

DAVID BROWN
990, 995 & 996
Tractors with Quiet Cab

Operator's Manual

9-5106





DAVID BROWN

Operator's Manual for 990, 995 & 996 Tractors with Quiet Cab

Highway tractors: Important differences affecting the safety of operation of Highway tractors with Q cabs are detailed in the Supplement Pub. 9-5706. When this manual is being used in connection with a Highway tractor with Q cab, always check first in the supplement whether alternative instructions are applicable.

David Brown Tractors Limited
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SAFETY POINTS



- Always** use only an approved fluid in the brake and clutch systems.
- Always** lock the two foot brake pedals together when driving on the road, when towing a trailer, or when travelling fast.
- Always** ensure that PTO driven implements are not run faster than their designed speed, because a mechanical failure could occur, resulting in personal injury.
- Always** ensure the PTO (and Belt Pulley when fitted) is adequately guarded.
- Always** remove loose clothing when working near moving parts of the tractor, engine or implements, or ensure that it is adequately fastened or tied up.
- Always** remove the ignition starter key from the tractor when leaving it unattended, especially where children have access.
- Always** operate the steering and driving controls with care, for example: —
- Don't swerve or turn sharply at speed.
 - Don't engage the clutch suddenly going up hill because the tractor could rear up.
 - Don't brake fiercely, especially going backwards down hill.
- Always** take extra care on steeply sloping ground. Move cautiously, as the sudden swing of a heavy implement, or pull of a trailer, may cause trouble.
- Always** make sure before turning that there is room for any mounted implement which will swing *outwards* at the rear.
- Always** hitch trailers to the approved drawbar or pick-up hitch which is below the centre line of the rear axle. Do not hitch above the centre line.
- Always** tow the tractor carefully. When towing by rope with a dead engine, power steering will be inoperative and the steering will be very difficult to turn.
- Always** check the clearance between any new implement and cab structure before operation.



SAFETY POINTS



Always take extreme care when traversing uneven or sloping ground in High Clearance tractor.

Always use the widest possible track settings in High Clearance tractor.

Always fit front chassis ballast weights when operating High Clearance tractor.



IMPORTANT DON'TS



Do Not carry passengers on the linkages or on the tractor, except in an approved passenger seat.

Do Not drill into the cab.

NOTE: Any damaged parts should be replaced immediately with new parts. Bent parts should not be straightened but replaced and no welding should be attempted on the cab. Bolts when replaced, must be of the correct tensile strength. After any accident to a safety cab it is advisable to report this to your local safety officer.

Do Not use the High Clearance tractor for heavy draught work such as ploughing or towing heavy trailers.

Do Not forget that chassis stress factors are higher with tractor in High Clearance form. Negotiate ditches and banks with extra care to prevent damage.

INTRODUCTION

We recommend that even the most experienced tractor user reads the Operation and Regular Maintenance sections of this manual *before* commencing operations with his new tractor. The various tasks can in fact be performed by any but the complete novice, but this book details the easiest, quickest and most efficient ways of carrying them out.

The most important aspect, however, is *safety*, because a tractor can be a dangerous machine if handled without due caution. Knowledge gained beforehand from this manual can prevent accidents. Ensure, therefore, that it is made available to all your employees, and anyone else, before they are asked to operate the tractor, and that they fully understand all relevant aspects.

The three models of tractor covered in this manual are, the 990, 995 and 996.

The 990 has a 43 kW (58 h.p.) engine. The 995 and 996 have a longer stroke engine which gives 47 kW (64 h.p.). Alternative methods are used to control the drive to the PTO and hydraulic pump. A two stage clutch pedal (Livedrive) or an independent hand lever (Independent) which is fitted to the 996 as standard but is also available for the 990 and 995 in some countries. All three models can be supplied in a suitable form for conversion to high clearance.

All three incorporate the Selectamatic® hydraulic system, first introduced by David Brown in 1965, and which has proved exceptionally reliable and simple to operate. Small refinements since then have further improved the system. The two versions of the David Brown 4-cylinder diesel engine used in these tractors are carefully matched to the transmission and maintain the David Brown reputation for low fuel consumption and ease of starting. The DB synchromesh gearbox makes all these tractors as easy to handle as a family car.

The quiet cab is in effect an insulated module with a maximum sound level well below the 90 dBA level. The operator now enters a whole new working environment.

