### Power Take-Off Performance

<table>
<thead>
<tr>
<th>Power HP</th>
<th>Crankshaft speed rpm</th>
<th>Gallons/hr (l/h)</th>
<th>lb/hp/hr (kg/kW.h)</th>
<th>hp/hr/gal (kW/h/l)</th>
<th>Mean Atmospheric Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>91.03</td>
<td>2501</td>
<td>5.68</td>
<td>0.437</td>
<td>16.03</td>
<td>(67.88)</td>
</tr>
<tr>
<td>86.90</td>
<td>2205</td>
<td>5.05</td>
<td>0.407</td>
<td>17.21</td>
<td>(64.80)</td>
</tr>
</tbody>
</table>

#### Maximum Power and Fuel Consumption

- Rated Engine Speed — (PTO speed — 637 rpm)
- Fuel used during active exhaust regeneration - 0.07 gal (0.26 l)
- (see note 1 p.2)

#### Varying Power and Fuel Consumption

<table>
<thead>
<tr>
<th>Power HP</th>
<th>Crankshaft speed rpm</th>
<th>Gallons/hr (l/h)</th>
<th>lb/hp/hr (kg/kW.h)</th>
<th>hp/hr/gal (kW/h/l)</th>
<th>Mean Atmospheric Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>91.03</td>
<td>2601</td>
<td>5.68</td>
<td>0.437</td>
<td>16.03</td>
<td>(67.88)</td>
</tr>
<tr>
<td>79.06</td>
<td>2606</td>
<td>5.13</td>
<td>0.455</td>
<td>15.41</td>
<td>(58.96)</td>
</tr>
<tr>
<td>79.95</td>
<td>2666</td>
<td>4.25</td>
<td>0.497</td>
<td>14.10</td>
<td>(44.69)</td>
</tr>
</tbody>
</table>

#### Air temperature

- Rated engine speed: 75°F (23°C)

#### Relative Humidity

- Rated engine speed: 50%

#### Barometer

- Rated engine speed: 28.74” Hg (79.33 kPa)

<table>
<thead>
<tr>
<th>Power HP</th>
<th>Crankshaft speed rpm</th>
<th>Gallons/hr (l/h)</th>
<th>lb/hp/hr (kg/kW.h)</th>
<th>hp/hr/gal (kW/h/l)</th>
<th>Mean Atmospheric Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>40.56</td>
<td>2714</td>
<td>3.45</td>
<td>0.598</td>
<td>11.71</td>
<td>(36.09)</td>
</tr>
<tr>
<td>20.32</td>
<td>2739</td>
<td>2.50</td>
<td>0.892</td>
<td>7.86</td>
<td>(11.15)</td>
</tr>
<tr>
<td>2.12</td>
<td>2761</td>
<td>1.73</td>
<td>5.700</td>
<td>1.23</td>
<td>(1.58)</td>
</tr>
</tbody>
</table>

Maximum torque: 2293 lb-ft (310 Nm) at 1503 rpm
Maximum torque rise: 24.6%
Torque rise at 2080 rpm: 16%

### Tractor Sound Level With Cab

<table>
<thead>
<tr>
<th>Condition</th>
<th>Front Wheel Drive Engaged / Disengaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>No load in 10thgear (HL5)</td>
<td>79.1 / 79.1</td>
</tr>
<tr>
<td>Bystander in 23rdgear (HH5)</td>
<td>80.8</td>
</tr>
</tbody>
</table>

### Tires and Weight

- **Rear Tires**—No., size, ply & psi (kPa)
  - No. 79 15.13
  - Size 18.4-30; 8; 16 (110)
  - Ply 19.5 in (495 mm)
  - psi 4070 lb (1846 kg)
  - kg 2650 lb (1202 kg)
  - hp 6720 lb (3068 kg)

- **Front Tires**—No., size, ply & psi (kPa)
  - No. 79 15.13
  - Size 12.4-24; 8; 16 (110)
  - Ply 19.5 in (495 mm)
  - psi 4070 lb (1846 kg)
  - kg 2650 lb (1202 kg)
  - hp 6720 lb (3068 kg)

- **Height of Drawbar**
  - Standard: 61.8" (1570 mm)
  - Mounted: 88.6" (2250 mm)

- **Static Weight with Operator—Rear**
  - No. 15.13
  - Size 18.4-30; 8; 16 (110)
  - Ply 19.5 in (495 mm)
  - psi 4070 lb (1846 kg)
  - kg 2650 lb (1202 kg)
  - hp 6720 lb (3068 kg)

- **Transmission and hydraulic system**
  - SAE 90 fluid
  - Specific gravity converted to 60°/60°F 0.8416

- **Air Cleaner**
  - Oil filter
  - Fuel filter

- **Exhaust**
  - Regenerative particulate filter integrated within a cartridge

- **Cooling medium temperature control**
  - one thermostat

### Engine Operating Parameters

- **Fuel rate:** 37.9 - 40.1 lb/hr (17.2 - 18.2 kg/hr)
- **High idle:** 2700 - 2800 rpm
- **Turbo Boost:** 3.93" x 4.724" (100.0 mm x 120.0 mm)
- **Compression Ratio:** 17.5 to 1
- **Displacement:** 230 cu in (3769 ml)
- **Starting System:** 12 volt

