NEBRASKA TRACTOR TEST 1917
FARMTRAC 675 DTC DIESEL
ALSO FARMTRAC 8075 DIESEL
12 SPEED

Location of tests: Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln Nebraska 68583-0832
Dates of tests: March 3 - July 9, 2008
Manufacturer: Escorts Limited, Agri Machinery Group Plant 1, 18/4 Mathura Road, Faridabad - 12007 India

FUEL, OIL and TIME:
Fuel: No. 2 Diesel
Specific gravity converted to 60°/60° F (15°/15°C) 0.8417
Fuel weight: 7.008 lbs/gal (0.840 kg/l)
Oil: SAE 15W40, API service classification CF-4
Transmission and hydraulic lubricant: SAE 80W90 gear lube
Front axle lubricant: SAE 80W90 gear lube
Total time engine was operated: 11.5 hours

ENGINE:
Make: Perkins Diesel
Type: four cylinder vertical
Serial No.: S38189*U325253N*
Crankshaft lengthwise
Rated engine speed: 2200 rpm
Bore and stroke: 4.134" x 5.00" (105.0 mm x 127.0 mm)
Compression ratio: 19.3 to 1
Displacement: 268 cu in (4400 ml)
Starting system: 12 volt
Lubrication: pressure
Air cleaner: two paper elements
Oil filter: one full flow cartridge
Fuel filter: one paper element and water separator
Oil cooler: radiator for hydraulic and transmission oil
Muffler: vertical
Cooling medium temperature control: one thermostat

ENGINE OPERATING PARAMETERS:
Fuel rate: 29.4 - 32.4 lb/h (13.3 - 14.7 kg/h)
High idle: 2360 - 2460 rpm

CHASSIS:
Type: Front wheel assist
Serial No.: T2081571
Tread width: rear 57.5” (1460 mm) to 73.2” (1860 mm)
front 59.4” (1508 mm) to 75.1” (1908 mm)
Wheelbase: 80.7” (2050 mm)
Hydraulic control system: direct engine drive
Transmission: selective gear fixed ratio
Nominal travel speeds
mph (km/h) first 0.89 (1.43) second 1.32 (2.12) third 1.95 (3.11) fourth 2.26 (3.64) fifth 2.72 (4.37) sixth 3.35 (5.39) seventh 4.13 (6.65) eighth 6.00 (9.65) ninth 6.89 (11.08) tenth 7.72 (12.44) eleventh 12.99 (20.91) twelfth 18.26 (29.39) reverse 0.75 (1.20) 1.11 (1.78) 1.62 (2.61) 1.90 (3.05) 2.27 (3.66) 2.81 (4.52) 4.11 (6.61) 5.03 (8.10) 5.77 (9.29) 7.45 (11.99) 10.90 (17.54) 15.32 (24.65) Clutch: single dry disc operated by foot pedal
Brakes: multiple wet disc hydraulically operated by two foot pedals which can be locked together
Steering: hydrostatic
Power take-off: 540 rpm at 2115 engine rpm

Unladen tractor mass: 6115 lb (2774 kg)
THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II
Quick Attach: None
Maximum force exerted through whole range: 3978 lbs (17.7 kN) (at 24" point)
5063 lbs (22.5 kN) (at hitch points)
i) Sustained pressure of the open relief valve: 3057 psi (211 bar)
ii) Pump delivery rate at minimum pressure and rated engine speed: 9.8 GPM (37.0 l/min)
iii) Pump delivery rate at maximum hydraulic power: 9.1 GPM (34.4 l/min)
Delivery pressure: 2920 psi (201 bar)
Power: 15.5 HP (11.5 kW)

THREE POINT HITCH PERFORMANCE

Observed maximum pressure psi. (bar) 3050 (211)
Location: remote outlet
Hydraulic oil temperature: °F (°C) 140 (60)
Category: II
Quick attach: none

SAE Static Test—System pressure 2550 psi (176 Bar)

<table>
<thead>
<tr>
<th>Hitch point distance to ground level in. (mm)</th>
<th>8.0 (203)</th>
<th>15.0 (381)</th>
<th>22.0 (559)</th>
<th>29.0 (737)</th>
<th>35.0 (889)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lift force on frame lb</td>
<td>5802</td>
<td>5401</td>
<td>5253</td>
<td>5000</td>
<td>4557</td>
</tr>
<tr>
<td>* * * * * * (kN)</td>
<td>(25.8)</td>
<td>(24.0)</td>
<td>(23.4)</td>
<td>(22.2)</td>
<td>(20.3)</td>
</tr>
</tbody>
</table>

SAE test | inch | mm | OECD test | inch | mm
---|---|---|---|---|---
A | 29.6 | 752 | 29.8 | 757 |
B | 10.6 | 270 | 10.6 | 270 |
C | 12.2 | 310 | 12.2 | 310 |
D | 12.2 | 310 | 12.2 | 310 |
E | 12.9 | 327 | 12.9 | 327 |
F | 7.6 | 192 | 7.6 | 192 |
G | 27.4 | 695 | 27.4 | 695 |
H | 0.0 | 0.0 | 0.0 | 0.0 |
I | 8.9 | 225 | 8.9 | 225 |
J | 19.8 | 503 | 19.8 | 503 |
K | 23.2 | 590 | 23.2 | 590 |
L | 39.1 | 992 | 39.1 | 992 |
M | 23.3 | 592 | 23.3 | 592 |
N | 36.2 | 920 | 36.2 | 920 |
O | 8.0 | 203 | 8.0 | 203 |
P | 38.8 | 986 | 43.8 | 1113 |
Q | 33.2 | 843 | 33.2 | 843 |
R | 23.9 | 606 | 23.9 | 606 |

HITCH DIMENSIONS AS TESTED - NO LOAD

FARMTRAC 675 DTC Diesel
Institute of Agriculture and Natural Resources
University of Nebraska–Lincoln