

# **Landini Mythos 90, 100, 110 Collection Preview**

***This single sample file  
contains samples for***

**Landini Mythos 90, 100, 110 Tech  
Training [926p]**

**Landini Mythos 90, 100, 110  
DeltaFive Ops [143p]**

**Landini Mythos 90, 100, 110  
DeltaShift Ops [143p]**

**Ops = operators manual  
WSM = workshop manual  
[\*\*\*p] = \*\*\* pages**

**[info@farmequipmentmanuals.co.nz](mailto:info@farmequipmentmanuals.co.nz)**

***Mythos***

***90***

***100***

***110***

***DELTA-FIVE***

***POWER-FIVE***

# Mythos

## Operation and maintenance manual

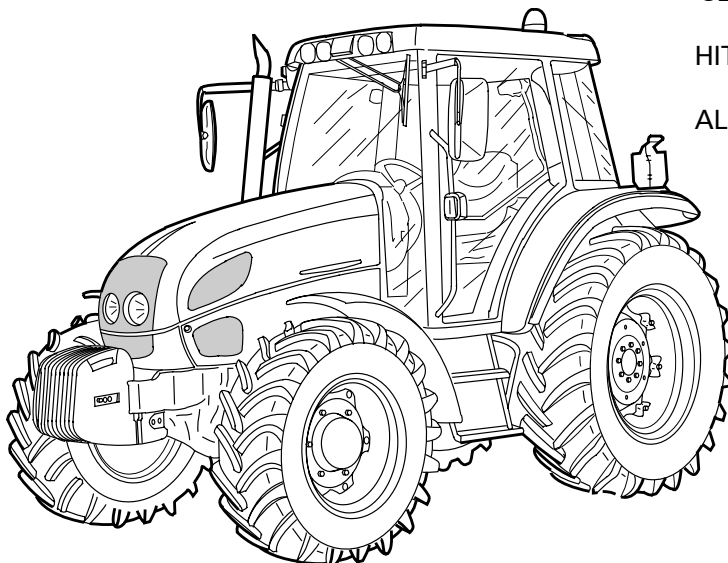
### Valid for the following tractor models:

For tractors with cab or footstep model:

**Mythos**  
**90-100-110**

**CALIFORNIA**  
**proposition 65 Warning**

**Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.**



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Publication N. 3651 983 M1  
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# Tractor identification

## Tractor identification

Your tractor is identified by a serial number stamped on the rear side of the transmission housing and on the bonnet. The engine serial number is stamped on the engine block.

Always state the chassis and engine serial numbers to ensure prompt and efficient service when ordering spare parts or when asking for technical explanations or other information.

Chassis serial number .....

Engine serial number .....

Cab serial number .....

Type of tractor .....

Owner / Operator .....

Address of dealer .....

Delivery date .....

Warranty expiry date .....

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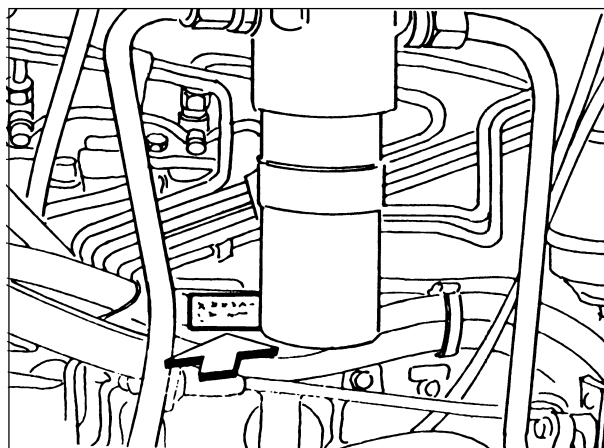


Fig. 1 - Type and chassis number (on engine block).



Fig. 2 - Type of tractor and chassis and cab number (on dashboard lower panel).

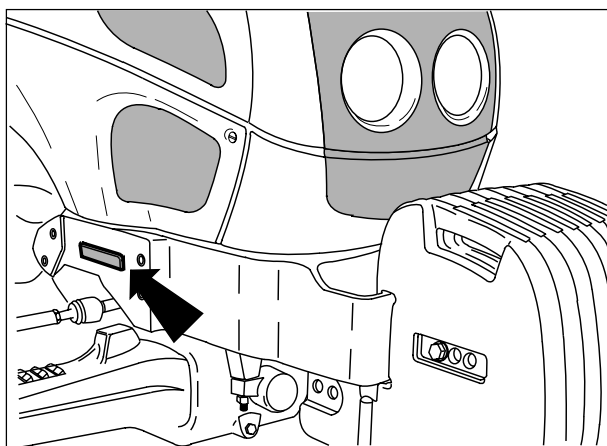


Fig. 4 - Type and chassis number (on radiator core).

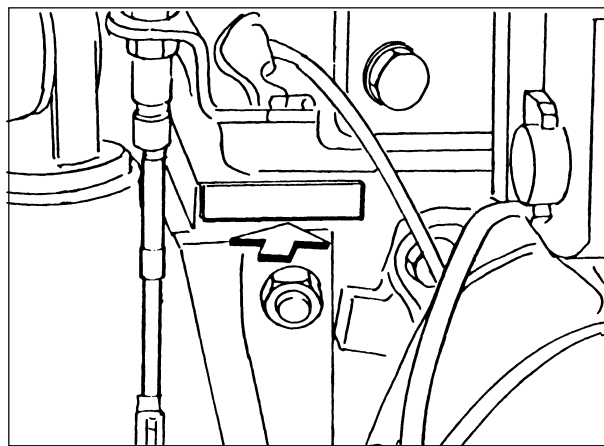


Fig. 3 - Type and chassis number (on tractor body).

# Introduction, warranty and safety notes

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# Instruments and controls

## Instruments and controls for Mythos Power-Five and electronic lift

**NOTE:** Consult the 'Operation' chapter for instructions on how to correctly use the controls.

Description of Fig. 29 and 30

- 1 Reverse shuttle lever.
- 2 Light switch and horn.
- 3 Warning buzzer.
- 4 Instrument panel.
- 5 Steering wheel height adjuster knob.
- 6 Rotating beacon and hazard light switches.
- 7 Heating and air conditioning controls.
- 8 Brake pedals.
- 9 Accelerator pedal.
- 10 Clutch pedal.
- 11 Parking brake lever.
- 12 Speed selector lever.
- 13 Range selector lever (Slow - Normal - Fast).
- 14 Accelerator lever:
  - up: idling;
  - down: full acceleration.
- 15 4WD button.
- 16 Differential lock button.
- 17 Auxiliary control valve levers.
- 18 Up/down switch and electronic power lift control panel.
- 19 Cigarette lighter.
- 20 PTO switch.
- 21 Economy PTO selector lever (available with 4-speed option only)
- 22 PTO mode selector lever (independent or proportional to ground speed).
- 23 PTO speed selector lever.

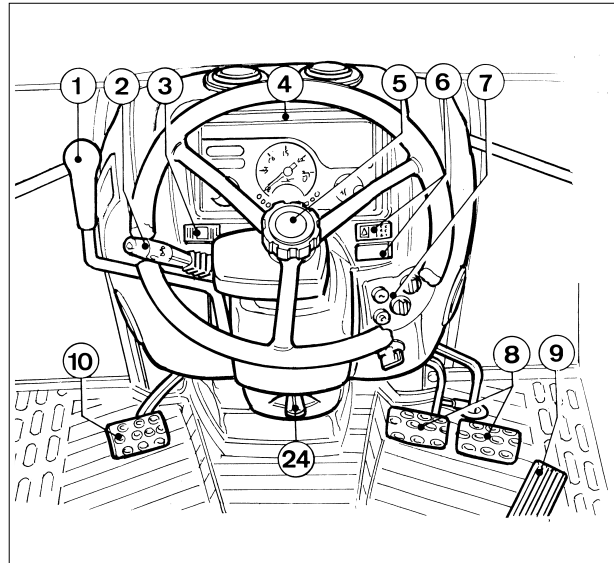


Fig. 29 - Front controls - Mythos with Power-Five and electronic lift.

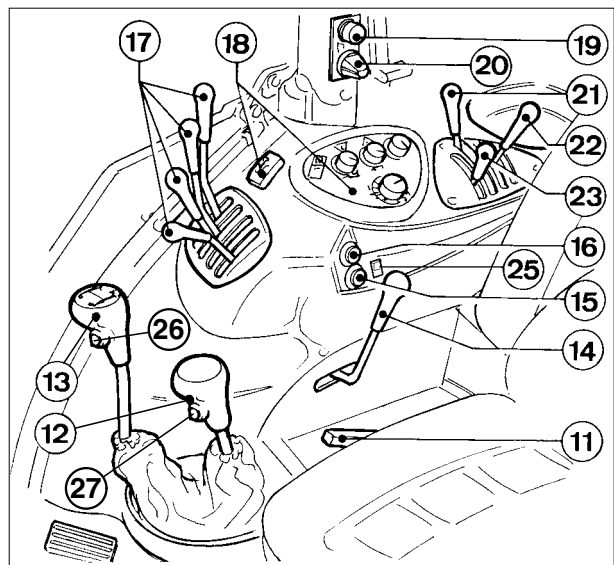


Fig. 30 - Controls on the rh side of driver's seat.

- 24 Lever to adjust steering wheel tilt.
- 25 AUTO function button (available on request with Delta-Five gearbox only)
- 26 Creeper button.
- 27 Power-Five button.

# Operation

## Power take off

The power take-off is fully independent from the transmission. It is engaged by means of the button (Fig. 63) on the right-hand side of the driver's seat. The indicator light on the instrument panel comes on when the PTO is engaged.



Power take-off engaged.

**N**

Power take-off disengaged and PTO output shaft at a standstill: hydraulic stop device engaged. The PTO must be in neutral when the engine is started.

Engage the PTO at a low rate to protect the clutch and driveline.  
Select the operating mode and the required speed before engaging the PTO.

The output shaft of the independent PTO is installed in the rear part (top shaft 1 - Fig. 66).

## Independent PTO

Various options are available for the PTO.

