AFRC Institute of ENGINEERING RESEARCH

OECD Approval No. 1075
Restricted Code

**Test in accordance with the OECD restricted standard code for the official testing of agricultural tractors**

# Massey-Ferguson 365 Two-wheel Drive Tractor with 8-Speed Transmission



| | |
|---|---|
| **Manufacturered by** | Massey-Ferguson Manufacturing Ltd.,<br>Banner Lane,<br>Coventry,<br>Warwickshire CV4 9GF |
| **Test No.** | R87/70571/OECD |
| **Report No.** | 711 |
| **Date** | April 1987 |

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# TABLE OF CONTENTS


| | Page No. |
|---|---|
| I SPECIFICATION OF TRACTOR | 1 |
| Conditions during test | 13 |
| Fuels and lubricants used in tests | 14 |
| II TEST RESULTS | |
| A COMPULSORY TESTS | |
| 1. Main power take-off performance | 15 |
| 2. Power lift and hydraulic pump performance | 19 |
| 3. Maximum drawbar power, transmission and fuel consumption characteristic test (Unballasted tractor) | 21 |
| B. SUPPLEMENTARY TESTS | |
| Location of centre of gravity | 22 |
| REPAIRS AND ADJUSTMENTS DURING TESTS | 22 |
| REMARKS | 22 |

| | |
|---|---|
| Tractor manufacturer's name and address: | Massey-Ferguson Manufacturing Limited Banner Lane, Coventry, Warwickshire CV4 9GF |
| Submitted for test by: | The manufacturer |
| Selected for test by: | The manufacturer with the agreement of the testing station |
| Place of running in: | Coventry |
| Duration of running in: | 60 hours |

I. SPECIFICATION OF TRACTOR

TRACTOR

| | |
|---|---|
| Make: | Massey-Ferguson |
| Trade name: | Massey-Ferguson |
| Model: | M-F 365 with 8-speed transmission |
| Type: | Four wheel, rear wheel driven, unit construction |
| Serial No: | 5270U30271 |
| 1st Serial No: | 5270U01001 |

ENGINE

| | |
|---|---|
| Make: | Perkins |
| Model: | A4.236 |
| Type | 4-stroke, direct injection, naturally aspirated diesel |
| Serial No: | LD 31190U107088N |
| Cylinders | |
| Number/disposition: | 4, vertical, in-line |
| Bore/stroke: | 98.5 mm/127.0 mm |
| Capacity: | 3871 $cm^3$ |
| Compression ratio: | 16:1 |
| Arrangement of valves: | Overhead |
| Cylinder liners: | Dry |

| | |
|---|---|
| **Fuel System** | |
| Fuel feed system: | AC Delco mechanical feed pump. |
| Make, type and model of fuel filter(s): | C.A.V. paper element filter with transparent sediment bowl |
| Capacity of fuel tank: | 108 l |
| Make, type and model of injection pump: | C.A.V., distributor, DPA3241F490 |
| Serial No: | 1991 6GBG |
| Manufacturer's production setting of injection pump: | 12.3-12.9 l/h at 2000 rev/min engine speed at full load and 40°C pump inlet temperature |
| Injection pump timing: | Delivery starts 23° before T.D.C., static |
| Make, type and model of injectors: | C.A.V. 4-hole, BDLL 150S6705 |
| Injection pressure: | 17.1 M Pa |
| **Governor** | |
| Make: | C.A.V. |
| Type: | Mechanical incorporated in injection pump |
| Governed range of engine speed: | 750 to 2420 rev/min |
| Rated engine speed: | 2200 rev/min |
| **Air cleaner** | |
| Pre-cleaner | |
| Make and type: | Nelson-Burgess, Visibowl, centrifugal |
| Location: | Above engine cover |
| Main | |
| Make and type: | Nelson-Burgess, oil bath |
| Maintenance indicator: | None |
| Oil capacity | 1 l |
| Location: | Under engine cover |
| **Lubrication system** | |
| Type of feed pump: | Forced feed from eccentric rotor pump |
| Total oil capacity including filter(s): | 7.5 l |
| Oil change period: | 250 hours |
| Type of filter(s): | Full flow replaceable element canister |
| Number: | 1 |
| Filter change period: | 250 hours |
| Recommended oil: | See "Fuels and lubricants used in tests" |

| | |
|---|---|
| **Cooling system** | |
| Type of coolant: | Water or water and anti-freeze solution |
| Specification of pump | |
| Type: | Centrifugal |
| Description of fan: | Belt driven, puller |
| Number of fan blades: | 4 |
| Fan diameter: | 457 mm |
| Coolant capacity: | 15.1 l |
| Type of temperature control: | Thermostat |
| Superpressure system: | 69 kPa |
| **Starting system** | |
| Safety device: | Operable only when high/low gear selector is in neutral position |
| Starter motor | |
| Make: | Lucas |
| Type: | Electrical, pre-engaged, solenoid operated |
| Model and power rating: | M127, 12V, 2.8 kW |
| Cold starting aid: | Lucas C.A.V. Thermostart |
| **Electrical system** | |
| Voltage: | 12 |
| Generator: | Alternator |
| Make: | Lucas |
| Model: | A127 |
| Type: | Belt driven |
| Power: | 0.54 kW |
| Batteries | 2, M.F. Powerpart, lead-acid |
| Rating: | 420 A CCA rating each or equivalent 75 Ah at 20-hour rating |
| **Exhaust system** | |
| Make: | Nelson-Burgess |
| Type: | Spark arrester silencer |
| Model: | 17AE10 |
| Location: | Under engine cover with vertical stack pipe |
| Height of outlet above ground: | 2440 mm |

