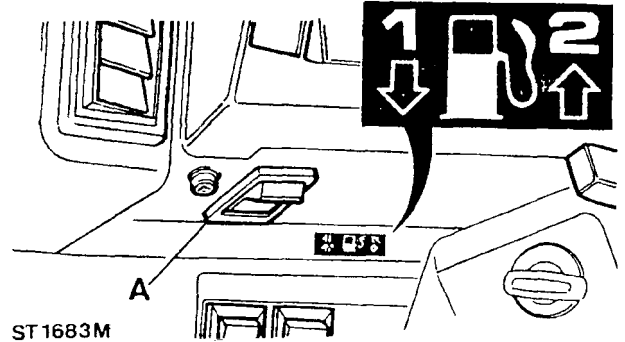


## LAND ROVER 110 TWIN TANK INSTALLATION

### Description

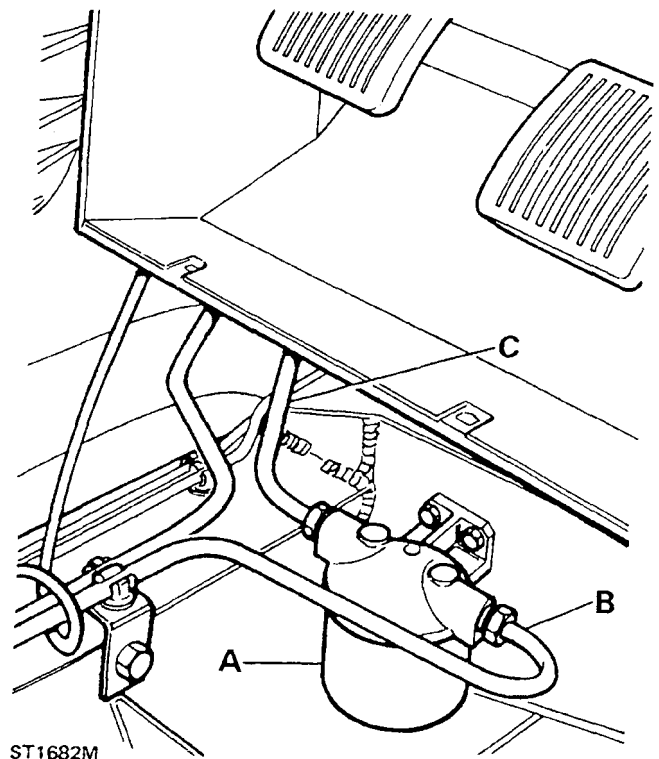
The fuel system includes two fuel tanks, one at the rear of the vehicle and an additional fifteen gallon (68,20 litres) capacity tank on the right-hand side of the vehicle. Both tanks contain an electrically operated submerged fuel pump in addition to a fuel level indicator unit in each tank. An ignition controlled switch on the control panel enables the driver to select the tank to be used. The switch also energises the fuel level indicator unit of the tank selected and records the fuel level on the single indicator dial. When the ignition is switched 'on' the pump in the selected tank will draw fuel into the carburettor float chamber via a paper element type filter and a vapour separator. To prevent fuel vapourisation and air locks a spill return system is incorporated in the fuel pipe layout to pass back vapour and excess fuel from the vapour separator to the tank in use through a restrictor and a solenoid operated valve. The valve, which is energised by the tank selection switch, closes the port to the tank not in use and simultaneously opens the port to the selected tank. The restrictor is necessary to prevent fuel by-passing the carburettor and flowing back to the selected tank through the spill return system.

In addition, a non-return valve is enclosed inside the hose connection of the supply pipe from the rear and side tanks to prevent the possibility of a back-flow of fuel along the supply lines to the fuel tanks.



