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January 1920

Test 065: Toro 6-10

Nebraska Tractor Test Lab

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UNIVERSITY OF NEBRASKA
AGRICULTURAL ENGINEERING DEPARTMENT
UNIVERSITY FARM, LINCOLN

Report of Official Tractor Test No. 65

Dates of test September 23 to September 29, 1920.

Name, model and rating of tractor Toro 6-10

Serial No. Engine 21902 Serial No. Chassis 1547

Manufacturer The Toro Tractor Co., Minneapolis, Minnesota.

Tractor equipment used Eiseman GS4 Mag.; Kingston Model L Carb.

Style and dimensions of wheel lugs Spade 2 1/2" high plus angles. Ext. rims 3".

Brake Horse Power Tests

Horse Power Developed	Crank Shaft Speed R. P. M.	Length of Test Min.	Fuel Consumption			Water Consumption Gallons per Hour			Temperature *Cooling Fluid Deg. F.	Temperature of Atmosphere Deg. F.	Humidity %	Barometric Pressure Inches Mercury
			Kind of Fuel	Amount Used per Hour Gallons	Horse Power Hours per Gallon	In Radiator	In Fuel Mixture	Total				
RATED LOAD TEST												
10.56	1208	120	Gasol.	1.25	8.48	0.48	0.00	0.48	208	102	44	28.5
VARYING LOAD TEST												
10.46	1197	10	Gasol.									
10.63	1197	"	"									
0.80	1326	"	"									
2.87	1307	"	"									
5.59	1274	"	"									
8.15	1255	"	"									
6.57	1259	60	Gasol.	1.110	5.92	0.108	0.000	0.108	208	82	35	28.9
MAXIMUM LOAD TEST												
13.31	1219	60	Gasol.	1.729	7.70	1.27	0.00	1.27	210	79	35	28.9
HALF LOAD TEST												
5.54	1265	60	Gasol.	1.10	5.03	0.105	0.00	0.105	208	72	35	28.9

*Taken in discharge line from engine.

Remarks The gasoline used for fuel in these tests weighed 6.20 #
per gallon.

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Drawbar Horse Power Tests

Horse Power Developed	Draw Bar Pull Pounds	Speed Miles per Hour	Crank Shaft Speed R. P. M.	** Slippage of Drive Wheels %	Fuel Consumption			Water Used per Hour Gallons	*Temperature of Cooling Fluid Deg. F.	Temperature of Atmosphere Deg. F.	Average Humidity %	Barometric Pressure Inches Mercury
					Ind of Fuel Used	Amount Used per Hour Gallons	Horse Power Hours per Gallon					
RATED LOAD TEST. TEN HOURS												
6.32	893	2.66	1215	8.04	Gasol.	1.467	4.31	0.11	206	50	53.5	29.2
MAXIMUM LOAD TEST												
9.92	1310	2.84	1250	6.52	Gasol.	Not	Recorded		206	52	53.5	29.2

*Taken in discharge line from engine.

Remarks All tests were made with tractor in low gear.

** For computing slippage circumference of wheel was taken at points of lugs.

Extension rims 3" wide were used. Two kinds of lugs were used: spades 2½" high, and angles 2½" high, alternated.

Oil Consumption:

During the complete test consisting of about 30 hours running the following oil was used:

For the engine, 1½ gallons of Mobiloil A

For the transmission, None added gallons of

Report of Official Tractor Test No. 65.

Repairs and Adjustments Endurance:

No repairs or adjustments were necessary on this tractor during this test.

At the end of the test the cylinder heads were taken off, and dimensions of cylinders and valves were checked.

Brief Specifications:

Motor: Le Roi, 4 cylinder, L head, vertical, Bore 3-1/8", stroke 4 1/2". Rated speed, 1200 r.p.m. Rated H.P. belt, 10, Drawbar 6.
Chassis: 4 wheel, ~~convertable~~ to cultivator, contracting band clutch. Rated Speeds, low 2.6, high 3.7 miles per hour.
Total weight: about 2,600#.

Remarks:

In the advertising literature submitted with the application for test of this tractor, we find some statements and claims which cannot be directly compared with the results of this test as above reported. It is our opinion that none of these are excessive or unreasonable.

/We, the undersigned, certify that above is a true and correct report of official tractor test No. 65.

Fred R. Mohavee
Engineer-in-Charge

Oscar W. Sjogren
E. E. Brackett
C. W. Smith
Board of Tractor Test Engineers