## TRANSMISSION

| | |
|---|---|
| **Clutch** | |
| Make: | Laycock |
| Type: | Dry, for transmission and pto |
| Number of plates: | 2 |
| Diameter of plates: | 305 mm and 254 mm |
| Method of operation: | Mechanically by pedal |
| **Gear box** | |
| Make: | Massey-Ferguson |
| Type: | Mechanical, manual operation |
| Arrangement: | 4 forward and 1 reverse speeds with high/low range selector |
| Number of speeds: | 8 forward, 2 reverse |
| Available options: | 8 and 12 speed synchromesh and 12 speed multi-power |
| **Rear axle and final drives** | |
| Make: | Massey-Ferguson |
| Type: | Crown wheel and pinion, with outboard epicyclic reduction gears |
| **Differential lock** | |
| Type: | Mechanical |
| Method of engagement: | Pedal operated |
| Method of disengagement: | Automatic |
| **Transmission oils** | |
| Gear box, transmission final drives and power lift housing: | |
| Capacity | 49.8 l |
| Change period: | 1000 hours |
| Recommended oil: | See "Fuels and lubricants used in tests" |

| Gear | Group No. | Number of engine revolutions for one revolution of the driving wheels | Nomimal travelling speed at rated engine speed: 2200 rev/min km/h |
|---|---|---|---|
| Forward | | | |
| 1 | L | 222.58 | 2.59 |
| 2 | L | 151.76 | 3.80 |
| 3 | L | 111.11 | 5.19 |
| 4 | L | 82.78 | 6.96 |
| 1 | H | 55.64 | 10.36 |
| 2 | H | 37.94 | 15.19 |
| 3 | H | 27.78 | 20.75 |
| 4 | H | 20.69 | 27.86 |
| Reverse | | | |
| R | L | 163.43 | 3.53 |
| R | H | 40.86 | 14.11 |

L = Low range H = High range

Rear tyre size: 16.9-30

Tyre radius index: 695 mm

POWER TAKE-OFF

Main power take-off

Type: Independent, mechanically operated, through second plate in main clutch

Method of engagement: By hand lever

Number of shafts: 1

Power take-off proportional to engine speed

| | |
|---|---|
| Location: | At rear of tractor |
| Diameter of power take-off shaft: | 34.9 mm |
| Number of splines: | 6 to ISO standard |
| Tyre sizes, Front, Rear: | 7.50-16, 16.9-30 |
| Height above ground: | 552 mm |
| Distance from the median plane of the tractor: | Central |
| Distance behind rear axle: | 296 mm |
| Pto speed at rated engine speed: | 664 rev/min |
| Engine speed at standard power take-off speed (540 rev/min): | 1789 rev/min |
| Engine to pto ratio: | 3.3125:1 |
| Power restriction: | I.S.O. recommendation, 48 kW |
| Direction of rotation (viewed facing driving end): | Clockwise |

