

## **OPERATOR INSTRUCTION BOOK**

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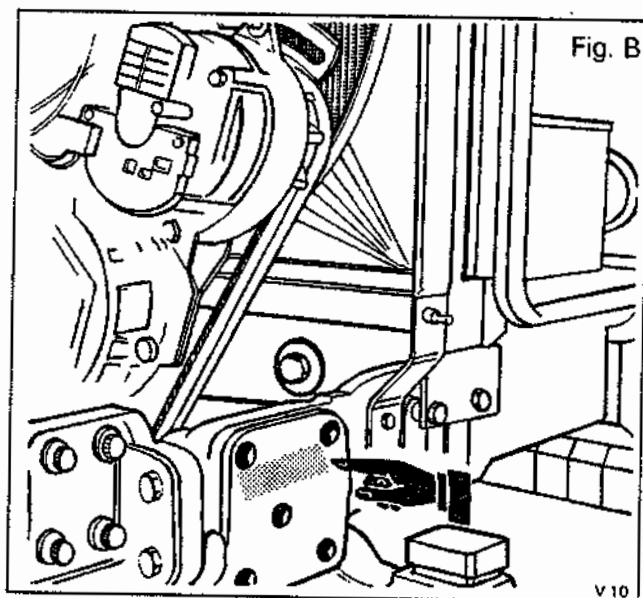
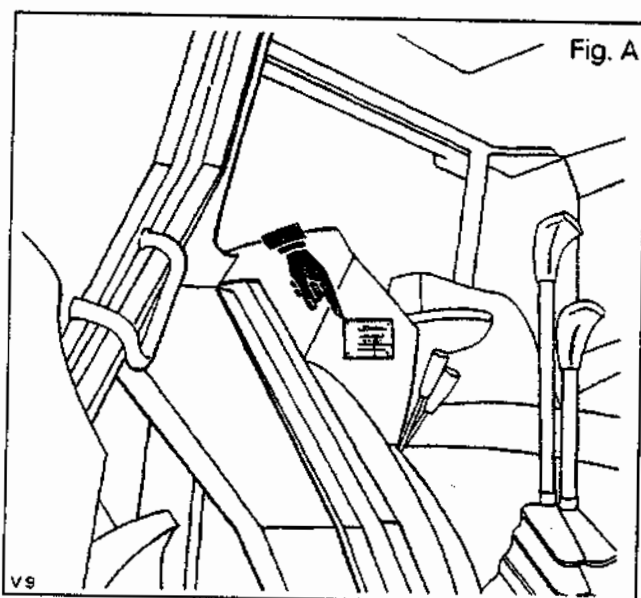
# TRACTOR IDENTIFICATION

## SERIAL NUMBER

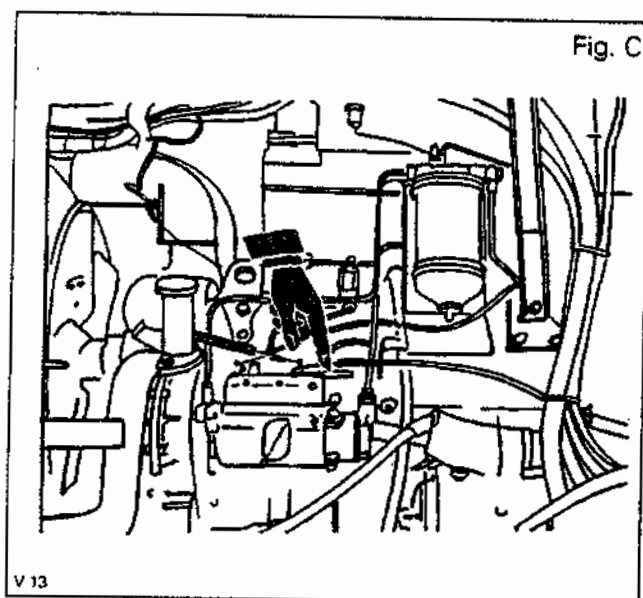
### Important :

NOTE THE SERIAL NUMBER OF YOUR TRACTOR.  
ALWAYS QUOTE THE SERIAL NUMBER IN ANY  
COMMUNICATION TO YOUR MASSEY FERGUSON  
DEALER.

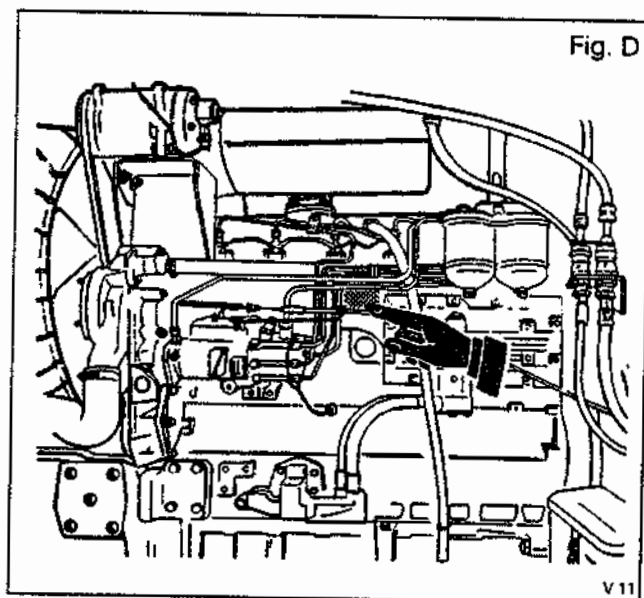
Tractor serial number (Fig. A)



Engine serial number



4 cyl. Engine



6 cyl. Engine

## INTRODUCTION - SAFETY PRECAUTIONS AND WARRANTY

- Hitch only to the drawbar and hitch points recommended, and never above the centre line of the rear axle.
- When the tractor is stopped, apply the parking brake securely.
- Never modify or remove any part of the equipment.
- Keep others away from your area of work.
- Never use attachments unless they are properly matched to your tractor.