FUEL TANK SELECTION SWITCH

A. Fuel tankswitch



FUEL FILTER

A. Fuel filter

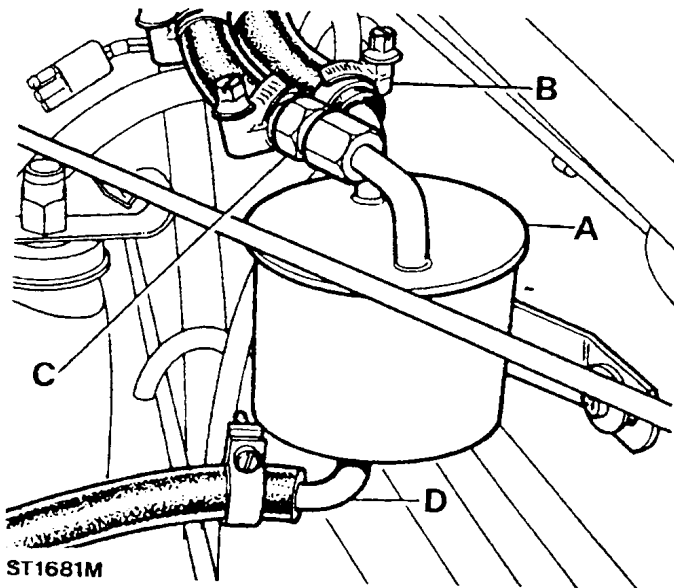
B. From fuel pump to filter pipe

C. From fuel filter to carburettor via vapour separator

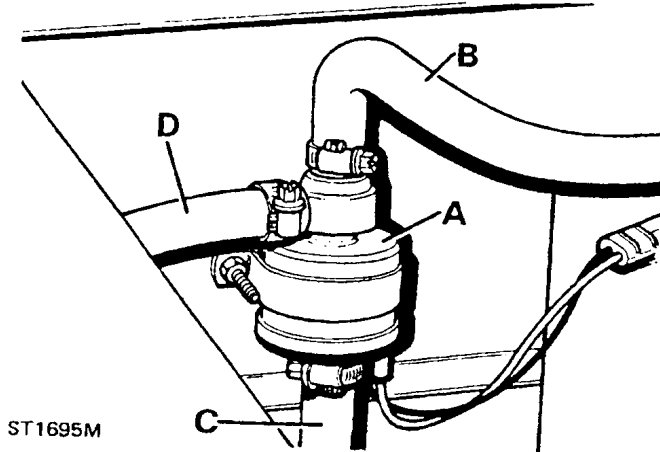
## LAND ROVER 110 REAR TANK AND 90 SIDE TANK INSTALLATION

### Description

Fuel drawn by the electrically operated in-tank pump, is delivered to a paper element type filter. Situated beneath the right-hand front footwell attached to a chassis outrigger from the filter, fuel enters a vapour separator located on the left-hand side of the bulkhead in the engine compartment. Fuel finally enters the carburettor float chamber from the port at the base of the vapour separator. The vapour separator comprises part of the spill return system and its purpose is to prevent fuel vapour causing air locks in the supply to the carburettor. Vapour and excess fuel flows back into the fuel tank through a restrictor fitted to the spill return port on the vapour separator. The restrictor is designed to assist in maintaining a constant fuel level in the vapour separator bowl and to prevent fuel flowing back to the tank at the same rate as the delivery.


 ST1681M  
VAPOUR SEPARATOR

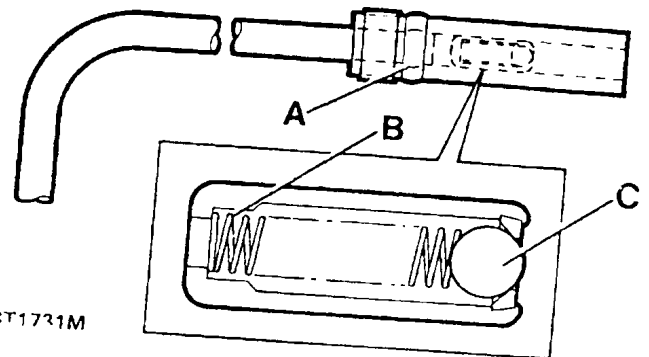
- A. Vapour separator
- B. Spill return to side tank
- C. Restrictor and spill return to solenoid valve
- D. Outlet from separator to carburetter



