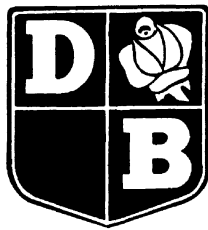


# DAVID BROWN



# DRIVER'S GUIDE

**850, 880 and 990 TRACTORS**

DBT495

Reprinted

## **SAFETY POINTS**

- Don't** operate the independent foot brake when travelling in the higher gears.
- Don't** run on the roadway without locking the two foot brake pedals together.
- Don't** run the PTO or Belt Pulley without a guard.
- Don't** wear loose clothing near moving parts of the tractor, engine, or implements.
- Don't** attempt to start the engine in gear.
- Don't** leave the ignition or isolating key in the tractor when unattended, especially where children have access.
- Don't** swerve or turn sharply at speed.
- Don't** let the clutch in suddenly on a slope, or brake fiercely if running backwards down hill, or the tractor may rear up.
- Don't** use the differential lock on the public highway.
- Don't** try to make a sharp turn unless the differential lock is out of engagement.
- Don't** operate the tractor on dangerously steep ground. Move cautiously on steep slopes, the sudden swing of a heavy implement, or the pull of a trailer, may cause trouble. Use the clutch, brakes, throttle and steering *slowly*. Beware especially of slippery surfaces.
- Don't** carry passengers on the tractor or linkages.
- Don't** turn with a projecting implement without making sure there is room for it.
- Don't** hitch trailed implements above the centre line of the rear axle.

## **INTRODUCTION**

This booklet has been made pocket size so that the driver can always have a copy with him until he becomes thoroughly familiar with controls, adjustments, and attachments.

Desire to keep the book small has compelled a brief and direct approach which is nevertheless comprehensive. A little practice, paying careful attention to the details given, will enable the user to obtain the very high quality results of which the David Brown tractor is capable.

The contents of this book are intended to cover all operational details for the 850, 880 and 990 Tractors in the Standard and Live-drive versions and also the Narrow models of the 850 and 880 tractors, and those fitted with creeper gears. A very brief reminder of maintenance periods is also given, but attention is drawn to the Maintenance Book, supplied with every tractor. This contains full maintenance instructions, details of servicing, approved lubricants and fuels, tractor data, accessories and allied equipment.

Before operating the tractor please read the Safety points, inside the front cover, most of which apply to all tractors.

**DAVID BROWN TRACTORS LIMITED  
MELTHAM  
HUDDERSFIELD  
YORKSHIRE**

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## **PRECAUTIONS WITH A NEW TRACTOR**

Although every engine is tested and part run-in at the factory care should be taken during the first 25 to 50 hours use. Avoid excessive speeds or heavy loading. Do not allow the engine to labour, change to a lower gear instead. Use the middle range of engine speeds from 1400 to 1800 rev/min. If possible use light loads to begin with and gradually increase the loading until the engine is fully run-in. If high speed or heavy loading must be used, keep this down to very short periods interspersed with periods of light load.

Periods of idling should be avoided as the rate of carbon formation is fairly high at low temperatures.

After 50 hours, change the engine oil and filter element, drain and flush the transmission gearbox and final drive reduction housings and clean the magnetic filter. Refill with new oil. Check the valve clearances and tightness of cylinder head and main external nuts and bolts.

## **STARTING THE DIESEL ENGINE**

1. With fuel in the tank and the tap turned on, pull the fuel cut-off rearward to the running position, and drop into the retaining slot.
2. Open the throttle wide (towards the driver).
3. Put the gear lever in neutral.
4. Switch on the isolator.
5. Depress the clutch and press the starter button.

Release the starter button immediately the engine runs and close the throttle to give about 1000 rev/min to warm up. Check that the oil warning light goes out.

## **STARTING IN COLD WEATHER**

The wing nut underneath the Injection Pump should be screwed in before trying to start the engine. As soon as the engine is running the screw must be slackened otherwise erratic running with black exhaust will occur. In conditions when starting is difficult the use of ether or a proprietary starting fluid is recommended. This should be used on the felt attached to the plastic plug in the pre-cleaner or manifold. Replace and press starter immediately. When starting is difficult, short presses on the starter will be of no avail. The

engine should be kept turning by the starter until the engine runs unaided. However, if it fails to run, release the starter button after 25 seconds and wait 20 seconds before trying again, otherwise the batteries will be overheated and damaged.