### Chassis

- **Type:** Front wheel assist
- **Serial No.:** M9960D53965
- **Weight:** 2600 lbs (1170 kg)

### Location of tests:

Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln Nebraska 68583-0832

### Dates of tests:

June 6 - 13, 2013

### Manufacturer:

Kubota Tsukuba Plant 10, Sakamoto-Shinden, Tsukuba-Mirai-City, Ibaraki, 300-2402 Japan

**FUEL, OIL and TIME:**

- **Fuel No. 2 Diesel**
- **Specific gravity:** converted to 60°/60°F 0.8416
- **Fuel weight:** 7.007 lbs/gal (0.840 kg/l)
- **Oil SAE 15W-40**
- **API service classification:** CJ-4
- **Transmission and hydraulic lubricant:** Kubota Super UDT 2 fluid
- **Front axle lubricant:** SAE 90 gear oil

**Total time engine was operated:** 8.5 hours

**Engine:** Make Kubota Diesel Type four cylinder vertical with turbocharger and air to air intercooler

**Engine Type:** Serial No. 2DC1960

**Crankshaft lengthwise:** Rated engine speed 2800 Bore and stroke 3.93” x 4.724”

**Engine coolant heat exchange rate:** for crankcase oil, radiator for hydraulic and transmission oil

**Fuel filter:** one full flow cartridge

**Oil cooler:** engine coolant heat exchanger for crankcase oil

**Exhaust system:** direct engine drive

**Transmission:** selective gear fixed ratio

**Nominal travel speeds mph (km/h):** first 1.39 (2.23) second 1.63 (2.62) third 1.87 (3.01) fourth 2.27 (3.66) fifth 2.44 (3.93) sixth 2.87 (4.62) seventh 3.11 (5.01) eighth 3.75 (6.04) ninth 3.87 (6.23) tenth 4.62 (7.45) eleventh 5.48 (8.91) twelfth 6.09 (9.80) thirteenth 6.62 (10.65) fourteenth 7.21 (11.60) fifteenth 8.36 (13.46) sixteenth 9.44 (15.20) seventeenth 10.78 (17.5) eighteenth 12.41 (20.05) nineteenth 14.15 (22.80) twentieth 16.49 (26.53) twenty-first 17.09 (27.51) twenty-second 20.35 (32.57) twenty-third 23.31 (37.32) electronically limited
HYDRAULIC PERFORMANCE

CATEGORY: II
Quick attach: None
OECD Static test

- Maximum force exerted through whole range: 6192 lbs (27.5 kN) (2 x 75 mm)
- Maximum force exerted through whole range: 4698 lbs (20.9 kN) (2 x 65 mm)

i) Sustained pressure of the open relief valve: 2837 psi (196 bar)

ii) Pump delivery rate at minimum pressure and rated engine speed: 17.1 GPM (64.6 l/min)

iii) Pump delivery rate at maximum hydraulic power: 15.2 GPM (57.6 l/min)

Delivery pressure: 2285 psi (158 bar)
Power: 20.3 HP (15.1 kW)

NOTE 1: The manufacturer declares that the average time between active regenerations is 18 hours, while operated in Auto Regeneration Cleaning Mode, at rated speed, full load, under steady state conditions.

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 3 point lift of claim of 7275 lbs (3300 kg) with 2 x 75 mm lift cylinders. For the maximum power tests, the fuel temperature at the fuel filter was maintained at 138°F (59°C).

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. 2065, July 15, 2013.

Roger M. Hoy
Director

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

NOTE 2: The maximum force exerted through whole range was measured for the lift cylinders.

HITCH DIMENSIONS AS TESTED—NO LOAD

<table>
<thead>
<tr>
<th>inch</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>29.1</td>
</tr>
<tr>
<td>B</td>
<td>11.0</td>
</tr>
<tr>
<td>C</td>
<td>12.0</td>
</tr>
<tr>
<td>D</td>
<td>11.3</td>
</tr>
<tr>
<td>E</td>
<td>11.3</td>
</tr>
<tr>
<td>F</td>
<td>9.3</td>
</tr>
<tr>
<td>G</td>
<td>28.4</td>
</tr>
<tr>
<td>H</td>
<td>0.3</td>
</tr>
<tr>
<td>I</td>
<td>10.4</td>
</tr>
<tr>
<td>J</td>
<td>19.1</td>
</tr>
<tr>
<td>K</td>
<td>16.3</td>
</tr>
<tr>
<td>L</td>
<td>38.6</td>
</tr>
<tr>
<td>M</td>
<td>23.8</td>
</tr>
<tr>
<td>N</td>
<td>31.3</td>
</tr>
<tr>
<td>O</td>
<td>9.1</td>
</tr>
<tr>
<td>P</td>
<td>43.1</td>
</tr>
<tr>
<td>Q</td>
<td>34.1</td>
</tr>
<tr>
<td>R</td>
<td>24.4</td>
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</tbody>
</table>

Kubota M9960 Diesel
Institute of Agriculture and Natural Resources
University of Nebraska-Lincoln