INSTRUMENT PANEL – LESS CAB

The following text describes the function of the various warning lights and gauges on your tractor. See Figure 1 to locate these features on your tractor.

Proofmeter
Indicates engine revolutions per minute. Use the proofmeter in conjunction with the gearshift decal to determine the tractor ground speed.

The proofmeter also registers the hours and portions or hours the tractor has operated, based on an average engine speed of 2055 rev/min. Engine speeds below 2055 rev/min accumulate hours at a slower rate than clock hours. Engine speeds above 2055 rev/min accumulate hours at a faster rate than clock hours. The hours recorded should be used as a guide to determine hourly service intervals. (See Section B of this Manual.)

Engine Coolant Temperature Gauge
Indicates the temperature of the engine coolant. If the needle enters the red sector while the engine is running, stop the engine and investigate the cause.

NOTE: *When the key-start switch is turned off the gauge needle assumes a random position.*

Engine Oil Pressure Warning Light
Indicates low oil pressure and should extinguish immediately after the engine starts.

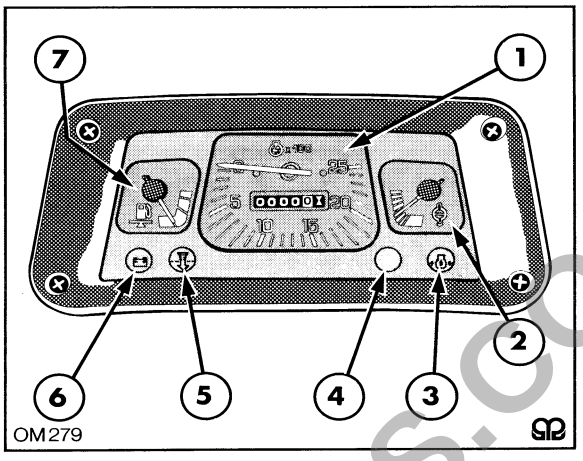
IMPORTANT: *If the light comes on whilst the engine is running, stop the engine and investigate the cause.*

Work Lamp Indicator Light (where fitted)
Illuminates when the work lamp is switched on. The switch is on the rear of the lamp body.

NOTE: *The work lamp is only operative with the main light switch in the 'ON' position.*

Air Cleaner Restriction Warning Light (dry air cleaner only)
Will illuminate when the air cleaner requires servicing.

If the light illuminates while the engine is running, stop the engine and service the air cleaner as described in Section B.



1. Instrument Panel (less cab)

1. Proofmeter
2. Engine coolant temperature gauge
3. Engine oil pressure warning light
4. Work lamp indicator light
5. Air cleaner restriction warning light
6. Alternator warning light
7. Fuel gauge

NOTE: *When the key-start switch is turned to 'ON' the light will illuminate to indicate that the lamp is functioning. The light will extinguish with the engine running and the air cleaner functioning correctly.*

The air cleaner warning light is connected into the oil pressure warning light circuit. In the event of low oil pressure both the air cleaner and oil pressure warning lights will be illuminated.

Alternator Warning Light
Indicates the battery is not being charged and should extinguish when the engine speed is increased above idle.

Fuel Gauge
Indicates the level of fuel in the tank and is only operative with the key-start switch in the 'ON' position.

NOTE: *When the key-start switch is turned off the gauge needle assumes a random position and may well indicate a fuel level in excess of the true level.*

With the auxiliary fuel tank installed, the gauge indicates the total fuel content of both tanks.

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LUBRICATION AND MAINTENANCE CHART

The numbers in the second column refer to the operations and illustrations contained in the following pages of this section.