### SAFETY - ROPS

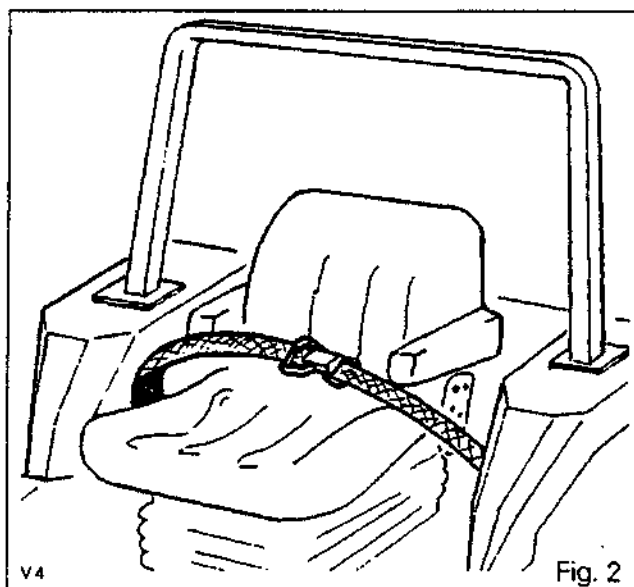
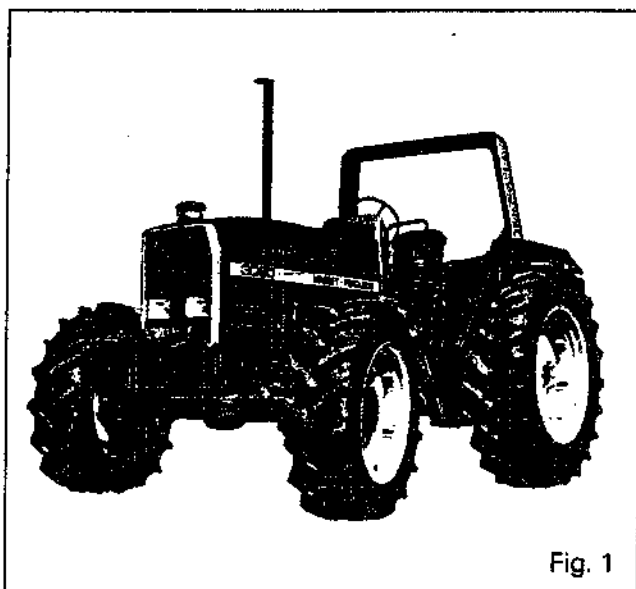
#### Roll Over Protective Structures

A Roll Over Protective Structure (ROPS) and seat belt is fitted as standard equipment to the tractor at the time of factory assembly. If the ROPS was deleted by the original purchaser or has been removed, it is recommended that you equip your tractor with a Roll Over Protective Structure and a seat belt. ROPS are effective in reducing injuries during overturn accidents. Overturning a tractor without ROPS can result in serious injury or death.

If fold down ROPS are installed do not wear seat belt when the ROPS are in the folded down position.

#### Operation

- Before using the tractor ensure that the ROPS frame is not damaged, that it is securely fastened to the tractor and if a hinged section is fitted that it is in the raised position and secured.
- If the ROPS has been removed from the tractor, or folded down for a specific operation, it must be refitted or erected immediately using the proper hardware and applying the recommended torque values.
- DO NOT attach chains, ropes, or cables to the ROPS for pulling purposes; this will cause the tractor to tip backwards. Always pull from the tractor drawbar.
- Always wear your seat belt - adjusted snugly. Never wear the seat belt if the tractor is not equipped with upright ROPS or Safety Cab.
- Check the seat belt for damage. A damaged seat belt must be replaced (Fig. 2).



#### Damage to the ROPS

If the tractor has rolled over or the ROPS has been damaged (such as striking an overhead object during transport), the ROPS must be renewed to provide the original degree of protection.

After an accident, check for damage to the ROPS, operator's seat, seat belt and seat belt mountings. Before you operate the tractor, replace all damaged parts.

**DO NOT WELD, DRILL, BEND OR STRAIGHTEN THE ROPS.** To do so reduces the protection it offers.

## INTRODUCTION - SAFETY PRECAUTIONS AND WARRANTY

### Watch out for others

- Be aware of what is going on.
- Never allow an untrained or unqualified person to operate your tractor. They could injure themselves or someone else.

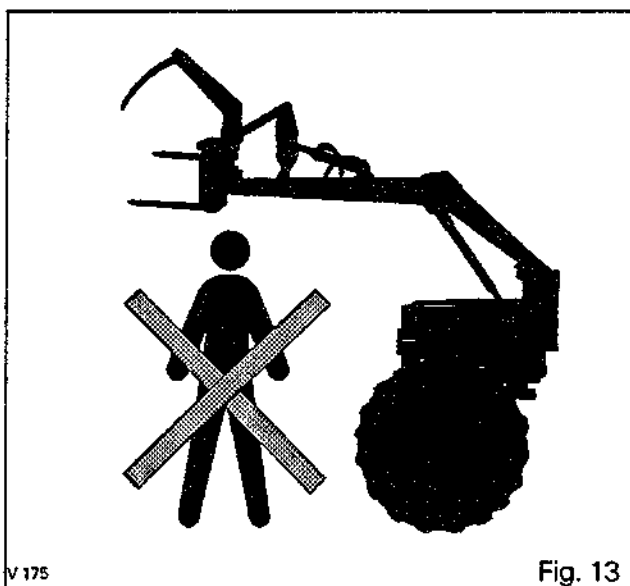
**WARNING :** *Your tractor is a one-person machine in North America. In other territories a passenger seat must be fitted to carry passengers. Never allow anyone to ride on the implements or other equipment including trailers. Except on certain harvesting equipment during the actual harvest operation only (not during transport). Such equipment must have provision for a safe riding area (Fig. 12).*

**WARNING :** *Never allow children on the tractor.*

**WARNING :** *Be certain you can control both speed and direction before moving. Move slowly until you are sure that everything is operating properly. After starting, recheck the steering, right and left. Be certain you have full steering and brake control. If differential is locked, do NOT operate at high speed or turn the tractor until the differential lock is disengaged.*

**WARNING :** *Never lift a load over anyone.*

- Keep others away from your operation. Never allow anyone to stand or pass under a raised implement (Fig. 13).
- DO NOT lift objects that can not be contained safely in the bucket, get the appropriate attachment.
- When using a loader, avoid sudden stops, starts, turns, or change of direction. Keep loads close to the ground when transporting.
- Never drive a tractor up to someone standing in front of a fixed object.
- Never stand (or allow anyone else to stand) in front of, under, or behind loaded or loading equipment.
- Never allow anyone to stand on the ROPS or fenders.
- Keep others away from articulation joints, hitches, drawbar, lift arms, PTO drives, cylinders, belts, pulleys, and other moving parts. Keep all shields and guards in place.



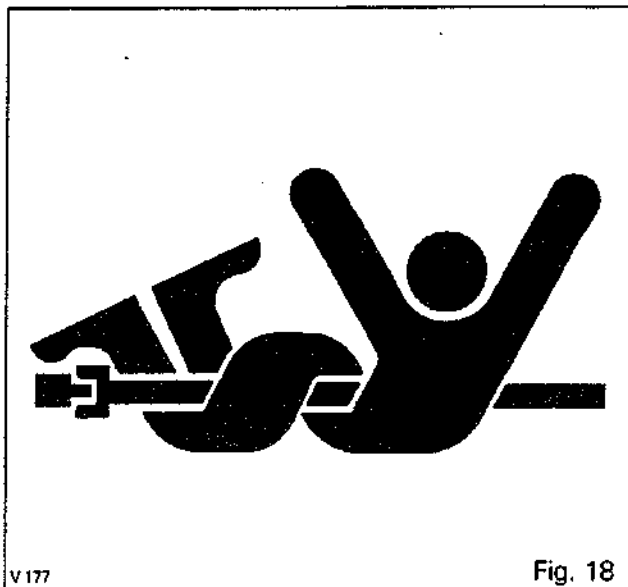
**WARNING :** *Never stand, or allow anyone else to stand, between the tractor and implement unless the engine is turned off and the parking brake is engaged, the transmission is in neutral, and all attachments or implements are lowered to the ground.*

## INTRODUCTION - SAFETY PRECAUTIONS AND WARRANTY

- Be sure everyone is clear of your machine before engaging the PTO. For stationary PTO operation, always place transmission in neutral, engage parking brake, and chock both tractor and implement wheels.
- When operating mobile PTO driven equipment, never leave the tractor seat until the PTO drive is disengaged, the transmission is in neutral, the parking brake is engaged, the engine shut off and the key removed.
- DO NOT use PTO adaptors, reducers or extensions as they extend the PTO coupler and universal joint out beyond the protection offered by the PTO shield.
- The top link and lift rods must not be extended beyond the point where threads begin to show.

