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2016

Nebraska Summary: S1015 Massey Ferguson 7719

Nebraska Tractor Test Lab
University of Nebraska-Lincoln, tractortestlab@unl.edu

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SUMMARY OF OECD TEST 2946–NEBRASKA SUMMARY 1015
MASSEY FERGUSON 7719 DYNA 6 DIESEL
24 SPEED

POWER TAKE-OFF PERFORMANCE

Power HP *(kW)*	Crank shaft speed rpm	Diesel Consumption Gal/hr *(l/h)*	lb/hp.hr *(kg/kW.h)*	D.E.F. Consumption Hp.hr/gal *(kW.h/l)*	D.E.F. Consumption Gal/hr *(l/h)*	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION						
Rated Engine Speed—(PTO speed—1050 rpm)						
151.8 *(113.2)*	2100	8.67 *(32.82)*	0.398 *(0.242)*	17.51 *(3.46)*	0.63 *(2.38)*	
Standard Power Take-off Speed (1000 rpm)						
170.3 *(127.0)*	2000	9.39 *(35.54)*	0.385 *(0.234)*	18.14 *(3.58)*	0.67 *(2.53)*	
Maximum Power (1 hour)						
177.6 *(132.4)*	1798	9.41 *(35.63)*	0.370 *(0.225)*	18.87 *(3.72)*	0.68 *(2.56)*	
VARYING POWER AND FUEL CONSUMPTION						
151.8 *(113.2)*	2100	8.67 *(32.82)*	0.398 *(0.242)*	17.51 *(3.46)*	0.63 *(2.38)*	Air temperature
130.3 *(97.2)*	2121	7.51 *(28.43)*	0.403 *(0.245)*	17.35 *(3.42)*	0.53 *(2.02)*	72°F *(22°C)*
98.0 *(73.1)*	2126	6.05 *(22.90)*	0.431 *(0.262)*	16.20 *(3.20)*	0.45 *(1.69)*	Relative humidity
65.6 *(48.9)*	2133	4.59 *(17.36)*	0.488 *(0.297)*	14.29 *(2.82)*	0.36 *(1.37)*	40%
33.0 *(24.6)*	2145	3.19 *(12.06)*	0.674 *(0.410)*	10.34 *(2.04)*	0.19 *(0.72)*	Barometer
-- --	2152	2.15 *(8.15)*	-- --	-- --	-- --	30.6" Hg *(103.7 kPa)*

Maximum torque - 581.6 lb.-ft. *(788.6 Nm)* at 1000 rpm
Maximum torque rise - 53.2%
Torque rise at 1700 engine rpm - 40%
Power increase at 1798 engine rpm - 17.0%

DRAWBAR PERFORMANCE
(Unballasted - Front Drive Engaged)
FUEL CONSUMPTION CHARACTERISTICS

Power Hp *(kW)*	Drawbar pull lbs *(kN)*	Speed mph *(km/h)*	Crank-shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr *(kg/kW.h)*	Fuel Consumption Hp.hr/gal *(kW.h/l)*	Temp.°F *(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
Power at Rated Engine Speed—11th(3A) Gear									
131.7 *(98.2)*	9600 *(42.7)*	5.15 *(8.28)*	2099	3.2	0.464 *(0.283)*	15.05 *(2.97)*	194 *(90)*	45 *(7)*	30.0 *(101.5)*
75% of Pull at Rated Engine Speed—11th(3A) Gear									
101.1 *(75.4)*	7285 *(32.4)*	5.21 *(8.38)*	2120	2.8	0.495 *(0.301)*	14.11 *(2.78)*	194 *(90)*	45 *(7)*	30.0 *(101.5)*
50% of Pull at Rated Engine Speed—11th(3A) Gear									
67.1 *(50.0)*	4790 *(21.3)*	5.25 *(8.45)*	2131	2.0	0.593 *(0.361)*	11.78 *(2.32)*	192 *(89)*	45 *(7)*	30.0 *(101.5)*
75% of Pull at Reduced Engine Speed—13th(3B) Gear									
99.6 *(74.3)*	7150 *(31.8)*	5.23 *(8.41)*	1765	2.6	0.459 *(0.279)*	15.23 *(3.00)*	194 *(90)*	45 *(7)*	30.0 *(101.6)*
50% of Pull at Reduced Engine Speed—13th(3B) Gear									
67.7 *(50.5)*	4820 *(21.4)*	5.27 *(8.48)*	1771	1.9	0.516 *(0.314)*	13.55 *(2.67)*	181 *(83)*	45 *(7)*	30.0 *(101.6)*