Service Interval	Oper-ation or Fig. No.	Maintenance Operation	Check	Clean	Lube	Change	Adjust	Drain	Wash
Every 10 Hours or Daily	4/5	Engine oil level	X				X		
	6	Radiator coolant level	X				X		
	7	Radiator, oil cooler and condenser (where fitted)		X					
	8	Windscreen washer reservoir (where fitted)		X					
	9	Pre-cleaner	X						
When Warning Light Glows	10	Dry air cleaner		X					
Every 50 Hours	11	Water/sediment separator and filter						X	
	12	Cab air filters (where fitted)		X					
	13	Front and rear wheel nuts	X			X			
	14	Tyres	X				X		
	15/16	Clutch pedal free play	X				X		
	17	Belt pulley oil level (where fitted)	X				X		
	18	Transmission/rear axle oil level	X				X		
	19	Front axle differential oil level (four wheel drive)	X				X		
	20	Front axle hub oil level (four wheel drive)	X				X		
	21/22	Trailer brake reservoir oil level (where fitted)	X				X		
	23	Battery electrolyte level	X				X		
	24	Clutch release bearing greaser (where fitted)			X				
	25	Front wheel hubs (two wheel drive)			X				
	26/27	Front axle trunnion bearings			X				
	28	Drive shaft and rear trunnion bearing (four wheel drive)			X				
	29	Hub swivel bearings (four wheel drive)			X				
	30/31	Footbrake pivots/bell-cranks			X				
	32	Brake cross-shaft (with cab only)			X				
	33	Front wheel spindles (two wheel drive)			X				
	34/35	Clutch pedal pivot			X				
	36/37	Clutch cross-shaft			X				
	38	Clutch linkage bell-crank (with cab only)			X				
	39	Hydraulic lift linkage			X				
Every 300 Hours	40/41*	Engine oil and filter				X			
	42	Hydrostatic steering oil level	X				X		
	43/44	Hydraulic oil filters				X			
	45	Safety cab/ROPS bolts (as appropriate)	X				X		
	46/49	Footbrakes	X				X		
	50/51	Handbrake	X				X		
	52/54	Drive belts	X				X		
	55	Air conditioner trough and drain tubes		X					
	56	Cab air filters (where fitted)							X
	57	Dry air cleaner							X
Every 600 Hours	58	Dry air cleaner				X			
	59	Front wheel bearings (two wheel drive)		X	X		X		
	60**	Starter motor pinion		X	X				
	61	Engine breather filter				X			
	62	Valve tappet clearance	X				X		
	63	Engine coolant filter				X			
	64/66	Fuel injectors	X	X		X			
	67/71	Fuel filter element				X			
Every 1200 Hours or Annually	72/74	Transmission/rear axle and front wheel drive transfer case oil				X			
	75	Front axle hub oil (four wheel drive)				X			
	76/77	Front axle differential oil (four wheel drive)				X			
	78	Air cleaner inner element				X			
	79	Belt pulley oil (where fitted)				X			
	80/81	Hydrostatic steering oil and filter				X			
	82	Cab air filters (where fitted)				X			
Every 2400 Hours or Two Years**	83/84	Engine coolant and filter				X			
As required	85/107	General maintenance							

* Oil change intervale will be reduced if diesel fuel has a high sulphur content. See page 13.
** Frequency depends on clutch usage.
** Frequency depends on antifreeze in use (See "Specifications" section).

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SPECIFICATIONS

	less cab	de-luxe cab
GENERAL DIMENSIONS (all models) (two wheel drive)		
[illegible]	[illegible]	107.4
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

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SAFETY PRECAUTIONS

A careful operator is the best operator. Most accidents can be avoided by observing certain precautions. To help prevent accidents, read and take the following precautions before operating the tractor. Equipment should be operated only by those who are responsible and instructed to do so.

THE TRACTOR

1. Read the Operator's Manual carefully before using the tractor. Lack of operating knowledge can lead to accidents.

2. Ensure any attached equipment or accessories are correctly installed, are approved for use with the tractor, do not overload the tractor and are operated and maintained in accordance with the instructions issued by the equipment or accessory manufacturer.

3. If your tractor is equipped with a ROPS or safety cab, use an approved Seat Belt for safe operation. Overturning a tractor can result in death or injury. If your tractor is not equipped with a seat belt, see your Ford tractor dealer.

4. If a front end loader is to be installed, always use a FOPS canopy to avoid injury from falling objects.

5. Use the handholds and step plates when getting on and off the tractor to prevent falls. Keep steps and platform clear of mud and debris.

6. Do not permit anyone but the operator to ride on the tractor unless a passenger seat is fitted. There is no safe place for extra riders otherwise.

7. Remember that your tractor, if abused or incorrectly used can be dangerous and become a hazard both to the operator and bystanders. Do not overload or operate with attached equipment which is unsafe, not designed for the particular task or is poorly maintained.

8. Replace all missing, illegible or damaged safety decals.

9. Keep safety decals clean of dirt and grime.

SERVICING THE TRACTOR

1. The cooling system operates under pressure which is controlled by the radiator cap. It is dangerous to remove the cap while the system is hot. Always turn the cap slowly to the first stop and allow the pressure to escape before removing the cap entirely.

