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Larsen

January 1948

Test 394: Massey-Harris Model 55

Tractor Museum

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
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Copy of Report of Official Tractor Test No. 394

Dates of test; May 18, 1948 to May 27, 1948
 Name and model of tractor; MASSEY-HARRIS 55
 Manufacturer; THE MASSEY-HARRIS COMPANY, Racine, Wisconsin
 Manufacturer's rating; None

HORSEPOWER SUMMARY

	DRAWBAR	BELT
1. Sea level (calculated) maximum horsepower (based on 60° F. and 29.92" Hg.)	54.20	61.39
2. Observed maximum horsepower (tests F & B)	52.47	58.98
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)	40.65	52.18

REMARKS

No repairs or adjustments.

FUEL, OIL, and TIME

Fuel Gasoline Octane 74* Weight per gallon 6.120 pounds
Oil SAE No. 20-20W To motor 2.498 gal. Drained from motor 2.359 gal.
Total time motor was operated 44 hours

* Octane 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. 394.

L. F. Larsen
 Engineer in Charge

C. W. Smith

F. D. Yung

L. W. Hurlbut
 BOARD OF TRACTOR TEST ENGINEERS

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All results shown on pages 2 and 3 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, H, and J were made with an operating setting of the carburetor (selected by the manufacturer) of 95.3% of maximum belt horsepower.

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

Horse-power	Crank shaft speed rpm	Fuel Consumption			Water used gal per hr	Temperature		Barometer Inches of Mercury
		gal per hr	hp-hr per gal	lb per hp-hr		Cooling med °F	Air °F	

TEST B - 100% MAXIMUM LOAD - TWO HOURS

58.98	1349	5.170	11.41	0.536	0.00	167	70	29.020
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TEST C - OPERATING MAXIMUM LOAD - ONE HOUR

55.72	1350	4.730	11.78	0.520	0.00	171	81	29.063
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*TEST D - ONE HOUR

52.22	1350	4.592	11.37	0.538	0.00	170	86	29.050
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TEST E - VARYING LOAD - TWO HOURS (20 minute runs; last line average)

52.32	1352	4.603	11.37	0.538	- - -	171	88	- - - -
1.75	1511	1.804	0.97	6.310	- - -	146	87	- - - -
28.32	1458	3.108	9.11	0.672	- - -	160	88	- - - -
52.93	1282	4.529	11.68	0.524	- - -	184	90	- - - -
14.44	1484	2.441	5.92	1.032	- - -	174	90	- - - -
41.23	1419	3.848	10.71	0.571	- - -	166	92	- - - -
31.83	1418	3.389	9.39	0.652	0.00	164	89	29.025

* 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 med °F	Air °F	

Rear wheels, tires and added weight used in Tests F, G, and H; Cast Disc wheels;
 14-34, 6 ply tires and 1231 lb added weight per wheel.

TEST F - 100% MAXIMUM LOAD - 3rd GEAR

52.47	4028	4.89	1353	6.90	-----Not Recorded-----			174	66	29.130
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TEST G - OPERATING MAXIMUM LOAD

37.81	5674	2.50	1349	15.89	-----Not Recorded-----			172	66	29.011
48.29	4624	3.92	1354	7.90	"	"	"	170	75	29.000
48.68	3695	4.94	1354	5.90	"	"	"	172	75	29.000
45.60	1446	11.83	1354	2.65	"	"	"	174	74	29.000

*TEST H - TEN HOURS - 3rd GEAR

41.10	3101	4.97	1350	5.09	4.072	10.09	0.606	0.00	175	79	29.003
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TEST J - OPERATING MAXIMUM LOAD - 3rd GEAR

47.22	3720	4.76	1351	9.58	-----Not Recorded-----			172	72	28.950
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* Formerly called RATED LOAD; see HORSEPOWER SUMMARY 3, page 1.

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TIRES, WHEELS, and WEIGHT

		Tests F, G, & H	Test J
Rear Wheel; (each)	Type	Cast Disc	Cast Disc
	Liquid Ballast	811 lb	None
	Added Cast Iron	420 lb	None
Rear Tires:	No. Size & Ply	2 14-34 6 ply	2 14-34 6 ply
	Type of Tread	Champion Ground Grip	Champion Ground Grip
	Make	Firestone	Firestone
	Air Pressure	14 lb	12 lb
Front Wheel; (each)	Type	Cast Disc	Cast Disc
	Liquid Ballast	None	None
	Added Cast Iron	None	None
Front Tires:	No. Size & Ply	2 7.50-18 4 ply	2 7.50-18 4 ply
	Type of Tread	Triple Rib	Triple Rib
	Make	Goodyear	Goodyear
	Air Pressure	28 lb	28 lb
Height of Drawbar		16 inches	16½ inches
Static Weight: Rear End		7305 lb	4843 lb
Front End		2205 lb	2205 lb
Total Weight as Tested (with Operator)		9685 lb	7223 lb