A great deal of care goes into the building of every David Brown tractor. The engine is part run-in, the completed tractor is road tested and at each stage of assembly it is checked by a team of Quality Control Inspectors. The user can help to maintain this in-built quality by carrying out the simple tasks outlined in the Regular Maintenance chapter — Section 4. Neglect can lead eventually to major repairs which are expensive as well as time wasting.

Whichever model you have chosen to fulfil your particular requirements, it will amply repay you provided the simple maintenance routines are carried out regularly.

SERIAL NUMBERS

When ordering parts or with any query always quote the full prefix and serial numbers as follows:

Tractor and Engine numbers, stamped on the identification plate located on the toolbox inside the cab and repeated on the right-hand side of the main frame front extension (tractor) and on a machined pad on the right-hand side of the engine cylinder block (engine).

e.g. Tractor 995/6/Q 11071445
Engine 455001/59489

Quiet Cab serial number, stamped on the identification plate fitted on the cab behind the operator's seat.

e.g. 40085

For future reference enter details of your tractor below:

Tractor Serial No.

Engine Serial No.

Cab Serial No.

Tractor Registration No.

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TAKE SPECIAL CARE OF YOUR NEW TRACTOR

Although every engine is tested and run-in at the factory, care should be taken during the first 25 to 50 hours use. Avoid excessive speeds or loading. Do not allow the engine to labour unduly, instead change to a lower gear. Use the middle range of engine speeds from 1200 to 1800 r/min. Prolonged light load should also be avoided as this might lead to cylinder wall glazing with consequent high oil consumption. Best running-in is achieved by alternating between low/medium and high (not maximum) loading.

SERVICE PACKS

To assist in routine servicing, your dealer stocks 50-hour and filter packs. Ask for details. They are much more convenient than purchasing separate items. Make sure you have them available before starting any servicing.

FIRST SERVICE (50/100 HOURS)

The first service should be done by a David Brown dealer who will carry out a full check on the tractor. The main essentials in this service are:—

1. Change the fuel filter element.
2. Change the engine oil and filter element.
3. The transmission gearbox should be flushed and the wire mesh and magnetic filter cleaned. A new paper filter element should be fitted and the gearbox refilled with new oil.
4. Change the oil in the final drive reduction housings.
5. Check the tightness of cylinder head bolts and the valve clearances, and the tightness of main external nuts and bolts especially rear wheel nuts (and eccentric locking pins on PAVT wheels).

NOTE: To remove any contaminants which may build up in the oil due to initial bedding in, it is **essential** to drain the transmission oil and refill with new oil at the 50/100 hour service.

SECTION 1. DESCRIPTION AND OPERATION – GENERAL

INSTRUMENT PANEL

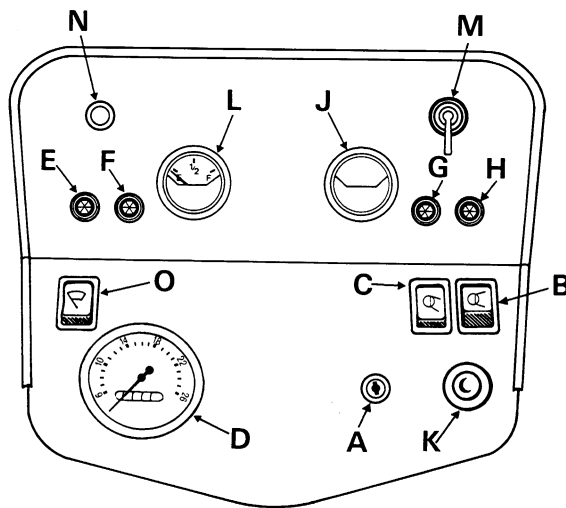


FIGURE 1/1. INSTRUMENT PANEL

- | | |
|--|---|
| A. Starter key | H. Trailer direction signal warning light |
| B & C. Lighting switches | J. Water temperature gauge |
| D. Engine speed indicator (or speedometer) and hourmeter | K. Horn push button |
| E. Charge warning light (red) | L. Fuel gauge |
| F. Engine oil warning light (green) | M. Flashing direction signal switch |
| G. Transmission filter warning light (yellow) | N. Hazard warning lights switch |
| | O. Windscreen wiper switch |

Engine oil warning light

The green light is illuminated when oil pressure is too low. Ensure that it lights when the starting switch is turned on and goes out when the engine runs.

Charge warning light

The red light is illuminated when the starting switch is turned on but goes out as soon as the alternator commences to charge.

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