

DAVID BROWN
Operating and Maintenance Manual for 1210, 1210 4WD and 1212 Tractors with Quiet Cab

©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 and implements, or ensure that it is adequately fastened or tied up.

Always remove the isolating/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 let the clutch in suddenly going up hill or the tractor may 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, Hydrostatic 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.

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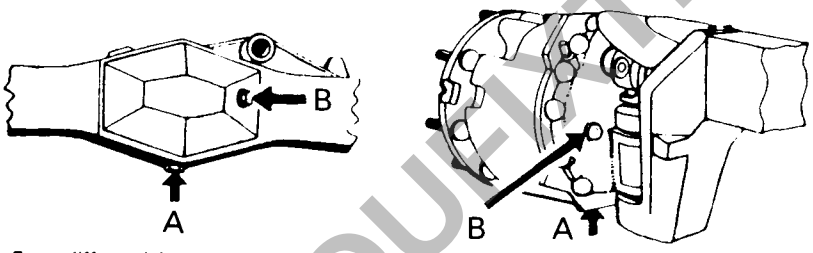
FRONT AXLE AND HUBS – 1210 4WD

Greasing

Inject oil into the trunnion pin fitting, as explained on page 67 and shown in Fig. 5/17. Apply grease to six grease points (three each side) on the front axle and three on the cardan shaft, with a grease gun.

Oil Changing

Drain the oil from both hubs and differential when warm, after a prolonged period of working in either two or four wheel drive. Clean the outsides of the drain and filler plugs. Replace the drain plug and refill with oil until it just overflows. Replace the plug. After running the tractor for a short time (about half an hour) check the level and top up if necessary. Fig. 5/21.



Front differential *Front reduction unit*

FIGURE 5/21. FRONT DIFFERENTIAL AND FRONT REDUCTION UNIT
A. Drain plug *B. Filler plug*

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A wallchart showing the internal functioning of the DB synchromesh transmission can be purchased through your DB Distributor/Dealer.

Gear selection

Synchromesh gear changing, a reverse gear in each range, and foot throttle, make driving easy.

Choose the appropriate range for the application before moving off. Changing range while the tractor is moving should not be attempted and in any case should not be necessary.

Within each range, synchromesh on the 2nd and 3rd gears permits on-the-move changing upwards from 1st to 2nd and from 2nd to 3rd, and downwards from 3rd to 2nd. Care should be taken not to overspeed the engine when changing down.

The 1st and reverse gear lever positions are placed directly opposite each other to facilitate forward and reverse manoeuvring, e.g. on front loader operations.

Before dismounting from the tractor, move both range levers to the rear to provide free access to the left-hand door.

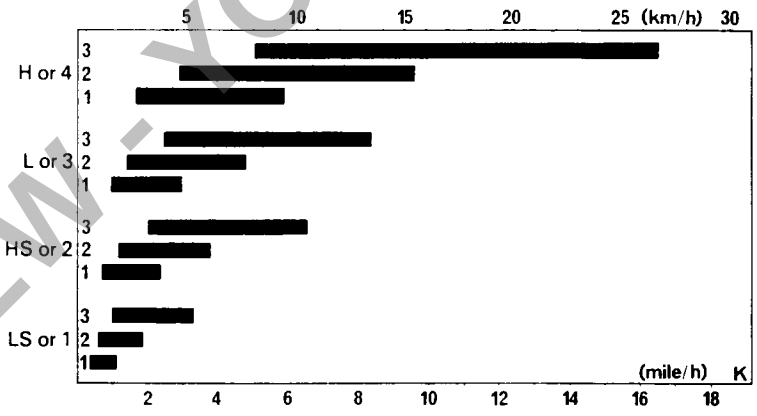


FIGURE 1/11. TRAVEL SPEEDS — 1210 TRACTOR

With 10/49 reductions and 13·6/12-38 and 16·9/14-34 tyres (speeds on 11/49 reductions will be 10% higher).

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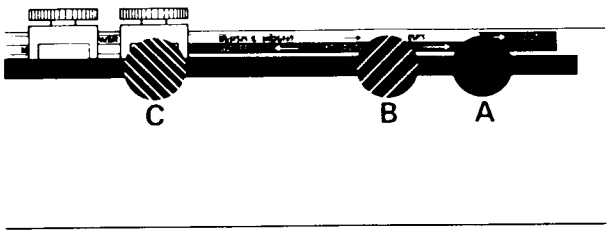


FIGURE 2/11 HYDRAULIC CONTROLS FOR EXTERNAL EQUIPMENT VIA THE 3-WAY VALVE

A. Lift position
B. Hold position
C. Lower position

Preparation

First set the tractor controls as follows: —

1. *Select Dial Pointer* — Pull the hand lever fully rearwards in the red sector to 'select' and while holding it there, turn the selector dial pointer to "EXTERNAL".

