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January 1958

## Test 675: McCormick-Farmall Model 560 (LPG)

Tractor Museum

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Department of Agricultural Engineering  
Dates of test: October 8, 1958 to October 20, 1958  
Manufacturer: INTERNATIONAL HARVESTER COMPANY, CHICAGO, ILLINOIS  
Manufacturer's rating: Not Rated

MC CORMICK FARMALL 560 LPG

BELT HORSEPOWER TESTS

Hp	Crank shaft speed rpm	Fuel Consumption			Temp. Deg. F.			Barometer inches of mercury
		Gal per hr	Hp-hr per gal	Lb per hp-hr	Cooling medium	Air wet bulb	Air dry bulb	
<b>TEST B—100% MAXIMUM POWER—TWO HOURS</b>								
60.11	1800	6.480	9.28	0.458	171	63	71	29.053
<b>TEST C—OPERATING MAXIMUM POWER—ONE HOUR</b>								
57.06	1800	5.864	9.73	0.437	167	61	69	29.028
<b>TEST D—RATED POWER—ONE HOUR</b>								
53.44	1871	5.633	9.49	0.448	166	61	70	29.025
<b>TEST E—VARYING POWER—TWO HOURS (20 minute runs; last line average)</b>								
53.55	1875	5.612	9.54	0.445	167	62	71	.....
1.40	1930	1.892	0.74	5.743	154	63	72	.....
27.41	1913	3.769	7.27	0.584	162	64	73	.....
56.81	1800	5.816	9.77	0.435	171	64	74	.....
13.94	1944	2.781	5.01	0.848	158	64	75	.....
40.43	1884	4.694	8.61	0.493	166	65	75	.....
32.26	1891	4.094	7.88	0.539	163	63	73	29.027

DRAWBAR HORSEPOWER TESTS

Hp	Draw bar pull lbs	Speed miles per hr	Crank shaft speed rpm	Slip of drive wheels %	Fuel Consumption			Temp. Deg. F.			Barometer inches of mercury
					Gal per hr	Hp-hr per gal	Lb per hp-hr	Cooling med	Air wet bulb	Air dry bulb	
<b>TEST H—RATED POWER—TEN HOURS—3rd Gear</b>											
43.96	2968	5.55	1889	3.49	5.140	8.55	0.497	164	53	66	29.064
<b>TEST F—100% MAXIMUM POWER</b>											
55.02	3958	5.21	1798	4.92	3rd Gear	.....	.....	180	64	77	28.825
<b>TEST G—OPERATING MAXIMUM POWER</b>											
38.08	7467	1.91	1801	13.66	1st Gear (prt thrtl)	.....	.....	165	61	70	28.855
51.70	5318	3.65	1800	6.87	2nd Gear	.....	.....	176	64	77	28.825
51.53	3689	5.24	1800	4.43	3rd Gear	.....	.....	172	65	78	28.840
51.75	2628	7.38	1803	3.24	4th Gear	.....	.....	168	65	78	28.840
47.12	1039	16.69	1795	1.42	5th Gear	.....	.....	172	65	78	28.840
25.74	7524	1.28	1803	14.34	1st Gear TA (prt thrtl)	.....	.....	164	61	70	28.855
43.63	7196	2.27	1800	13.89	2nd Gear TA (prt thrtl)	.....	.....	165	60	66	28.850
49.89	5450	3.43	1799	7.20	3rd Gear Torq. Amp.	.....	.....	176	64	77	28.825
50.24	3841	4.90	1799	4.50	4th Gear Torq. Amp.	.....	.....	175	65	78	28.840
49.61	1657	11.23	1804	2.30	5th Gear Torq. Amp.	.....	.....	172	65	78	28.840
<b>TEST J—OPERATING MAXIMUM POWER</b>											
48.83	3615	5.08	1795	7.62	3rd Gear	.....	.....	167	60	70	28.820
<b>TEST K—SPEED-PULL CHARACTERISTIC</b>											
Pounds Pull	2968	3689	3700	3800	3850	3750					
Horsepower	43.96	51.53	46.4	41.5	36.5	31.8	26.0				
Miles Per Hour	5.55	5.24	4.7	4.1	3.6	3.1	2.6				