- 2-speed PTO: 540/1000 RPM
- 2-speed PTO: 540/540ECO RPM (on request)
- 4-speed PTO: 540/1000 RPM
- 2-speed PTO: 540ECO/1000ECO RPM (on request)

RPM rates are as follows:

- PTO 540 with engine at 1944 RPM
- PTO 540ECO with engine at 1580RPM
- PTO 1000 with engine at 1952 RPM
- PTO 1000ECO with engine at 1586 RPM

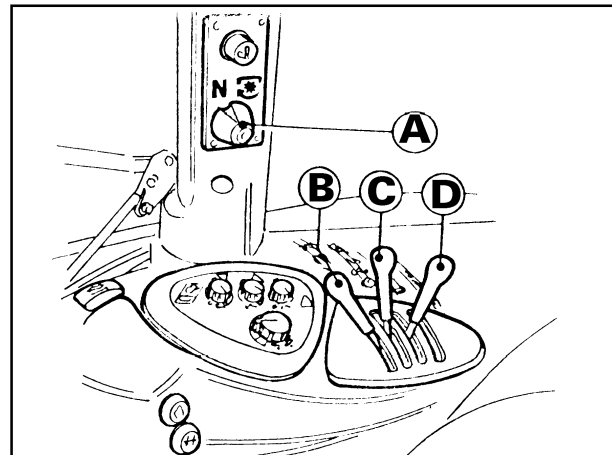


Fig. 63 - PTO controls.

- A - PTO engaging switch.
- B - PTO speed selector lever.
- C - Standard or economy PTO selector lever, only for 4-speed PTO.
- D - Independent or synchronized PTO selector lever.

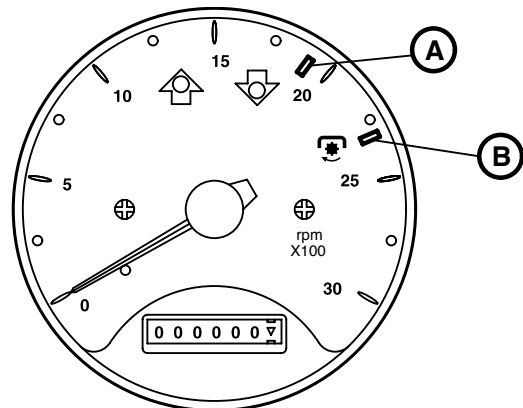


Fig. 64

### PTO range marks

A - Green: 1950 RPM engine rate = 540 RPM and 1000 RPM PTO modes

B - Red: 2278 RPM engine rate = never reach this rate when using the PTO.

The 540 ECO and 1000 ECO PTO are obtained at 1580/1586 RPM engine rate: never exceed a 1900 RPM engine rate as this would seriously damage the PTO driveline.

## Transmission, steering and power lift filters

The filters of the transmission oil and the power lift circuit are mounted on the intake (1 - Fig. 119) of the hydraulic pumps and on the delivery (Fig. 120) of the steering circuit.

They are equipped with sensors which warn the operator when the filter/s is/are clogged and need to be changed by means of an indicator light on the dashboard: check to make sure which filter needs changing.



**Warning:** *The filters should be changed for the first time after 50 hours service, then every 250 hours or whenever the filter clogged indicator light comes on.*

The filter cartridges should, however, be changed after every 250 hours service.

### Filters on the intake (1 - Fig.119) of the hydraulic pumps

- 1 - Drain the transmission oil completely through the five drain plugs (3 - Fig. 119).
- 2 - Remove the screws and the intake filter cover (2 - Fig. 119).
- 3 - Remove the filter cartridge and wash in a solvent, removing all metal particles from the filter seat and cover. **The cartridge must be replaced if damaged or very clogged.**
- 4 - Clean and fit back the five drain plugs, then fill up with oil of the prescribed type to the correct level.

### Filter on the delivery (Fig. 120) of the steering circuit. Change the filter on the delivery after the first 50 hours service and then after every 250 hours.

Change the element of the filter on the delivery of the steering circuit:

- a - Unscrew the holder (1), remove and discard the filter element (3).
- b - Fit the new filter element (3) into the cover of the filter (2).

To prevent the filter element from being dirtied (with mud, etc.) only completely remove the plastic protection after fitting.

- c - Mount the holder (1) after having oiled its threaded part, the washer (4) and seal (5) with clean new oil. Take great care to fit the individual parts in the right directions.

### Change the seal (5) and the washer (4) every 1000 hours service or whenever necessary.

- d - Fully screw on the holder (1) by hand.

**NOTE:** *After changing the oil and filters, run the engine for a while and make sure there are no leaks. Check the oil level again and top up if necessary.*

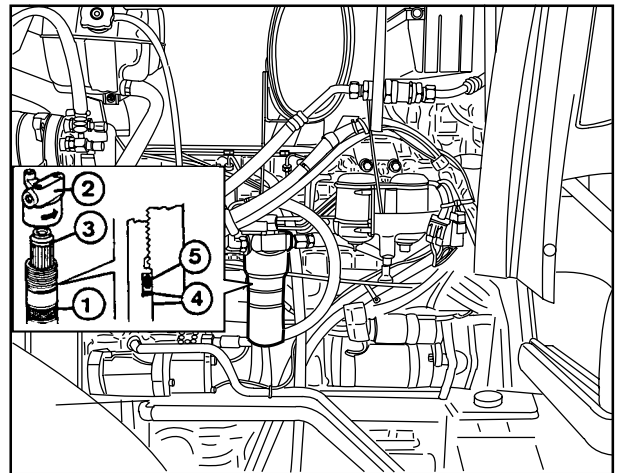


Fig. 120 - Transmission, steering and lift circuits oil filter..

- 1 - Filter holder.
- 2 - Cover.
- 3 - Filtering element.
- 4 - Washer.
- 5 - Ring seal.

### Transmission oil radiator

The fins of the transmission oil cooling radiator should be cleaned daily or whenever necessary.

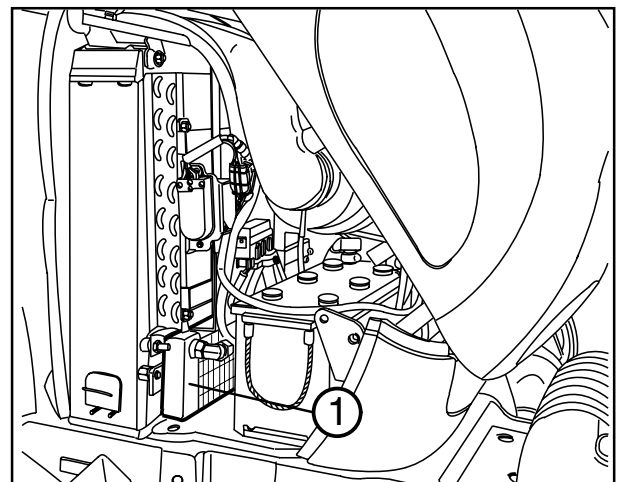


Fig. 121- Cleaning of the transmission oil cooling radiator (1).



## FUSES AND RELAYS - Delta-Five

The tractor's electrical system is protected against short-circuits and overload by a set of fuses. The number of fuses in the electrical system depends on the tractor version.

The fuses are installed in two fuse-boxes:

A - Main relay and fuse box (Fig. 147) on the left-hand side of the dashboard.

B - Front fuse box (Fig. 148).

**NOTE:** Before replacing a blown fuse with an equivalent one, try to identify and remedy the cause of the fault.

FUSES Fig. 147		
FUSES	PROTECTED CIRCUITS	Amp.
F 1	Speed sensors, buzzer, Auto button light	5
F 2	Cigarette lighter	10
F 3	Instrument panel	5
F 4	Pneumatic seat	15
F 5	Differential lock relay, Electronic power lift (battery powered)	5
F 6	Rear window wiper	15
F 7	Rear trailer socket	15
F 8	Button night lighting	7.5
F 9	Side lights	7.5
F 10	Side lights	7.5
F 11	Rotating beacon	7.5
F 12	Roof light	7.5
F 13	-	-
F 14	Horn	30
F 15	Headlights	15
F 16	Headlights	15
F 17	Creeper solenoid valve	7.5
F 18	Front PTO switch	7.5
F 1'	-	-
F 2'	Key-operated light relay	5
F 3'	Windscreen wiper	30
F 4'	Motor stop	7.5
F 5'	Key-operated electronic power lift	5
F 6'	PTO relay switch	7.5
F 7'	4WD solenoid valve	5
F 8'	Brake lights	10
F 9'	Rear field lights	30
F 10'	Front field lights	30
F 11'	Air-conditioner power	30
F 12'	Air-conditioner switch	7.5
F 13'	-	-
F 14'	Thermostarter	20
F 15'	Hazard lights	15
F 16'	Engine ignition relay	30

RELAYS	
RL 1	Bistable relay
RL 2	Bistable relay
RL 3	Air conditioner relay
RL 4	Engine ignition relay
RL 6B	Relay
RL 6E	Relay
RL 6F	Relay
RL 6G	Relay
RL 6H	Relay

MINI RELAYS	
MRL 1	Key-operated light mini relay
MRL 2	Differential lock mini relay
MRL 3	Mini relay
MRL 4	Rear field light mini relay
MRL 5	Front field light mini relay
MRL 6	Power-Five indicator light mini relay

FUSES	PROTECTED CIRCUITS	Amp.
50	<b>Fuse box B - Fig. 147</b> Main and dipped beams, air-conditioner relay, electronic power lift, horn - M2	60
51	Ignition switch - M1	100
52	Field lights, rotating beacon, roof light, radio, clock - M3	70
53	Alternator - M4	80

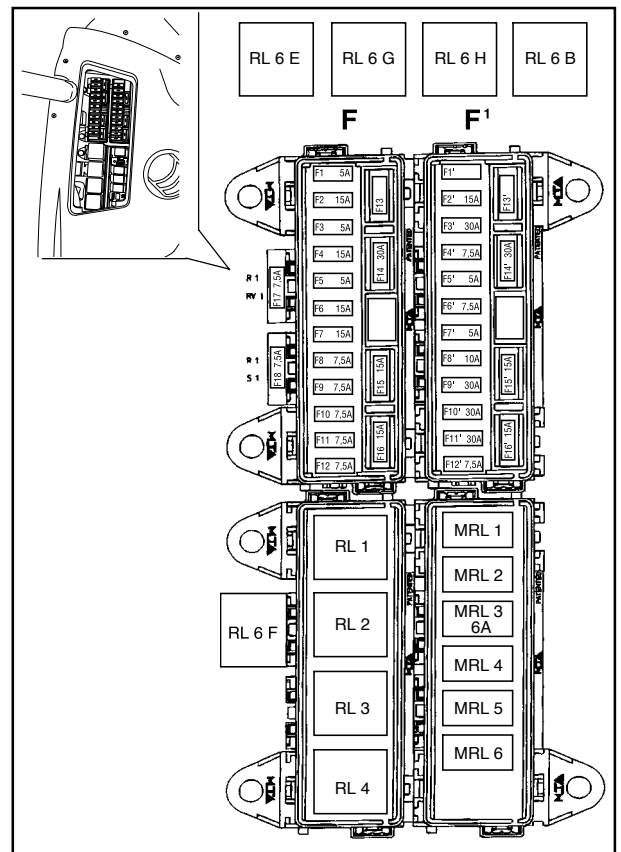


Fig. 147 - Delta-Five fuse box and main relay.