Location of tests: IRSTEA, Centre d'Antony, 1 rue Pierre-Gilles de Gennes CS 10030 Antony, 92163, Cedex, France

Dates of tests: February to March, 2016

Manufacturer: AGCO S.A. BP 307, Avenue Blaise Pascal, 60026 Beauvais, France

CONSUMABLE FLUIDS: **Fuel** No. 2 Diesel **Specific gravity converted to 60°/60°F *(15°/15°C)*** 0.838 **Fuel weight** 6.98 lbs/gal *(0.836 kg/l)* **Diesel Exhaust Fluid (DEF)** 32% aqueous urea solution **DEF weight** 9.10 lbs/gal *(1.091 kg/l)* **Oil SAE** 15W40 **API service classification** CJ-4 **Transmission and hydraulic lubricant** BP Terrac Tractan 9 15W/40 **Front axle lubricant** BP Terrac Tractan 9 15W/40

ENGINE: Make AGCO Power Diesel **Type** six cylinder vertical with turbocharger, air to air intercooler and SCR (selective catalyst reduction) exhaust treatment **Serial No.** A73684 **Crankshaft** lengthwise **Rated engine speed** 2100 **Bore and stroke** 4.252" x 4.724" *(108.0 mm x 120.0 mm)* **Compression ratio** 17.4 to 1 **Displacement** 402 cu in *(6596 ml)* **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements **Oil filter** one full flow cartridge **Oil cooler** engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil **Fuel filter** three paper cartridges **Muffler** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: Type front wheel assist **Serial No.** D 147901 **Tread width** rear 52.8" *(1340 mm)* to 87.8" *(2230 mm)* front 52.8" *(1340 mm)* to 87.8" *(2230 mm)* **Wheelbase** 117.0" *(2973 mm)* **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio with partial (6) range operator controlled powershift **Nominal travel speeds mph *(km/h)*** first 1.03 *(1.65)* second 1.23 *(1.98)* third 1.44 *(2.32)* fourth 1.74 *(2.80)* fifth 2.04 *(3.29)* sixth 2.46 *(3.96)* seventh 2.77 *(4.45)* eighth 3.32 *(5.35)* ninth 3.90 *(6.28)* tenth 4.70 *(7.56)* eleventh 5.29 *(8.52)* twelfth 5.52 *(8.89)* thirteenth 6.37 *(10.25)* fourteenth 6.65 *(10.70)* fifteenth 7.48 *(12.03)* sixteenth 8.99 *(14.47)* seventeenth 10.58 *(17.02)* eighteenth 12.73 *(20.48)* nineteenth 14.70 *(23.66)* twentieth 17.67 *(28.44)* twenty-first 20.74 *(33.38)* twenty-second 24.86 *(40.00)* twenty-third 24.86 *(40.00)* twenty-fourth 24.86 *(40.00)* electronically limited reverse 1.03 *(1.65)*, 1.23 *(1.98)*, 1.44 *(2.32)*, 1.74 *(2.80)*, 2.04 *(3.29)*, 2.46 *(3.96)*, 2.77 *(4.45)*, 3.32 *(5.35)*, 3.90 *(6.28)*, 4.70 *(7.56)*, 5.29 *(8.52)*, 5.52 *(8.89)*, 6.37 *(10.25)*, 6.65 *(10.70)*, 7.48 *(12.03)*, 8.99 *(14.47)* 10.58 *(17.02)*, 12.73 *(20.48)*, 14.70 *(23.66)*, 17.67 *(28.44)*, 20.74 *(33.38)*, 24.86 *(40.00)*, 24.86 *(40.00)*, 24.86 *(40.00)* electronically limited