**WARNING :** *Never attempt to unplug the hydraulics, or adjust an implement with the engine running or the PTO drive in operation. To do so may result in serious injury or death.*

- When using chemicals, carefully follow the chemical manufacturer's instructions for use, storage and disposal. Also follow the chemical application equipment manufacturer's instructions.
- Special cab air filters are available when spraying or using chemicals. Contact your Massey Ferguson Dealer for details.
- When operating under poor visibility conditions, or in the dark, use your tractor field lights and reduce your ground speed (do not use your field lights when travelling on a roadway because rear pointed white lights are illegal except when reversing and may confuse following drivers).
- Operate your tractor with the wheels set at the widest setting possible, consistent with the particular task you are performing.
- To adjust wheel settings refer to Section 4 - Maintenance and Adjustment.
- Reduce your speed when operating over rough or slippery ground and when foliage restricts your view of hazards.
- Do not make sharp turns at high speed.



















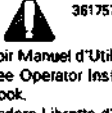
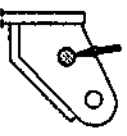


**WARNING :** *A front-end loader (bucket or forks) must be equipped with a suitable restraining device to prevent the load (bales, fence posts, rolls of fence, wire etc.) from rolling down the lift arms into the operator's compartment and crushing the driver when the loader is raised.*

- Three-point hitch and side mounted implements make a much larger arc when turning than towed equipment. Make certain to maintain sufficient clearance for safe turning.
- When using attachments or implements with the tractor, be sure to thoroughly read the Operator Instruction Book for that attachment or implement and follow its safety instructions.
- Do not overload an attachment or towed equipment. Use proper counter weights to maintain tractor stability. Hitch loads to the drawbar only.

# INTRODUCTION - SAFETY PRECAUTIONS AND WARRANTY

## SAFETY DECAL DESCRIPTION

<p><b>G.B. CAUTION</b></p>  <p>Before operating, read operator's instruction book thoroughly. Do not start engine until everyone is a safe distance from tractor and equipment. Keep all shields, covers and guards in place while engine is running. Keep hands, feet and clothing away from power driven or moving parts.</p>	<p>Always drive with due care and attention. If differential lock does not disengage automatically, depress clutch pedal. Brake pedals must always be coupled together when independent brakes are not being used. Before leaving tractor, apply parking brake, lower equipment, stop engine and remove key from starter switch.</p>	<p>When attaching equipment check operator's instruction book for front and rear axle load limits. Put the gears lever (1-2-3-4) in neutral position and put the reverse/forward lever in forward position or reverse position in order to use the external lift controls. Ensure that all wheel and rim nuts are tightened as specified in operator's instruction book. On public roads, use SMV emblem and flashing warning lights where required by law.</p>
DO NOT REMOVE OR OBSCURE DECAL 3580321 M3		
<p><b>WARNING</b></p>  <p>Gears lever (1-2-3-4) must be in his neutral position and the reverse/forward lever in forward position or reverse position: - In order to use the external lift controls. - When the driver is not in his seat.</p>	2	<p><b>G.B. WARNING</b></p>  <p>High pressure steam and hot water. Remove filler cap with extreme care.</p>
DO NOT REMOVE OR OBSCURE DECAL 3583500 M2		
<p><b>G.B. WARNING</b></p>  <p>Before working on the tractor, disconnect negative leads to all batteries.</p>	<p><b>WARNING</b></p>  <p>Before removing any battery, disconnect all negative leads before positive leads.</p>	4
DO NOT REMOVE OR OBSCURE DECAL 3595579 M1		
<p><b>G.B. CAUTION</b></p>  <p>Keep all shields, covers and guards fastened in place while engine is running.</p>	<p><b>WARNING</b></p>  <p>Beware hot parts</p>	5
DO NOT REMOVE OR OBSCURE DECAL 3595679 M1		
<p><b>G.B.</b></p>   <p>DO NOT REMOVE OR OBSCURE DECAL</p>		
6		
<p><b>G.B. WARNING</b></p>  <p>Always disengage PTO and stop engine before attaching or detaching PTO shafts or working on PTO driven equipment. Always fit PTO cover when PTO is not in use.</p>	<p><b>CAUTION</b></p>  <p>Do not stand between tractor and equipment when operating controls. Tow only with MF approved tractor drawbar or hitch</p>	7
DO NOT REMOVE OR OBSCURE DECAL 3591563 M1		
<p><b>G.B. CAUTION</b></p>  <p>TO AVOID POSSIBLE TRACTOR OVERTURN, PULL ONLY FROM DRAWBAR OR LOWER LINKS OF THREE POINT HITCH</p>		
8		
<p><b>G.B. WARNING</b></p>  <p>Before working on the tractor or removing this cover, disconnect negative leads to all batteries.</p>	<p><b>CAUTION</b></p>  <p>Use seat belt at all times. Keep belt adjusted snugly.</p>	10
DO NOT REMOVE OR OBSCURE DECAL 3580316 M1		
<p><b>CAUTION</b></p>  <p>Do not short across starter terminals to start engine. Never start engine while standing on the ground. Start engine only with start key from operator's seat, ensuring that gearbox and PTO are in neutral with parking brake applied.</p>	<p><b>G.B. WARNING</b></p>  <p>If tractor is overturning, hold onto steering wheel. Do not leave seat</p> 	11
DO NOT REMOVE OR OBSCURE DECAL 3596432 M1		
<p><b>CAUTION</b></p>  <p>Belt for use only on tractors with safety structures. DO NOT REMOVE OR OBSCURE DECAL 523784 A0</p>		
9		
<p><b>3617574 M1</b></p>  <p>Voir Manuel d'Utilisation. See Operator Instruction Book. Vedere Libretto d'Uso. Siehe Betriebsanleitung. Ver Manual del Operador</p> 		
13		


## INSTRUMENTS AND CONTROLS


Without "Dynashift" Fig. 4A

- 17. Hare warning light
- 18. Tortoise warning light
- 19. Speedshift High range warning light
- 20. Speedshift Low range warning light

With "Dynashift " Fig.B

A to D speed ratio warning lights

 Hare warning light

 Tortoise warning light

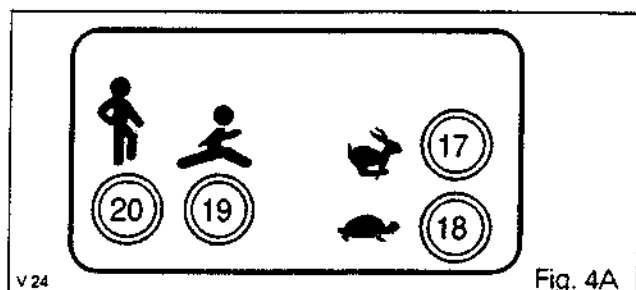


Fig. 4A

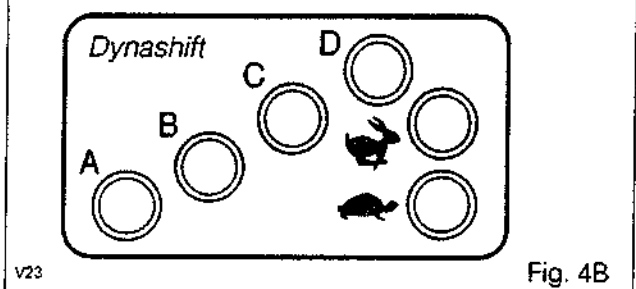


Fig. 4B

### PEDALS (Fig. 5)

#### 1. Clutch pedal

This is linked to the safety start switch. Fully depress the clutch pedal before operating the starter switch key.