ST1695M

SPILL RETURN SOLENOID VALVE

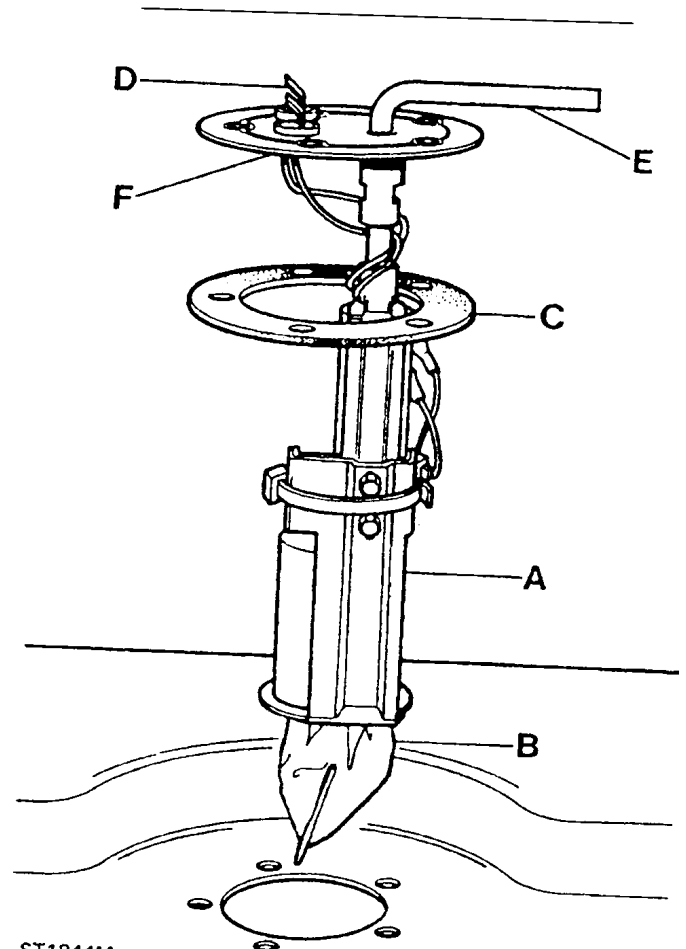
- A. Solenoid valve
- B. Spill return to side tank
- C. Spill return to rear tank
- D. To carburettor via filter and vapour separator