DRAWBAR PERFORMANCE

(Unballasted - Front Drive Engaged)
MAXIMUM POWER IN SELECTED GEARS

Power Hp *(kW)*	Drawbar pull lbs *(kN)*	Speed mph *(km/h)*	Crank-shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr *(kg/kW.h)*	Hp.hr/gal *(kW.h/l)*	Temp.°F/*(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
				5th(1E) Gear					
74.4 *(55.5)*	15825 *(70.4)*	1.76 *(2.84)*	2122	13.5	0.585 *(0.356)*	11.93 *(2.35)*	185 *(85)*	48 *(9)*	30.0 *(101.7)*
				6th(1F) Gear					
89.7 *(66.9)*	15645 *(69.6)*	2.15 *(3.46)*	2118	12.2	0.560 *(0.341)*	12.48 *(2.46)*	183 *(84)*	48 *(9)*	30.0 *(101.7)*
				7th(2A) Gear					
102.9 *(76.7)*	15670 *(69.7)*	2.46 *(3.96)*	2113	10.4	0.510 *(0.311)*	13.69 *(2.70)*	181 *(83)*	48 *(9)*	30.0 *(101.7)*
				8th(2B) Gear					
118.9 *(88.7)*	15110 *(67.2)*	2.95 *(4.75)*	2011	7.6	0.470 *(0.286)*	14.87 *(2.93)*	185 *(85)*	50 *(10)*	30.0 *(101.7)*
				9th(2C) Gear					
129.7 *(96.7)*	14435 *(64.2)*	3.37 *(5.42)*	1926	6.0	0.436 *(0.265)*	16.04 *(3.16)*	189 *(87)*	50 *(10)*	30.0 *(101.7)*
				*10th(2D) Gear					
142.4 *(106.2)*	13600 *(60.5)*	3.93 *(6.32)*	1849	5.5	0.451 *(0.275)*	15.48 *(3.05)*	198 *(92)*	50 *(10)*	30.0 *(101.7)*
				*11th(3A) Gear					
148.7 *(110.9)*	12655 *(56.3)*	4.41 *(7.09)*	1840	5.0	0.445 *(0.271)*	15.72 *(3.10)*	192 *(89)*	45 *(7)*	30.0 *(101.5)*
				*12th(2E) Gear					
151.8 *(113.2)*	12545 *(55.8)*	4.54 *(7.30)*	1815	4.8	0.431 *(0.263)*	16.19 *(3.19)*	198 *(92)*	50 *(10)*	30.1 *(101.8)*
				*13th(3B) Gear					
153.5 *(114.5)*	10925 *(48.6)*	5.27 *(8.48)*	1820	4.3	0.433 *(0.264)*	16.13 *(3.18)*	194 *(90)*	45 *(7)*	30.0 *(101.6)*
				*14th(2F) Gear					
153.4 *(114.4)*	10500 *(46.7)*	5.48 *(8.82)*	1792	3.9	0.434 *(0.264)*	16.09 *(3.17)*	199 *(93)*	50 *(10)*	30.1 *(101.8)*
				*15th(3C) Gear					
153.9 *(114.8)*	9395 *(41.8)*	6.14 *(9.89)*	1801	3.5	0.433 *(0.264)*	16.13 *(3.18)*	198 *(92)*	46 *(8)*	30.0 *(101.6)*
				*16th(3D) Gear					
151.3 *(112.8)*	7555 *(33.6)*	7.51 *(12.09)*	1818	3.0	0.438 *(0.267)*	15.94 *(3.14)*	198 *(92)*	46 *(8)*	30.0 *(101.6)*
				*17th(3E) Gear					
147.5 *(110.0)*	6270 *(27.9)*	8.82 *(14.19)*	1802	2.5	0.450 *(0.274)*	15.53 *(3.06)*	199 *(93)*	46 *(8)*	30.0 *(101.6)*

* Powerboost mode

TRACTOR SOUND LEVEL WITH CAB	Front wheel drive Engaged dB(A)	Disengaged dB(A)
At no load in 10th (2D) gear	70.0	69.0
Bystander		--