Do not keep the foot on the clutch pedal or maintain it on the half of its travel.

#### 2. Brake pedals

The two brake pedals can either be used separately or locked together using latch 3.

#### 3. Brake pedals locking latch

#### 4. Foot throttle

The use of the foot throttle enables a momentary increase in the engine speed to be achieved if the hand throttle is at less than the full throttle setting.

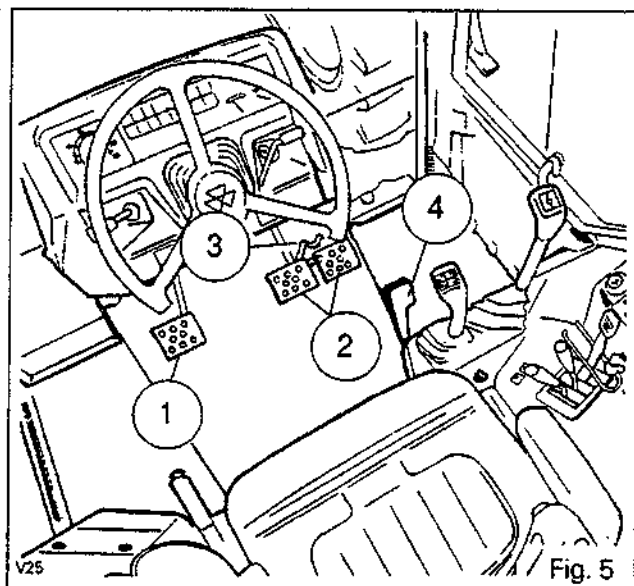


Fig. 5



**CAUTION :** When travelling on the road only the foot throttle should be used, and the hand throttle lever should be brought to the closed position.

## OPERATION

### Choosing the right gear ratio

Select the ratio which gives the optimum fuel consumption without overloading the engine and the transmission. Bear in mind at the same time that soil conditions can vary within a matter of a few yards in the same field. Select a ratio which allows the engine to operate comfortably at about 75 % of its maximum power.

Fig. 2A Gearbox 4 x 4

Fig. 2B Gearbox 4 x 2

Fig. 2C Dynashift gearbox

### Gear sequence

The forward speeds are regularly spaced as follows (16 speed gearbox)

A Range - Low - (tortoise)	1 - 2 - 3 - 4
B Range - Low - (tortoise)	1 - 2 - 3 - 4
A Range - High - (hare)	1 - 2 - 3 - 4
B Range - High - (hare)	1 - 2 - 3 - 4

**NOTE :** All gears are available in Forward and Reverse.  
Never change A/B range with engine stopped.

**Range change :**

**Hare/tortoise is impossible at a speed exceeding 8 KPH.**  
**Tortoise/Hare is impossible at a speed exceeding 10 KPH.**

**SPEEDSHIFT :** Speed can be reduced while driving by 20 % (30 Km/h gearbox) or increased by 26 % (40 Km/h gearbox) by operating Speedshift button without declutching.



**CAUTION :** Never use the Speedshift as a deceleration brake.

**NOTE : Engine protection**

The control unit does not allow the Speedshift to change from high to low range if the engine speed is greater than 2400 rpm and the corresponding indicator flashes.

**Speedshift 30km/h speed limitation.**

The control unit does not allow the speedshift to go into high range when 4th Hare is selected.

### Creeper gearbox (Fig. 3)

If the tractor is equipped with a creeper gearbox, normal speeds are obtained when the lever is located in the "hare/tortoise" position and reduced speeds (4:1) when the lever is placed in the 'snail' position.



**CAUTION :** Do not move the creeper speed lever except when the tractor is completely stationary. Do not use weights or water ballast.

In no circumstances should the creeper speeds be used to obtain a tractive force greater than that available in the normal range. To avoid seizure of the system, move the lever at least once a month.

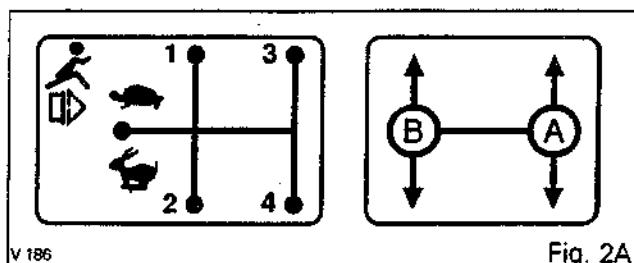


Fig. 2A

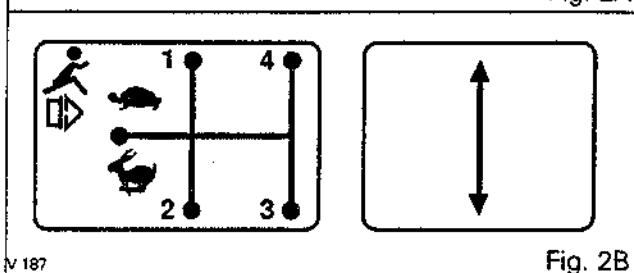


Fig. 2B

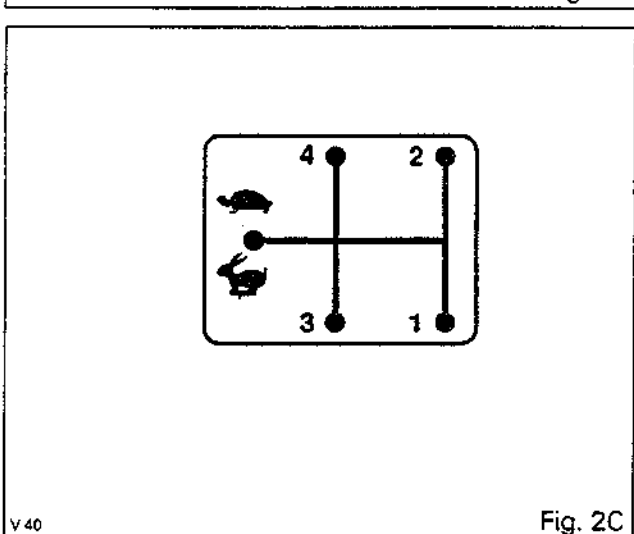


Fig. 2C

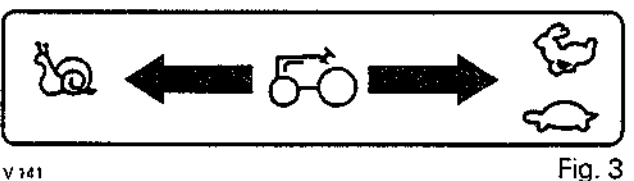


Fig. 3



**DANGER :** When stopping the tractor with engine running

- Place the gear lever (1-2-3-4) in neutral position and put the reverse/forward lever in forward position or reverse position
- Apply the parking brake.