ST1731M

NON-RETURN VALVE

- A. Non-return valve
- B. Spring
- C. Ball

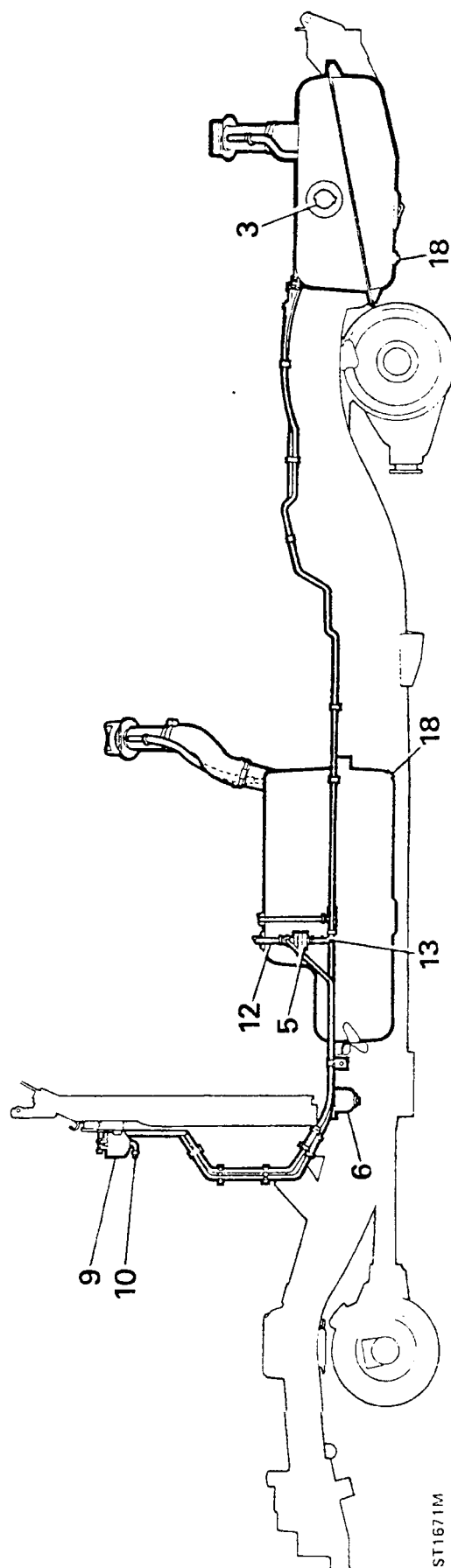
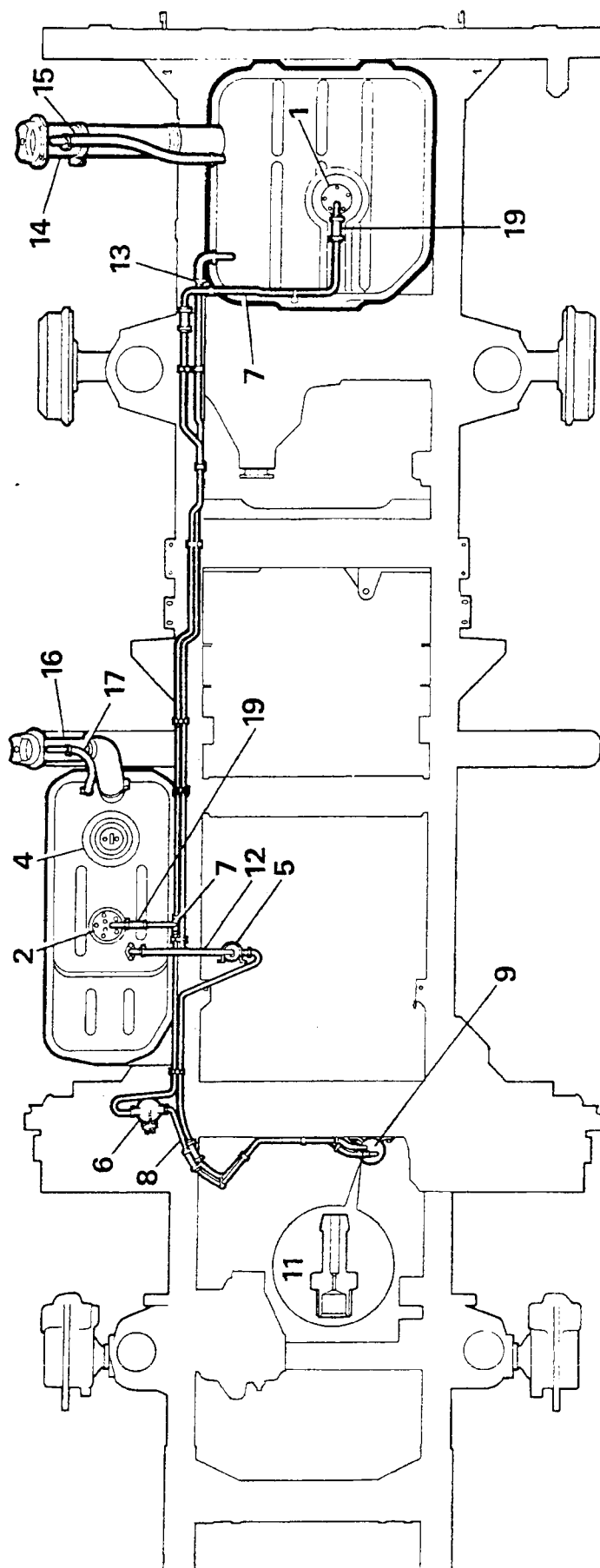


ST1844M

FUEL PUMP

- A. Pump and motor
- B. Filter
- C. Gasket
- D. Electrical terminals
- E. Outlet pipe
- F. Fixing plate to tank
- G. Plastic tie clip — See CAUTION — remove and refit pump