2. *Lift Latch* — Stow the links on the lift latch (push the lift latch downwards and pull the hand lever fully rearward against the spring until the links rise above the latch).

3. *Three-way Valve* — Set the lever to the external system required.

4. *Lowering Control* — Initially set to mid-position and adjust later by trial to give the required rate of lowering.

5. *Finger Guides* — Push the front guide right to the front of the quadrant and lock out of the way. Set the rear finger guide to the position for fastest lowering*.

6. *Combining Valve* — With tandem hydraulic pump tractors, set knob J, Fig. 2/9 to 'out' position.

** NOTE: Lowering will occur over a range of movement of the hand lever but only one position will give maximum rate of drop with completely free evacuation to the sump. This is most easily found without anything attached to the links and is correct when they offer least resistance to dropping after having been raised hydraulically. Once found in this way the position should be noted for future reference.*

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FUEL, BRAKE AND CLUTCH FLUID, GREASE AND ANTI-FREEZE SPECIFICATIONS

> ⚠ **DANGER** — Never fill the fuel tank when the engine is running or when near an open flame. Do not smoke when working near flammable fuels. The result can be injury or death.

Diesel Fuel — U.K. and Ireland

Farm diesel fuel of high quality (BS 2869 Class 2A) is recommended for use in David Brown engines.

Diesel Fuel — Except U.K. and Ireland

For temperatures above 0°C (32°F) use No. 2D fuel (ASTMD 975) with a minimum cetane rating of 45.

For temperatures below 0°C (32°F) use No. 1D fuel (ASTMD 975) with a minimum cetane rating of 50.

NOTE: For low temperature operation a fuel with a pour point 6°C (10°F) below lowest starting temperature should be specified.

Do **not** use fuels intended for central heating systems.

> ⚠ **DANGER** — The only fluid approved for use in brake and clutch reservoirs is Shell Tellus 37 or Castrol Hyspin AWS 32. Fluids normally described as brake fluids, power steering fluids, automatic transmission fluids or universal tractor oils are definitely *NOT* compatible and *MUST NOT* be used. Brake failure can cause injury or death.

Grease

A good quality lithium based or similar multi-purpose grease should be applied to all grease fittings. A high melting point grease may be used for all fittings except those which require oil.

Anti-Freeze

Use only a brand formulated for use in Diesel engines to British Standard 3151: 1959 type B, or its equivalent. This specifies an ethylene glycol type anti-freeze with sodium benzoate or sodium nitrite inhibitors. For gasoline engines use a good quality anti-freeze diluted with clean pure water. Topping-up should be carried out with the same type of anti-freeze in the appropriate strength. It is not recommended that any anti-freeze should be retained longer than 2 years.

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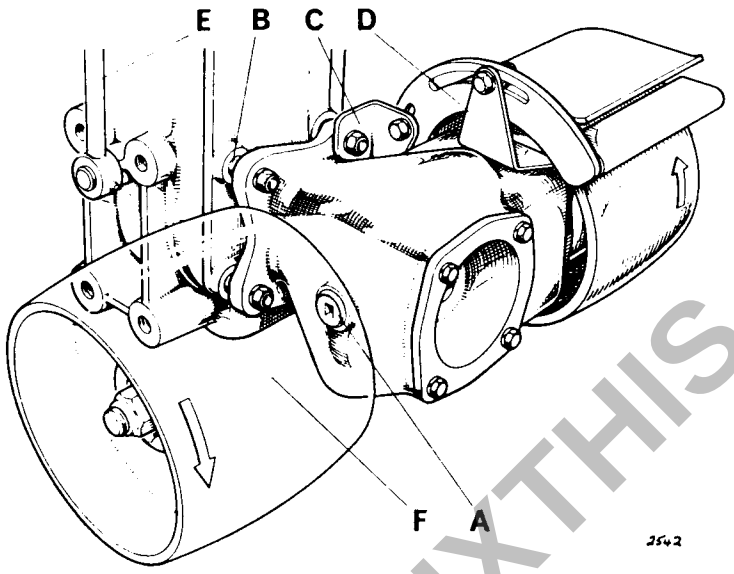


FIGURE 5/34. BELT PULLEY UNIT

A. Filler plug
B. Special stud
C. Pulley guard mounting bracket
D. Guard bracket
E. Speed change lever
F. Alternative pulley position

washers and nuts are attached. The other support bracket fits on the studs securing the pulley support bearing and necessitates the removal of the pulley rim from its flange.

