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January 1965

Test 929: Allis-Chalmers 190 XT (Gasoline)

Tractor Museum

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NEBRASKA TRACTOR TEST 929 - ALLIS-CHALMERS ONE-NINETY XT GASOLINE

POWER TAKE-OFF PERFORMANCE

Hp	Crankshaft speed rpm	Fuel Consumption		Hp-hr per gal	Temperature Degrees F			Barometer inches of Mercury
		Gal per hr	Lb per hp-hr		Cooling medium	Air wet bulb	Air dry bulb	
MAXIMUM POWER AND FUEL CONSUMPTION								
Rated Engine Speed—Two Hours								
89.53	2201	8.033	0.553	11.15	191	54	75	28.962
Standard Power Take-off Speed (540 rpm)—One Hour								
82.30	1937	7.179	0.538	11.46	189	55	76	28.960
VARYING POWER AND FUEL CONSUMPTION—TWO HOURS								
78.58	2273	7.651	0.601	10.27	183	54	74	.....
0.00	2431	2.884	.....	.....	172	54	73	.....
40.69	2353	5.306	0.804	7.67	179	55	74	.....
89.77	2201	8.069	0.554	11.13	190	56	76	.....
20.66	2391	4.125	1.231	5.01	176	56	76	.....
59.82	2307	6.255	0.645	9.56	183	57	76	.....
Av 48.25	2326	5.715	0.731	8.44	180	55	75	28.967

DRAWBAR PERFORMANCE

Hp	Drawbar pull lbs	Speed miles per hr	Crankshaft speed rpm	Slip of drivers %	Fuel Consumption		Hp-hr per gal	Temp Degrees F			Barometer inches of Mercury
					Gal per hr	Lb per hp-hr		Cooling med	Air wet bulb	Air dry bulb	

VARYING DRAWBAR POWER AND FUEL CONSUMPTION WITH BALLAST

Maximum Available Power—Two Hours—4th Gear											
76.65	6827	4.21	2204	9.82	8.463	0.681	9.06	182	38	43	29.005

75% of Pull at Maximum Power—Ten Hours—4th Gear											
60.78	5031	4.53	2291	6.60	6.965	0.707	8.73	183	52	56	28.560

50% of Pull at Maximum Power—Two Hours—4th Gear											
43.08	3379	4.78	2351	3.99	5.955	0.853	7.23	182	31	34	29.085

MAXIMUM POWER WITH BALLAST

67.60	9199	2.76	2293	14.95	2nd Gear	.....	188	41	45	28.890
76.03	8676	3.29	2205	13.13	3rd Gear	.....	189	41	45	28.890
79.24	7029	4.23	2207	9.49	4th Gear	.....	185	40	45	29.000
80.67	6144	4.92	2203	8.30	5th Gear	.....	188	40	45	29.000
81.26	4915	6.20	2200	6.32	6th Gear	.....	188	41	45	28.890
81.61	3175	9.64	2198	4.03	7th Gear	.....	188	41	45	28.890
77.58	2107	13.81	2188	2.99	8th Gear	.....	188	41	45	28.890

MAXIMUM POWER WITHOUT BALLAST

62.88	5648	4.18	2293	14.89	4th Gear	188	32	39	29.060
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VARYING DRAWBAR PULL AND TRAVEL SPEED WITH BALLAST—4th Gear

Pounds pull	7029	7292	7277	7238	7160	7127
Horsepower	79.24	73.16	64.68	56.30	47.84	39.50
Crankshaft speed, rpm	2207	1977	1751	1533	1312	1090
Miles per hour	4.23	3.76	3.33	2.92	2.51	2.08
Slip of drivers, %	9.49	10.20	10.20	10.08	9.95	10.08

TIRES, BALLAST and WEIGHT

		With Ballast	Without Ballast
Rear tires	—No, size, ply & psi	Two 18.4-34; 8; 16	Two 18.4-34; 8; 16
Ballast	—Liquid	920 lb each	None
	—Cast iron	900 lb each	None
Front tires	—No, size, ply & psi	Two 7.50-16; 6; 28	Two 7.50-16; 6; 28
Ballast	—Liquid	None	None
	—Cast iron	None	None
Height of drawbar		19½ inches	21 inches
Static weight	—Rear	8860 lb	5220 lb
	—Front	2320 lb	2280 lb
Total weight with operator		11355 lb	7675 lb

Department of Agricultural Engineering

Dates of Test: NOVEMBER 9 TO NOVEMBER 16, 1965

Manufacturer: ALLIS-CHALMERS MANUFACTURING COMPANY, MILWAUKEE, WISCONSIN

FUEL, OIL and TIME Fuel regular gasoline Octane No 85.2 Research 92.3 (rating taken from oil company's typical inspection data) Specific gravity converted to 60°/60° 0.7410 Weight per gallon 6.168 lb Oil SAE 10W-30 API service classification MS, DM To motor 1.964 gal Drained from motor 1.455 gal Transmission and final-drive lubricant E.P. 80 Total time engine was operated 40 hours.

ENGINE Make Allis-Chalmers gasoline Type 6 cylinder vertical Serial No 2G-03128 Crankshaft mounted lengthwise Rated rpm 2200 Bore and stroke 3⅞" x 4¼" Compression ratio 8.0 to 1 Displacement 301 cu in Carburetor size 1½" Ignition system battery Cranking system 12 volt electric Lubrication pressure Air cleaner dry type with replaceable pleated paper element Oil filter replaceable pleated paper cartridge Oil cooler radiator for hydraulic oil Fuel filter sediment bowls with screens Muffler was used Cooling medium temperature control thermostat.

CHASSIS Type standard Serial No 190 6973-XT Tread width rear 64" to 80" front 60" to 84" Wheel base 105¾" Center of gravity (without operator or ballast, with minimum tread, with fuel tank filled and tractor serviced for operation) Horizontal distance forward from center-line of rear wheels 31.6" Vertical distance above roadway 39.4" Horizontal distance from center of rear wheel tread 0" to the right/left Hydraulic control system direct engine drive Transmission selective gear fixed ratio with operator controlled partial range power shifting Advertised speeds mph first 2.1 second 3.0 third 3.6 fourth 4.4 fifth 5.1 sixth 6.3 seventh 9.6 eighth 13.6 reverse 2.8 and 3.9 Clutch single plate dry disc operated by foot pedal Brakes contracting band and disc operated by two foot pedals which can be locked Steering hydraulic with power assist Turning radius (on concrete surface with brake applied) right 133" left 133" (on concrete surface without brake) right 156" left 156" Turning space diameter (on concrete surface with brake applied) right 281" left 281" (on concrete surface without brake) right 300" left 300" Belt pulley 1845 rpm at 2200 engine rpm diam 9" face 6⅞" Belt speed 4347 fpm Power take-off 540 rpm at 1937 engine rpm.

REPAIRS and ADJUSTMENTS No repairs or adjustments.

REMARKS All test results were determined from observed data obtained in accordance with the SAE and ASAE test code.

First gear was not run as it was necessary to limit the pull in second gear to avoid excessive wheel slippage.

We, the undersigned, certify that this is a true and correct report of official Tractor Test 929.

L. F. LARSEN
Engineer-in-Charge

G. W. STEINBRUEGGE, Chairman
J. J. SULEK
D. E. LANE
Board of Tractor Test Engineers

The University of Nebraska Agricultural Experiment Station
E. F. Frolik, Dean; H. H. Kramer, Director, Lincoln, Nebraska