Power take-off proportional to ground speed

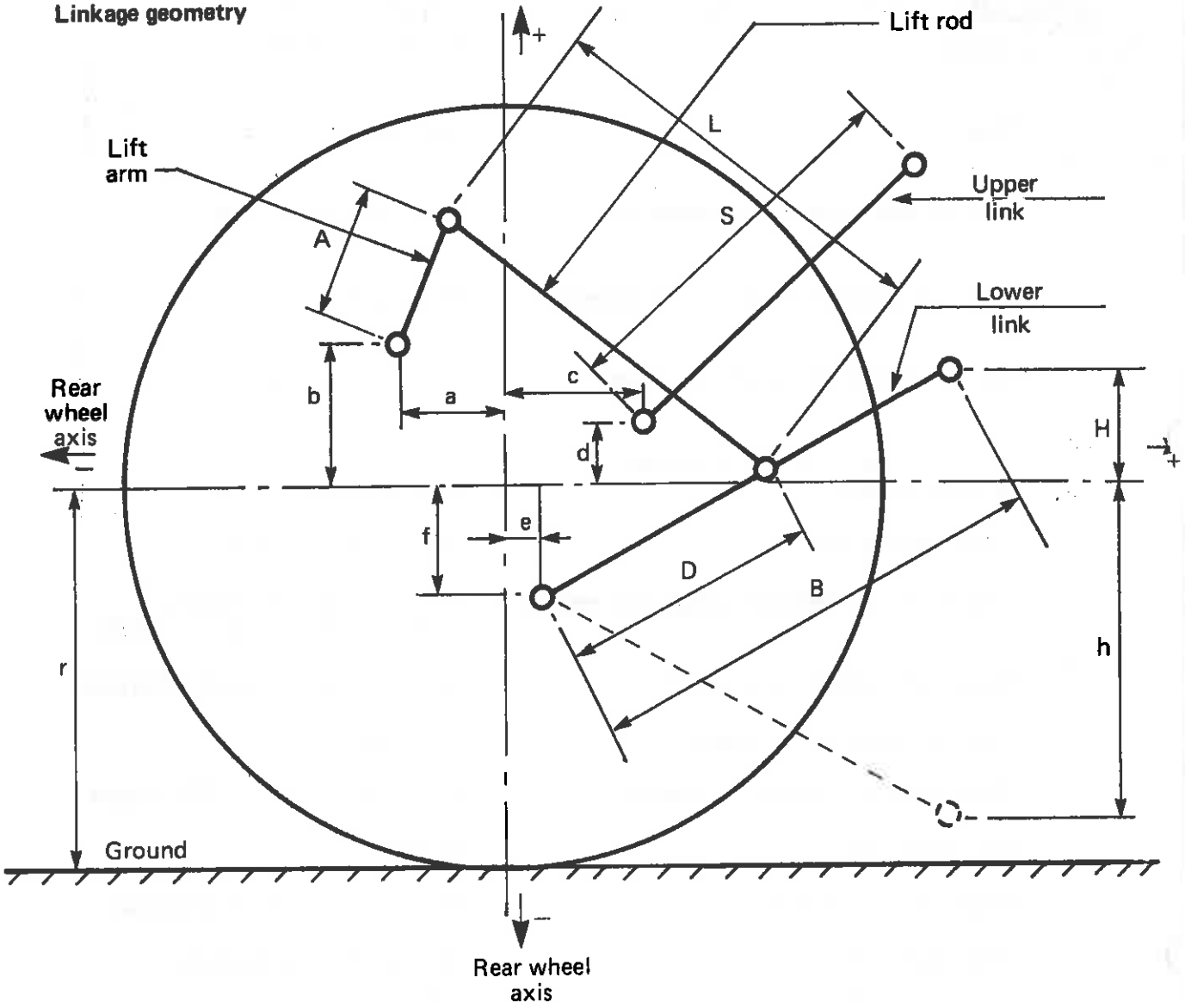
| | |
|---|---|
| Speed of shaft: | 540 rev/min |
| Size of tyre: | 16.9-30 |
| Travelling distance for one revolution of power take-off shaft: | 316 mm |
| Number of pto shaft revolutions for one revolution rear wheels: | 13.8 |
| Direction of rotation with forward gear engaged: | Clockwise |

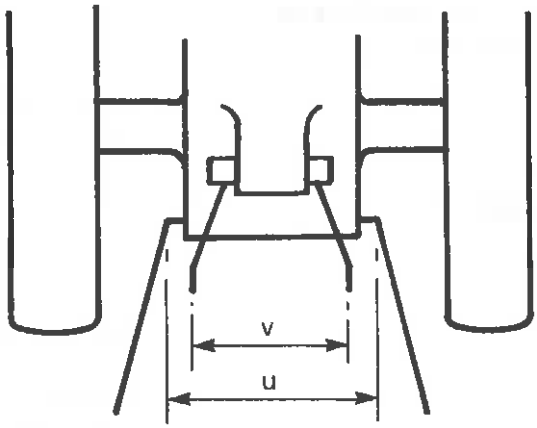
POWER LIFT

| | |
|---|---|
| Make: | Massey-Ferguson |
| Type: | Hydraulic |
| Number and type of cylinders: | One, single acting, |
| Type of linkage lock for transport: | Hydraulic |
| Relief valve pressure setting: | 20.5 - 24.0 MPa |
| Opening pressure of cylinder safety valve: | None fitted |
| Lift pump type: | 4-cylinder piston |
| Transmission between pump and engine: | Driven from pto shaft, independent of main clutch |
| Make and number of filters: | Own make metal mesh strainer |
| Time between oil changes: | 1000 hours |
| Time between filter changes: | Clean mesh every 1000 hours |
| Oil capacity: | 47.4 l |
| Site of oil reservoir: | Main transmission housing |
| Type and number of tapping points: | One on centre housing top cover |
| Maximum volume of oil available to external cylinders: | 18 l |
| Recommended oil | See "Fuels and lubricants used in tests" |

THREE-POINT LINKAGE

| | |
|---|---|
| Category: | 1 or 2 to ISO standard |
| Category adapter: | Replacement ball ends |
| Controls | Draught or position control, top link sensing |


Linkage geometry
+
Lift rod
L
Lift
arm
S
Upper
link
A
Lower
link
Rear
wheel
axis
b
a
c
H
d
f
e
D
B
h
r
Ground
Rear wheel
axis


v
u

Linkage dimensions for the lifting test

| | | | |
|---|---|---|---|
| Rear tyres: (size 16.9-30) radius index: | | (r) | 695 mm |
| Front tyres:(size 7.50-16) radius index: | | (r') | 360 mm |
| Length of lift arms: | | (A) | 267 mm |
| Length of lower links: | | (B) | 952 mm |
| Distance of lift arm pivot point from rear wheel centre line: | horizontally: | (a) | 196 mm |
| | vertically: | (b) | 233 mm |
| Horizontal distance between the two lower link points: | | (u) | 492 mm |
| Horizontal distance between the two lift arm end points: | | (v) | 534 mm |
| Length of upper link: | | (S) | 740 mm |
| Distance of upper link pivot point from rear wheel centre line | horizontally: | (c) | 186 mm |
| | vertically: | (d) | 205 mm |
| Distance of lower link pivot point from rear wheel centre | horizontally: | (e) | 32 mm forward |
| | vertically: | (f) | 212 mm |
| Distance of lower link points to lift rod pivot points on lower link: | | (D) | 427 mm |
| Length of lift rods: | | (L) | 630 mm |
| Height of lower hitch points relative to the rear wheel centre line, situated 695 mm above the ground level | | | |
| - in low position: | | (h) | 495 mm |
| - in high position: | | (H) | 253 mm |
| Height of lower hitch points when locked in transport position: | | | Any height within lift range |