2. Do not smoke while refuelling the tractor. Keep any type of open flame away. Wait for the engine to cool before refuelling.

3. Keep the tractor and equipment, particularly brakes and steering, maintained in a reliable and satisfactory condition to ensure your safety and comply with legal requirements.

4. To prevent fires or explosions keep open flames away from battery or cold weather starting aids. To prevent sparks which could cause explosion, use jumper cables according to instructions.

5. Stop the engine before performing any service on the tractor.

6. Escaping hydraulic/diesel fluid under pressure can penetrate the skin causing serious injury.

   - **DO NOT** use your hand to check for leaks. Use a piece of cardboard or paper to search for leaks.

   - Stop the engine and relieve pressure before connecting or disconnecting lines.

   - Tighten all connections before starting the engine or pressurizing lines.

   - If fluid is injected into the skin obtain medical attention immediately or gangrene may result.

7. Do not attempt to service the air conditioning system. It is possible to be severely frostbitten or injured by escaping refrigerant. See your dealer for service.

8. Do not modify or alter or permit anyone else to modify or alter this tractor or any of its components or any tractor function without first consulting your Ford tractor dealer.

9. The fuel oil in the injection system is under high pressure and can penetrate the skin. Unqualified persons should not remove or attempt to adjust a pump, injector, nozzle or any other part of the fuel injection system. Failure to follow these instructions can result in serious injury.

10. Continuous long term contact with used engine oil may cause skin cancer. Avoid prolonged contact with used engine oil. Wash skin promptly with soap and water.

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Parking Brake Warning Light
With the parking brake applied and the key-start switch on, the warning light will illuminate. Any attempt to drive the tractor will result in the audio alarm sounding intermittently.

Alternator Warning Light
Indicates the battery is not being charged and should extinguish when the engine speed is increased above idle.

Air Cleaner Restriction Warning
The light will illuminate when the dry air cleaner requires servicing and the audio alarm will sound for five seconds. Instructions for servicing the air cleaner are to be found in Section B.

Turn Signal Indicator Lights
Will flash in unison with the turn signal lights. The turn signals are operated by a multi-function switch mounted on the steering column. See "HAND CONTROLS AND SWITCHES" in this section of the manual.

Trailer Turn Signal Indicator Lights
The indicator lights will flash if either the left or right-hand turn signals are operated when a trailer is connected to the tractor. If two trailers are connected, the lights (21) and (23) will flash when the turn signals are used. Both warning lamps will also flash when the hazard warning lights are utilised.

Dual Power Indicator Lights
Light (32) has a 'hare' symbol on a green background and when illuminated indicates the Dual Power transmission is in direct drive. When Dual Power is selected, the indicator light (1) will be illuminated. This lamp is coloured amber and has a 'tortoise' symbol on it.

Dual power is operated by means of a footswitch. See "DUAL POWER" in this section for correct operating procedure.

Selective Digital Display
The display will provide, on demand, a numerical read-out of various tractor functions.

At start-up, the engine speed will be displayed with the letters 'RPM' to the right of the main display. When other tractor functions have been selected, engine speed may be re-called by pressing the selector switch (4).

Press the selector switch (5) and the tractor ground speed will be displayed with the letters 'MPH' (or Km/h., dependent on market) to the right of the main display.

Press the selector switch (6) and the P.T.O. speed will be displayed. To the right of the main display the number '540 RPM' or '1000 RPM' will appear. If '1000 RPM' appears and you are using the 540 rev/min P.T.O. shaft, press the selector switch (6) a second time and the appropriate P.T.O. speed will be displayed with the number '540' to the right of the main display.

IMPORTANT: *Should an electrical malfunction occur in the signal sensors or wiring in the coolant temperature, engine oil pressure, fuel level, engine speed or ground speed circuits, the digital read-out will display 'SHCR' to indicate a short-circuit or 'OPEN' to indicate an open circuit and the corresponding bargraph (or 'MPH/Km/h' for ground speed circuit malfunction) will flash when the key-start switch is on and the engine is not running.*

If the fault is in the fuel level circuit, the whole bargraph (15) will flash if the engine is running. With the engine stopped and the key-start switch on, the four left-hand segments of the bargraph will flash if the fault is in No. 1 fuel tank circuit. If the fault is in No. 2 circuit, then the four right-hand segments will flash.