Use of the starter places a heavy drain on the batteries and adequate running time should be allowed to enable the dynamo to replace the charge. Use of the correct grade of oil in the engine, and pressing the clutch whilst starting, will help to reduce the load on the starter.

### STOPPING THE ENGINE

Reduce engine speed, lift the fuel cut-off and allow it to move forward to the stop position. Turn off the isolating switch. Do not stop the engine by turning off the fuel as this will produce air locks necessitating complete venting of the fuel system.

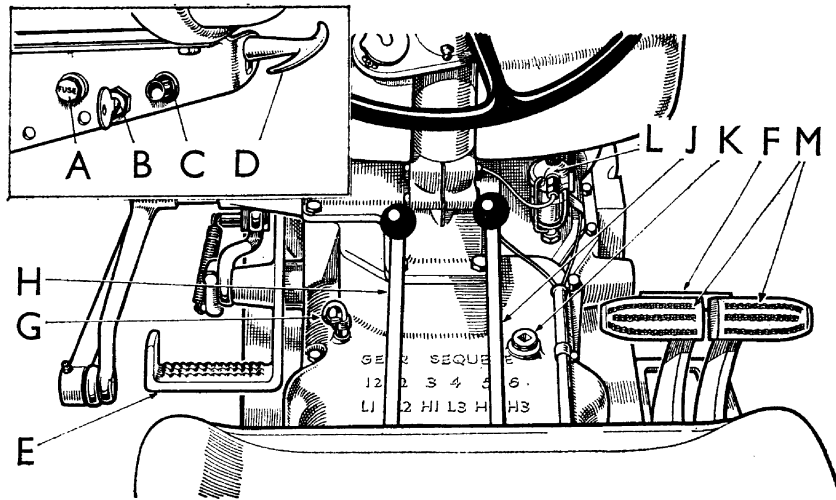
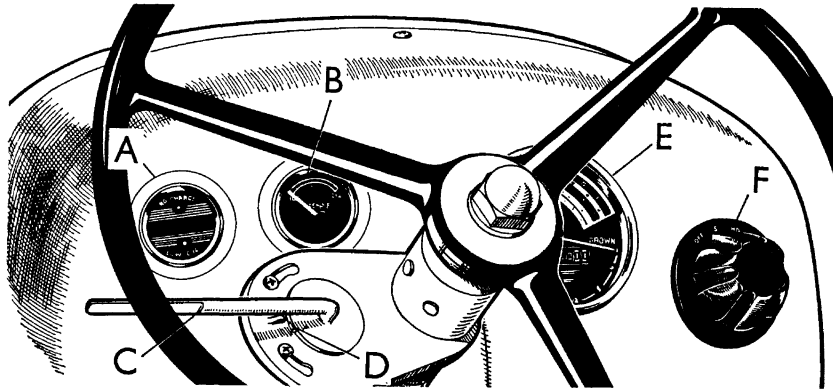


FIG. 1. Controls

- |                      |                             |
|----------------------|-----------------------------|
| A. Fuse Holder.      | G. Transmission Dip-stick.  |
| B. Isolating Switch. | H. Range Lever.             |
| C. Starter Button.   | J. Gear Lever.              |
| D. Fuel Cut-off      | K. Transmission Filler Plug |
| E. Clutch Pedal      | L. Fuel Tap and Water Trap  |
| F. Locking Bar.      | M. Brake Pedals.            |



**FIG. 2. Dash Panel**

- |  |  |
|--|--|
| <i>A. Warning Lights.<br/>(Oil and Charge)</i> | <i>D. Rated Speed Setting<br/>(1800 rev/min)</i> |
| <i>B. Water Temperature (U318)</i>             | <i>E. Tractormeter</i>                           |
| <i>C. Throttle Lever.</i>                      | <i>F. Lighting Switch</i>                        |

## **CONTROLS**

The engine and tractor controls are shown in Fig. 1 and 2.

### **FUEL TAP**

Fitted to the top of the water trap and sediment bowl under the fuel tank. The fuel is "on" when unscrewed fully. It should only be closed for servicing purposes.

### **OIL WARNING LIGHT**

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

### **NO CHARGE WARNING LIGHT**

The red light is illuminated when the isolating switch is turned on but should extinguish as soon as the dynamo commences to charge.

### **THROTTLE LEVER**

When fully rearwards the diesel engine is governed to its maximum speed. The control lever is provided with a guide for easy setting to the rated speed. This position should be used for most purposes to conserve fuel and engine life. It also gives a PTO speed of 540 rev/min.

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