

# SUMMARY OF OECD TEST 2967-NEBRASKA SUMMARY 1096

## CASE IH MAXXUM 145 DIESEL

### CONTINUOUSLY VARIABLE TRANSMISSION

#### POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Diesel Consumption		D.E.F. Consumption		Mean Atmospheric Conditions
		Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Gal/hr (l/h)	
<b>MAXIMUM POWER AND FUEL CONSUMPTION</b>						
<b>Rated Engine Speed—(PTO speed—1091 rpm)</b>						
121.9 (90.9)	2100	7.46 (28.22)	0.426 (0.259)	16.35 (3.22)	0.34 (1.28)	
<b>Standard Power Take-off Speed (1000 rpm)</b>						
132.1 (98.5)	1924	7.51 (28.42)	0.396 (0.241)	17.59 (3.47)	0.39 (1.46)	
<b>Maximum Power (1 hour)</b>						
135.6 (101.1)	1800	7.46 (28.24)	0.383 (0.233)	18.17 (3.58)	0.44 (1.67)	

#### VARYING POWER AND FUEL CONSUMPTION

121.9 (90.9)	2100	7.46 (28.22)	0.426 (0.259)	16.35 (3.22)	0.34 (1.28)	Air temperature
105.3 (78.5)	2134	6.67 (25.27)	0.441 (0.269)	15.79 (3.11)	0.38 (1.43)	74°F (23°C)
79.8 (59.5)	2155	5.47 (20.71)	0.478 (0.291)	14.58 (2.87)	0.34 (1.28)	Relative humidity
53.6 (40.0)	2176	4.40 (16.66)	0.572 (0.348)	12.18 (2.40)	0.26 (0.97)	49%
27.2 (20.3)	2195	3.24 (12.26)	0.829 (0.505)	8.40 (1.66)	0.14 (0.53)	Barometer
---	2216	2.32 (8.80)	---	---	0.08 (0.29)	28.9" Hg (98.0 kPa)

Maximum torque - 438 lb.-ft. (594 Nm) at 1500 rpm

Maximum torque rise - 43.6%

Torque rise at 1700 engine rpm - 35%

Power increase at 1800 engine rpm - 11%

#### DRAWBAR PERFORMANCE (Unballasted - Front Drive Engaged) FUEL CONSUMPTION CHARACTERISTICS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Temp. °F (°C) cool- ing med	Barom. inch Hg (kPa)
<b>Power at Rated Engine Speed—5.6 mph (9.0 km/h)</b>							
88.4 (65.9)	6090 (27.1)	5.44 (8.76)	2103	3.0	0.581 (0.353)	11.99 (2.36)	180 (82)
<b>75% of Pull at Rated Engine Speed—5.6 mph (9.0 km/h)</b>							
66.7 (49.7)	4565 (20.3)	5.48 (8.82)	2143	2.5	0.651 (0.396)	10.71 (2.11)	178 (81)
<b>50% of Pull at Rated Engine Speed—5.6 mph (9.0 km/h)</b>							
45.1 (33.6)	3060 (13.6)	5.53 (8.90)	2169	1.7	0.929 (0.565)	7.50 (1.48)	176 (80)
<b>75% of Pull at Reduced Engine Speed—6.2 mph (10.0 km/h)</b>							
66.4 (49.5)	4540 (20.2)	5.49 (8.83)	1874	2.3	0.534 (0.325)	13.05 (2.57)	178 (81)
<b>50% of Pull at Reduced Engine Speed—6.2 mph (10.0 km/h)</b>							
44.9 (33.5)	3055 (13.6)	5.51 (8.88)	1869	1.6	0.726 (0.441)	9.60 (1.89)	176 (80)

**Location of tests:** Istituto per le Macchine Agricole e Movimento Terra 73, Strada delle Cacce 10135 Torino Italy

**Dates of tests:** March to April, 2016.

**Manufacturer:** CNH Europe Holding S.A. 24, Boulevard Royal L-2449 Luxembourg

**CONSUMABLE FLUIDS:** Fuel No. 2 Diesel Specific gravity converted to 60°/60°F (15°/15°C) 0.837 Fuel weight 6.96 lbs/gal (0.835 kg/l) Diesel Exhaust Fluid (DEF) 32% aqueous urea solution DEF weight 9.08 lbs/gal (1.091 kg/l) Oil SAE 10W30 API service classification CJ-4 Transmission and hydraulic lubricant Akcela Nexplora fluid Front axle lubricant Akcela Nexplora fluid

**ENGINE:** Make FPT Diesel Type four cylinder vertical with turbocharger and air to air intercooler and D.E.F (diesel exhaust fluid) exhaust treatment Serial No. 1390063 Crankshaft lengthwise Rated engine speed 2100 Bore and stroke 4.094" x 5.197" (104.0 mm x 132.0 mm) Compression ratio 17.0 to 1 Displacement 274 cu in (4485 ml) Starting system 12 volt Lubrication pressure Air cleaner two paper elements and aspirator Oil filter one full flow cartridge Oil cooler engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil Fuel filter two paper elements Exhaust DOC (diesel oxidation catalyst) and SCR (selective catalyst reduction) integrated within a vertical muffler Cooling medium temperature control thermostat and variable speed fan