SWINGING DRAWBAR

| | | |
|---|---|---|
| Tyre sizes | Front: | 7.50-16 |
| | Rear: | 16.9-30 |
| Height above ground, | maximum: | 483 mm |
| | minimum: | 329 mm |
| Type of adjustment: | | Inverting drawbar or clevis |
| Distance of hitch point from rear axle centre: | | 537 mm and 652 mm |
| Distance of hitch point from power take-off shaft ends: | | |
| vertically: | | 69 mm to 223 mm |
| horizontally: | | 241 mm and 356 mm |
| Lateral adjustment: | | 440 mm and 520 mm |
| Distance of pivot point from rear axles horizontally: | | 130 mm forward |
| Diameter drawbar pin hole: | | 25.4 mm |

FRONT TOWING HITCH

| | |
|---|---|
| Vertical height to centre of clevis: | 700 mm |
| Width of clevis: | 65 mm |
| Diameter of pin hole: | 30 mm |

STEERING

| | |
|---|---|
| Method of operation: | Hydrostatic system with hand operated steering motor powered by engine mounted pump operating a ram integral with track rod |
| Pump: | Bendix Hydralquip, gear type with integral oil reservoir |
| Motor: | Danfoss OSPC-ON |
| Ram | Massey-Ferguson double acting, integral with track rod |
| Working pressure: | 17 MPa |
| Oil capacity: | 1.2 l |
| Oil change period: | Top up only |
| Make and model of filter: | Bendix paper element integral with reservoir |
| Filter(s) change period: | None |
| Recommended oil: | See "Fuels and lubricants used in tests" |

BRAKES

Service brake

| | |
|---|---|
| Make: | Girling |
| Type: | Oil immersed multi-plate discs, 4 per side |
| Method of operation: | Independent or combined pedal, hydraulic actuation |
| Trailer braking take-off | None fitted |

Parking brake

| | |
|---|---|
| Type: | Mechanical by cable connected to both service brakes |
| Method of operation: | Hand lever with ratchet |

STEERING WHEELS

| | |
|---|---|
| Number: | 2 |
| Location: | At front |
| Tyres: | Goodyear Super Rib Tractor |
| Size: | 7.50-16 |
| Ply rating: | 6 |
| Type of casing: | Cross-ply |
| Maximum permissible load on each tyre: | 745 kg |
| Corresponding inflation pressure: | 280 kPa |
| Track widths: | 1271 mm to 1881 mm |
| Method of adjustment: | Extending axle |

DRIVING WHEELS

| | |
|---|---|
| Number: | 2 |
| Location: | At rear |
| Tyres: | Goodyear Traction Suregrip |
| Size: | 16.9-30 |
| Ply rating: | 6 |
| Type of casing: | Crossply |
| Maximum permissible load on each tyre: | 1900 kg |
| Corresponding inflation pressure: | 130 kPa |
| Track widths: | 1421 mm by 102 mm steps to 2135 mm |
| Method of adjustment: | Reversing wheels and offset lug rims |

WHEELBASE 2286 mm

DRIVER'S SEAT

| | |
|---|---|
| Make: | Grammer DS44 |
| Type of suspension: | Spring |
| Type of damping: | Hydraulic |
| Range of adjustment, longitudinal: | 150 mm |
| vertical: | 60 mm |

LIGHTING

Unrestricted beam angle of head light in plan view 110°
Tyres: front 7.50-16: rear 16.9-30

| | Height above ground of centre, mm | Size, mm | Distance from outside edge of tractor to centre, at 1523 mm track width, mm |
|---|---|---|---|
| Headlights, | 1190 | 100 x 160 | 835 |
| Sidelights, | 1515 | 110 x 35 | 235 |
| Rear lights, | 1535 | 73 x 50 | 437 |
| Mudguard reflectors, | 1535 | 46 x 46 | 380 |
| Rear axle reflectors | 645 | 80 dia | 533 |

## CONDITIONS DURING TEST

### Overall dimensions

(front: 7.50-16 rear: 16.9-30 tyres fitted)

| Length, m | Width, min. m | Width, max. m | Height at top of, exhaust silencer, m | Height at top of, steering wheel, m |
|---|---|---|---|---|
| 3.80 | 1.85 | 2.57 | 2.44 | 1.73 |