For minimum fuel consumption, place Dynashift lever in position A.



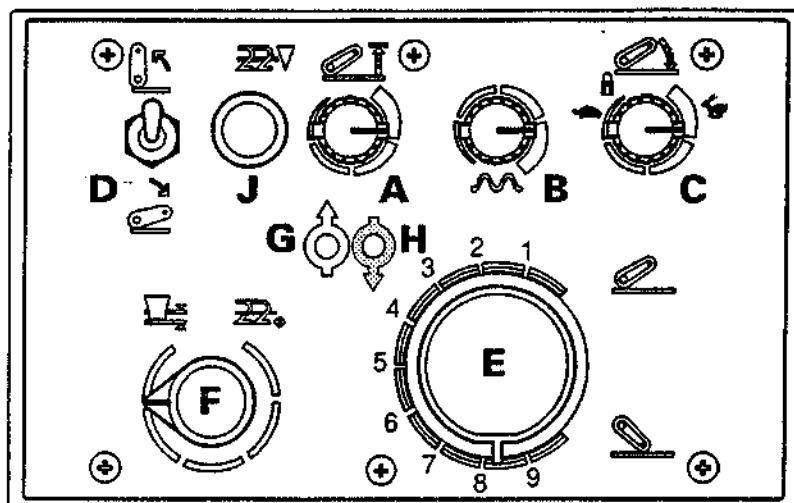
## Transport

Select Position control setting (1) with knob (F) Fig. 21.

Move Lift/lowering switch (D) to "lift".

Adjust the maximum lift height to suit the implement being transported, using the maximum height adjuster (A). Start from the min. position.

Move the lowering speed control knob C to the "locked" position by turning the knob clockwise.



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Fig. 21

**NOTE :** This position prevents any lowering of the implement.

## Field operation

Adjust the working depth using knob (E).

Adjust the lift sensitivity using knob (B).

The lift and lowering warning lights indicate the lift sensitivity.

Using knob (C) adjust a maxi linkage lowering speed according to the implement.

Choose the implement control (Draft Control or Position Control, or a combination of the two), according to the implement, the ground conditions and the type of work, by use of the control selector knob (F).

## Quick soil engagement (Fig. 22)

You can obtain working depth quicker by pressing button J. When you release the button, engagement working depth returns to that set on button E.

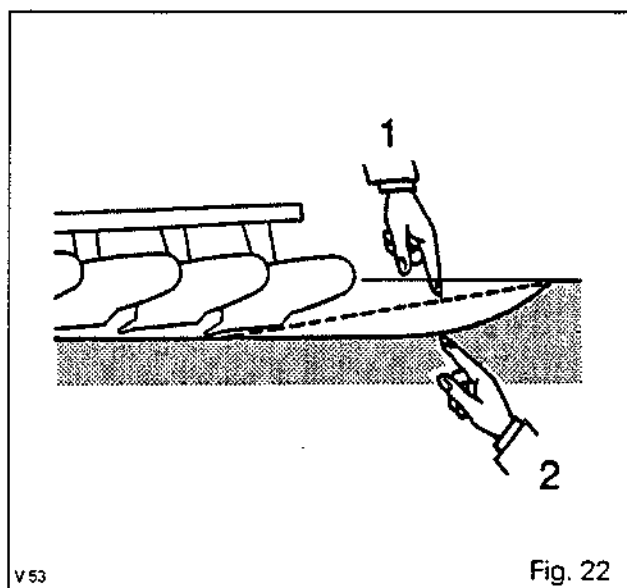
1 : normal engagement

2 : quick soil engagement

Advantages : faster, more precise engagement of furrows.

**NOTE :** When you press the quick soil engagement button, active slip control is deactivated until the button is released.

During rapid soil engagement, keep slip control below 80 % to prevent the implement from lifting, when releasing the button.



V 53

Fig. 22

## Adjustment Draft control/Position/intermix (Fig. 23)

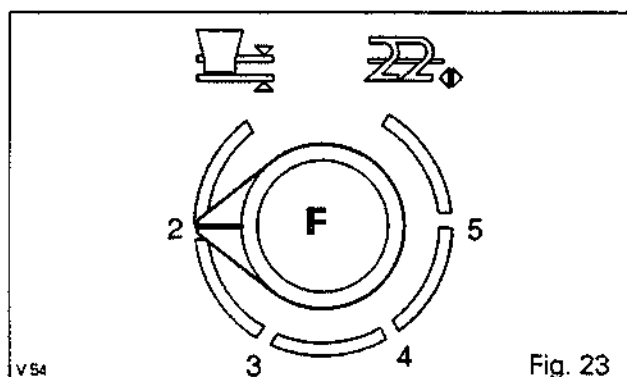
**Subsoiling :** positions 3 or 4.

**Ploughing :** positions 3, 4, 5.

**Chisel :** position 2-3.

**Light tillage :** positions 3 or 4.

**Position control,** where the implement is to be held at a constant height - position 0.



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Fig. 23

### AUTOTRONIC TRANSMISSION CONTROL UNIT

Tractors are fitted with this unit as standard (A non Autotronic version is available in some territories as an option).

The control unit operates on 4 functions of the tractor.

#### 1. Differential lock

A warning light on the instrument panel illuminates when the differential is locked, the Autotronic control disengages the lock:

**A)** When the implement is being raised (Switch D in raising position). The lock reengages when the implement is lowered (Switch D in lowering position). (e.g. when turning on headlands).

**B)** If ground speed exceeds 14 km/h (8.7 mile/h), reengagement does not take place automatically at speeds under 14 km/h. (8.7 mile/h).

**C)** During braking.

**D)** When the hydraulic pressure is too low.

#### 2. Four-wheel-drive

Autotronic functions :

##### **A Starting**

**A1)** When tractor is stationary, with engine running, 4WD is automatically engaged (improved safety) and 4WD warning light comes on.

**A2)** To disengage 4WD, the brake pedals must be operated before pressing the 4WD control button once. The disengagement is effective after that the tractor starts moving.

**A3)** In case of breakdown of the brake switch, the 4WD always stays engaged (safety).

##### **B 4 kph limit**

**B1)** If tractor ground speed is less than 14 KPH (even stationary, with engine running) and the **4WD button is held down for more than 2 seconds** :

- 4WD will not be disengaged if ground speed exceeds 14 KPH. If ground speed drops below 14 KPH, and is then again increased to above this limit, 4WD will remain engaged.

