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January 1937

## Test 282: Fordson All-Around (Distillate)

Nebraska Tractor Test Lab

University of Nebraska-Lincoln, [tractortestlab@unl.edu](mailto:tractortestlab@unl.edu)

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT  
AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 282

Dates of test: May 17 to June 10, 1937.

Name and model of tractor: FORDSON ALL-AROUND (Distillate).

Manufacturer: Ford Motor Company, Limited, Essex, Dagenham, England.

Manufacturer's rating: NOT RATED.

B R A K E H O R S E P O W E R T E S T S

H. P.	Crank shaft speed R.P.M.	Fuel Consumption			Water Consumption per hour gallons			Temp. Deg. F.		Barometer Inches of Mercury
		Gal. per hr.	H.P. hr. per gal.	Lb. per H.P. hr.	Cool- ing	In fuel	Total	Cool- ing med.	Air	
TEST B - 100% MAXIMUM LOAD - TWO HOURS										
22.44	1100	3.346	6.71	1.023	0.000	0.110	0.110	189	72	28.620
TEST C - OPERATING MAXIMUM LOAD - ONE HOUR										
21.69	1100	2.808	7.72	0.888	3.587	0.110	3.697	210	76	28.675
*TEST D - ONE HOUR										
20.31	1100	2.590	7.84	0.875	2.056	0.110	2.166	210	78	28.680
TEST E - VARYING LOAD - TWO HOURS (20 minute runs; last line average)										
20.27	1100	2.585	7.84	0.875	--	--	--	210	78	--
0.63	1238	1.303	0.48	14.190	--	--	--	161	79	--
11.91	1187	1.915	6.22	1.103	--	--	--	174	80	--
20.85	1050	2.690	7.75	0.885	--	--	--	211	81	--
5.89	1219	1.548	3.80	1.803	--	--	--	175	82	--
16.27	1158	2.178	7.47	0.918	--	--	--	184	83	--
12.64	1158	2.037	6.21	1.105	0.748	0.110	0.858	186	80	28.690

\*Formerly called RATED LOAD; see REMARKS 4, page 4.

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D R A W B A R H O R S E P O W E R T E S T S

STEEL WHEELS

H. P.	Draw bar pull pounds	Speed miles per hr.	Crank shaft speed R.P.M.	Slip on drive wheels %	Fuel Consumption			Water used Gal. per hr.	Temp.		Barometer Inches of Mercury
					Gal. per hr.	H. P. per gal.	Lb. per H.P. hr.		Cool- ing med.	Air	

TEST F - 100% MAXIMUM LOAD - Second GEAR

14.84	1784	3.12	1101	7.18	-----Not Recorded-----			194	83	28.730
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TEST G - OPERATING MAXIMUM LOAD

13.19	2668	1.85	1101	16.49	-----Not Recorded-----			209	79	28.480
13.03	1552	3.15	1100	6.21	-----" "-----			210	85	28.750
12.70	835	5.70	1101	3.55	-----" "-----			200	86	28.585

\*TEST H - TEN HOURS - Second GEAR

11.88	1409	3.16	1100	5.78	2.748	4.32	1.587	0.247	188	78	28.650
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FUEL ECONOMY TEST - Four HOURS - Third GEAR

11.59	757	5.74	1100	2.87	3.049	3.80	1.805	0.227	190	75	28.885
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RUBBER TIRES

TEST G - OPERATING MAXIMUM LOAD

13.38	2954	1.70	1101	14.98	-----Not Recorded-----			173	60	28.850
18.33	2425	2.83	1104	6.63	-----" "-----			186	50	28.855
17.93	1297	5.18	1102	2.80	-----" "-----			203	64	28.825

FUEL ECONOMY TEST - Four HOURS - Second GEAR

16.71	2198	2.85	1099	5.64	2.527	6.61	1.037	0.251	194	64	28.980
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FUEL ECONOMY TEST - Four HOURS - Third GEAR

16.51	1193	5.19	1100	2.52	2.529	6.53	1.051	0.442	199	78	28.970
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\*Formerly called RATED LOAD; see REMARKS 4, page 4.

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FUEL, OIL, AND TIME:

Fuel Distillate Weight per gallon 6.86 pounds  
Oil: S.A.E. No. 40; To motor 5.152 gal.; Drained from motor 3.506 gal.  
Total time motor was operated 92 hours

BRIEF SPECIFICATIONS

Advertised speeds, miles per hour (steel wheels): First 1.92  
Second 2.91 Third 5.13 Reverse 1.65

Belt pulley: Diam. 9 1/2" Face 6 1/2" R.P.M. 1100

Clutch Own Type Multiple-plate (in oil) Operated by Foot pedal

Seat Pressed steel

Total weight as tested (with operator) (Steel 4020 pounds  
(Rubber 5030 pounds)

MOTOR: Make own Serial No. 810062 Type 4 cylinder, vertical

Head L Mounting Crankshaft lengthwise Lubrication Circulating, splash

Bore and stroke: 4 1/8" x 5" Rated R.P.M. 1100

Port Diam. Valves: Inlet 1.620" Exhaust 1.620"

Magneto: Make American Bosch Model U4ED3VI

Carburetor: Make Kingston (modified by Ford) Size 1 1/4"

Governor: Make Handy Type Centrifugal

Air Cleaner: Make Own Type Water wash

CHASSIS: Type Tricycle Serial No. 810062 Drive Enclosed gear

Tread width: Rear 52" - 88" ; Front: Top 14.25" Bottom 6.5"

Steel: Drive wheels: Type Skeleton No. 2 Diameter 50" Face 2"

Lugs: Type Overhanging spade No. per wheel 24 Size 4 3/4" high x 3 1/2"  
face

Front wheels: Type Cast disc No. 2 Diameter 24" Face 4"

Rubber: Rear tires: No. 2 Size 9" x 36" Air pressure 16 pounds

Front tires: No. 2 Size 5.50" x 16" Air pressure 32 pounds

Added weight per wheel; Rear 560 pounds Front 100 pounds

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REPAIR AND ADJUSTMENTS

No repairs or adjustments.

REMARKS

1. All results shown on page 1 of this report were determined from observed data and without allowances, additions, or deductions. Tests B and F were made with carburetor set for 100% maximum horsepower and data from these tests were used in determining the horsepower to be developed in tests D and H, respectively. Tests C, D, E, G, and H were made with an operating setting of the carburetor (selected by the manufacturer) of 96.7% of maximum horsepower.
2. Observed maximum horsepower (tests F & B)                      Drawbar 14.84    Belt 22.44
3. Sea level (calculated) maximum horsepower                      Drawbar 15.79    Belt 23.72  
(based on 60° F. and 29.92" Hg)
4. ~~Seventy-five percent of calculated maximum~~                      Drawbar 11.84    Belt 20.16  
drawbar horsepower and eighty-five per cent  
of calculated maximum belt horsepower (form-  
erly A.S.A.E. and S.A.E. ratings).

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 282.

Carlton L. Zink  
Engineer-in-charge

E. E. Brackett

C. W. Smith

L. W. Hurlbut  
Board of Tractor Test Engineers