### Ground clearance

Clearance: 330 mm limited by drawbar bracket

### Track setting

Front: 1373 mm
Rear: 1523 mm

### Tractor mass

(without driver but with tanks full)

| Front, kg | Rear,kg | Total,kg |
|---|---|---|
| 1149 | 1442 | 2591 |

## Fuel and lubricants used in tests

### Fuel

Type: Diesel oil to Class D British Standard 2869:1970 specific gravity 0.8386 at 15°C, Cetane index 53.5

| Oils | Recommended | Used during test |
|---|---|---|
| Engine | | |
| Type: | SAE 15W/30 | |
| Viscosity: | 54cSt at 50°C | As recommended |
| Classification: | MIL-L-2104-C | |
| Transmission, final drives, and hydraulics | | |
| Type: | SAE 15W/30 | |
| Viscosity: | 54 cSt at 50°C | As recommended |
| Classification: | MIL-L-2104-C | |
| Steering | | |
| Type: | SAE 10W | |
| Viscosity: | 18.5 cSt at 50°C | As recommended |
| Classification: | - | |
| Hydraulic brakes | | |
| Type: | Mineral | |
| Viscosity: | 7.2 cSt at 50°C | As recommended |
| Classification:: | M-F CMS 1151A | |
| Recommended grease: | Consistency 2 lithium | As recommended |
| Number of lubrication points: | 13 | |

II TEST RESULTS

A COMPULSORY TESTS

1. MAIN POWER TAKE-OFF PERFORMANCE

Date of tests: 21st November 1986

Type of dynamometer: Water brake, Heenan & Froude

| Power, kW | Speed, rev/min | | Fuel consumption, Hourly, | | Specific, | Specific energy, |
|---|---|---|---|---|---|---|
| | Engine | P.t.o. | l/h | kg/h | kg/kWh | kWh/l |
| MAXIMUM POWER - 2 HOUR TEST | | | | | | |
| 45.0 | 2200 | 664 | 13.01 | 10.91 | 0.242 | 3.46 |
| POWER AT RATED ENGINE SPEED | | | | | | |
| 45.0 | 2200 | 664 | 13.01 | 10.91 | 0.242 | 3.46 |
| POWER AT STANDARD POWER TAKE-OFF SPEED | | | | | | |
| 40.9 | 1789 | 540 | 11.19 | 9.38 | 0.229 | 3.66 |
| PART LOADS | | | | | | |
| (i) The torque corresponding to maximum power at rated engine speed | | | | | | |
| 45.0 | 2200 | 664 | 13.01 | 10.91 | 0.242 | 3.46 |
| (ii) 85% of the torque obtained in (i) | | | | | | |
| 39.3 | 2256 | 681 | 12.01 | 10.07 | 0.256 | 3.27 |
| (iii) 75% of the torque defined in (ii) | | | | | | |
| 29.5 | 2263 | 683 | 9.83 | 8.24 | 0.280 | 3.00 |
| (iv) 50% of the torque defined in (ii) | | | | | | |
| 19.9 | 2288 | 691 | 8.03 | 6.73 | 0.338 | 2.48 |
| (v) 25% of the torque defined in (ii) | | | | | | |
| 10.1 | 2328 | 703 | 6.32 | 5.30 | 0.524 | 1.60 |
| (vi) Unloaded | | | | | | |
| 0 | 2352 | 710 | 5.02 | 4.21 | - | - |

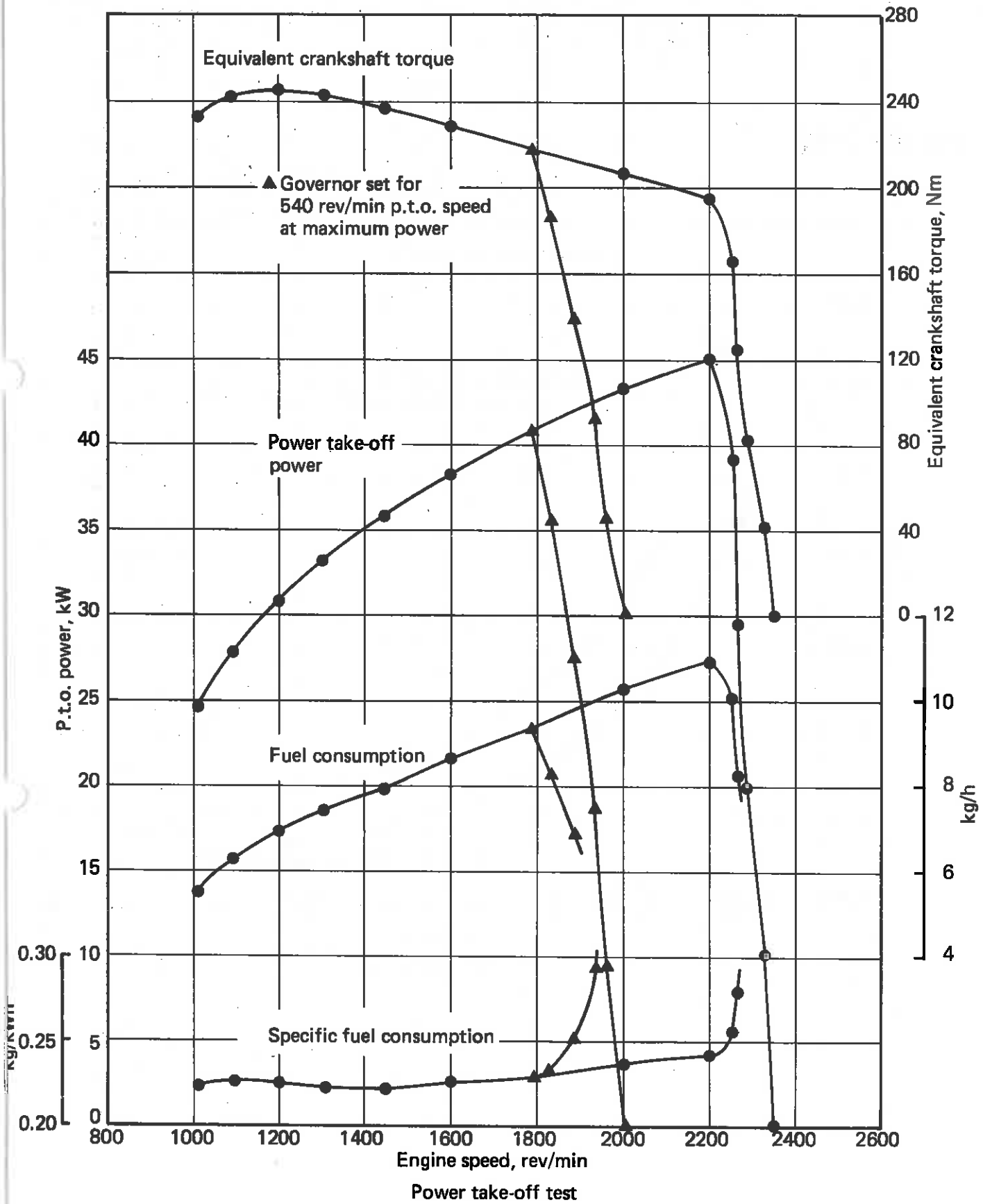
Part loads, the governor hand lever in the position corresponding to the standard p.t.o. speed at full load (540 rev/min).