F = Fuse

RL = Relay

MRL = Mini-relay

**NOTE:** When there are four front and rear field lights, fuses F9' and F10' are the 30A type.

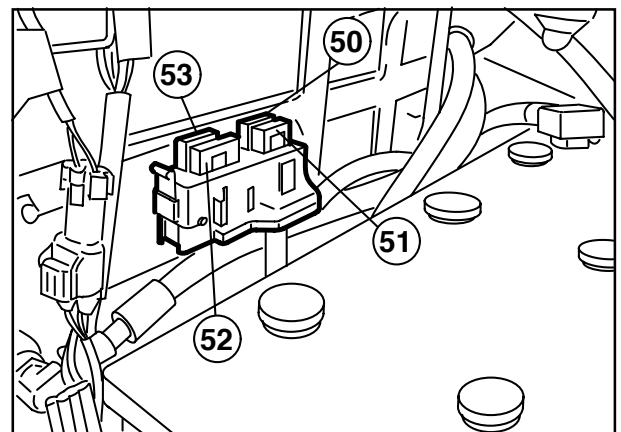


Fig. 148 - Front fuse box (B).

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# Mythos

## Operation and maintenance manual

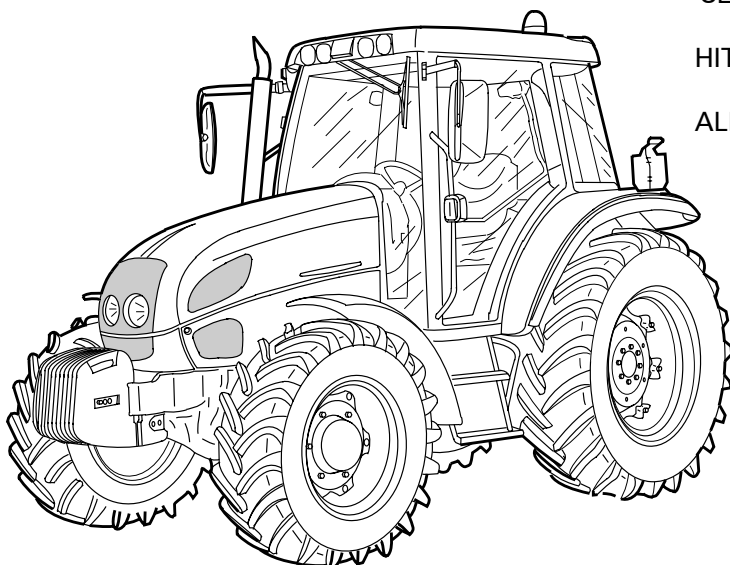
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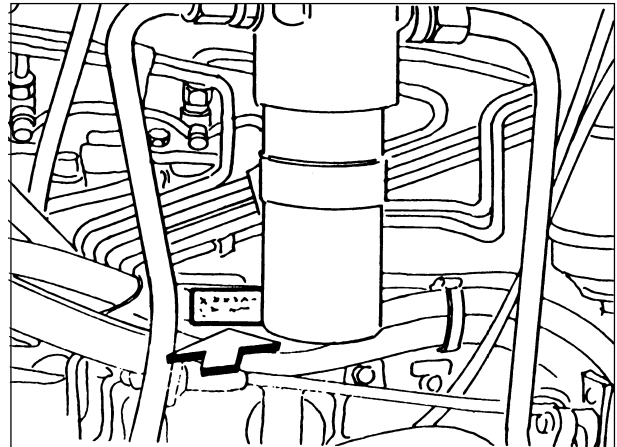


Fig. 1 - Type and chassis number (on engine block).



Fig. 2 - Type of tractor and chassis and cab number (on dashboard lower panel).

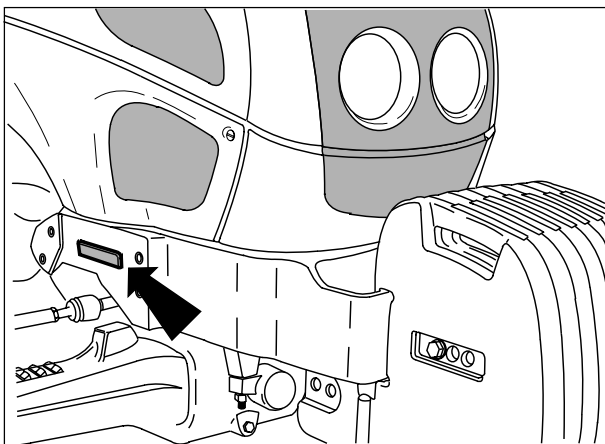


Fig. 4 - Type and chassis number (on radiator core).

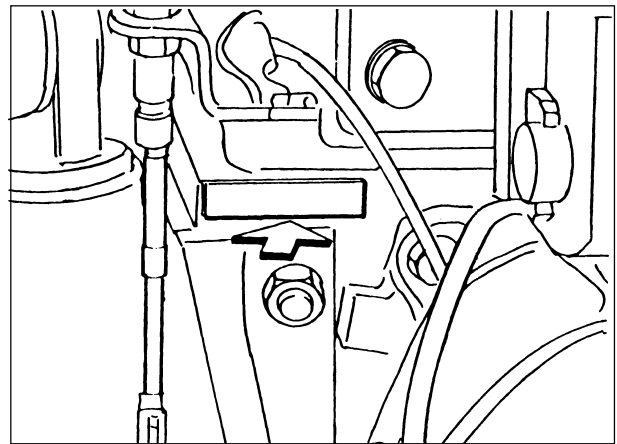


Fig. 3 - Type and chassis number (on tractor body).

# Introduction, warranty and safety notes

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- 19 Cigarette lighter.
- 20 PTO switch.
- 21 Economy PTO selector lever (available with 4-speed option only)
- 22 PTO mode selector lever (independent or proportional to ground speed).
- 23 PTO speed selector lever.

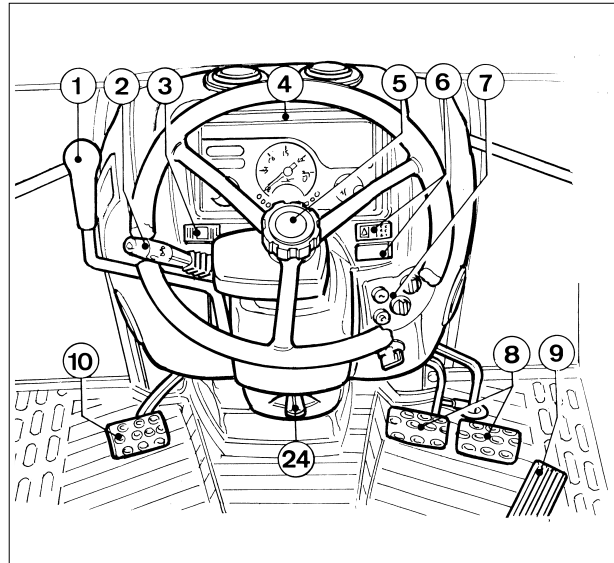


Fig. 29 - Front controls - Mythos with Power-Five and electronic lift.

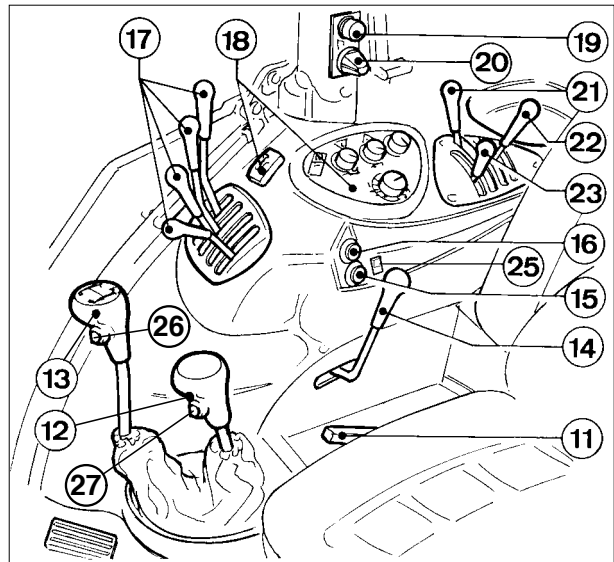


Fig. 30 - Controls on the rh side of driver's seat.

- 24 Adjustable steering wheel locking lever.
- 25 AUTO function button (available on request with Delta - Five
- 26 Creeper button.
- 27 Power-Five button.

# Maintenance

## Dry air filter

The dry air filter should be cleaned daily or at suitable intervals, depending on work conditions, by opening the rubber drain valve (1 - Fig. 114) to remove dust or dirt deposits.

Whenever the red filter blockage warning light on the instrument panel comes on, open the filter container cover (1 - Fig. 115), lift out the outer filter element (2) and clean it carefully with compressed air.

Clean the filter cartridge (Fig. 116) by directing a jet of dry compressed air (maximum pressure 4 bar/60 psi) from the inside towards the outside.

Move the jet over the whole inside surface of the filter element, following the folds, until all the dust has been blown off.

Tap lightly on the cartridge to eliminate any residual dust.

Shine a light inside to check for holes, cracks or other damages.

Replace the outer filter element after it has been cleaned six times, or once a year, and whenever holes, cracks or other damages are found shining a light inside the element.

