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January 1920

Test 062: Indiana 5-10

Nebraska Tractor Test Lab

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UNIVERSITY OF NEBRASKA
AGRICULTURAL ENGINEERING DEPARTMENT
UNIVERSITY FARM, LINCOLN

Report of Official Tractor Test No. 62

Dates of test Sept. 13 to Sept. 17, 1920.

Name, model and rating of tractor Indiana 5-10

Serial No. Engine 21475 Serial No. Chassis 2118

Manufacturer Indiana Silo & Tractor Co., Des Moines, Iowa.

Tractor equipment used Atwater-Kent Model K-3 Battery; Kingston Model L Carb.

Style and dimensions of wheel lugs Spade 2½" high.

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												
10.20	1024	120	Gasol.	1.20	8.52	2.415	0.00	2.415	209	92	67	28.4
			Belt	Slippage 0.11%								
VARYING LOAD TEST												
10.02	1007	10	Gasol.									
10.52	1001	10	"									
0.53	1127.5	10	"									
2.53	1104	10	"									
5.33	1080	10	"									
7.96	1060	10	"									
6.32	1063	60	Gasol	0.91	6.94	0.23	0.00	0.23	208	75	35	28.7
MAXIMUM LOAD TEST												
11.34	1023	60	Gasol.	2.21	5.13	0.33	0.00	0.33	210	83	27	28.8
			Belt	Slippage 1.54%								
HALF LOAD TEST												
5.36	1083	60	Gasol	0.84	6.39	0.27	0.00	0.27	208	77	30	28.75
			Belt	Slippage 0.00%								

*Taken in discharge line from engine.

Remarks Gasoline used for fuel in this test 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 (10 Hr. 5 Min.)												
5.00	849	2.21	1046	10.3	Gasol.	1.35	3.71	0.39	209	64	39	29.0
MAXIMUM LOAD TEST (108.5 ft.)												
5.66	1189	1.79	900	24.65	Gasol	--- Not Recorded---			212	76	39	28.85

*Taken in discharge line from engine.

Remarks ** For computing slippage, the circumference of the drive wheels was taken at points of lugs.

Oil Consumption:

During the complete test consisting of about 28 hours running the following oil was used:

For the engine, 2 gallons of Mobiloil A

For the transmission, 1 gallons of Mobiloil C.

Report of Official Tractor Test No. 62.

Repairs and Adjustments. Endurance:

During this test one spark plug and screwon distributor were replaced.

No other repairs or adjustments were necessary during this test.

At the end of this test the small sprocket on final drive showed considerable wear. This however, was not so serious as to disqualify the tractor; otherwise the tractor was apparently in good condition.

It is our opinion that with the exception of the above sprocket the repairs and adjustments do not indicate any mechanical defect and sprockets can easily be procured and replaced.

Brief Specifications Indiana Model F 5-10 H. P. Tractor.

Engine: Le Roi, 4 cylinder, vertical, L-head, Bore 3-1/8", stroke 4 1/2". Rated speed 1000 r.p.m. Rated H.P. belt 10, drawbar 5.

Chassis: Two wheel with truck in rear. Contracting band clutch. Interchangeable speed sprockets. Rated traction speed 1 to 4 miles per hour.

Total weight 2400 lbs.

General Remarks:

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

"The Indiana is the nearest perfect power plant for the farm use."

"No other tractor can anywhere near approach the amount of work which can be performed by an Indiana in a whole season on the farm-----"

"Mechanically the Indiana is right."

We, the undersigned, certify that above is a true and correct report of official tractor test No. 62.

Fred R. Mohavee
Engineer-in-Charge

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