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Tractor Test and Power Museum, The Lester F. Larsen

January 1929

Test 161: Baker 43-57

Nebraska Tractor Test Lab

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UNIVERSITY OF NEBRASKA AGRICULTURAL ENGINEERING DEPARTMENT
AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 161

Dates of test: May 16th to 24th, 1929,
Name, model and rating of tractor: Baker 43-67
Manufacturer: The A. D. Baker Co., Swanton, Ohio.

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

: Crank :	Fuel Consumption	: Water consumption :	Temp. :	
: shaft :		: per hour gallons :	Deg. F. :	: Barometer
H. P. : speed :	Gals. : H. P. : Lbs. @ :	: Cool- : In :	: Cool- :	: Inches of
: R.P.M. : per :	hrs. @ : H.P. :	: ing : fuel : Total : ing :	: Air :	: Mercury
: : hour :	: gal. : hour :	: : : : med. :	: :	:

OPERATING MAXIMUM LOAD TEST, ONE HOUR (99.4% of maximum load)

75.88: 1101 : 8.267 : 9.18: 0.670 : 0.58 : 0.0: 0.58: 209 : 74 : 28.94

RATED LOAD TEST. ONE HOUR

67.37: 1101 : 7.236 : 9.31: 0.661 : 0.0 : 0.0: 0.0 : 206 : 80 : 28.88

*VARYING LOAD TEST. TWO HOURS

67.43: 1101 : 7.239 : 9.31: 0.660 : 0.0 : 0.0: 0.0 : 207 : 81 :
 1.67: 1423 : 3.756 : 0.44: 13.832 : 0.0 : 0.0: 0.0 : 169 : 81 :
 35.48: 1152 : 5.385 : 6.59: 0.933 : 0.0 : 0.0: 0.0 : 186.5 : 82.5 :
 70.72: 1094 : 9.044 : 7.82: 0.766 : 0.0 : 0.0: 0.0 : 207.5 : 82.5 :
 21.09: 1368 : 5.083 : 4.15: 1.482 : 0.0 : 0.0: 0.0 : 176 : 82.5 :
 49.98: 1079 : 6.566 : 7.61: 0.808 : 0.0 : 0.0: 0.0 : 191 : 83.5 :
 43.81: 1195 : 6.179 : 7.09: 0.867 : 0.0 : 0.0: 0.0 : 191 : 82 : 28.87

*20 minute runs. Last line is average for two hours.

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

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

RATED LOAD TEST. TEN HOURS. High GEAR.

43.57: 4273 : 3.82: 1097: : 4.60: 7.812 : 5.58: 1.103: 0.10: 190 : 86 : 28.78

MAXIMUM LOAD TEST

54.61: 5324 : 3.85: 1109 : 5.06: -----: Not recorded -----: 196 : 82.5: 28.73
 55.72: 7840 : 2.67: 1116 : 9.26: -----: " : " : -----: 182 : 89 : 28.73

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BRIEF SPECIFICATIONS

MOTOR: Make Le Roi Serial No. 1176-3 Type 4 Cylinder, Vertical
Head "I" Mounting Lengthwise
Bore and stroke: 5-1/2 x 7 in. Rated R.P.M. 1100
Port Dia. Valves: Inlet 2-1/4" Exhaust 2-1/4"
Belt pulley: Diam. 15-1/2 in. Face 8-1/2 in. R.P.M. 774
Magneto: Eisemann Model "G4"
Carburetor: Stromberg Model "M4" Size 1-3/4"
Governor: Own Make No. Type Fly-ball
Air Cleaner: Pomona "Vortox" Type Oil filter
Lubrication: Pressure

CHASSIS: Type 4 Wheels Serial No. G29140 Drive enclosed gear
Clutch: Twin Disc Type Single plate operated by hand
Advertised speeds, miles per hour: Low 2 to 2.5
Intermediate none High 3 to 3.5 Revers. 2.5
Drive wheels: Diameter 61" Face 24"
Lugs: Type Spade No. per wheel 48 Size 4-3/4" High x 3.4
Extension rims: Width None Seat Pressed Steel Wide
Total weight as tested (with operator) 10,575 pounds.

FUEL AND OIL

Fuel: Gasoline Weight per gallon 6.15
Oil: Mobiloil BB To fill crankcase 5 gallon
Additional amount used during test 2 gallon
Total number of hours of test 35

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REPAIRS AND ADJUSTMENTS

It was necessary to lock the gears in mesh during the high gear maximum and rated load drawbar tests.

REMARKS

The tests herein reported were conducted with one carburetor setting which remained unchanged throughout the tests. This condition should be recognized when comparing this test with any Nebraska test conducted prior to 1928.

In the advertising literature submitted with the specifications and application for test of this tractor we find no claims and statements which, in our opinion, are unreasonable or excessive.

The results of this test indicate that the rating of this tractor does not exceed the provisions of the tractor rating code of the American Society of Agricultural Engineers and the Society of Automotive Engineers.

We, the undersigned, certify that above is a true and correct report of official tractor test No. 161.

Lew Wallace

Engineer-in-Charge

E. E. Brackett

C. W. Smith

E. B. Lewis

Board of Tractor Test Engineers