The inner backup filter element (3 - Fig. 115) should never be blown clean, but must be replaced after every 3 times that the outer element is cleaned.

**Warning:** *There is no point in cleaning the filter element before the red filter blockage warning light comes on. Unnecessary cleaning shortens the life of the element.*

- *Never loosen or remove air filter elements while the engine is running. Never run the engine without the air filter elements in place.*
- *Check the separator and the rubber seal. Change them if damaged.*
- *Use a clean damp rag to wipe the inside of the filter body clean before replacing the element.*
- *Check by hand that the mounted filter elements are tight.*
- *Make sure that the rubber air intake is in good condition and that the hose clamps are tight.*

**NOTE:** *To avoid downtimes or delays on work, keep a spare cartridge in stock for immediate replacement.*

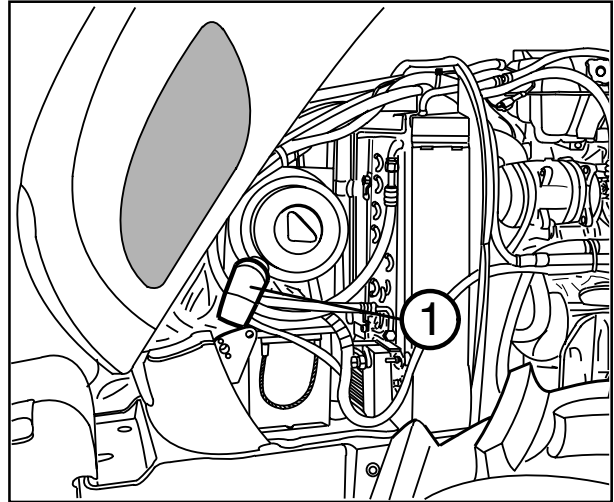


Fig. 114 - Dry air filter cleaning. Drain valve (1).

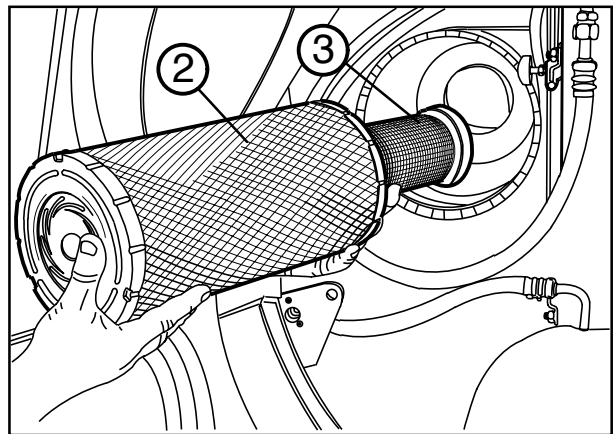


Fig. 115 - Removing the dry air filter.

- 1 - Container.
- 2 - Outer filter element.
- 3 - Inner backup filter element.

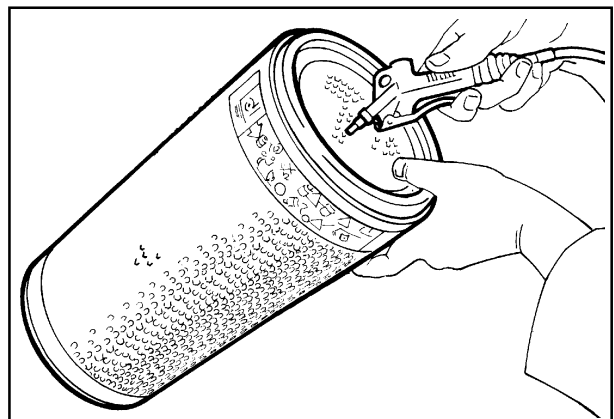


Fig. 116 - Filter cleaning by compressed air (max. pressure 4 bar/60 psi).



## Headlights

As you can use your tractor on public roads, the lighting must comply with the applicable traffic and road regulations. Periodically check headlight alignment in the following way:

### Checking headlight alignment (Fig. 143-144).

- Halt the tractor on level ground facing a shaded wall (preferably white). The tractor must be unloaded and the tyres correctly inflated. Mark two crosses on the wall in front of the tractor headlights (Fig. 143).
- Reverse the tractor 5 meters (16.4 ft) away from the wall.
- Switch on the main beam. The center of each beam must be vertically aligned with the crosses on the wall. A maximum outward divergence of 130 mm (5 in) is acceptable.
- Switch on the dipped beam. The line separating the lighted area from the dark area must fall below the crosses and must be separated from their centers by at least 1/20th of the height of the crosses from the ground.
- Adjust the headlight alignment screws to correct alignment as necessary (Fig. 143).

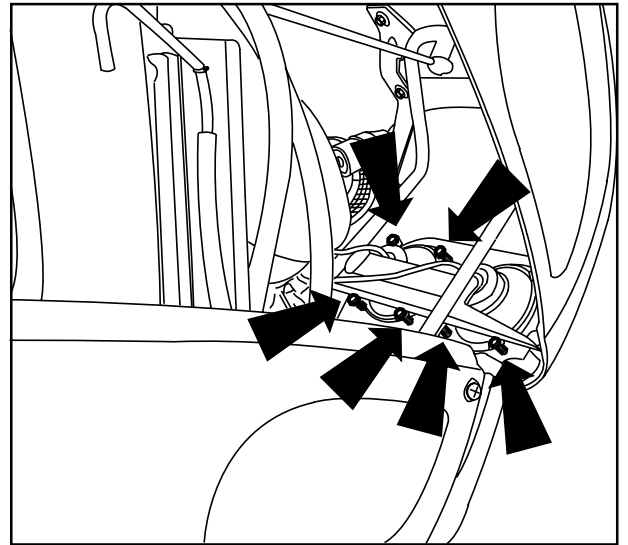


Fig. 143 - Headlight alignment adjusters.

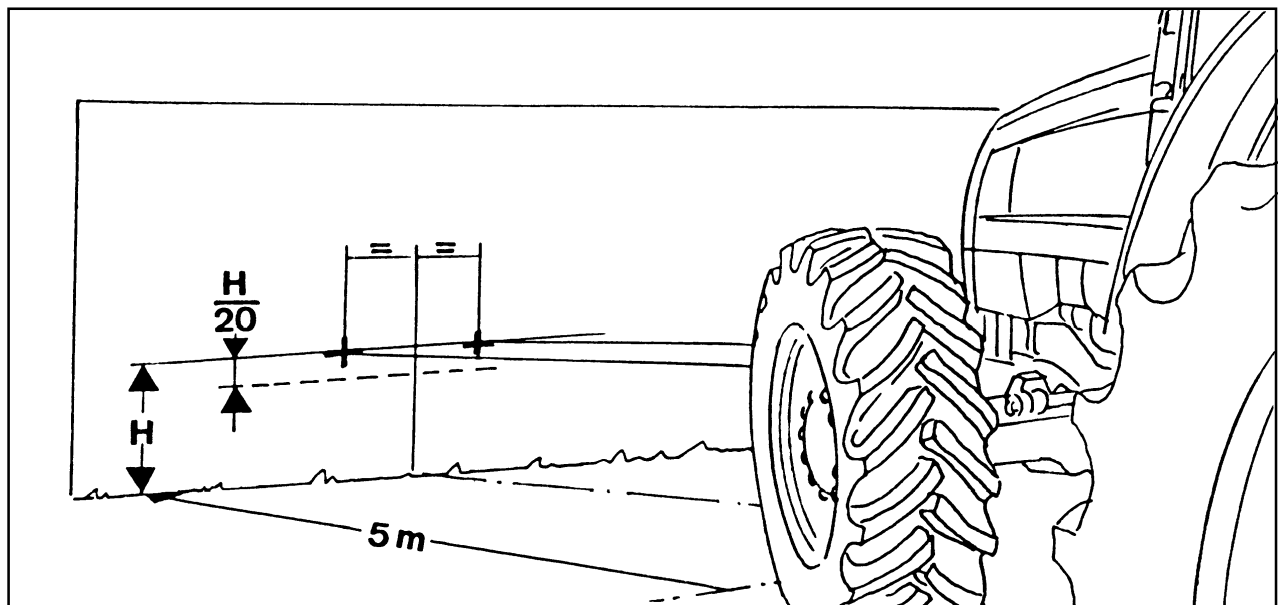


Fig. 144 - Checking headlight alignment.

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Chap. 9 ELECTRONIC POWER LIFT

