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Larsen

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January 1949

## Test 407: Gibson Model H

Tractor Museum

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT  
 AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 407

Dates of test: May 2, 1949 to May 7, 1949  
 Name and model of tractor: GIBSON MODEL "H"  
 Manufacturer: THE GIBSON MANUFACTURING CORP., LONGMONT, COLORADO  
 Manufacturer's rating: 25 HP

HORSEPOWER SUMMARY

	DRAWBAR	BELT
1. Sea level (calculated maximum horsepower based on 60° F. and 29.92" Hg.)	24.20	25.99
2. Observed maximum horsepower (tests F & B)	22.77	24.54
3. Seventy-five per cent of calculated maximum drawbar horsepower and eighty-five per cent of calculated maximum belt horsepower (formerly ASAE and SAE ratings)	18.15	22.09

REMARKS

Routing inspection at end of test revealed small areas of bearing metal flaked from Number 2 and Number 3 connecting rod bearings.

FUEL, OIL, and TIME

Fuel Gasoline      Octano 74 \*      Waight per gallon 6.116  
Oil SAE 30      To motor 1.770 gal.      Drained from motor 0.900 gal.  
Total time motor was operated 37 hours

\* Octano rating taken from oil company's typical inspection data.

We, the undersigned, certify that this is a true and correct report of official tractor test No. 407.

L. F. Larson  
 Engineer in Charge

C. W. Smith

L. W. Hurlbut

F. D. Yung

BOARD OF TRACTOR TEST ENGINEERS

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All results shown on pages 2 and 3 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 belt 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 J were made with an operating setting of the carburetor (selected by the manufacturer) of 94.9% of maximum belt horsepower.

B E L T H O R S E P O W E R T E S T S

Horsepower	Crank shaft speed rpm	Fuel Consumption			Water used gal per hr	Temperature		Baromotor Inches of Mercury
		gal per hr	hp-hr per gal	lb per hp-hr		Cooling mod °F.	Air °F.	

TEST B - 100% MAXIMUM LOAD - TWO HOURS

24.54	1801	2.552	9.62	0.636	0.00	173	82	28.845
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TEST C - OPERATING MAXIMUM LOAD - ONE HOUR

23.32	1803	2.292	10.17	0.601	0.00	170	80	28.835
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\*TEST D - ONE HOUR

22.12	1800	2.175	10.17	0.601	0.00	164	78	28.825
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TEST E - VARYING LOAD - TWO HOURS (20 minute runs; last line average)

22.14	1798	2.183	10.14	0.603	- -	165	78	- - - -
1.76	1901	1.089	1.62	3.784	- -	150	78	- - - -
11.43	1859	1.530	7.47	0.819	- -	155	77	- - - -
22.02	1592	2.168	10.16	0.602	- -	172	78	- - - -
5.85	1898	1.280	4.57	1.338	- -	152	77	- - - -
17.39	1854	1.933	9.00	0.680	- -	160	77	- - - -
13.43	1817	1.697	7.91	0.773	0.00	159	78	28.810

\* Formerly called RATED LOAD, see HORSEPOWER SUMMARY 3, page 1.

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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

Horse- power	Draw bar pull lb	Speed mph	Crank shaft speed rpm	Slip on drive wheels %	Fuel Consumption			Water used gal per hr	Temperature		Barometer Inches of Mercury
					gal per hr	hp-hr per gal	lb per hp--hr		Cool- ing mod °F.	Air °F.	

TEST F - 100% MAXIMUM LOAD - 3rd GEAR

22.77	2029	4.21	1800	5.72	-----Not Recorded-----			169	85	28.825
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TEST G - OPERATING MAXIMUM LOAD

16.16	3583	1.69	1799	16.14	-----Not Recorded-----			157	83	28.825
21.35	2738	2.92	1804	7.99	-----Not Recorded-----			165	83	28.825
21.50	1902	4.24	1805	5.33	-----Not Recorded-----			166	84	28.825
18.35	545	12.62	1801	2.19	-----Not Recorded-----			160	83	28.815

\*TEST H - TEN HOURS - 3rd GEAR

18.44	1632	4.24	1801	5.16	2.022	9.12	0.671	0.00	164	80	28.867
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TEST J - OPERATING MAXIMUM LOAD - 3rd GEAR

21.59	1905	4.15	1804	8.31	-----Not Recorded-----			165	82	28.815
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\* Formerly called RATED LOAD; see POWER SUMMARY 3, page 1.

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TIRES, WHEELS, and WEIGHT

	Tests F, G, and H	Test J
Rear Wheels: Type (each)	Pressed Steel	Pressed Steel
Liquid Ballast	None	None
Added Cast Iron	867 lb.	None
Rear Tires: No. Size & Ply	2 11-38 4 ply	2 11-38 4 ply
Type of Tread	Sure Grip	Sure Grip
Make	Goodyear	Goodyear
Air Pressure	12 lb.	12 lb.
Front Wheel: Type (each)	Pressed Steel	Pressed Steel
Liquid Ballast	None	None
Added Cast Iron	None	None
Front Tires: No. Size & Ply	2 5.50-15 4 ply	2 5.50-15 4 ply
Type of Tread	Triple Rib	Triple Rib
Make	Goodyear	Goodyear
Air Pressure	28 lb.	28 lb.
Height of Drawbar	16 inches	16 1/2 inches
Static Weight: Rear End	4280 lb.	2546 lb.
Front End	1361 lb.	1358 lb.
Total Weight as Tested (with Operator)	5816 lb.	4079 lb.