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January 1920

Test 037: Parrett Model K 15-30

Nebraska Tractor Test Lab

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UNIVERSITY OF NEBRASKA
AGRICULTURAL ENGINEERING DEPARTMENT
UNIVERSITY FARM, LINCOLN

Report of Official Tractor Test No. 37

Dates of test July 19 to August 17, 1920.

Name, model and rating of tractor Parrett Model "K" 15-30

Serial No. Engine 12 Serial No. Chassis 4000

Manufacturer Parrett Tractor Co., Chicago Heights, Ill.

Tractor equipment used Eisemann Model G4 Mag; Stromberg Model M2 Carb.

Style and dimensions of wheel lugs Spade 3 $\frac{1}{4}$ " high x 3 $\frac{1}{2}$ " wide.

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												
31.31	1015	120	Kero	3.46	9.04	0.125	0.375	0.50	196.5	79	46	28.9
			Belt Slippage 1.09%									
VARYING LOAD TEST												
31.76	1027.5	10	Kero									
31.10	994	10	"									
1.45	1108.5	10	"									
8.14	1062	10	"									
15.96	1029.5	10	"									
23.44	1005	10	"									
19.06	1038	60	Kero	2.90	6.58	0.25	0.125	0.375	183	78	47	28.85
MAXIMUM LOAD TEST												
31.79	1010	60	Kero	3.96	8.03	0.25	0.25	0.50	198	82	59	28.9
			Belt Slippage 1.03%									
HALF LOAD TEST												
15.59	1006	60	Kero	2.44	6.40	0.00	0.125	0.125	170	78	47	28.8
			Belt Slippage 0.63%									

Aver.

*Taken in discharge line from engine.

Remarks Kerosene used for fuel in this test weighed 6.74 lbs. 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
					Kind of Fuel Used	Amount Used per Hour Gallons	Horse Power Hours per Gallon					
RATED LOAD TEST. TEN HOURS (9Hr. 56 Min.)												
15.99	2197	2.73	1002	8.0	Kero	3.10	5.15	0.61	193	85	38	28.8
MAXIMUM LOAD TEST (159.6 ft; 2nd 165.7 ft.)												
20.94	2988	2.63	975	9.7	Kero	----Not Recorded----			184	86	34	28.7
16.41	1340	4.59	1100	6.2	"	"	"	"	200	86	34	28.7

*Taken in discharge line from engine.

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

In the rated load test and first maximum test the tractor was operated in low gear; in the second maximum the tractor was operated in high gear.

Oil Consumption:

During the complete test consisting of about 54 hours running the following oil was used:

For the engine, 5 1/4 gallons of Veedol Extra Heavy.

For the transmission, none added gallons of _____

Report of Official Tractor Test No. 37.

Repairs and Adjustments. Endurance:

Put on new magneto coupling.
Advanced magneto 15°
Tightened clutch three times.
Put on new fan; old one too small.
Clutch throw out arm would not stay tight on shaft.
Fan belt lacing broke three times.
Changed carburetor, same size and make as old one.

Brief specifications Parrett 15-30 H.P. Tractor.

Motor: Own 4-cylinder, vertical, overhead valves. Bore 4½" stroke 6". Rated speed: 1000 r.p.m.
Chassis: 4 wheel. Spur gear transmission. Rated speeds: forward low 2.75 mi. per hr., high 4.07 mi. per hr.
Total weight 5250 lbs.

General Remarks:

Advertising literature submitted with the application and specifications for test of this tractor, contains some claims and statements which cannot be directly compared with the results of this test. It is our opinion that these are not excessive or unreasonable except the following:

"Direct drive on every speed, delivers all the power of a wonderful motor."

"Great reserve power".

"Great economy in either kerosene or gasoline."

"Direct drive on every speed delivers all the power in plowing or belt work."

"Exceptional large radiator capacity and placing of same affords unusual cooling ability."

"The most powerful three plow tractor in the world."

We do not approve the above exceptions because proof is lacking and they are indefinite.

We, the undersigned, certify that above is a true and correct report of official tractor test No. 37.

Fred R Mohave

Engineer-in-Charge

Oscar W Jorgen

E. E. Brackett

C. W. Smith

Board of Tractor Test Engineers.