Chap. 10 ELECTRICAL SYSTEM

Chap. 11 CAB AND AIR CONDITIONING SYSTEM

Chap. 12 SPECIAL TOOLS



# Tractor identification and technical specifications

## 2-2 Weights and measurements

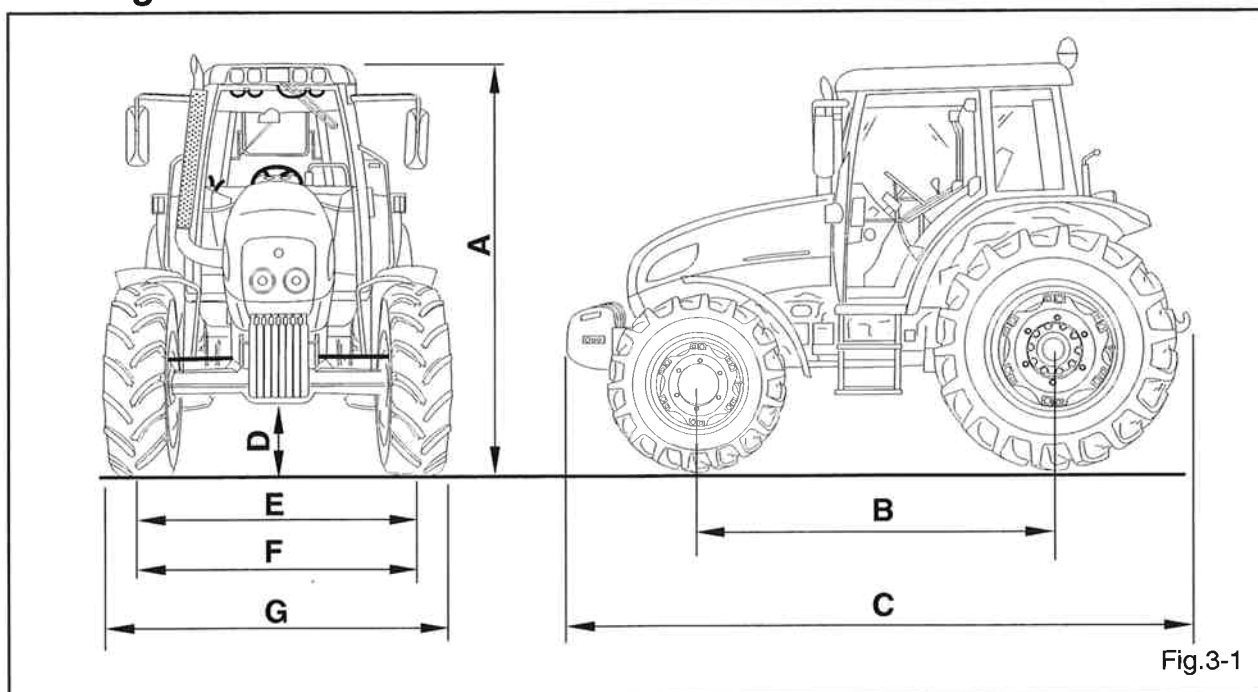


Fig.3-1

GENERAL SPECIFICATIONS	90	100	110
	<b>4WD</b>	<b>4WD</b>	<b>4WD</b>
With tyres:			
- Front	13,6 R24	14,9 R24	14,9 R24
- Rear	16,9 R34	18,4 R34	18,4 R38
WEIGHTS			
In running order, without ballast, with cab ..... Kg	4260	4280	4690
In running order, with front and rear ballast with cab ..... Kg	4920	4960	5350

DIMENSIONS	90	100	110
	<b>4WD</b>	<b>4WD</b>	<b>4WD</b>
A - Cab height from ground ..... mm	2720	2770	2870
Cab height from rear wheel center ..... mm	1975	2000	2050
B - Wheelbase ..... mm	2426	2449	2759
C - Maximum length			
- without front ballast ..... mm	4160	4160	4160
D - Ground clearance ..... mm	450	475	525
E - Front track (see tab.) ..... mm	1738	1937	1937
F - Carreggiate post. (vedi le tab.) ..... mm	1692	1720	1720
G - Maximum width on road ..... mm	2062	2062	2062



## 1004-40T/1006-60 engine timing

### 3-4 Injection pump timing

**Warning:** Do not unscrew the nut (5) that fixes the hub to the injection pump shaft. The hub is mounted on the shaft in a permanent way. If the hub moves, an injection pump specialist must set it back in the right position on the shaft using the special test equipment possessed by Perkins dealers.

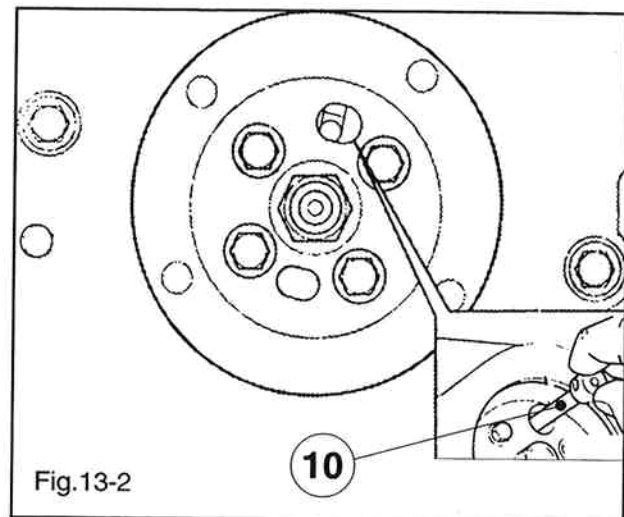
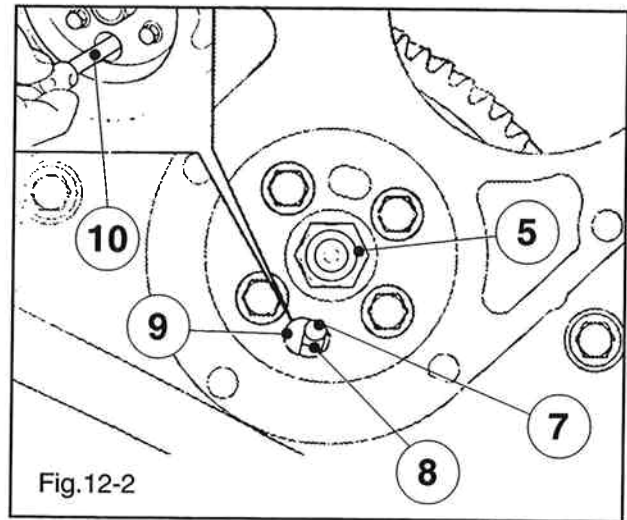
- 1 - Move the piston of cylinder number 1 to TDC of its compression stroke.
- 2 - Demount the gear cover from the valve gear housing for gear operated coolant pumps. Demount the coolant pump.

**Note:** four security bolts fix the fuel pump gear in more recent engines with belt type coolant pumps. Special equipment is required to slacken off these bolts. Consult your Perkins area dealer.

- 3 - Fit the timing pin (10) in the hole of the injection pump gear (9) into the slit in the hub (8). Fully push the pin into the hole (7) in the injection pump casing. If the pin can be fully inserted, this means that the pump is correctly timed. It should not need to be forced in any way when it is inserted.

**Note:** The position of the timing pin for Lucas and Stanadyne injection pumps is illustrated in Fig.12-2. The position of the timing pin (10) for BX EPVE injection pumps is shown in Fig.13-2.

- 4 - Remove the timing pin (10).
- 5 - If the timing pin cannot be fully fitted into the pump casing, make sure that the engine has been correctly set to TDC of the compression stroke of cylinder number 1.  
If the engine has been correctly set to TDC of the compression stroke of cylinder number 1 but the pin fails to fit into the hole, demount the injection pump and have it calibrated by an authorized expert.
- 6 - Mount the gear cover on to that of the valve gear housing.





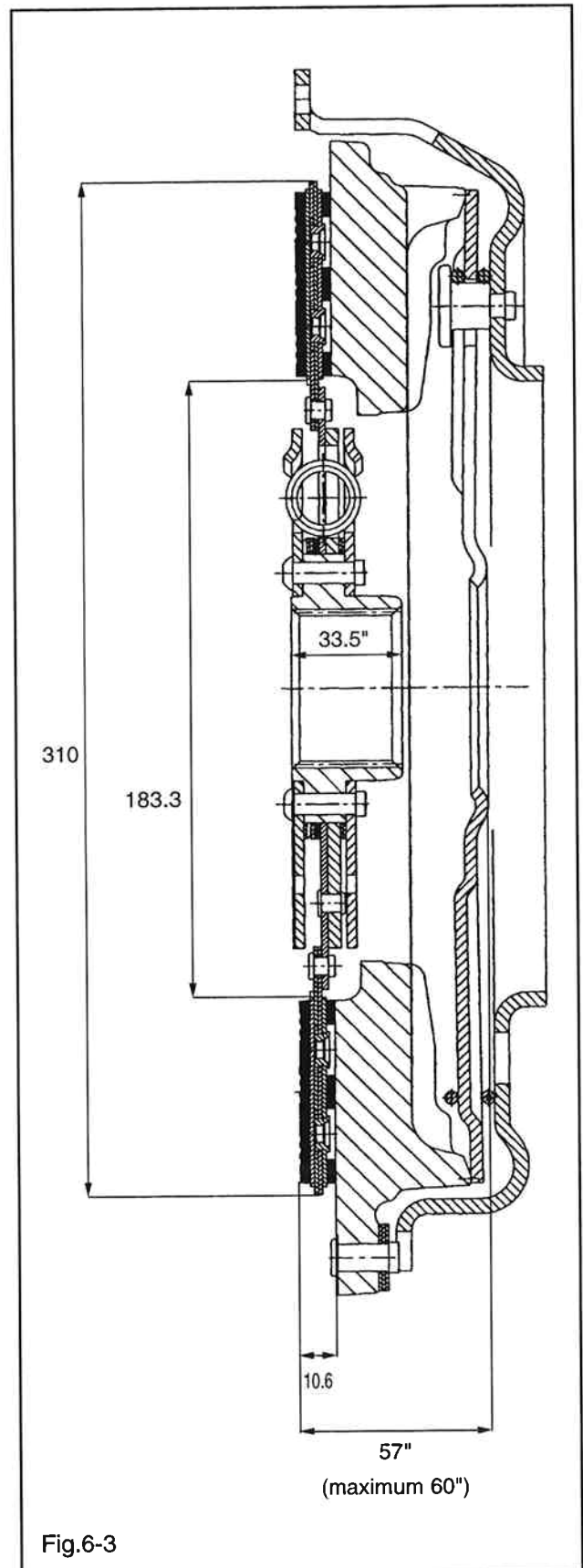
## Sect. 3 - Inspections

### 3-1 Inspection

- 1 - Thoroughly clean all components and check them carefully;
- 2 - Check the retention bearing. Make sure that it turns in a regular way and that the seal is in a good condition;

#### Single-plate clutch

- 3 - Check the friction surface on the flywheel, the clutch thrust plate and the friction disc.  
If necessary, grind the friction surface on the flywheel, removing not more than 1 mm of material from the original surface.