TIRES, BALLAST AND WEIGHT	Tested without ballast
Rear Tires - No., size, ply & psi*(kPa)*	Two 620/70R42;**;15*(100)*
Front Tires - No., size, ply & psi*(kPa)*	Two 480/70R30;**;15*(100)*
Height of Drawbar	21.7 in *(550 mm)*
Static Weight with operator - Rear	10340 lb *(4690 kg)*
- Front	7770 lb *(3525 kg)*
- Total	18110 lb *(8215 kg)*

Clutch multiple wet disc operated by foot pedal **Brakes** multiple wet disc hydraulically operated by two foot pedals that can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 1890 engine rpm or 1000 rpm at 2000 engine rpm **Unladen tractor mass** 17945 lb *(8140 kg)*

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE 1: This tractor has a power management system that provides an engine power increase when the PTO is engaged and for travel speeds from 2D and higher.

NOTE 2: The performance figures on this report are the result of replacing the electronic engine control module of the Massey Ferguson 7720 with the Massey Ferguson 7719 module.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. The performance figures on this summary were taken from a test conducted under the OECD Code 2 test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2946,** Nebraska Summary 1015, June 26, 2016.

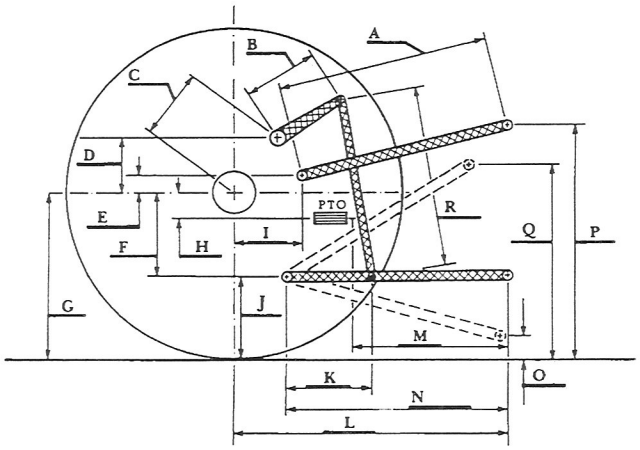
Roger M. Hoy
Director

M.F. Kocher
J.D. Luck
P.J. Jasa
Board of Tractor Test Engineers

HYDRAULIC PERFORMANCE

CATEGORY: III
Quick Attach: None
OECD Static test

Maximum force exerted through whole range:	13890 lbs *(61.8 kN)*	
i) Sustained pressure of the open relief valve:	2700 psi *(186 bar)*	
	Standard Pump	Optional pump
	29 GPM *(110 l/min)*	39 GPM *(150 l/min)*
	two outlet sets combined	two outlet sets combined
ii) Pump delivery rate at minimum pressure:	30.7 GPM *(116.2 l/min)*	42.1 GPM *(159.2 l/min)*
iii) Pump delivery rate at maximum		
hydraulic power:	29.2 GPM *(110.5 l/min)*	38.6 GPM *(146.3 l/min)*
Delivery pressure:	1990 psi *(137 bar)*	1820 psi *(126 bar)*
Power:	33.9 HP *(25.2 kW)*	41.0 HP *(30.6 kW)*
	single outlet set	single outlet set
ii) Pump delivery rate at minimum pressure:	30.2 GPM *(114.2 l/min)*	29.6 GPM *(112.0 l/min)*
iii) Pump delivery rate at maximum		
hydraulic power:	28.6 GPM *(108.3 l/min)*	27.0 GPM *(102.1 l/min)*
Delivery pressure:	1975 psi *(136 bar)*	1945 psi *(134 bar)*
Power:	32.9 HP *(24.5 kW)*	30.6 HP *(22.8 kW)*



HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	*mm*
A	30.9	*784*
B	15.7	*400*
C	20.7	*525*
D	19.1	*485*
E	8.3	*210*
F	12.2	*310*
G	36.4	*925*
H	2.0	*50*
I	17.7	*450*
J	24.2	*615*
K	23.8	*604*
L	48.2	*1225*
M	24.6	*625*
N	38.1	*967*
O	10.0	*255*
P	51.2	*1300*
Q	39.7	*1009*
R	36.6	*930*