In the event of an electrical fault, consult your authorised Ford tractor dealer.

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Press the button on the underside of each armrest and raise or lower the rest, as required. The armrests are articulated and will move forward as they are lowered.

A storage pouch is provided on the back of the seat.

NOTE: *Do not use solvents to clean the seat. Use warm water with a little detergent added. Tractors with cab have cloth upholstered seats. Avoid wetting the seat more than necessary.*

SEAT BELT

WARNING: *In some countries, tractors equipped with cab are also fitted with a seat belt. Always use the seat belt when a ROPS or safety cab is installed. Do not use the seat belt if the ROPS is removed from the tractor.*

To lengthen the belt, tip the buckle away from the belt and pull on the buckle. With the belt fastened around you, pull the free end of the belt until it is a snug fit.

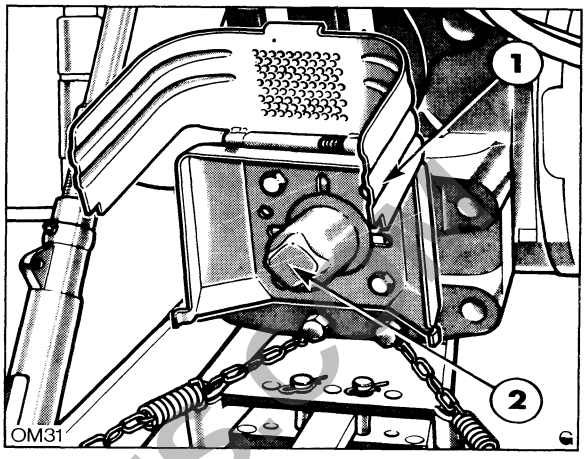
The belt may be sponged with clean soapy water. Do not use solvents, bleach or dye on the belt as these chemicals will weaken the webbing.

Replace the belt when it shows signs of fraying, damage or general wear.

INDEPENDENT POWER TAKE-OFF

The power take-off (P.T.O.) on your tractor transfers engine power directly to mounted or trailed equipment. The P.T.O. shaft is the standard 6-spline, 1⅜ inch (34.9 mm) diameter shaft designed to operate at 540 rev/min.

Where two-speed P.T.O. is specified, an additional 21-spline shaft is supplied which, when installed, will operate at 1000 rev/min. Tractors equipped with single-speed P.T.O. cannot be converted to 540/1000 rev/min P.T.O.



28. Power Take-Off

1. Guard
2. Safety cap

ATTACHING EQUIPMENT TO THE P.T.O. SHAFT

WARNING: *Before changing the P.T.O. shaft or attaching or detaching equipment:*

- *Apply the parking brake*
- *Move the main and high/low gearshift levers to neutral*
- *Disengage the P.T.O. by pulling the P.T.O. selector rearwards*
- *Stop the engine and ensure that the P.T.O. shaft has stopped turning*

Mount or hitch the equipment to the tractor as outlined in either "THREE-POINT LINKAGE" or "ATTACHING AND DETACHING TRAILED EQUIPMENT."

To connect P.T.O. driven equipment to the P.T.O. shaft, tilt the guard upward, as shown in Figure 28, to gain access. It is not necessary to remove the guard. Unscrew and remove the safety cap, attach the implement to the P.T.O. shaft and lower the guard. Ensure the equipment driveshaft coupler lock pin or detent balls engage the groove in the P.T.O. shaft. If the coupler does not have a lock, pin the coupler to the shaft.

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ATTACHING AND DETACHING TRAILED EQUIPMENT

IMPORTANT: *Regulations in some countries require brakes on towed equipment when operating on the public highway. Before travelling on public highways ensure that you comply with legal requirements. In the U.K. you are required to comply with The Road Vehicles (Construction and Use) Regulations latest edition.*

North American standards recommend that you observe the following precautions for towing equipment not equipped with brakes:

DO NOT TOW equipment weighing more than twice the tractor weight.

Do not exceed 10 MPH (16 KPH) if towed equipment weighs more than the tractor.