TIRES, WHEELS AND WEIGHT

	Tests F, G, H & K	Test J
<b>Rear wheels</b>		
Type	Cast Iron	Cast Iron
Liquid ballast	794 lb each	None
Added cast iron	441 lb each	None
<b>Rear tires</b>		
No. and size	Two 15.5-38	Two 15.5-38
Ply	6	6
Air pressure	18 lb	14 lb
<b>Front wheels</b>		
Type	Pressed Steel	Pressed Steel
Liquid ballast	None	None
Added cast iron	88 lb each	None
<b>Front tires</b>		
No. and size	Two 6.50-16	Two 6.50-16
Ply	6	6
Air pressure	32 lb	32 lb
<b>Height of drawbar</b>	21 inches	22 inches
<b>Static weight</b>		
Rear end	7010 lb	4540 lb
Front end	2130 lb	1955 lb
<b>Total weight as tested with operator</b>	9315 lb	6670 lb

HORSEPOWER SUMMARY

	Drawbar	Belt
1. Sea level (calculated) maximum horsepower (based on 60° F and 29.92" Hg)	58.04	62.55
2. Observed maximum horsepower (tests F and B)	55.02	60.11
3. Seventy-five per cent of calculated maximum drawbar horsepower and eighty-five per cent of calculated maximum belt horsepower (ASAE and SAE ratings)	43.53	53.17

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. 675.

L. F. LARSEN  
Engineer-in-Charge

L. W. HURLBUT, Chairman  
G. W. STEINBRUEGGE  
J. J. SULEK  
Board of Tractor  
Test Engineers

**FUEL, OIL, WATER and TIME** Fuel commercial propane Weight per gallon 4.25 lb Oil SAE 20-20W To motor 2.436 gal Drained from motor 1.498 gal Water used 0.198 gal Total time motor was operated 44 hours.

**CHASSIS** Type tricycle Serial No. 1065 S Tread width rear 50" to 94" front 9" and 16" Wheel base 95.7" Hydraulic control system direct engine drive Advertised speeds mph first 2.2 second 3.8 third 5.4 fourth 7.5 fifth 16.6 reverse 2.8 (Using Torque Amplifier) first 1.5 second 2.6 third 3.6 fourth 5.0 fifth 11.2 reverse 1.9 Belt pulley diam. 11" Face 7.5" rpm 1115 Belt speed 3212 fpm Belt flat Length 72" Width 7" Thickness 0.216" Maximum slip 0.88% Clutch single plate dry disc operated by foot pedal Seat upholstered seat and back rest on conical spring with shock absorber Brakes double disc operated by two foot pedals Equalized by locking together Power take-off direct engine drive with independent clutch Steering aided by hydraulic power steering.

**ENGINE** Make International LPG Type 6 cylinder vertical Serial No. C263 1144 Crankshaft mounted lengthwise Head I Lubrication pressure Bore and stroke 3<sup>9</sup>/<sub>16</sub>" x 4<sup>25</sup>/<sub>16</sub>" Rated rpm 1800 Compression ratio 8.75 to 1 Displacement 263 cu. in. Valves port diameter Inlet 1<sup>3</sup>/<sub>8</sub>" Exhaust 1<sup>5</sup>/<sub>16</sub>" Governor variable speed centrifugal Carburetor size 1<sup>1</sup>/<sub>4</sub>" Ignition system battery Starting system 12 volt battery Air cleaner oil washed wire screen Muffler was used Oil filter replaceable treated paper element Cooling medium temperature control thermostat.

**REPAIRS AND ADJUSTMENTS** No repairs or adjustments.

**REMARKS** All test results 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, J and K were made with an operating setting of the carburetor (selected by the manufacturer) of 94.8% of maximum belt horsepower. Engine misfired at irregular intervals throughout entire test.