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2015

## Test 2128: Cabela's LM75

Nebraska Tractor Test Lab

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# NEBRASKA TRACTOR TEST 2128

## CABELA'S LM75 DIESEL

### 16 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
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#### MAXIMUM POWER AND FUEL CONSUMPTION

Rated Engine Speed—(PTO speed—541 rpm)					
64.86 (48.36)	2203	4.01 (15.17)	0.433 (0.263)	16.18 (3.19)	
Maximum Power - (1 hour)					
67.21 (50.12)	2050	3.98 (15.07)	0.415 (0.252)	16.88 (3.33)	

#### VARYING POWER AND FUEL CONSUMPTION

64.86 (48.36)	2203	4.01 (15.17)	0.433 (0.263)	16.18 (3.19)	Air temperature
55.71 (41.54)	2226	3.60 (13.61)	0.452 (0.275)	15.49 (3.05)	71°F (22°C)
42.09 (31.39)	2244	2.83 (10.71)	0.471 (0.287)	14.87 (2.93)	Relative humidity
28.33 (21.12)	2269	2.32 (8.77)	0.573 (0.349)	12.22 (2.41)	74%
14.44 (10.77)	2293	1.71 (6.45)	0.828 (0.503)	8.47 (1.67)	Barometer
0.95 (0.71)	2303	1.14 (4.33)	8.460 (5.146)	0.83 (0.16)	28.52"Hg (96.57 kPa)

Maximum Torque 200 lb.-ft. (271 Nm) at 1649 rpm  
Maximum Torque Rise - 29.2%  
Torque rise at 1760 rpm - 26%  
Power increase at 2050 rpm - 3%

#### TRACTOR SOUND LEVEL WITH CAB

	Front Wheel Drive Engaged dB(A)	Disengaged dB(A)
At no load in 11th (M3) gear	80.9	81.0
Bystander in 16th (H4) gear		80.6

#### 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 16.9-30; 6; 16 (110)  
Two 11.2-24; 8; 20 (140)  
21.0 in (535 mm)  
3605 lb (1635 kg)  
2680 lb (1216 kg)  
6285 lb (2851 kg)

**Location of tests:** Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln Nebraska 68583-0832

**Dates of tests:** August 18 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 7.007 lbs/gal (0.840 kg/l) Oil SAE 10W30 API service classification CJ-4 Transmission and hydraulic lubricant Cabela Super tractor fluid Front axle lubricant SAE90 Gear oil Total time engine was operated 10.0 hours

**ENGINE:** Make Deutz Diesel Type four cylinder vertical with turbocharger and air to air intercooler Serial No. \*11617745\* Crankshaft lengthwise Rated engine speed 2200 Bore and stroke 3.622" x 4.331" (92.0 mm x 110.0 mm) Compression ratio 17.8 to 1 Displacement 178 cu in (2925 ml) Starting system 12 volt Lubrication pressure Air cleaner two paper elements Oil filter one full flow cartridge Fuel filter one paper element and sediment bowl Fuel cooler radiator for pump return fuel Exhaust DOC (diesel oxidation catalyst) integrated within an underhood muffler with vertical outlet Cooling medium temperature control one thermostat

**ENGINE OPERATING PARAMETERS:** Fuel rate: 27.6 - 28.9 lb/h (12.5 - 13.1 kg/h) High idle: 2285 - 2375 rpm Turbo boost: nominal 16.7 - 19.6 psi (115 - 135 kPa) as measured 18.5 psi (128 kPa)

**CHASSIS:** Type front wheel assist Serial No. \*75CKH00020\* Tread width rear 58.4" (1484 mm) to 74.4" (1890 mm) front 61.1" (1552 mm) to 70.4" (1788 mm) Wheelbase 86.1" (2188 mm) Hydraulic control system direct engine drive Transmission selective gear fixed ratio Nominal travel speeds mph (km/h) first 0.20 (0.32) second 0.29 (0.47) third 0.42 (0.67) fourth 0.56 (0.90) fifth 0.66 (1.07) sixth 1.12 (1.82) seventh 1.38 (2.22) eighth 1.85 (2.97) ninth 2.12 (3.41) tenth 3.08 (4.95) eleventh 4.40 (7.09) twelfth 5.90 (9.49) thirteenth 6.78 (10.92) fourteenth 9.85 (15.85) fifteenth 14.09 (22.68) sixteenth 18.87 (30.38) reverse 0.18 (0.28), 0.26 (0.41), 0.37 (0.59), 0.49 (0.79), 0.58 (0.94), 0.85 (1.36), 1.21 (1.95), 1.62 (2.62), 1.87 (3.00), 2.71 (4.36), 3.88 (6.24), 5.19 (8.35), 5.97 (9.61), 8.67 (13.95), 12.40 (19.96), 16.61 (26.73)

## HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: None

OECD Static test

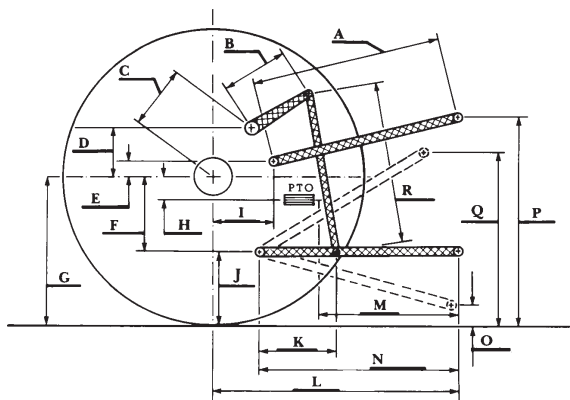
Maximum force exerted through whole range: 3134 lbs (13.9 kN) (at 24" (610 mm) behind hitch points)  
3795 lbs (16.9 kN) (at hitch points)

- i) Sustained pressure of the open relief valve: 2963 psi (204 bar)
- ii) Pump delivery rate at minimum pressure and rated engine speed: 10.6 GPM (40.1 l/min)
- iii) Pump delivery rate at maximum hydraulic power: 10.4 GPM (39.5 l/min)
- Delivery pressure: 2368 psi (163 bar)
- Power: 14.4 HP (10.7 kW)

### HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	mm
A	23.6	600
B	9.8	250
C	14.7	374
D	12.0	305
E	14.3	363
F	3.0	77
G	27.3	695
*H	-0.2	-4
I	17.7	450
J	24.3	618
K	15.0	380
L	40.2	1020
M	22.5	572
N	28.7	730
O	9.1	230
P	48.3	1228
Q	34.4	875
R	21.1	535

\*PTO is above rear axle



**Clutch** single wet disc operated by foot pedal  
**Brakes** single wet disc hydraulically operated by two foot pedals which can be locked together  
**Steering** hydrostatic **Power take-off** 540 rpm at 2198 engine rpm or 540 rpm at 1506 engine rpm  
**Unladen tractor mass** 6110 lb (2771 kg)

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

**REMARKS:** This tractor did not meet the manufacturer's implement pump capacity claim of 11.1 GPM (42.0 l/min) nor 3 point lift claims of 3426 lbs (1554 kg) at 24" (610 mm) behind lower links nor 5130 lbs (2327 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. **2128**, October 23, 2015.

Roger M. Hoy  
Director

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

Economy mode  
540 PTO rpm @ 1506 engine rpm

Power HP (kW)	Crank shaft speed rpm	Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)
59.48 (44.36)	1506	3.19 (12.09)	0.376 (0.229)	18.62 (3.67)
44.48 (33.17)	1503	2.46 (9.30)	0.387 (0.235)	18.10 (3.57)
29.85 (22.26)	1500	1.80 (6.80)	0.421 (0.256)	16.63 (3.28)
14.83 (11.06)	1504	1.14 (4.32)	0.539 (0.328)	12.99 (2.56)
0.94 (0.70)	1506	0.64 (2.43)	4.788 (2.912)	1.46 (0.29)

Normal mode  
540 PTO rpm @ 2198 engine rpm

Power HP (kW)	Crank shaft speed rpm	Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)
59.37 (44.27)	2192	3.69 (13.96)	0.435 (0.265)	16.10 (3.17)
44.62 (33.27)	2207	2.97 (11.24)	0.466 (0.284)	15.03 (2.96)
29.68 (22.13)	2199	2.23 (8.43)	0.526 (0.320)	13.33 (2.63)
14.82 (11.05)	2200	1.61 (6.09)	0.760 (0.462)	9.22 (1.82)
0.89 (0.66)	2194	1.07 (4.07)	8.500 (5.170)	0.82 (0.16)



**Cabela's LM75 Diesel**

Institute of Agriculture and Natural Resources  
University of Nebraska–Lincoln