**CHAP. 4**

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## H - Hydraulic clutches (Deltafave version)

### H1 - Main components

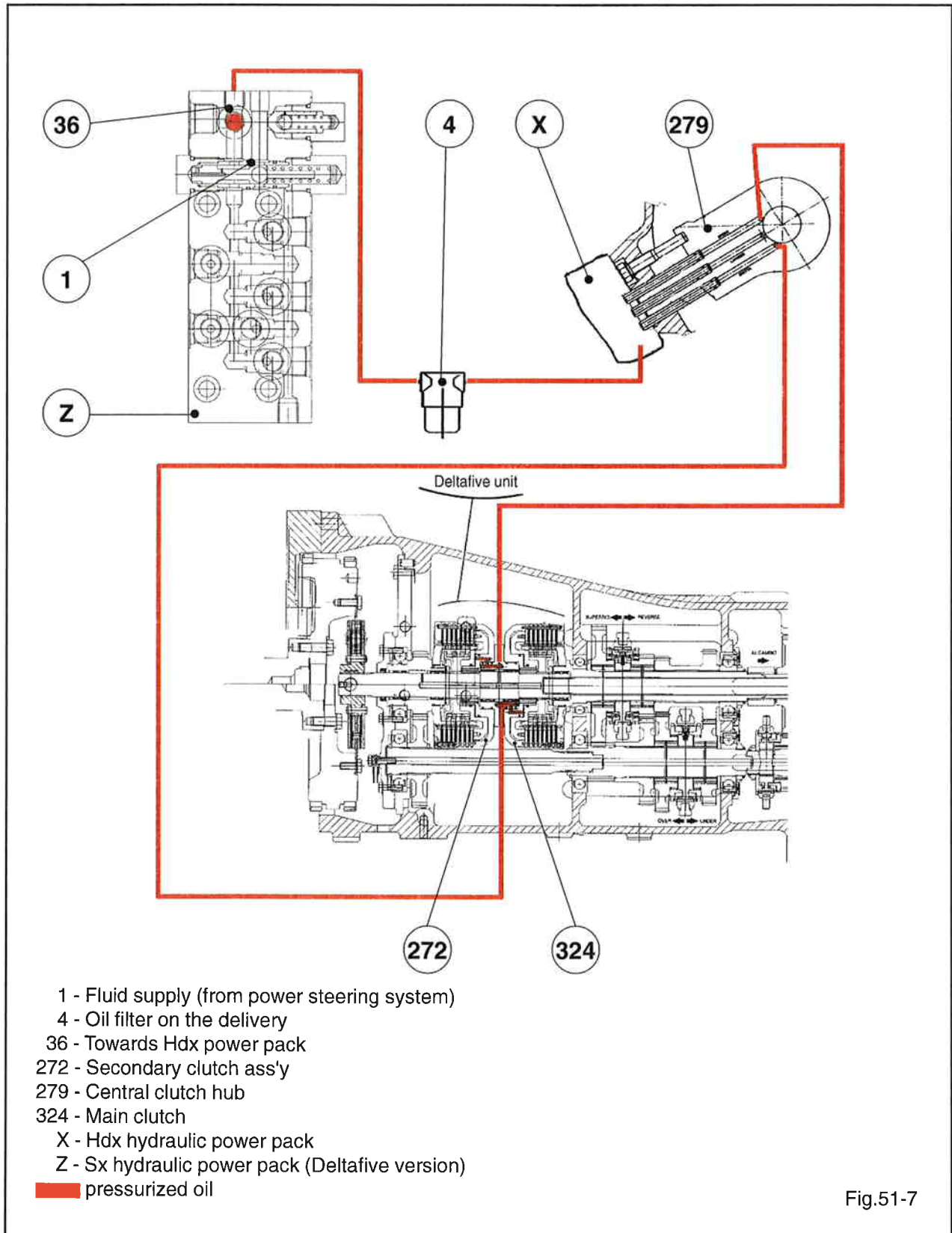


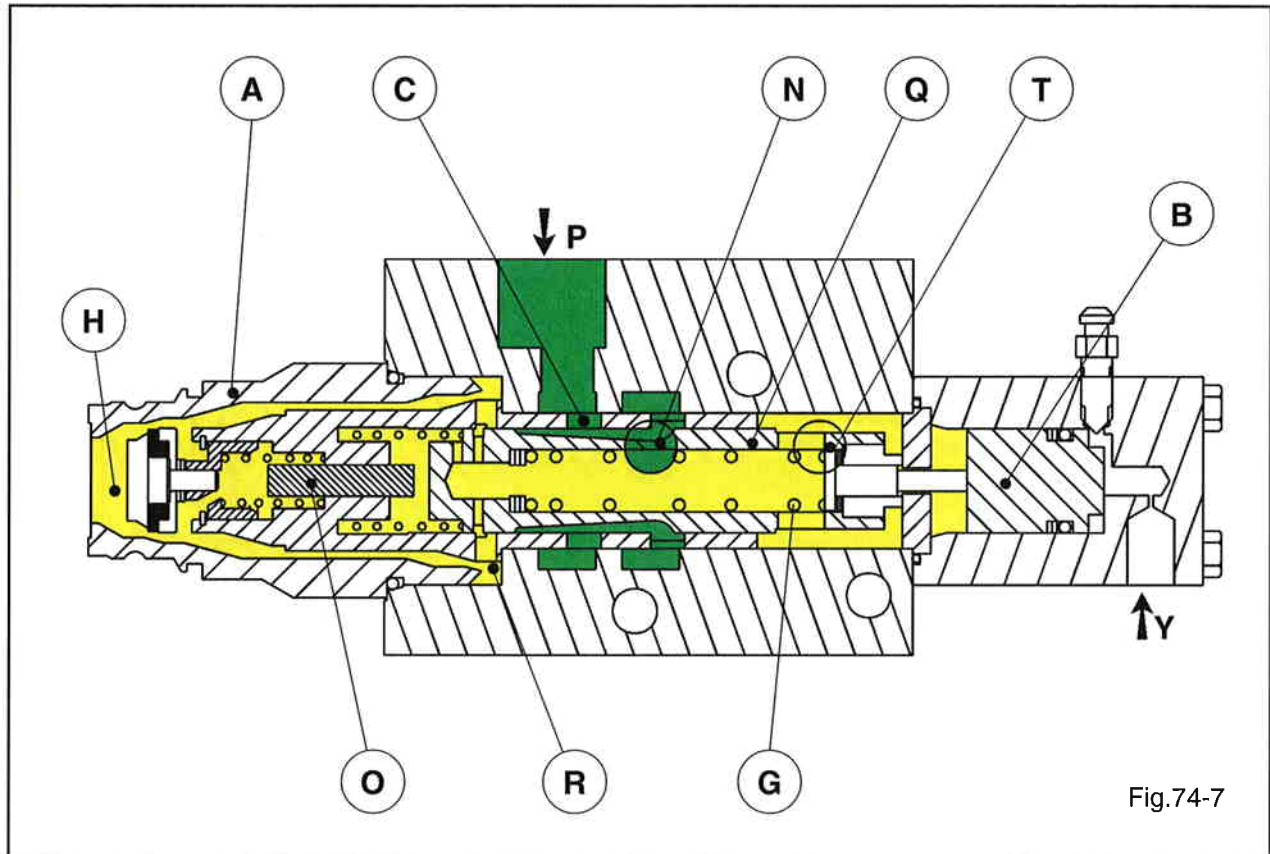
Fig.51-7





## Trailer brake for the Export market

### Q4.1 - PHASE WITH TRAILER HITCHED AND PEDAL BRAKES UNUSED



Oil from the pump passes through race "C" and leaves through duct "N" to supply the hydraulic power lift.

The oil in duct "H" flows towards outlet "T" through ducts "R" and spring chamber "G".

- A - Quick coupling for trailer brake connection
  - B - Auxiliary control valve activating plunger
  - C - Pump - power lift connecting race
  - G - 140 bar pressure upkeep spring
  - H - Trailer brake outlet
  - N - To power lift
  - O - Return plunger
  - P - From pump
  - Q - Main control valve plunger
  - R - Trailer brake fluid supply race
  - T - To outlet
  - Y - From trailer brakes
- discharge  
■ to power lift



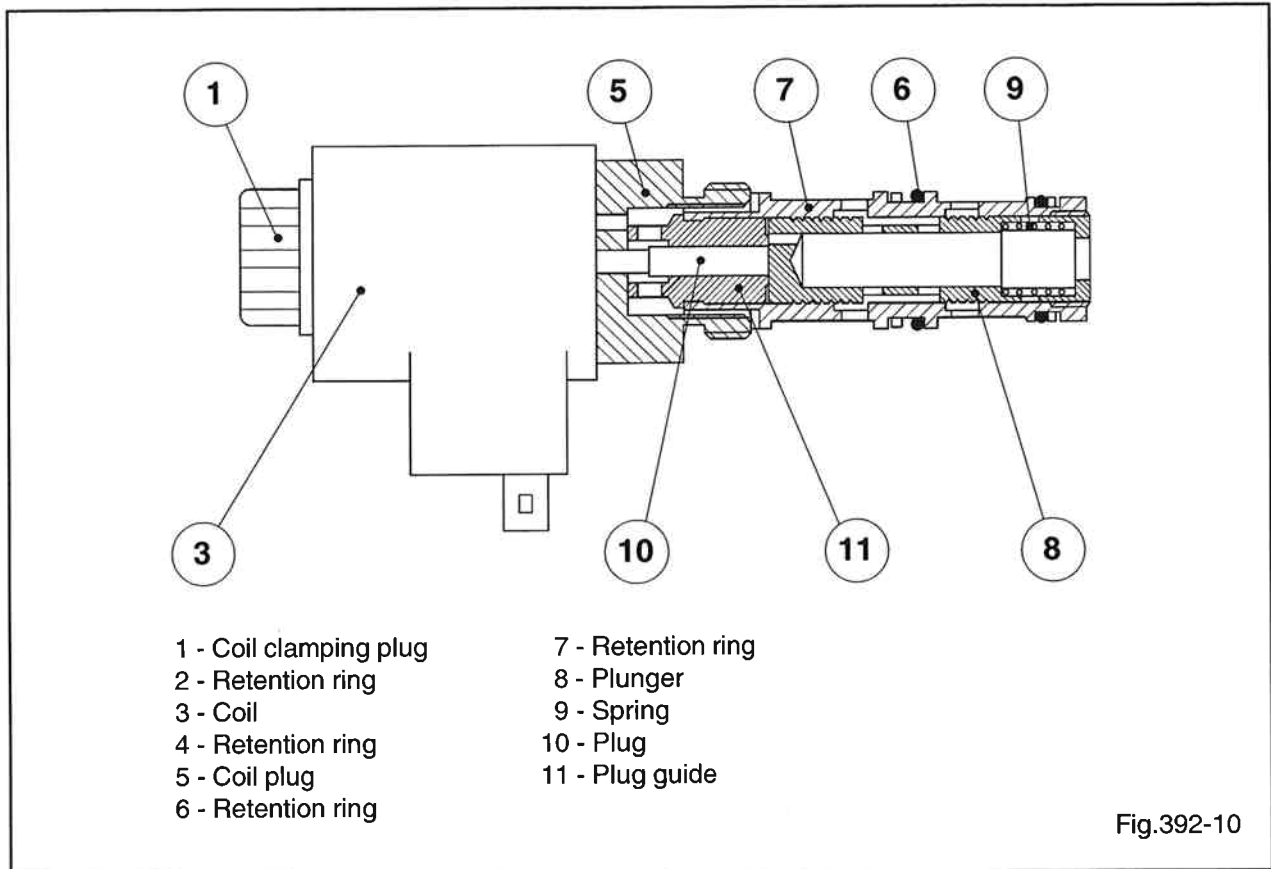
## Solenoid valves

In Mythos "Deltafive" tractors, proportional solenoid valves allow the two hydraulic clutch assemblies to be engaged/disengaged in a modular way. Their function is to send oil to the user as needed, by varying the opening.