**B2)** If tractor ground speed is below 14 KPH and the **4 WD button is pressed once** :

4WD will be disengaged when ground speed exceeds 14 KPH, but will be re-engaged as soon as ground speed drops below 14 KPH. (reduced tyre wear and fuel consumption).

**B3)** If tractor is being driven at more than 14 KPH and 4WD has been disengaged, it **can be re-engaged by pressing the 4WD control button once**. In this case, 4WD will automatically remain engaged : whether ground speed drops below 14 KPH or returns to more than 14 KPH.

##### **C 5 KPH Limit for four wheel braking**

**C1)** If ground speed is greater than 5 KPH and 4WD is not engaged, it will automatically be engaged as soon as the brake pedals are depressed (increased braking efficiency). The 4WD warning light will come on. 4WD will be disengaged as soon as the brake pedals are released.

**C2)** If ground speed is less than 5 KPH, 4WD will not be engaged when the brakes are applied (except if wheels immobilise).

**C3)** In case of breakdown of the vehicle speed sensor, the 4WD engages and stays engaged (braking safety).

##### **D Reaction with differential lock**

4WD engages as soon as the differential lock is used, but :

- the differential lock is not automatically used when 4WD is engaged.

- 4WD does not disengage when the operator disengages the differential lock.

#### 3. Changing range (Tortoise/Hare)

The Autotronic control performs the following functions :

**A)** It prevents Hare/tortoise range change at a speed in excess of 8 KPH (4,9 mile/h) and tortoise/Hare at a speed in excess of 10 KPH (6,2 mile/h).

**B)** When the engine is started, the gearbox range ratio is the same as that engaged when the engine was stopped.

**C)** If the tractor is fitted with a creeper gearbox, only the "Tortoise" range ratios must be used.

If the gear lever is in high (Hare) position the hare warning light blinks. In this case move the gear lever to low (Tortoise) position.

**Engine protection : The control unit does not allow the Speedshift to change from high to low range if the engine speed is greater than 2400 rpm and the corresponding indicator flashes.**

#### 4. Independent Power Take-Off

The Autotronic control performs the following functions :

**A)** Ensures a graduated clutch engagement to avoid damage to lightweight implements and excessive clutch slip with high inertia implements).

**B)** If the p.t.o. is engaged with the implement locked, the Autotronic control disengages the p.t.o. and the warning light will flash. Move the p.t.o. clutch lever into neutral, to stop the warning light flashing.

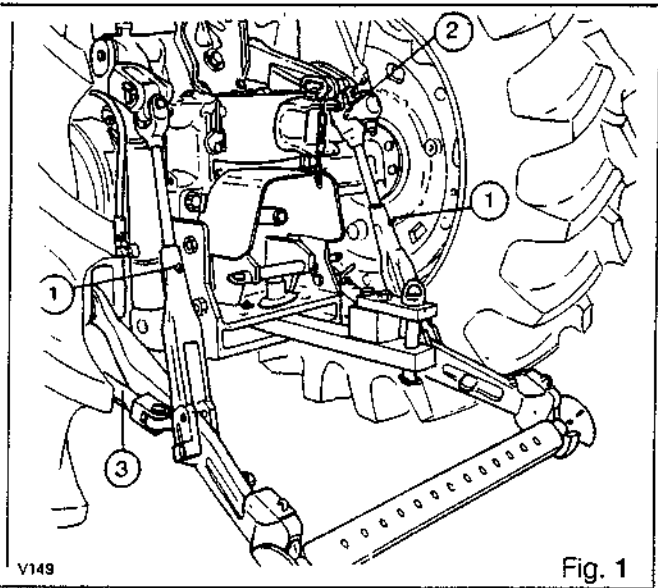
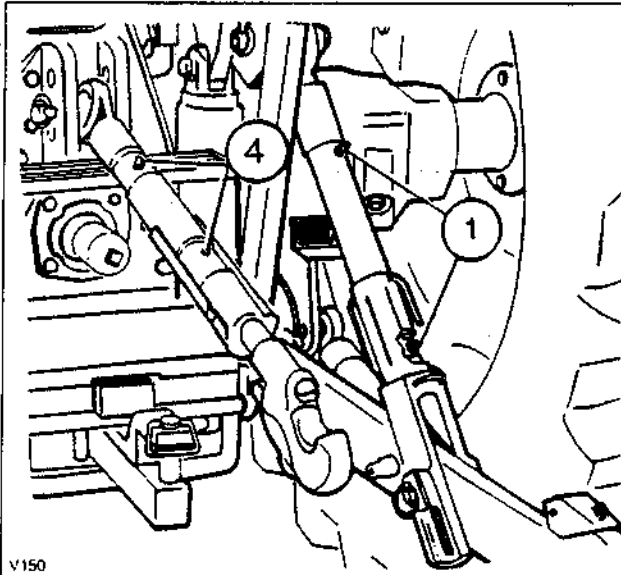


Fig. 1



**CAUTION:** All the maintenance operations must be carried out with the engine stopped, except otherwise specified.

## GREASING

Grease the following

Number of  
grease points

**Every 10 hours or daily :**

- |  |   |
|--|---|
| - lift rods 1 (Fig. 1 ).   | 2 |
| - levelling box 2 (Fig. 1)   | 1 |
| - stabilisers 3 (Fig. 1)   | 2 |
| - four-wheel drive axle pivots (front and rear)<br>(4 WD), (Figs 2 and 3). | 2 |

To allow the grease a better filling of the axle pivots lift the front end of the tractor by placing a jack of suitable power under the support as shown Fig. 2.

- |   |   |
|---|---|
| - front axle pivot pin (2WD) 1 (Fig. 4)   | 2 |
| - stub pivot pins (2WD) 2 (Fig. 4)        | 2 |
| - steering ram pivot pin (2WD) 3 (Fig. 4) | 1 |

**Every 100 hours :**

- Smear the door hinges, the door lock and the window catches with petroleum jelly.

