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Test 1803: Kubota M6800DT Diesel

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SUMMARY OF OECD TEST 1803—NEBRASKA SUMMARY 501

KUBOTA M6800DT 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—612 rpm) | | | | | |
| 62.1 (46.3) | 2600 | 4.16 (15.73) | 0.469 (0.285) | 14.92 (2.94) | |
| Maximum Power (2 hours) | | | | | |
| 63.3 (47.2) | 2529 | 4.14 (15.69) | 0.458 (0.279) | 15.28 (3.01) | |
| Standard Power Take-off speed (540 rpm) | | | | | |
| 62.9 (46.9) | 2295 | 4.01 (15.16) | 0.446 (0.271) | 15.70 (3.09) | |
| VARYING POWER AND FUEL CONSUMPTION | | | | | |
| 62.1 (46.3) | 2600 | 4.16 (15.73) | 0.469 (0.285) | 14.92 (2.94) | Air temperature |
| 54.0 (40.3) | 2661 | 3.67 (13.90) | 0.476 (0.289) | 14.72 (2.90) | 66°F (19°C) |
| 41.0 (30.6) | 2689 | 2.98 (11.28) | 0.509 (0.309) | 13.76 (2.71) | Relative humidity |
| 27.5 (20.5) | 2707 | 2.36 (8.93) | 0.600 (0.365) | 11.67 (2.30) | 87% |
| 13.9 (10.4) | 2729 | 1.80 (6.81) | 0.903 (0.549) | 7.75 (1.53) | Barometer |
| -- | 2750 | 1.28 (4.86) | -- | -- | 30.0" Hg (101.5 kPa) |
| Maximum Torque -165.1 lb.-ft. (223.8 Nm) at 1400 rpm Maximum Torque Rise -31.5% Torque rise at 2100 engine rpm -23% | | | | | |

Location of tests: Institute of Agricultural Machinery
Bio-oriented Technology Research Advancement
Institution (IAM-Brain) Omiya, Japan

Dates of tests: October, 1998
Operator sound level - December 2, 2005

Manufacturer: Kubota Corporation, Tsukuba Plant
Aza, Sakanoshinden, Yawaramura, Tsukubagun,
Ibaraki, Japan

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F (15°/15°C)** 0.841
Fuel weight 7.00 lbs/gal (0.839 kg/l) **Oil** SAE 10W30
API service classification CD **Oil consumption for 10 hours** 0.06 lb (29 gm) **Transmission and hydraulic lubricant** SAE 75W/80 API GL-3 **Front axle lubricant** SAE 75W/80 API GL-3

ENGINE: Make Kubota Diesel **Type** four cylinder vertical **Serial No.** WN5147 **Crankshaft** lengthwise
Rated engine speed 2600 **Bore and stroke** 3.858" x 4.331" (98.0 mm x 110.0 mm) **Compression ratio** 22.6 to 1 **Displacement** 202 cu in (3318 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 **Fuel filter** one paper element **Muffler** underhood **Exhaust** vertical **Cooling medium temperature control** thermostat

CHASSIS: **Type** front wheel assist **Serial No.** M680-50531 **Tread width** rear 55.9" (1420 mm) to 67.7" (1720 mm) front 55.9" (1420 mm) to 59.8" (1520 mm) **Wheel base** 80.7" (2050 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph (km/h)** first 1.68 (2.70) second 2.25 (3.62) third 3.45 (5.55) fourth 5.14 (8.27) fifth 6.04 (9.72) sixth 8.10 (13.04) seventh 12.44 (20.02) eighth 18.53 (29.82) reverse 2.15 (3.46), 2.88 (4.64), 4.42 (7.11), 6.59 (10.60) **Clutch** single dry disc operated by foot pedal **Brakes** multiple wet disc operated by two foot pedals which can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 2307 engine rpm **Unladen tractor mass** 5375 lb (2437 kg)