These solenoid valves are controlled by an electronic board installed in the plant and supplied by the manu-

facturer, which is part of an electronic management program.

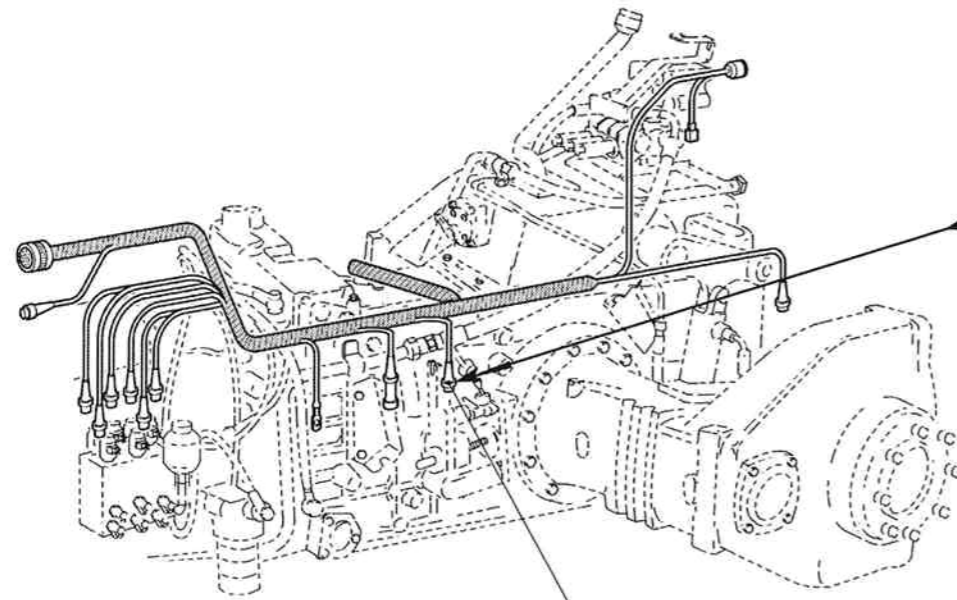
Checks to ensure that these solenoid valves operate correctly must necessarily be carried out with the aid of a PC and using the electronic management software of the "Deltafive" module (Landtools software).



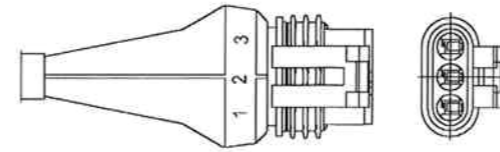


# Check-control and troubleshooting

## Faulty Hall sensors

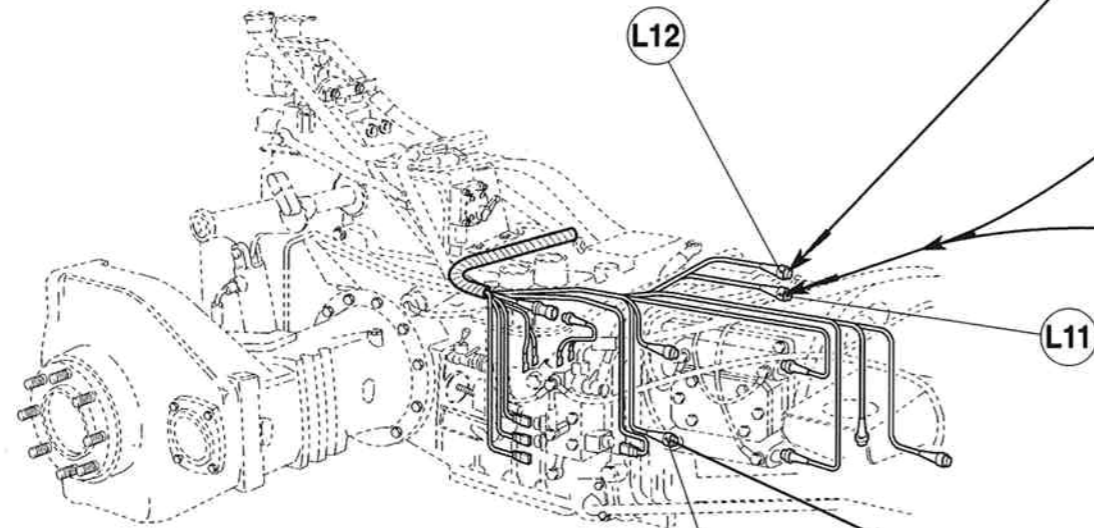


L5



### CONNECTOR (L5) FOR GROUND SPEED SENSOR

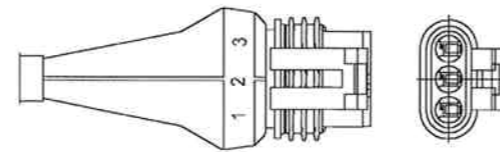
Terminal	Wire colour	To connector or component	Terminale
1	BN	L1	23
2	B	L17 (ground)	-
3	R	L1	5



L12

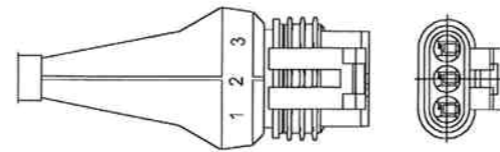
L11

L26



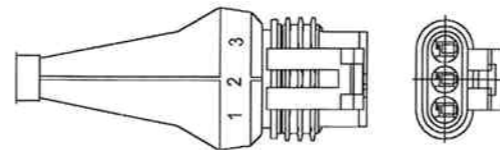
### CONNECTOR (L12) FOR DELTAFIVE SPEED SENSOR (GEARBOX)

Terminal	Wire colour	To connector or component	Terminal
1	CN	L1	9
2	B	L8-L9-L11 L15-L16-L17 (ground)	2-2-2-2-2
3	R	L1-L11-L26	4-3-3



### CONNECTOR (L11) FOR DELTAFIVE SPEED SENSOR (GEARBOX)

Terminal	Wire colour	To connector or component	Terminal
1	A	L1	10
2	B	L8-L9-L12 L15-L16-L17 (ground)	2-2-2-2-2
3	R	L1-L12-L26	4-3-3



### CONNECTOR (L26) FOR ENGINE RPM SENSOR

Terminale	Wire colour	To connector or component	Terminal
1	HR	L1	13
2	B	L17 (ground)	-
3	R	L1-L11-L12	4-3-3



# Guide to the "calibration" module

## 4-5 Clutch pedal calibration (precise)

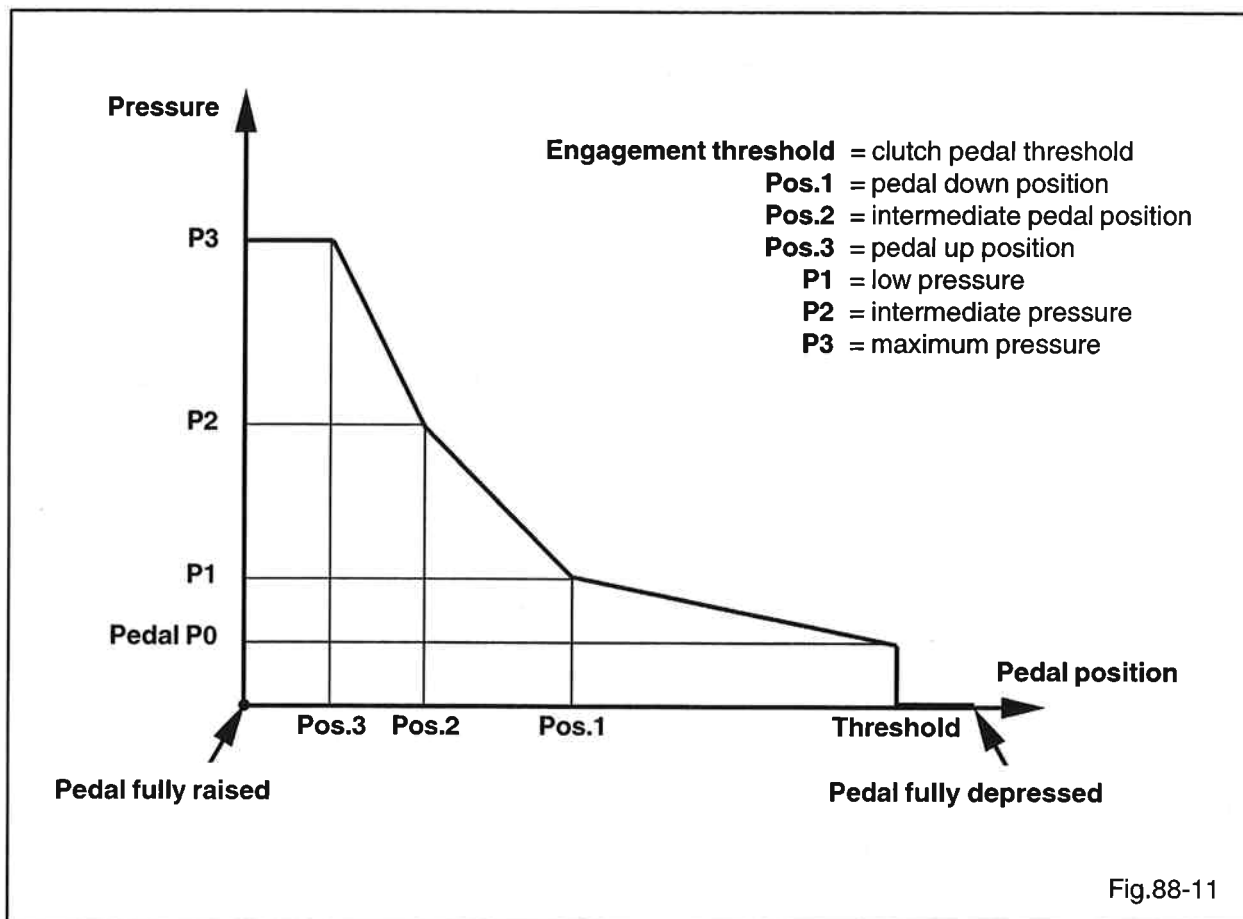


Fig.88-11

The diagram in Fig.88-11 graphically illustrates the **manual piloting** law of Mythos Deltafive tractors. It shows the pressure trend within the clutch assemblies depending on the position of the pedal. A different pedal calibration is obtained by changing the values that identify sections with different slopes. Consequently, the moment in which they cause the tractor to move will also be different.