| Power, kW | Speed, rev/min | | Fuel consumption, Hourly, | | Specific, | Specific energy, |
|---|---|---|---|---|---|---|
| | Engine | P.t.o. | l/h | kg/h | kg/kWh | kWh/l |
| (i) The torque corresponding to maximum power at standard p.t.o. speed | | | | | | |
| 40.9 | 1789 | 540 | 11.19 | 9.38 | 0.229 | 3.66 |
| (ii) 85% of the torque obtained at maximum power | | | | | | |
| 35.6 | 1832 | 553 | 9.95 | 8.34 | 0.234 | 3.58 |
| (iii) 75% of the torque defined in (ii) | | | | | | |
| 27.5 | 1885 | 569 | 8.26 | 6.93 | 0.252 | 3.33 |
| (iv) 50% of the torque defined in (ii) | | | | | | |
| 18.8 | 1938 | 585 | 6.56 | 5.50 | 0.293 | 2.87 |
| (v) 25% of the torque defined in (ii) | | | | | | |
| 9.5 | 1961 | 592 | 4.81 | 4.03 | 0.424 | 1.98 |
| (vi) Unloaded | | | | | | |
| 0 | 2007 | 606 | 3.48 | 2.92 | - | - |

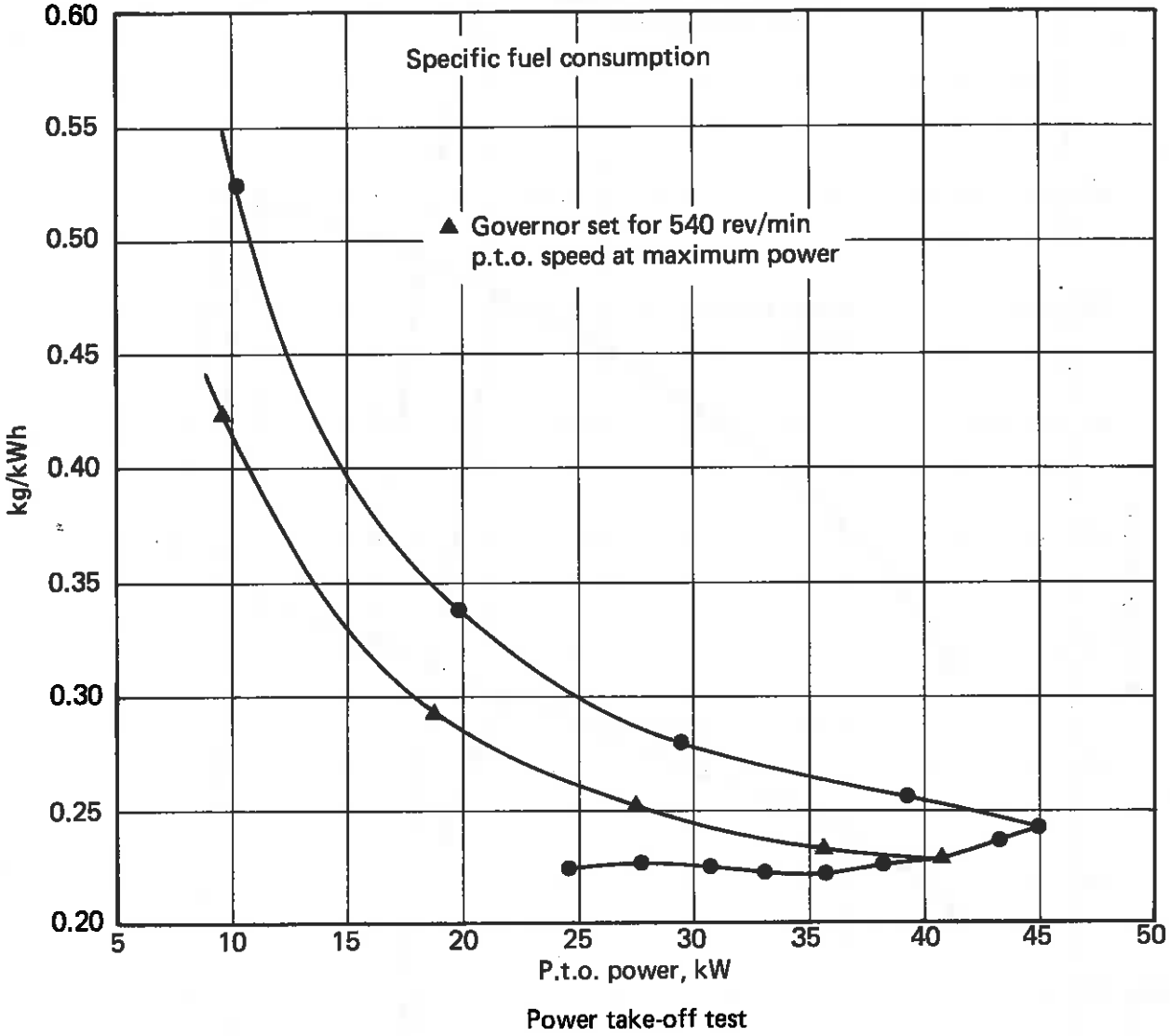
Standard specific fuel consumption, kg/kWh

