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Nebraska Summary: S697 Massey Ferguson 6475

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SUMMARY OF OECD TEST 2546–NEBRASKA SUMMARY 697
MASSEY FERGUSON 6475 DIESEL
24 SPEED
Tractor chassis S/N R165050 and higher

POWER TAKE-OFF PERFORMANCE

Power HP *(kW)*	Crank shaft speed rpm	Gal/hr *(l/h)*	lb/hp.hr *(kg/kW.h)*	Hp.hr/gal *(kW.h/l)*	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed—(PTO speed—1083 rpm)					
126.1 *(94.1)*	2200	7.94 *(30.15)*	0.448 *(0.273)*	15.89 *(3.13)*	
Standard Power Take-off Speed(1000 rpm)					
135.7 *(101.2)*	2030	7.89 *(29.86)*	0.414 *(0.252)*	17.20 *(3.39)*	
Maximum Power (1 hour)					
142.9 *(106.6)*	1800	7.80 *(29.53)*	0.388 *(0.236)*	18.32 *(3.61)*	
VARYING POWER AND FUEL CONSUMPTION					
126.2 *(94.1)*	2200	7.96 *(30.15)*	0.448 *(0.273)*	15.89 *(3.13)*	Air temperature
107.5 *(80.2)*	2207	7.25 *(27.44)*	0.480 *(0.292)*	14.82 *(2.92)*	73°F *(23°C)*
81.3 *(60.6)*	2216	5.89 *(22.29)*	0.516 *(0.314)*	13.81 *(2.72)*	Relative humidity
54.7 *(40.8)*	2229	4.53 *(17.13)*	0.589 *(0.358)*	12.08 *(2.38)*	56%
27.2 *(20.3)*	2241	2.93 *(11.09)*	0.765 *(0.465)*	9.30 *(1.83)*	Barometer
-- --	2248	1.83 *(6.94)*	-- --	-- --	30.3" Hg *(102.5 kPa)*

Maximum Torque - 433.3 lb.-ft. *(587.5 Nm)* at 1399 rpm
Maximum Torque Rise - 43.9%
Torque rise at 1750 engine rpm - 42%

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)*
Maximum Power—12th(3A) Gear									
78.9 *(58.9)*	5400 *(24.0)*	5.48 *(8.81)*	2196	3.9	0.607 *(0.369)*	11.68 *(2.30)*	176 *(80)*	63 *(17)*	30.0 *(101.7)*
75% of Pull at Maximum Power—12th(3A) Gear									
60.5 *(45.1)*	4080 *(18.1)*	5.56 *(8.95)*	2211	2.8	0.630 *(0.383)*	11.27 *(2.22)*	172 *(78)*	63 *(17)*	30.0 *(101.7)*
50% of Pull at Maximum Power—12th(3A) Gear									
40.6 *(30.3)*	2700 *(12.0)*	5.64 *(9.08)*	2216	1.8	0.780 *(0.474)*	9.10 *(1.79)*	172 *(78)*	63 *(17)*	30.0 *(101.7)*
75% of Pull at Reduced Engine Speed—14th(3B) Gear									
61.0 *(45.5)*	4115 *(18.3)*	5.56 *(8.95)*	1838	2.2	0.559 *(0.340)*	12.69 *(2.50)*	174 *(79)*	63 *(17)*	30.0 *(101.7)*
50% of Pull at Reduced Engine Speed—14th(3B) Gear									
41.4 *(30.9)*	2750 *(12.2)*	5.65 *(9.10)*	1848	1.5	0.665 *(0.404)*	10.67 *(2.10)*	170 *(77)*	63 *(17)*	30.0 *(101.7)*

Location of tests: Groupement d'Antony, Parc de Touvoie, BP 44 Antony, France 92163
Dates of tests: July - October, 2009
Manufacturer: AGCO S.A. BP 307, Avenue Blaise Pascal, 60026 Beauvais, France

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F *(15°/15°C)*** 0.855 **Fuel weight** 7.12 lbs/gal *(0.853 kg/l)* **Oil SAE** 15W40 **API service classification** CH4 **Transmission and hydraulic lubricant** BP Terrac Tractan 9 10W/40 **Front axle lubricant** BP Terrac Tractan 9 10W/40