LAND ROVER 110TWIN TANK FUEL SYSTEM



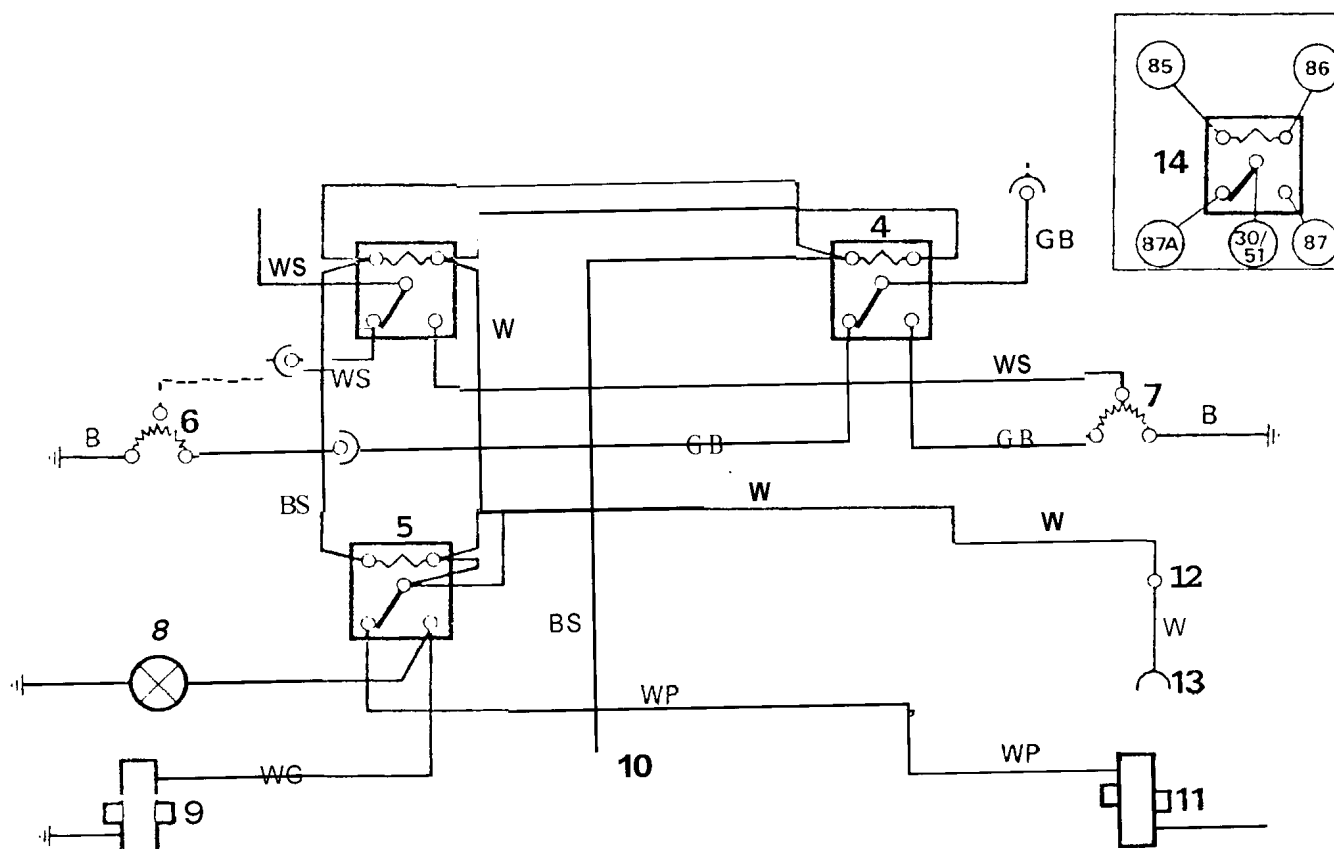
ST1671M

### LAND ROVER 110 TWIN TANK FUEL SYSTEM

#### KEY TO FUEL LINE INSTALLATION

1. In-tank fuel pump — rear tank.
2. In-tank fuel pump — side tank.
3. Fuel gauge tank unit — reartank.
4. Fuel gauge tank unit — sidetank.
5. Spill return solenoid.
6. Fuel filter.
7. Fuel supply pipe — rear tank to filter via T-piece.
8. Pipe, filter to vapour separator.
9. Vapour separator.
10. Vapour separator outlet to carburetter.
11. Spill return pipe to fuel tank via restrictor and solenoid valve.
12. Spill return pipe to side tank from solenoid.
13. Spill return pipe to rear tank from solenoid.
14. Fuel filler — rear tank.
15. Breather pipe — rear tank.
16. Fuel filler — side tank.
17. Breather pipe — side tank.
18. Drain plugs side and rear tanks.
19. Non return valve incorporated in hose.

## CIRCUIT DIAGRAM — TWINTANK — TWINPUMPS



1. Low fuel warning light
2. Fuelgauge
3. Relay 28RA low level warning
4. Relay 28RA Fuel gauge
5. Relay 28RA Fuel pumps
6. Rear tank unit
7. Side tank unit