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January 1927

Test 136: Shaw Model T 25

Nebraska Tractor Test Lab

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The gasoline used as fuel in these tests weighed 6.14 pounds per gallon.

Copy of Report of Official Tractor Test No. 136.

DRAWBAR HORSE POWER TESTS

H. P. Dev.	Draw : Bar	Speed : Miles Per Hour	Crank : Shaft Speed R.P.M.	Slip : on Drive Whs's %	Fuel Consumption : Amt. Kind Used : H. P. per hour : Hrs. Per Hour	Water : Used : Per Hour	Temp. Deg. F.** : Cooling : Fluid : Air : Humidity : Average : Inches	Height of Barometer : In Inches

RATED LOAD TEST. TEN HOURS

0.55	:	123	:	1.66	:	2214	:	25.71	:	Gasol.	:	0.267	:	2.06	:	0.00	:	-	:	76	:	50.5	:	28.66
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MAXIMUM LOAD TEST

0.73	:	140.5	:	1.94	:	2247	:	14.58	:	Gasol.	:	---	:	NOT RECORDED	:	---	:	-	:	77	:	41	:	28.56
0.46	:	175.5	:	0.99	:	2890	:	36.34	:	Gasol.	:	---	:	NOT RECORDED	:	---	:	-	:	79	:	41	:	28.56

* Taken in discharge line from engine.

** Engine air-cooled.

REMARKS: The rated load and first maximum tests were made in high gear. The second maximum load test was made in low gear. The distance advanced by the tractor without load on level ground for several complete revolutions of the drive wheels was taken as a basis for calculating the slippage.

OIL CONSUMPTION:

During the complete test consisting of about 41 hours running the following oil was used:

For the engine: 7/8 gallons of Mobiloil "A", 1-1/2 pints to fill crankcase, 5-1/2 pints added during test.
For the transmission: 1/2 pints of Polarine extra heavy.

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The following is a statement of all repairs and adjustments made on the tractor during the complete test. Also report on endurance:

During the brake tests the following repairs and adjustments were made: The exhaust valve stem was found to be sticking. It was removed, polished and valve ground. The exhaust valve push rod was adjusted to give more clearance and the guide reamed out. The inlet valve spring was found to be somewhat weaker than a standard spring. The inlet valve, spring and cage were replaced with a new assembly. Before the official brake tests were run both piston rings stuck in their grooves. The lower ring was broken in removing and was replaced with a new ring, both rings were given slightly more end clearance than they had previously. During the drawbar tests the following repairs and adjustments were made: The caster wheel arm was broken and replaced with a new one. The clutch shift lever broke and was repaired. The fuel line broke off at the carburetor and was repaired.

During the limber up run a stop clip on the cultivator beam control broke.

No other repairs or adjustments were necessary during this test. At the end of the test the tractor was in good running order except as noted above and there were no indications of undue wear nor of any weakness which might require early repair.

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BRIEF SPECIFICATIONS

Motor: Briggs & Stratton, one cylinder, air cooled, F-head, mounted crankshaft crosswise. Bore 2-1/2", Stroke 2-1/2", Rated speed 2200 R.P.M.

Belt pulley 5-1/2" diam. 1-1/2" face. Gear ratio crankshaft to pulley shaft 8 to 1.

Magneto: Own

Carburetor: Tillotson "MS6A".

Air cleaner: None.

Governor: None.

Chassis: Two wheels, both drivers, open chain and gear drive, clutch own make expanding band. Advertised speeds: Low gear 1/2 to 1-1/2 miles per hour, High gear 1-1/4 to 2-1/2 miles per hour.

Total weight as tested: 400 pounds.

REMARKS

In the advertising literature submitted with the specifications for test of this tractor we find the following claims which are not substantiated by the results of the test: Exhibit "B" page 15 ENGINE SPECIFICATIONS. "POWER-Rated conservatively at 1 H.P. On tests develops about 1-1/2 horsepower." Exhibit "B" page 8, "Figure 18 showing SHAW DU-ALL Model T25 running in low gear pulling a road drag with scales indicating 450 pounds direct pull on the drawbar, which is sufficient to pull a ton load on a cart or light wagon." This literature contains other claims and statements 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.

We, the undersigned, certify that above is a true and correct report of official tractor test No. 136.

Lew Wallace
Engineer-in-charge

Oscar W. Sjogren

E. E. Brackett

C. W. Smith
Board of Tractor Test Engineers