wi. 53404

FUEL, OIL and TIME: Fuel No. 2 Diesel Specific gravity converted to 60°/60° F (15°/15°C)  
0.8432  
Fuel weight 7.021 lbs/gal (0.841 kg/l)

Oil  
SAE 15W40  
API service classification CF-4/SG  
Transmission and hydraulic lubricant Case IH Hytran ultra fluid  
Front axle lubricant Case IH Hytran ultra fluid  
Total time engine was operated 11.0 hours

ENGINE: Make ISM Diesel Type four cylinder vertical with turbocharger Serial No. 27999  
Crankshaft lengthwise  
Rated engine speed 2700  
Bore and stroke 3.307” x 3.937” (84.0 mm x 100.0 mm)  
Compression ratio 22.4 to 1  
Displacement 135 cu in (2216 ml)  
Starting system 12 volt  
Lubrication pressure  
Air cleaner two paper elements  
Oil filter one full flow cartridge  
Oil cooler engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil  
Fuel filter one paper element  
Muffler underhood  
Exhaust horizontal  
Cooling medium temperature control one thermostat

ENGINE OPERATING PARAMETERS: Fuel rate: 25.5 - 28.0 lb/h (11.6 - 12.7 kg/h)  
High idle: 2850 - 2950 rpm  
Turbo boost: nominal 8.0 - 10.1 psi (55 - 70 kPa) as measured 9.4 psi (65 kPa)  

CHASSIS: Type front wheel assist Serial No. HX10016 Tread width rear 52.8” (1341 mm) to 76.5” (1939 mm) front 56.4” (1432 mm) Wheelbase 74.8” (1900 mm) Hydraulic control system direct engine drive Transmission selective gear fixed ratio Nominal travel speeds mph (km/h) first 1.16 (1.86) second 1.56 (2.51) third 2.04 (3.29) fourth 2.62 (4.22) fifth 2.90 (4.67) sixth 3.95 (6.32) seventh 5.15 (8.28) eighth 6.61 (10.63) ninth 8.17 (13.15) tenth 11.06 (17.80) eleventh 14.48 (23.30) twelfth 18.59 (29.91) reverse 1.17 (1.88) 1.58 (2.55) 2.07 (3.33) 2.66 (4.28) 2.94 (4.73) 3.98 (6.41) 5.21 (8.39) 6.69 (10.77) 8.28 (13.32) 11.21 (18.04) 14.68 (23.73) 18.83 (30.31) 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 2475 engine rpm  
Unladen tractor mass 4685 lb (2125 kg)

POWER TAKE-OFF PERFORMANCE

| Power HP (kW) | Rated Engine Speed—PTO speed—589 rpm | Mean Atmospheric Conditions
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<tbody>
<tr>
<td></td>
<td>Gal/hr (l/h)</td>
<td>lb/hr (kg/h)</td>
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<tr>
<td>48.01 (35.80)</td>
<td>2700</td>
<td>3.95</td>
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<tr>
<td>47.80 (35.65)</td>
<td>2475</td>
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MAXIMUM POWER AND FUEL CONSUMPTION

<table>
<thead>
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<th>Standard Power Take-off Speeds (540 rpm)</th>
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VARYING POWER AND FUEL CONSUMPTION

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TRACTOR SOUND LEVEL WITHOUT CAB

Front Wheel Drive Disengaged Engaged  
89.0 dB(A) 89.0 dB(A)

TIRE SIZES AND WEIGHTS

Rear Tires—No., size, ply & psi (kPa)
Two 18.4-24; 8:12 (85)
Front Tires—No., size, ply & psi (kPa)
Two 12-16.5; 8:12 (85)
Height of Drawbar
17.0 in (430 mm)
1825 lb (828 kg)
4860 lb (2205 kg)

Front Wheel Drive Disengaged Engaged  
89.0 dB(A) 89.0 dB(A)
HYDRAULIC PERFORMANCE

CATEGORY: I, II
Quick Attach: None
OECD Static test
Maximum force exerted through whole range: 4028 lbs (17.9 kN) Category I
3254 lbs (14.5 kN) Category II

i) Sustained pressure of the open relief valve: 2550 psi (17.6 bar)

ii) Pump delivery rate at minimum pressure and rated engine speed:
    10.9 GPM (41.3 l/min)

iii) Pump delivery rate at maximum hydraulic power:
    10.7 GPM (40.5 l/min)

Delivery pressure: 1965 psi (135 bar)
Power: 12.3 HP (9.1 kW)

THREE POINT HITCH PERFORMANCE (SAE Static test)

Observed maximum pressure psi (bar): 2520 (174)
Location: hydraulic manifold
Hydraulic oil temperature: °F (°C): 145 (63)
Location: pump inlet
Category: II
Quick attach: none

REPAIRS AND ADJUSTMENTS: The fuel tank was found to be leaking following the PTO tests.


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 manufacturer’s claim of 11.6 GPM (43.9 lpm) hydraulic flow. For the maximum power tests, the fuel temperature at the injection pump inlet was maintained at 104°F (40°C).

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. 1837B, May 1, 2009.

Roger M. Hoy
Director

M.F. Kocher
V.I. Adamchuk
J.A. Smith
Board of Tractor Test Engineers

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<thead>
<tr>
<th>Category I</th>
<th>Category II</th>
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<td>inch</td>
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HITCH DIMENSIONS AS TESTED - NO LOAD

Case IH Farmall 55 Diesel

Institute of Agriculture and Natural Resources
University of Nebraska-Lincoln