**CHASSIS:** Type front wheel assist Serial No. ZFEE01344 Tread width rear 61.0" (1550 mm) to 84.0" (2134 mm) front 61.4" (1560 mm) to 89.0" (2256 mm) Wheelbase 106.1" (2694 mm) Hydraulic control system direct engine drive Transmission Continuously variable transmission with compound planetary gears. Two mechanical ranges are electrohydraulically controlled. Nominal travel speeds mph (km/h) forward - first - 0 - 9.0 mph (0 - 14 km/h), second - 0 - 25 mph (0 - 40 km/h) reverse - 0 - 12 mph (0 - 20 km/h) Clutch wet disc hydraulically actuated by foot pedal Brakes wet disc hydraulically actuated by two foot pedals that can be locked together Steering hydrostatic Power take-off 540 rpm at 1969 engine rpm or 1000 rpm at 1924 engine rpm Unladen tractor mass 13865 lb (6290 kg)

## DRAWBAR PERFORMANCE

(Unballasted - Front Drive Engaged)

### MAXIMUM POWER AT SELECTED SPEED SETTINGS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Consumption Hp.hr/gal (kW.h/l)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
1.9 mph (3.0 km/h)									
50.0 (37.3)	11600 (51.6)	1.62 (2.60)	2141	14.8	0.873 (0.531)	7.97 (1.57)	178 (81)	59 (15)	28.9 (97.8)
2.2 mph (3.5 km/h)									
60.2 (44.9)	11490 (51.1)	1.96 (3.16)	2135	12.2	0.767 (0.466)	9.09 (1.79)	178 (81)	59 (15)	28.9 (97.8)
2.5 mph (4.0 km/h)									
69.5 (51.8)	11355 (50.5)	2.29 (3.69)	2130	10.5	0.723 (0.440)	9.64 (1.90)	178 (81)	59 (15)	28.9 (97.8)
3.1 mph (5.0 km/h)									
83.3 (62.1)	10790 (48.0)	2.90 (4.66)	2064	6.6	0.627 (0.381)	11.12 (2.19)	176 (80)	63 (17)	28.9 (97.8)
4.0 mph (6.5 km/h)									
94.1 (70.2)	9845 (43.8)	3.59 (5.77)	1918	5.6	0.556 (0.338)	12.54 (2.47)	185 (85)	64 (18)	28.9 (97.8)
4.3 mph (7.0 km/h)									
94.1 (70.2)	9690 (43.1)	3.64 (5.86)	1797	5.4	0.553 (0.336)	12.60 (2.48)	181 (83)	66 (19)	28.9 (97.8)
5.0 mph (8.0 km/h)									
96.2 (71.7)	8630 (38.4)	4.18 (6.72)	1801	4.5	0.540 (0.329)	12.89 (2.54)	176 (80)	66 (19)	28.9 (97.8)
5.9 mph (9.5 km/h)									
96.6 (72.0)	7260 (32.3)	4.99 (8.02)	1802	3.6	0.539 (0.328)	12.94 (2.55)	180 (82)	66 (19)	28.9 (97.8)
6.8 mph (11.0 km/h)									
96.8 (72.2)	6270 (27.9)	5.79 (9.31)	1799	3.1	0.538 (0.327)	12.94 (2.55)	178 (81)	66 (19)	28.9 (97.8)
7.8 mph (12.6 km/h)									
95.7 (71.4)	5350 (23.8)	6.71 (10.80)	1800	2.6	0.543 (0.331)	12.82 (2.53)	181 (83)	68 (20)	28.9 (97.8)

**REPAIRS AND ADJUSTMENTS:** No repairs or adjustments.

**REMARKS:** All test results were determined from observed data obtained in accordance with official OECD test procedures. The performance figures on this summary were taken from a test conducted under the OECD Code 2 test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2967**, Nebraska Summary 1096, May 23, 2017.

Roger M. Hoy  
Director

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Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Engaged dB(A)	Disengaged dB(A)
At no load at 4.7 mph (7.5 km/h)	70.1	69.5
Bystander at 19 mph (30 km/h) setting		85.5

### 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 650/65R38; \*\*;9 (60)

Two 540/65R28; \*\*;9 (60)

20.9 in (530 mm)

8345 lb (3785 kg)

5690 lb (2580 kg)

14035 lb (6365 kg)

## HYDRAULIC PERFORMANCE

CATEGORY: III

Quick Attach: None

OECD Static test

Maximum force exerted through whole range: 6990 lbs (31.1 kN) Lift cylinders 2x80 mm  
8945 lbs (39.8 kN) Lift cylinders 2x90 mm

i) Sustained pressure of the open relief valve: 3100 psi (214 bar)  
CCLSHydsystem  
two outlet sets combined

ii) Pump delivery rate at minimum pressure: 33.6 GPM (127.1 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 32.3 GPM (122.4 l/min)

Delivery pressure: 2640 psi (182 bar)

Power: 49.8 HP (37.1 kW)

single outlet set

ii) Pump delivery rate at minimum pressure: 26.4 GPM (100.1 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 25.2 GPM (95.3 l/min)

Delivery pressure: 2815 psi (194 bar)

Power: 41.3 HP (30.8 kW)

### HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	mm
A	27.0	685
B	12.2	310
C	15.6	395
D	14.6	370
E	7.9	200
F	9.2	235
G	34.4	875
H	3.0	75
I	16.9	430
J	25.2	640
K	19.9	505
L	45.0	1142
M	23.1	587
N	38.3	974
O	7.9	200
P	52.2	1325
Q	34.3	870
R	33.3	845