NOTE: The PTO gear lever should be in neutral when not in use. Fully depress the clutch before attempting to engage.

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CONTROLS ON ROOF PANEL

Heater/Ventilator

The controls for heating and ventilation are shown in Fig.4. Turn temperature control knob (A) counter clockwise to increase temperature. Turn temperature control knob fully clockwise for cold air.

Use fan switch (B) to obtain hot or cold air flow. The switch has fast and slow positions. The air flows through ducts to de-mist the screen and through eye-ball ventilators (C). You can adjust the direction and amount of flow through the ventilators. Turn central knobs counter-clockwise to close ventilators, this will increase flow through screen vents for de-misting. (For maximum de-misting use the fast fan speed and maximum heat).

Interior Light

The interior light switch is the light lens. Press lens toward screen to put the light off and toward driver to put the light on.

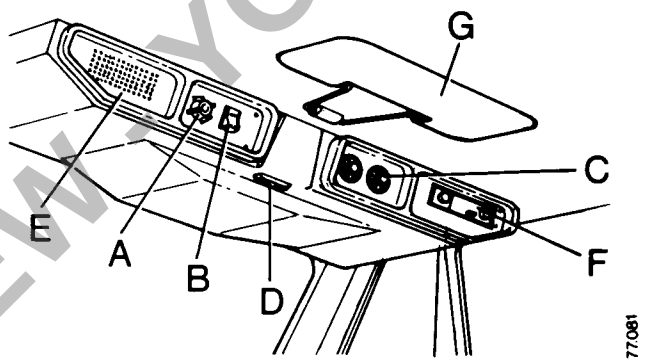


FIGURE 4. ROOF PANEL CONTROLS

A. Temperature control
B. Fan switch
C. Eye-ball ventilators
D. Interior light
E. Radio speaker] *When*
F. Radio] *fitted*
G. Sun visor

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Brakes

Twin foot pedals at the right-hand side give independent control of the brakes to assist steering in confined spaces.

> ⚠ DANGER — Always engage the locking bar, C, Fig. 1/6, when driving on the road, when towing a trailer or when travelling fast; a self-balancing valve then equalises the pressures applied to both rear brakes, providing the brakes are maintained in reasonable adjustment. Use of independent brake or brakes badly out of adjustment will cause a dangerous swerve with the possibility of overturning the tractor. The result can be injury or death.

Parking brake — located at the left hand side of the driver's seat (Fig. 1/7). To engage lift the lever A until it locks. To release depress knob C and lower.

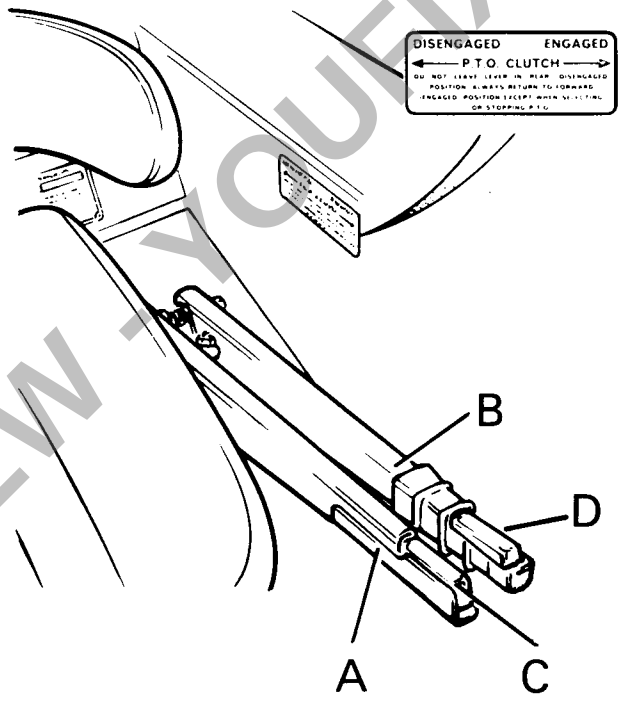


FIGURE 1/7. PARKING BRAKE AND PTO CLUTCH LEVERS

A. Parking brake lever
B. PTO clutch lever
C & D. Catch levers

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