ENGINE: Make Perkins Diesel **Type** six cylinder vertical with turbocharger and air to air intercooler **Serial No.** U018654S **Crankshaft** lengthwise **Rated engine speed** 2200 **Bore and stroke** 4.134" x 5.000" *(105.0 mm x 127.0 mm)* **Compression ratio** 16.2 to 1 **Displacement** 402 cu in *(6600 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** one paper element **Muffler** underhood **Exhaust** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: Type front wheel assist **Serial No.** T352044 **Tread width** rear 61.7" *(1566 mm)* to 74.6" *(1896 mm)* front 63.4" *(1610 mm)* to 78.1" *(1984 mm)* **Wheelbase** 109.4" *(2780 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 1.01 *(1.62)* second 1.21 *(1.95)* third 1.42 *(2.29)* fourth 1.71 *(2.75)* fifth 2.01 *(3.24)* sixth 2.42 *(3.90)* seventh 2.73 *(4.39)* eighth 3.27 *(5.27)* ninth 3.85 *(6.19)* tenth 4.63 *(7.45)* eleventh 5.44 *(8.76)* twelfth 5.54 *(8.91)* thirteenth 6.55 *(10.54)* fourteenth 6.66 *(10.71)* fifteenth 7.81 *(12.57)* sixteenth 9.40 *(15.12)* seventeenth 11.05 *(17.79)* eighteenth 12.76 *(20.54)* nineteenth 13.30 *(21.40)* twentieth 15.35 *(24.70)* twenty-first 18.01 *(28.99)* twenty-second 21.67 *(34.88)* twenty-third 24.86 *(40.00)* twenty-fourth 24.86 *(40.00)* reverse 1.01 *(1.62)*, 1.21 *(1.95)*, 1.42 *(2.29)*, 1.71 *(2.75)*, 2.01 *(3.24)*, 2.42 *(3.90)*, 2.73 *(4.39)*, 3.27 *(5.27)*, 3.85 *(6.19)*, 4.63 *(7.45)*, 5.44 *(8.76)*, 5.54 *(8.91)*, 6.55 *(10.54)*, 6.66 *(10.71)*, 7.81 *(12.57)*, 9.40 *(15.12)*, 11.05 *(17.79)*, 12.76 *(20.54)*, 13.30 *(21.40)*, 15.35 *(24.70)*, 18.01 *(28.99)*, 21.67 *(34.88)*, 24.86 *(40.00)*, 24.86 *(40.00)*

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)*
					4th(1D) Gear				
52.4	13015	1.51	2216	14.7	0.736	9.63	167	59	30.0
(39.1)	*(57.9)*	*(2.43)*			*(0.448)*	*(1.90)*	*(75)*	*(15)*	*(101.7)*
					5th(1E) Gear				
60.2	12520	1.80	2212	14.0	0.703	10.09	169	61	30.0
(44.9)	*(55.7)*	*(2.90)*			*(0.428)*	*(1.99)*	*(76)*	*(16)*	*(101.7)*
					6th(1F) Gear				
70.1	12420	2.12	2191	13.9	0.681	10.41	167	61	30.0
(52.3)	*(55.3)*	*(3.41)*			*(0.414)*	*(2.05)*	*(75)*	*(16)*	*(101.7)*
					7th(2A)Gear				
79.5	12040	2.48	2206	12.6	0.575	12.33	169	61	30.0
(59.3)	*(53.6)*	*(3.99)*			*(0.350)*	*(2.43)*	*(76)*	*(16)*	*(101.7)*
					8th(2B)Gear				
92.8	11890	2.93	2132	11.5	0.509	13.94	172	63	30.0
(69.2)	*(52.9)*	*(4.71)*			*(0.310)*	*(2.75)*	*(78)*	*(17)*	*(101.7)*
					9th(2C)Gear				
98.2	11510	3.20	1976	10.3	0.483	14.67	172	63	30.0
(73.2)	*(51.2)*	*(5.15)*			*(0.294)*	*(2.89)*	*(78)*	*(17)*	*(101.7)*
					10th(2D) Gear				
101.9	9620	3.97	1977	8.0	0.469	15.13	176	63	30.0
(76.0)	*(42.8)*	*(6.39)*			*(0.285)*	*(2.98)*	*(80)*	*(17)*	*(101.7)*
					11th(2E) Gear				
100.2	8005	4.69	1951	5.5	0.503	14.11	176	64	30.0
(74.7)	*(35.6)*	*(7.54)*			*(0.306)*	*(2.78)*	*(80)*	*(18)*	*(101.7)*
					12th(3A) Gear				
115.2	8980	4.81	1996	7.1	0.475	14.92	180	64	30.0
(85.9)	*(39.9)*	*(7.74)*			*(0.289)*	*(2.94)*	*(82)*	*(18)*	*(101.7)*
					13th(2F)Gear				
100.4	6780	5.55	1895	5.3	0.488	14.52	180	64	30.0
(74.9)	*(30.2)*	*(8.94)*			*(0.297)*	*(2.86)*	*(82)*	*(18)*	*(101.7)*
					14th(3B) Gear				
116.0	7510	5.79	1960	5.9	0.487	14.57	185	63	30.0
(86.5)	*(33.4)*	*(9.32)*			*(0.296)*	*(2.87)*	*(85)*	*(17)*	*(101.7)*
					15th(3C) Gear				
116.3	6305	6.92	1976	4.4	0.473	14.97	185	64	30.0
(86.7)	*(28.0)*	*(11.13)*			*(0.288)*	*(2.95)*	*(85)*	*(18)*	*(101.7)*
					*16th(3D) Gear				
116.0	5385	8.08	1959	6.8	0.490	14.47	187	64	30.0
(86.5)	*(23.9)*	*(13.00)*			*(0.298)*	*(2.85)*	*(86)*	*(18)*	*(101.7)*
					*17th(3E) Gear				
113.6	4505	9.45	1945	6.0	0.494	14.37	185	64	30.0
(84.7)	*(20.0)*	*(15.20)*			*(0.300)*	*(2.83)*	*(85)*	*(18)*	*(101.7)*

