NEBRASKA TRACTOR TEST 2127
CABELA’S LM55H DIESEL HYDROSTATIC

Location of tests: Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln Nebraska 68583-0832
Dates of tests: August 20 to September 3, 2015
Manufacturer: Tong Yang Moolsan Co. Ltd 2,3F, Daeyong B/D, 7, Eonju-ro 133-gil Kangnam-gu Seoul, Republic of Korea

FUEL, OIL and TIME: Fuel No. 2 Diesel Specific gravity converted to 60°/60°F (15°/15°C) 0.8415
Fuel weight (0.840 kg/l) 7.007 lbs/gal (0.300) 14.22
Fuel used during active exhaust regeneration - na
Transmission and hydraulic lubricant Super tractor fluid
Front axle lubricant SAE90 Gear oil

ENGINE: Make Yanmar Diesel Type four cylinder vertical with turbocharger
Serial No. *92748*
Crankshaft lengthwise
Rated engine speed 2800 RPM
Bore and stroke 3.386” x 3.543” (86.0 mm x 90.0 mm)
Compression ratio 19.2 to 1
Displacement 128 cu in (2091 ml)
Starting system 12 volt
Lubrication pressure
Air cleaner two paper elements
Oil filter one full flow cartridge
Oil cooler radiator for transmission and hydraulic oil
Fuel filter one paper element and sediment bowl
Exhaust DOC (diesel oxidation catalyst), and regenerative DPF (diesel particulate filter) integrated within an underhood muffler with a horizontal outlet

ENGINE OPERATING PARAMETERS: Fuel rate: 21.2 - 22.3 lb/h (9.6 - 10.1 kg/h)
High idle: 2940 - 2960 rpm
Turbo boost: nominal 7.3 - 8.7 psi (50 - 60 kPa)

CHASSIS: Type front wheel assist
Serial No. *55CJJ00060*
Tread width rear 46.1” (1172 mm) to 58.3” (1481 mm) front 52.4” (1330 mm) to 56.8” (1442 mm)
Wheelbase 76.2” (1935 mm)
Hydraulic control system direct engine drive Transmission Hydrostatic

TRACTOR SOUND LEVEL WITH CAB

At no load in Midrange-5.1 mph (8.2 km/h) engine speed 2950 rpm 84.3 84.1
At no load in Midrange-4.9 mph (7.9 km/h) engine speed 1825 rpm 76.1 76.4
Bystander in High range 80.0

TIES AND WEIGHT

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

Tested Without Ballast
Two 16.9-24;8;10 (110)
Two 12-16.5r;20 (140)
16.5 in (420 mm)
2655 lb (1195 kg)
1955 lb (887 kg)
4590 lb (2092 kg)

POWER TAKE-OFF PERFORMANCE

Power HP (kW)
Crankshaft speed rpm
Gal/hr (l/h)
B/hp.hr (kg/kW.h)
Hp.hr/gal (kW/l)
Mean Atmospheric Conditions

MAXIMUM POWER AND FUEL CONSUMPTION

Rated Engine Speed—(PTO speed—580 rpm)
Fuel used during active exhaust regeneration - na
(see Note 1 p.2)

VARYING POWER AND FUEL CONSUMPTION

Air temperature
Relative humidity
Barometer

Maximum Torque 105 lb.-ft. (143 Nm) at 1803 rpm
Maximum Torque Rise -26.6%
Torque rise at 2242 rpm - 18%

ENGINEOPERATING PARAMETERS: Fuel rate: 21.2 - 22.3 lb/h (9.6 - 10.1 kg/h) High idle: 2940 - 2960 rpm Turbo boost: nominal 7.3 - 8.7 psi (50 - 60 kPa) as measured 7.7 psi (53 kPa)

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Fuel weight 7.007 lbs/gal (0.840 kg/l) Oil SAE 10W30 API service classification CJ-4
Transmission and hydraulic lubricant Super tractor fluid
Front axle lubricant SAE90 Gear oil Total time engine was operated 14.5 hours

ENGINE: Make Yanmar Diesel Type four cylinder vertical with turbocharger
Serial No. *92748*
Crankshaft lengthwise
Rated engine speed 2800 Bore and stroke 3.868” x 3.543” (86.0 mm x 90.0 mm)
Compression ratio 19.2 to 1
Displacement 128 cu in (2091 ml)
Starting system 12 volt
Lubrication pressure
Air cleaner two paper elements
Oil filter one full flow cartridge
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Gal/hr (l/h)
B/hp.hr (kg/kW.h)
Hp.hr/gal (kW/l)
Mean Atmospheric Conditions

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**HYDRAULIC PERFORMANCE**

**CATEGORY:** 1  
Quick Attach: None  
OECD Static test  
Maximum force exerted through whole range:  
- 2472 lbs (11.0 kN) at 24" (610 mm) behind hitch points  
- 2633 lbs (11.7 kN) at hitch points  

i) Sustained pressure of the open relief valve:
ii) Pump delivery rate at minimum pressure and rated engine speed:
iii) Pump delivery rate at maximum hydraulic power:  
Delivery pressure:  
Power:  

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

**NOTE 1:** The engine in this tractor has a manual control for the regeneration process that could not be overridden. This test sequence was not done.

**REMARKS:** This tractor did not meet the manufacturer’s implement pump capacity claim of 9.5 GPM (36.1 l/min) nor 3 point lift claims of 2945 lbs (1336 kg) at 24" (610 mm) behind link ends nor 3314 lbs (1503 kg) at the link ends. All test results were determined from observed data obtained in accordance with official OECD, SAE and Nebraska test procedures.

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. **2127**, October 26, 2015.

Roger M. Hoy  
Director  

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

**HITCH DIMENSIONS AS TESTED—NO LOAD**

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Institute of Agriculture and Natural Resources  
University of Nebraska–Lincoln