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January 1927

## Test 139: Monarch 10 Ton Model F

Nebraska Tractor Test Lab

University of Nebraska-Lincoln, tractortestlab@unl.edu

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UNIVERSITY OF NEBRASKA AGRICULTURAL ENGINEERING DEPARTMENT

AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 139

Dates of test: August 15th to 26th, 1927

Name, model and rating of tractor: Monarch 10 Ton Model F

Serial No. Engine: 795-67      Serial No. Chassis: 10191

Manufacturer: Monarch Tractors Corporation, Springfield, Illinois

Tractor equipment used: American Bosch "ZR4Ed26" Mag., Zenith "L7T" Carb.

Style and dimensions of wheel lugs: Angle, 24 per track, 3" high x 11-3/4" x 6" base.

BRAKE HORSE POWER TESTS

NO BELT TESTS

REMARKS: The gasoline used as fuel in these tests weighed 6.20 pounds per gallon.

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DRAWBAR HORSE POWER TESTS

H. P.	:Draw :Bar	:Speed :Miles	:Crank :Shaft	: Slip : on	: Fuel Consumption : Amt.	: Water : H. P.	: Temp. Reg. F.:	: Used	: Cooling:	: Air	: Average	: Height of : Barometer
Dev.	:Pull :Pounds	:Per :Hour	:Speed :R.P.M.	: Drive : Wheels	: Kind : Used	: per :hour	: per :per	: Per : Hour	: Fluid	: Humidity	: In Inches	
	:	:	:	: %	:	:Gals.	:Gal.	: Gals.	: *	:	: %	:

RATED LOAD TEST. TEN HOURS

59.56	: 9023	: 2.48	: 855	: 1.43	:Gaso.	: 8.64	: 6.89	: 0.05	: 176	: 77	: 60	: 28.47
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MAXIMUM LOAD TESTS:

78.17	:11960	: 2.45	: 849	: 1.94	:Gaso.	: -- NOT RECORDED --	: 166	: 70.5:	: 56	: 28.00
74.85	:20050	: 1.40	: 845	: 4.33	:Gaso.	: -- NOT RECORDED --	: 166	: 77	: 45	: 28.50
65.97	: 7550	: 3.28	: 843	: 1.11	:Gaso.	: -- NOT RECORDED --	: 163	: 70	: 56	: 28.00

\*Taken in discharge line from engine.

REMARKS: The rated load and first maximum tests were made in intermediate gear, the second maximum test was made in low gear, the third maximum test was made in high gear. The distance advanced by the tractor without load on level ground for several complete revolutions of the tracks was taken as a basis for calculating the slippage.

OIL CONSUMPTION:

During the complete test consisting of about 37 hours running the following oil was used:

For the engine, 7-1/4 gallons of Mob. BB. 7 gallons to fill crankcase, 1/4 gallons added during test.

For the tracks, 5 gallons of D-A, No. 1 light grease.

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REPAIRS AND ADJUSTMENTS

No repairs or adjustments were necessary during this test. At the end of the test the tractor was in good running order and there were no indications of undue wear nor of any weakness which might require early repair.

BRIEF SPECIFICATIONS

Motor: Beaver-Le Roi, 4 cylinder, valve-in-head, mounted crankshaft lengthwise. Bore 6-1/2", Stroke 7". Rated speed 850 H.P.M.

Magneto: American Bosch "ZR4Ed26".

Carburetor: Zenith "L7T".

Air cleaner: United 1-3/4" Twin, dry centrifugal type.

Governor: Le Roi, fly-ball type.

Chassis: Tracklayer, two tracks, partly enclosed final drive, enclosed gear transmission, chain and sprocket final drive. Clutch own make disc. Advertised speeds: Low, 1.5 miles per hour; Intermediate, 2.6 miles per hour; High, 3.3 miles per hour; Reverse, 2.5 miles per hour.

Total weight as tested (with operator) 21,700 pounds.

REMARKS:

In the advertising literature submitted with the specifications and application for test of this tractor, we find some claims and statements which cannot be directly compared with results of this test as reported above. It is our opinion that none of these are excessive or unreasonable.

We, the undersigned, certify that above is a true and correct report of official tractor test No. 139.

Lew Wallace  
\_\_\_\_\_  
Engineer-in-Charge

Oscar W. Sjogren  
\_\_\_\_\_

E. E. Brackett  
\_\_\_\_\_

C. W. Smith  
\_\_\_\_\_  
Board of Tractor Test Engineers