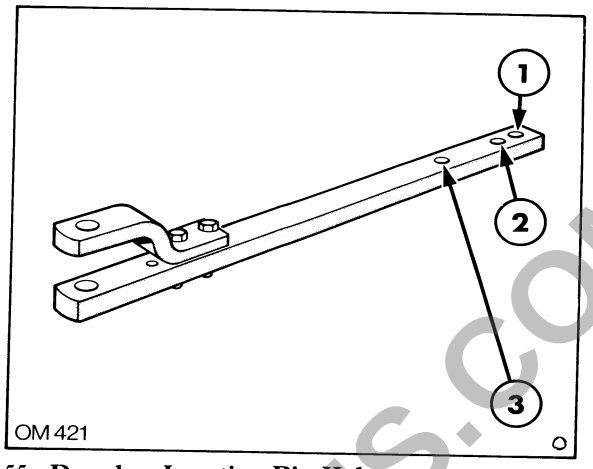
Do not exceed 20 MPH (32 KPH) while towing equipment that weighs less than the tractor.

IMPORTANT: *When transporting trailed equipment on the highway it is recommended that a safety chain having a tensile strength equal to the gross weight of the implement be installed between the tractor and implement hitch.* *See page 55.*

Swinging Drawbar (where fitted)

The swinging drawbar may be fixed in any one of five positions or allowed to swing sideways within the drawbar hanger.

When pulling equipment which requires accurate positioning and when transporting equipment, insert the swing limiter pins either side of the drawbar to prevent sideways movement.



55. Drawbar Locating Pin Holes

1. 16 in position
2. 14 in position
3. 9.25 in (close-coupled) position

Remove the pins and allow the drawbar to swing when pulling ground engaging equipment which does not require accurate positioning. This will make steering and turning easier.

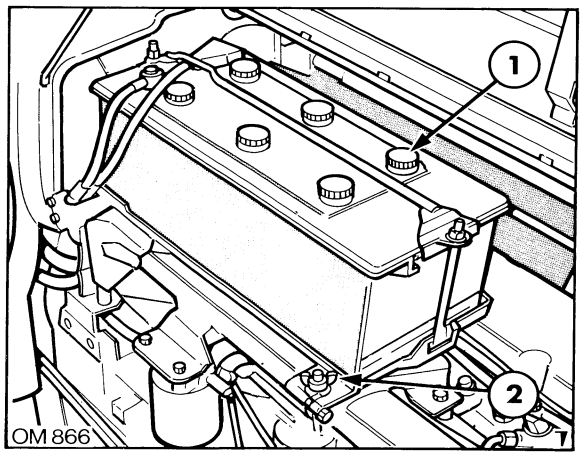
WARNING: *Always secure the drawbar to prevent swinging when transporting equipment or when operating any but ground engaging equipment.*

The drawbar is adjustable for height and projection relative to the end of the P.T.O. shaft. To vary the height of the hitch point above the ground, remove the drawbar and re-install in the inverted position.

The front locating pin may be inserted in any one of the three holes in the drawbar to vary the P.T.O. shaft to hitch point distance, as shown in Figure 55 and the following table.

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50 HOUR SERVICE (continued)



23. Battery Electrolyte Level

The battery is mounted on a hinged tray which may be swung outward for improved accessibility after loosening the wing nut clamp (2).

Always keep the battery terminals tight and free of corrosion. If necessary, remove the battery and clean the terminals and casing with a weak solution of ammonia or sodium bicarbonate (baking powder) in water. Ensure the solution does not get into the battery.

Remove the vent plugs (1) and check the electrolyte level which should be 0.25 in. (6 mm) above the separator plates.

If necessary top up with distilled water and replace the plugs. In cold climates this operation should be carried out just before using the tractor. The charging action will mix the water with the electrolyte and so prevent freezing of the battery. Re-install the battery and liberally coat both terminals with petroleum jelly to prevent the formation of verdigris.

WARNING: *The battery contains a sulphuric acid electrolyte which can cause severe burns and produce explosive gases. Avoid contact with the skin, eyes or clothing. Do not take internally. Treatment is as follows:*

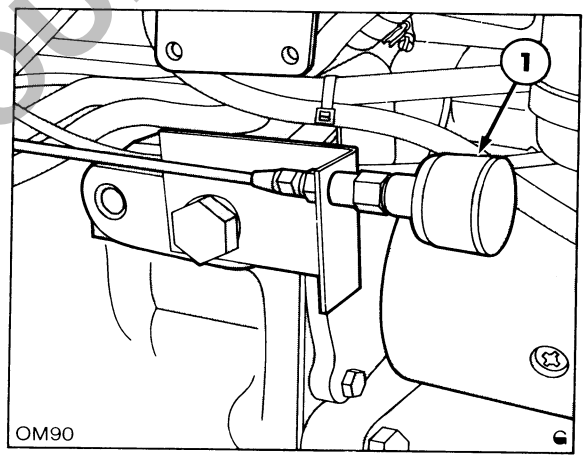
Skin – flush with cold water.