Once the P0 parameters have been calibrated, the program will automatically activate the window shown in Fig.89-11, so that the tractor adjustments can be completed by accurately calibrating the clutch pedal. The procedure is the same as the one described in section 4-2 which illustrates the rough pedal calibration procedure.

Greater accuracy can now be achieved for the representative engaging pressure values.

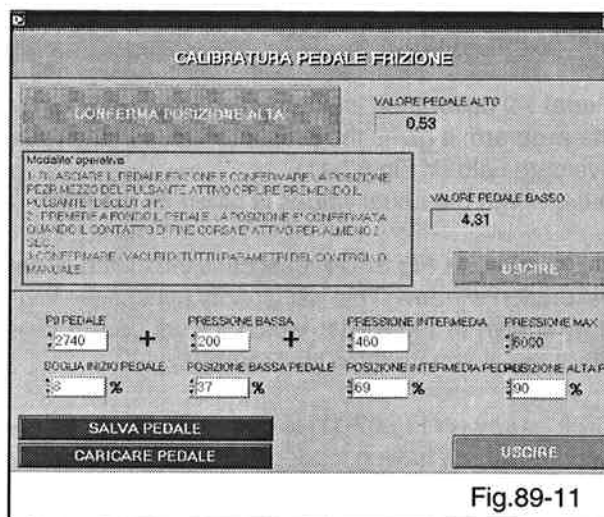


Fig.89-11



**CHAP. 12**

***Air-conditioning system (A/C)***

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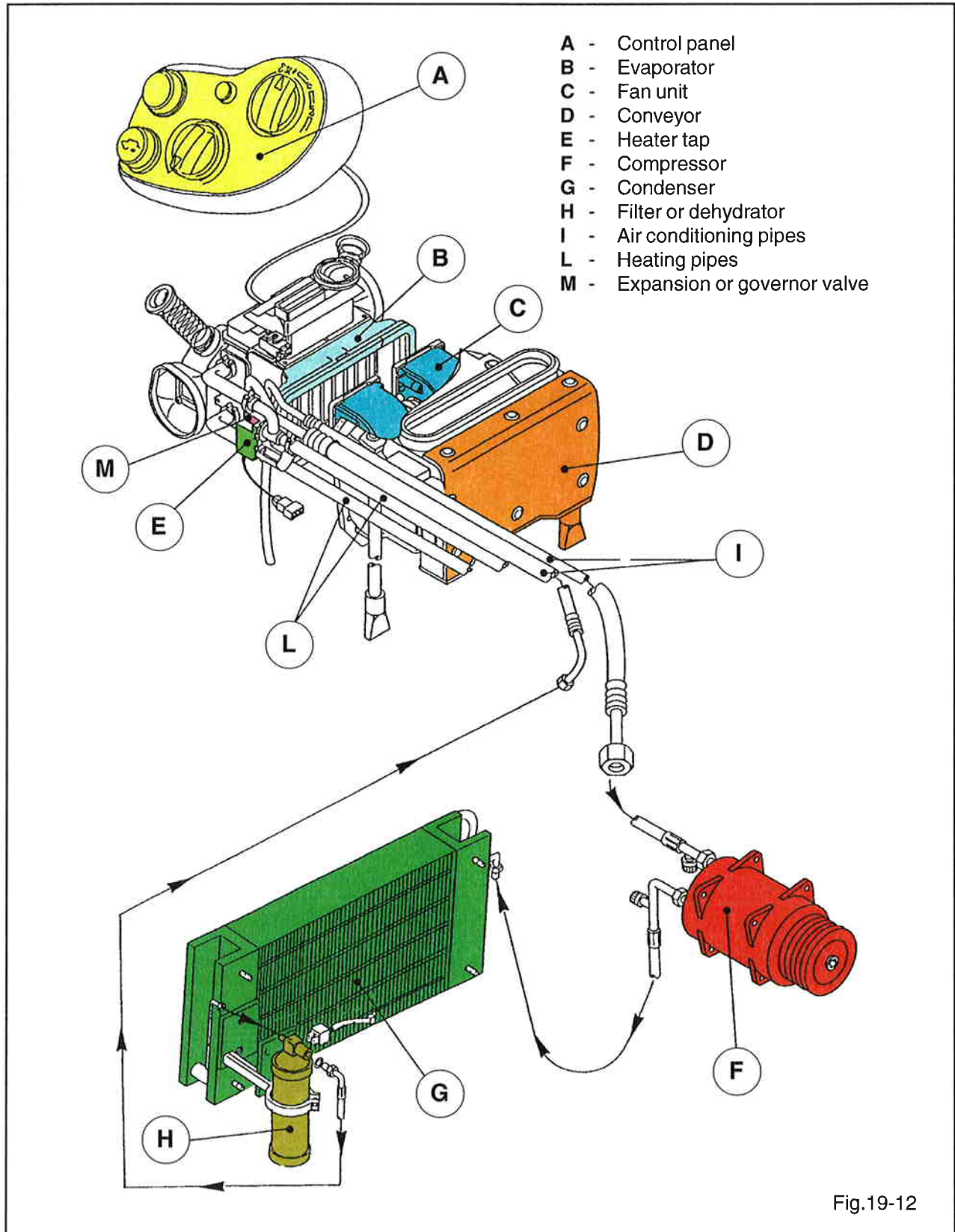
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3-3 Wiring diagram .....	12-28



## Sect.3 - Air-conditioning system (A/C)

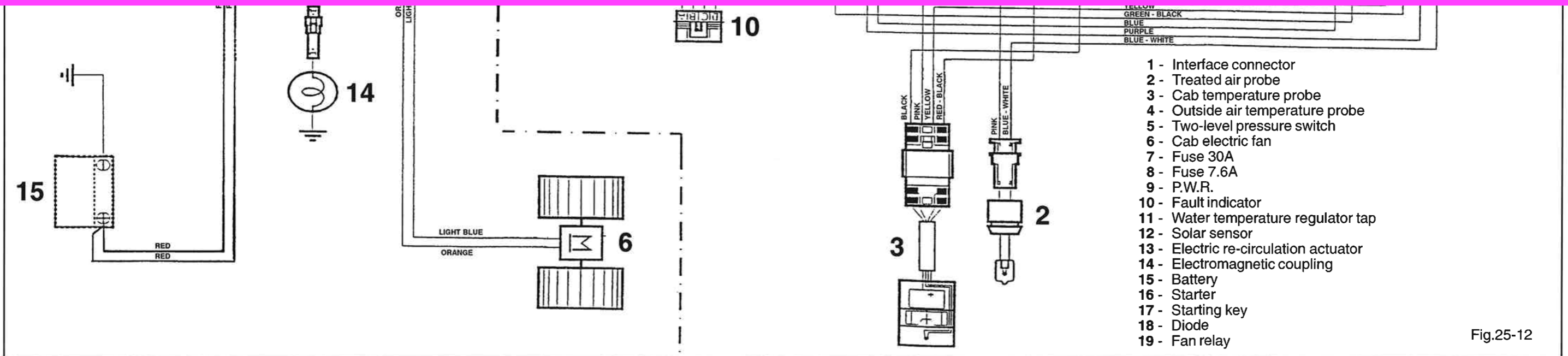
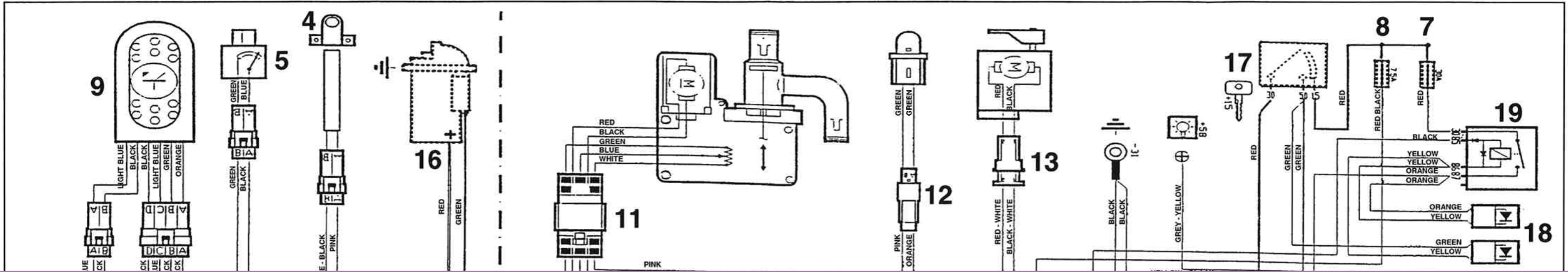
### 3-1 Main components





# Air-conditioning system (ECC)

## 4-4 Wiring diagram



- 1 - Interface connector
- 2 - Treated air probe
- 3 - Cab temperature probe
- 4 - Outside air temperature probe
- 5 - Two-level pressure switch
- 6 - Cab electric fan
- 7 - Fuse 30A
- 8 - Fuse 7.6A
- 9 - P.W.R.
- 10 - Fault indicator
- 11 - Water temperature regulator tap
- 12 - Solar sensor
- 13 - Electric re-circulation actuator
- 14 - Electromagnetic coupling
- 15 - Battery
- 16 - Starter
- 17 - Starting key
- 18 - Diode
- 19 - Fan relay

Fig.25-12