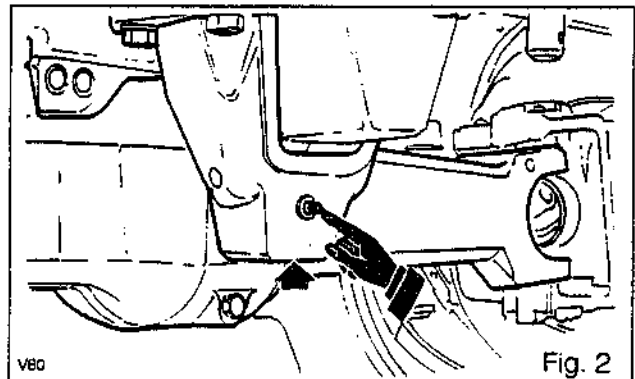


Fig. 2

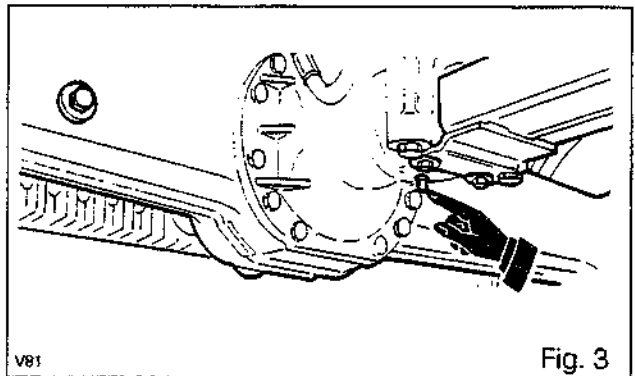


Fig. 3

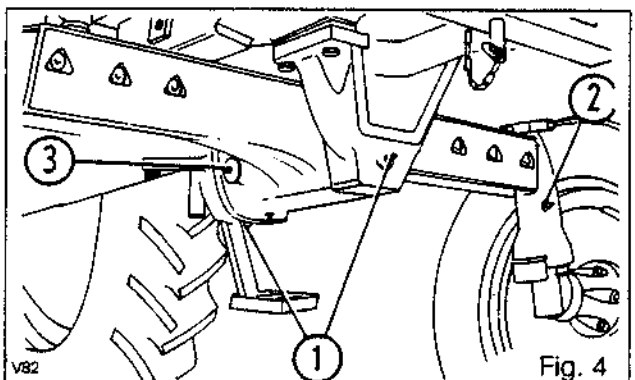


Fig. 4

### FUEL SYSTEM

Treat the fuel system carefully; use clean fuel and service the components at the recommended intervals.

**Fuel filter(s) (4, Fig. 6 and 2 Fig.9).**

**Drain the fuel filter(s) every 100 hours**, by opening the tap(s) to allow water and sediment to run out, close the taps, then operate the fuel lift pump (Fig. 12).

**NOTE:** The pump lever must be moved through its full stroke. If the pump fails to operate, or no resistance is felt at the end of the lever stroke, operate the starter to change the position of the pump control cam.

To avoid water condensing in the fuel tank, refill with fuel at the end of the working day.

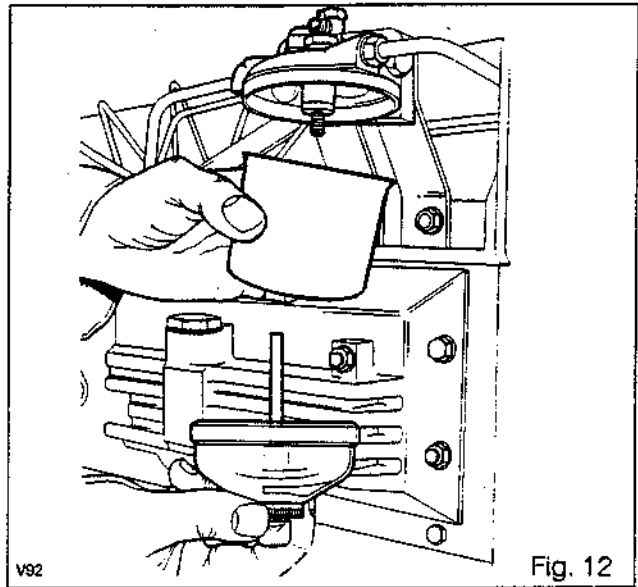


Fig. 12

**Fuel filter element (Fig. 13)**

**Change the fuel filter element(s) every 500 hours**, as follows :

- 1 - clean the outside of the filter assembly.
- 2 - drain the filter(s) by opening the taps(s).
- 3 - remove the centre bolt(s).
- 4 - remove the element(s) and the bowl(s) from the filter head(s).
- 5 - check the condition of the seals and carefully clean the bowl(s).
- 6 - reassemble with new filter element(s).
- 7 - bleed the fuel system.

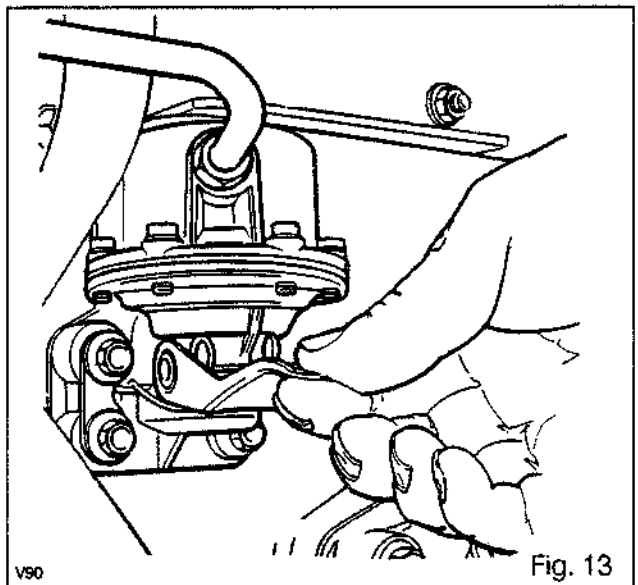


Fig. 13

**Bleeding the fuel system (4 cylinder) (except 3075) (Fig. 14).**

To ensure correct operation, the fuel system must be free of air. If as a result of servicing operations, or running out of fuel, air enters the fuel system, bleed as follows:

- 1 - push the stop knob fully (according models). Slacken the bleed screw 1.
- 2 - operate the fuel lift pump lever until fuel flows through the screw, free of air bubbles.
- 3 - slacken the bleed screw (2) on the fuel injection pump and operate the lift pump lever until fuel free of air runs out. Retighten the screw.

### Operation

Set the tractor to minimum track (Fig. 28)

The use of very wide tyres on dual wheels is not recommended. The most efficient dual wheels arrangement uses two tyres of the same specifications.

1. When fitting twin wheels with tyres of different widths, the wider wheel must be fitted inside.

When fitting twin wheels with tyres of the same width, the tyre which is more worn must be fitted on the outside.

2. It is preferable to use wide tyres or low pressure tyres instead of twin wheels.

**NOTE:** Dual wheels do not double the load capacity of the tractor.

The distance between the tyres must not be less than 100 mm (A Fig. 28). On clay soil, the distance should be increased in proportion to the tyre size.

Example :

13.6.28 - Distance 130 mm (5.12 in)

16.9.38 - Distance 160 mm (6.30 in)

20.8.42 - Distance 200 mm (7.87 in)

### Wheel bolts

Check the tightening torque after the first two hours of use following fitment (the bolts should have been greased) and every day thereafter.

Tyre pressures : 0,2 bar (2.9 lbf/in<sup>2</sup>) less on the outer tyres.

### Tyres pressures :

**Check the tyre pressures** every 100 hours.

Tyre pressures vary according to make type, load and speed.

Refer to the inflation tables for individual tyre manufacturers' recommendations.