* Front Drive Disengaged

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 1982 engine rpm or 1000 rpm at 2030 engine rpm **Unladen tractor mass** 13710 lb *(6220 kg)*

NOTE 1: The engine on this tractor is electronically controlled to give 2 power levels. A "boosted" level is available when the PTO is engaged, tractor stationary, and when the tractor is operated in ranges 3 and 4.

NOTE 2: The performance figures on this report apply to tractors with chassis S/N R165050 and higher.

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

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. **2546,** Nebraska Summary 697, June 1, 2010.

Roger M. Hoy
Director

M.F. Kocher
D.R. Keshwani
J.A. Smith
Board of Tractor Test Engineers

TIRES, BALLAST AND WEIGHT

	Tested without ballast
Rear Tires - No., size, ply & psi*(kPa)*	Two 460/85R38;**;14*(100)*
Front Tires - No., size, ply & psi*(kPa)*	Two 16.9R28;**;14*(100)*
Height of Drawbar	19.3 in *(490 mm)*
Static Weight with operator - Rear	8520 lb *(3865 kg)*
- Front	5355 lb *(2430 kg)*
- Total	13875 lb *(6295 kg)*

TRACTOR SOUND LEVEL WITH CAB	dB(A)
At no load in 10th (2D) gear	69.0
Bystander	--

HYDRAULIC PERFORMANCE

CATEGORY: II
Quick Attach: None
OECD Static test

Maximum force exerted through whole range:	9485 lbs	*(42.2 kN)*
i) Sustained pressure of the open relief valve:	2830 psi	*(195 bar)*
ii) Pump delivery rate at minimum pressure:	29.1 GPM	*(110.0 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	25.3 GPM	*(95.7 l/min)*
Delivery pressure:	2350 psi	*(162 bar)*
Power:	34.7 HP	*(25.8 kW)*

THREE POINT HITCH PERFORMANCE(SAE Static test)

Observed Maximum Pressure psi. *(bar)*	2830 *(195)*
Location:	lift cylinder
Hydraulic oil temperature: °F *(°C)*	154 *(68)*
Location:	hydraulic sump
Category:	II
Quick attach:	None

System pressure 2560 psi *(176 bar)*

Hitch point distance to ground level in. *(mm)*	10.4 *(263)*	15.7 *(398)*	21.5 *(545)*	27.4 *(695)*	33.5 *(850)*	37.0 *(940)*
Lift force on frame lb	11825	11555	11330	11040	10455	9915
" " " " " " *(kN)*	*(52.6)*	*(51.4)*	*(50.4)*	*(49.1)*	*(46.5)*	*(44.1)*

HITCH DIMENSIONS AS TESTED—NO LOAD

	OECD test		SAE test	
	inch	*mm*	inch	*mm*
A	28.3	*720*	28.1	*715*
B	11.6	*295*	11.6	*295*
C	13.9	*354*	13.9	*354*
D	13.0	*330*	13.0	*330*
E	9.8	*250*	11.4	*290*
F	11.0	*280*	11.0	*280*
G	34.4	*875*	34.4	*875*
H	2.0	*50*	2.0	*50*
I	15.3	*389*	15.3	*389*
J	23.4	*595*	23.4	*595*
K	21.4	*544*	21.4	*544*
L	43.3	*1101*	43.3	*1101*
M	24.6	*626*	24.6	*626*
N	37.0	*940*	37.0	*940*
O	8.3	*209*	8.1	*205*
P	47.4	*1205*	42.4	*1077*
Q	36.5	*928*	36.5	*926*
R	30.7	*780*	30.8	*783*