Eyes – flush with cold water for 15 minutes and get prompt medical attention.

Internal – Drink large quantities of water or milk followed by milk of magnesia, beaten eggs or vegetable oil. Call a doctor immediately.

Do not use a naked flame to check the electrolyte level. Keep sparks, flames and cigarettes away. Do not produce sparks with cable clamps when charging the battery or starting the tractor engine with a slave battery.

Wear eye protection when working near batteries. Ventilate when charging or using in an enclosed space. Ensure vent plugs are correctly installed and tight.



24. Clutch Release Bearing Greaser (where fitted)

Turn the grease cap (1) a half turn clockwise or one full turn if the tractor is used for continuous loader operation. When empty, remove the cap and refill with fresh grease.

NOTE: *Version with cab shown. On tractors without cab the greaser is mounted directly onto the transmission bell housing.*

SEE SECTION C FOR CORRECT GRADE OF LUBRICANT

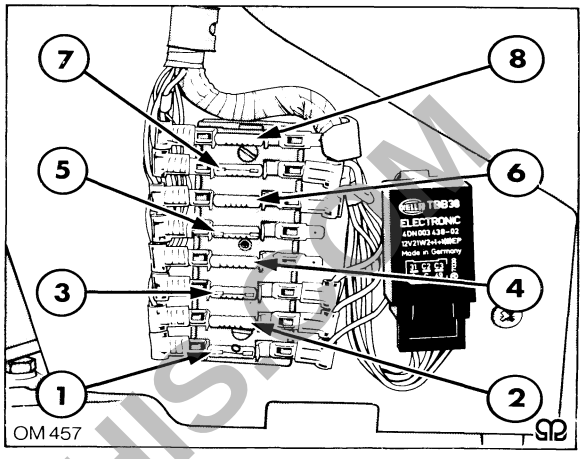
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GENERAL MAINTENANCE (continued)

Fuse No.	Rating	Colour	Circuit
1	10A	Red	Auxiliary Socket
2	5A	Brown	Alternator Field
3	15A	Blue	Front Wheel Drive Dual Power
4	5A	Brown	Gauges
5	5A	Brown	R.H. Side/Rear Lights
6	15A	Blue	Headlight Dip Beam
7	10A	Red	Turn Signals
8	5A	Brown	Cab Relay Coil
9	15A	Blue	Wipe/Washer
10	4A	Amber	Radio
11	5A	Brown	L.H. Side/Rear Lights
12	15A	Blue	Headlight Main Beam
13	15A	Blue	Stop Lights
14	10A	Red	Horn
15	25A	Clear	Heater Blower
16	15A	Blue	Air Conditioner Compressor Clutch
17	25A	Clear	Rear Work Lamps
18	15A	Blue	Hazard Warning Lights
19	5A	Brown	Spare
20	25A	Clear	Thermostart
21	5A	Brown	Interior Light
22	15A	Blue	Spare/Performance Monitor (where fitted)
23	25A	Clear	Cigarette Lighter
24	25A	Clear	Front Work Lamps

NOTE: *Certain optional items of equipment may not be installed on your tractor. However, the fuses are still installed and may be used as spares.*

Do not replace a blown fuse with another of a different rating.



102. Fuse Replacement (less cab – except North America)

An eight-fuse box is installed on the right-hand side of the fuel tank shroud.

To gain access to the fuses, remove the central securing screw and take off the fuse cover.

The fuses are numbered and protect the following circuits:

Fuse No.	Rating	Circuit
1	8 amp	Main Beam Headlights
2	8 amp	Dip Beam Headlights
3	8 amp	L.H. Rear and Side Lights
4	8 amp	R.H. Rear and Side Lights
5	5 amp	Turn Signals
6	8 amp	Stop Lights, Dual Power and Four Wheel Drive
7	8 amp	Horn
8	8 amp	Hazard Warning Lights

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