**DRAWBAR PERFORMANCE
BALLASTED - 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) | Hp.hr/gal (kW.h/l) | Temp.°F (°C) cool- ing med | Air dry bulb | Barom. inch Hg (kPa) |
|--|--------------------------------|------------------------|---------------------------------|-----------|---|-----------------------|-------------------------------------|--------------------|-------------------------------|
| 75% of Pull at Maximum Power—Five Hours 4th (L4) Gear | | | | | | | | | |
| 45.8 (34.1) | 3335 (14.84) | 5.15 (8.28) | 2636 | 3.4 | 0.541 (0.329) | 12.94 (2.55) | 180 (82) | 81 (27) | 30.1 (101.8) |
| MAXIMUM POWER IN SELECTED GEARS | | | | | | | | | |
| 2nd (L2) Gear | | | | | | | | | |
| 38.4 (28.6) | 7235 (32.18) | 1.99 (3.20) | 2653 | 15.1 | 0.608 (0.370) | 11.52 (2.27) | 180 (82) | 73 (23) | 30.0 (101.7) |
| 3rd (L3) Gear | | | | | | | | | |
| 54.0 (40.2) | 6650 (29.59) | 3.04 (4.90) | 2533 | 11.4 | 0.550 (0.335) | 12.73 (2.51) | 181 (83) | 75 (24) | 30.1 (101.8) |
| 4th (L4) Gear | | | | | | | | | |
| 57.0 (42.5) | 4445 (19.78) | 4.81 (7.74) | 2534 | 5.9 | 0.533 (0.324) | 13.15 (2.59) | 183 (84) | 64 (18) | 30.0 (101.7) |
| 5th (H1) Gear | | | | | | | | | |
| 55.0 (41.0) | 3730 (16.60) | 5.53 (8.89) | 2437 | 4.3 | 0.530 (0.323) | 13.20 (2.60) | 183 (84) | 68 (20) | 30.0 (101.7) |
| 6th (H2) Gear | | | | | | | | | |
| 54.6 (40.7) | 2615 (11.63) | 7.83 (12.60) | 2534 | 2.9 | 0.545 (0.332) | 12.84 (2.53) | 178 (81) | 70 (21) | 30.0 (101.7) |

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor did not meet the manufacturer's claim of 3310 lbs (1500 kg) 3 point lift capacity. The performance results on this summary were taken from OECD tests conducted under the Code I Test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **1803**, Nebraska Summary 501, January 27, 2006.

Leonard L. Bashford
Director

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

TIRES, BALLAST AND WEIGHT

| | With Ballast | Without Ballast |
|------------------------------------|--------------------------|--------------------------|
| Rear Tires | Two 16.9-30; 6; 17 (118) | Two 16.9-30; 6; 17 (118) |
| Ballast | None | None |
| -Liquid (total) | 2050 lb (929 kg) | None |
| -Cast Iron (total) | 990 lb (450 kg) | None |
| Front Tires | Two 9.5-24; 6; 26 (176) | Two 9.5-24; 6; 26 (176) |
| Ballast | None | None |
| -Liquid (total) | 19.3 in (490 mm) | 19.7 in (500 mm) |
| -Cast Iron (total) | 5350 lb (2426 kg) | 3610 lb (1636 kg) |
| Height of Drawbar | 3230 lb (1465 kg) | 1930 lb (876 kg) |
| Static Weight with Operator | - Rear | 8580 lb (3891 kg) |
| | - Front | 5540 lb (2512 kg) |
| | - Total | |

TRACTOR SOUND LEVEL WITHOUT CAB

dB(A)

| | |
|-----------------------------|------|
| At no load in 4th (4L) gear | 88.2 |
| Bystander in 8th (4H) gear | 83.0 |

CENTER OF GRAVITY

| | |
|--|-------------------------|
| Horizontal distance forward from centerline of rear wheels | 28.1" (716 mm) |
| Vertical distance above roadway | 31.1" (791 mm) |
| Horizontal distance from center of rear wheel tread | 0.1" (3 mm) to the left |

TURNING ON A CONCRETE SURFACE

| | |
|------------------------------------|----------------------------------|
| Turning radius—with brake right | 124" (3.15 m) left 126" (3.21 m) |
| Turning radius—without brake right | 156" (3.97 m) left 155" (3.94 m) |

| | |
|--|----------------------------------|
| Turning space radius—with brake right | 134" (3.41 m) left 137" (3.47 m) |
| Turning space radius—without brake right | 166" (4.22 m) left 167" (4.25 m) |

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II

Quick Attach: None

| | |
|---|-----------------------|
| Maximum force exerted through whole range: | 2760 lbs (12.3 kN) |
| i) Opening pressure of relief valve: | NA |
| Sustained pressure with relief valve open: | 2760 psi (190 bar) |
| ii) Pump delivery rate at minimum pressure: | 11.7 GPM (44.4 l/min) |
| iii) Pump delivery rate at maximum hydraulic power: | 10.5 GPM (39.8 l/min) |
| Delivery pressure: | 2335 psi (161 bar) |
| Power: | 14.3 HP (10.7 kW) |

HITCH DIMENSIONS AS TESTED—NO LOAD

| | inch | mm |
|---|------|------|
| A | 23.6 | 600 |
| B | 9.4 | 240 |
| C | 11.6 | 294 |
| D | 10.9 | 278 |
| E | 7.0 | 180 |
| F | 7.7 | 197 |
| G | 27.2 | 692 |
| H | 0.5 | 13 |
| I | 12.0 | 305 |
| J | 19.5 | 495 |
| K | 15.6 | 395 |
| L | 35.2 | 894 |
| M | 22.0 | 559 |
| N | 31.1 | 790 |
| O | 7.2 | 183 |
| P | 43.5 | 1105 |
| Q | 31.3 | 794 |
| R | 21.7 | 550 |