a) 0.256
b) 0.338
c) 0.234
d) 0.293

| | | |
|---|---|---|
| No load, maximum engine speed | | 2352 rev/min |
| Equivalent crankshaft torque at maximum power | | 195.3 Nm |
| Maximum equivalent crankshaft torque | | 245.6 Nm at 1200 rev/min engine speed |
| Mean atmospheric conditions | temperature | 21°C |
| | pressure | 1005 m bar |
| | relative humidity | 44% |
| Maximum temperature | coolant | 80°C |
| | engine oil | 104°C |
| | fuel | 19°C |
| | air intake | 18°C |




Power take-off test




Power take-off test

## 2. LIFTING FORCE AND HYDRAULIC POWER

Date of tests: 2nd December 1986

Hydraulic fluid

Make and type: SAE 15w/30
Viscosity: 54 cSt at 50°C

Type of hydraulic system: Piston type pump delivering oil from main transmission housing.

Hydraulic fluid temperature at beginning of test: 60°C

Power lift test

| | Height of lower hitch point above ground in down position, mm | Vertical movement, mm | Maximum force exerted through full range, kN | Corresponding pressure of hydraulic fluid, MPa | Moment about rear axle, kNm | Maximum tilt angle of mast over range of lift, degrees |
|---|---|---|---|---|---|---|
| At the hitch point | 200 | 748 | 17.5 | 21.5 | 16.1 | - |
| On the frame | 200 | 899 | 16.9 | 21.5 | 25.9 | 15 |

Main linkage dimensions - see drawings and table on pages 8 and 9

Lifting heights relative to the horizontal plane including the lower link pivot points

| mm | -287 | -280 | -200 | -100 | 0 | 100 | 250 | 435 | 560 |
|---|---|---|---|---|---|---|---|---|---|

Lifting forces at hitch points
(corresponding pressure 21.5 MPa)

| kN | - | 17.5 | 18.3 | 19.6 | 20.8 | 22.6 | 23.5 | 24.8 | - |
|---|---|---|---|---|---|---|---|---|---|

Lifting forces at test frame
(corresponding pressure 21.5 MPa)

| kN | 16.9 | 16.9 | 17.1 | 17.6 | 18.2 | 18.6 | 18.4 | 17.9 | 17.1 |
|---|---|---|---|---|---|---|---|---|---|

Hydraulic power test

Sustained pressure with relief valve open 23.9 MPa

Pump delivery rate at minimum pressure 20.6 l/min

Flow rate corresponding to a hydraulic pressure equivalent to 90 per cent of the actual relief valve pressure setting and corresponding hydraulic power

| | |
|---|---|
| Flow rate | 18.4 l/min |
| Pressure | 21.5 MPa |
| Power | 6.6 kW |

Flow rate and hydraulic pressure corresponding to maximum hydraulic power

| | |
|---|---|
| Flow rate | 18.4 l/min |
| Pressure | 21.5 MPa |
| Power | 6.6 kW |

Tapping point used for test: Auxiliary service connection

Temperature of hydraulic fluid, if different from $65^{\circ} \pm 5^{\circ}C$ Not applicable

Opening pressure of the unloading valve Not applicable

Closing pressure of the unloading valve Not applicable

3. MAXIMUM DRAWBAR POWER, TRANSMISSION AND FUEL CONSUMPTION CHARACTERISTICS

Date of tests: 15th April 1987
Type of track: Concrete
Height of drawbar above ground: 460 mm
Tyre size and pressure:
Front: 7.5-16 179 kPa
Rear: 16.9-30 83 kPa

| Gear | Speed, km/h | Power, kW | Drawbar pull, kN | Engine speed, rev/min | Wheel-slip, % | Specific fuel consumption, kg/kWh | kWh/l | Temperature, °C: Fuel | Coolant | Engine oil | Atmospheric conditions: Temperature, °C | Relative humidity, % | Pressure, m bar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) MAXIMUM DRAWBAR POWER IN GEARS | | | | | | | | | | | | | |
| L3*- | 4.49 | 23.8 | 19.0 | 2280 | 15.0 | 0.373 | 2.24 | 38 | 81 | 91 | 18 | 80 | 1025 |
| L4* | 5.95 | 31.4 | 19.0 | 2241 | 15.0 | 0.334 | 2.50 | 40 | 81 | 92 | 17 | 79 | 1025 |
| H1 | 9.45 | 37.6 | 14.3 | 2200 | 7.5 | 0.302 | 2.77 | 42 | 81 | 89 | 14 | 100 | 1025 |
| H2 | 14.30 | 38.6 | 9.7 | 2200 | 4.0 | 0.291 | 2.86 | 42 | 81 | 88 | 15 | 100 | 1025 |
| (2a) TRANSMISSION AND FUEL CONSUMPTION CHARACTERISTICS | | | | | | | | | | | | | |
| (i) SELECTED GEAR (Speed closest to 7.5 km/h) | | | | | | | | | | | | | |
| H1 | 9.45 | 37.6 | 14.3 | 2200 | 7.5 | 0.302 | 2.77 | 42 | 81 | 89 | 14 | 100 | 1025 |
| (ii) 75% OF PULL AT MAXIMUM POWER | | | | | | | | | | | | | |
| H1 | 10.04 | 29.7 | 10.7 | 2278 | 4.4 | 0.321 | 2.60 | 38 | 81 | 88 | 14 | 99 | 1025 |
| (iii) 50% OF PULL AT MAXIMUM POWER | | | | | | | | | | | | | |
| H1 | 10.37 | 20.4 | 7.1 | 2310 | 3.0 | 0.381 | 2.19 | 36 | 81 | 88 | 14 | 100 | 1025 |
| HIGHEST GEAR SAME PULL AS IN (ii) REDUCED ENGINE SPEED | | | | | | | | | | | | | |
| H2 | 10.04 | 29.7 | 10.7 | 1568 | 4.4 | 0.262 | 3.18 | 41 | 81 | 83 | 13 | 100 | 1025 |
| HIGHEST GEAR SAME PULL AS IN (iii) REDUCED ENGINE SPEED | | | | | | | | | | | | | |
| H2 | 10.37 | 20.4 | 7.1 | 1579 | 3.0 | 0.275 | 3.02 | 37 | 80 | 80 | 13 | 100 | 1025 |
| (2b) TRANSMISSION AND FUEL CONSUMPTION CHARACTERISTICS | | | | | | | | | | | | | |
| (i) SELECTED GEAR (Maximum power) | | | | | | | | | | | | | |
| H2 | 14.30 | 38.6 | 9.7 | 2200 | 4.0 | 0.291 | 2.86 | 42 | 81 | 88 | 15 | 100 | 1025 |
| (ii) 75% OF PULL AT MAXIMUM POWER | | | | | | | | | | | | | |
| H2 | 14.96 | 30.3 | 7.3 | 2276 | 3.1 | 0.318 | 2.62 | 40 | 81 | 88 | 14 | 100 | 1025 |
| (iii) 50% OF PULL AT MAXIMUM POWER | | | | | | | | | | | | | |
| H2 | 15.34 | 20.8 | 4.9 | 2307 | 2.2 | 0.386 | 2.16 | 37 | 81 | 87 | 14 | 100 | 1025 |
| HIGHEST GEAR SAME PULL AS IN (ii) REDUCED ENGINE SPEED | | | | | | | | | | | | | |
| H3 | 14.96 | 30.3 | 7.3 | 1666 | 3.1 | 0.280 | 2.98 | 40 | 81 | 76 | 13 | 100 | 1025 |
| HIGHEST GEAR SAME PULL AS IN (iii) REDUCED ENGINE SPEED | | | | | | | | | | | | | |
| H3 | 15.38 | 20.8 | 4.9 | 1704 | 2.2 | 0.283 | 2.95 | 36 | 80 | 70 | 13 | 100 | 1025 |

*Maximum power limited by wheelslip.

B. SUPPLEMENTARY TEST

LOCATION OF CENTRE OF GRAVITY

| | |
|---|---|
| Height above ground, mm | 749 |
| Distance forward from the vertical plane containing the axis of the rear wheels, mm | 1001 |
| Distance from the median plane of the tractor, mm | 0 |

REPAIRS AND ADJUSTMENTS DURING TESTS: None

REMARKS: None

Test carried out at AFRC Engineering by: P.C. Seward, M.D. Osborne.

Officer in charge: P.C. Seward

Signed: D. W. Smith Head of Testing Group

R. M. Stayner for the Director

Date: 28th May 1987.