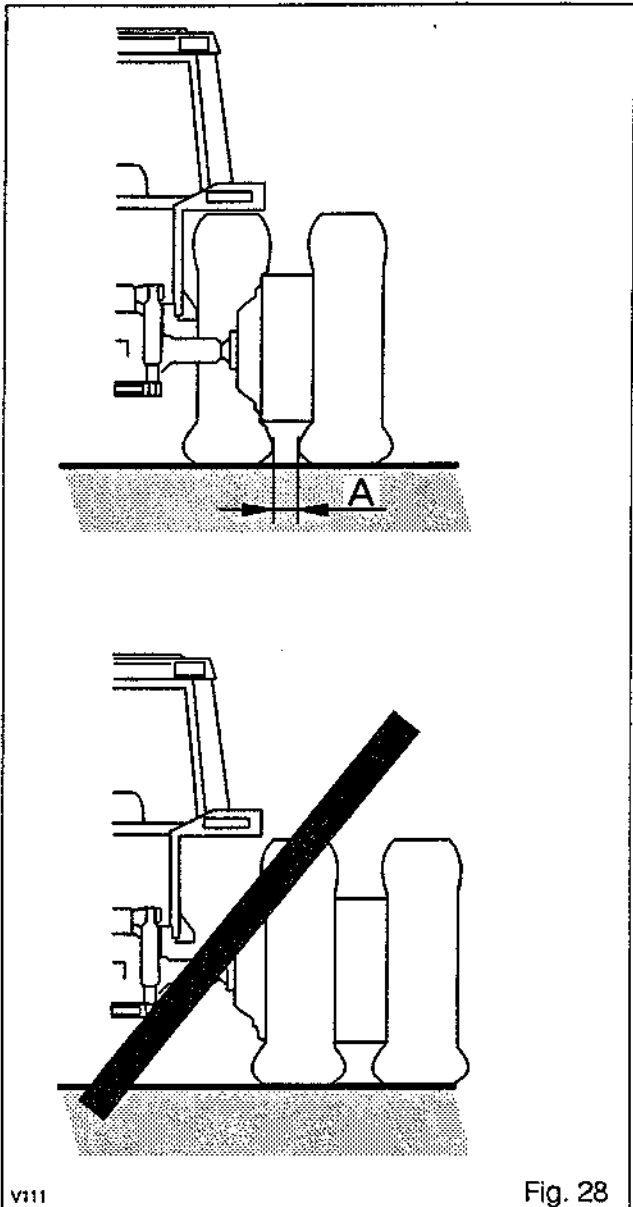
### Liquid ballasting



When preparing a calcium chloride solution for liquid ballasting the tractor tyres, NEVER pour water on to the calcium chloride. Chloride gas is generated which is poisonous and explosive. This can be avoided by slowly adding calcium chloride flakes to water and stirring until they are dissolved.

### Tubeless tyres

As the anti-freeze solution is corrosive, it is recommended that inner tubes be fitted to these tyres before ballasting.



V111

Fig. 28

### Ballast

Steering and braking performance can be considerably affected by attaching implements. To maintain the required ground contact pressure, ensure that the tractor is ballasted correctly. Advice is available from your local Massey Ferguson Dealer.

## MAINTENANCE AND ADJUSTMENTS

### Straight shafts

#### PAVT wheels

Two settings are obtained by :

1. Moving the wheel assembly on the shaft.
2. Setting the PAVT wheels.

#### Fixed cast wheels

Two settings are obtained by :

1. Moving the wheel assembly on the shaft.
2. By inverting the wheel discs.

**NOTE :** When inverting the wheel discs, it may be necessary to remove the tyres and move the tubes so that the valves are positioned in the opposite holes of the rim.

### Settings obtained

Short wheel shafts : 38" rim

WHEEL	MINI		MAXI	
	mm	in	mm	in
PAVT	1572	61.9	2369	93.2

Long wheel shafts : 38" rim

WHEEL	MINI		MAXI	
	mm	in	mm	in
PAVT	1572	61.9	3010	118.5

Tightening torque of rim to disc clamps (PAVT and fixed wheels): See Tightening torque table.



**CAUTION :** The minimum track settings are theoretical and vary according to tyre sizes.

Ensure that there is adequate clearance between the tyres and the inside the fenders.

### Changing the position of the wheel on the shaft (Fig. 34).

Raise the tractor wheel off the ground and chock the front wheels carefully. Remove two of the four disc attaching bolts (1) on the tapered hubs.

Slacken the other two bolts by about five turns.

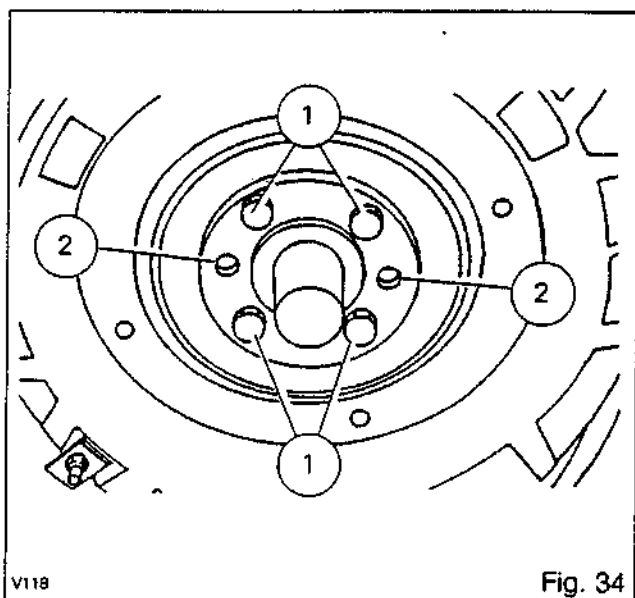
Clean the threads in the holes (2).

Oil the bolts and screw them into the holes (2).

Tighten them until the wheel disc comes off the hub.

Never grease the straight axle before fitting the wheels. This could cause breakage of the PAVT castings when full wheel tightening torque is applied.

**NOTE :** If the hub is difficult to remove, insert a wedge or a cold chisel into the slot to remove the hub.



**WARNING :** Stand clear of the hub when doing this as the tool may jump off.

Remove the two bolts used to remove the wheel hub and replace them in their original position. Tighten the four bolts to the correct torque. See Tightening torque table.

## SPECIFICATIONS

### Engine

Characteristics	3050	3060	3065	3065 S	3075	3085	3095	3120/20T	3125/40
PERKINS Model	A 4.236	A 4.248 .S	AC 4.236	A T4.236	1004-4THR2	1006-6 HR4	1006-6.HR3	1006-6TLR2	1006-6T7
Number of cylinders	4	4	4	4	4	6	6	6	6
Turbocharger	-	-	yes	yes	yes	-	-	yes	yes
Bore, (mm.)	98,47	100,96	98,47	98,47	100	100	100	100	100
Stroke, (mm.)	127	127	127	127	127	127	127	127	127
Cubic capacity (litre)	3860	4060	3860	3860	4000	6000	6000	6000	6000
Maxi. engine power DIN (KW)	52	59	62,5	66,2	69,9	73,5	78,5	88,3	92,5
P.T.O. power DIN (KW)	47	53	57	59,8	64	68	74	82,3	86
At engine speed of rev/min	2200	2200	2200	2200	2200	2200	2000/2200	2200	2200
Maximum torque (Nm)	269	280	319	345	386	403	440	490	474
Engine speed at maximum torque	1400	1400	1400	1400	1200	1200	1200	1400	1200
Idling speed	850	850	850	850	850	850	850	850	850
Maximum rated speed rev/min	2200	2200	2200	2200	2200	2200	2200	2200	2200
Maximum no load speed rev/min	2310	2310	2310	2310	2310	2310	2310	2310	2310
Permissible front P.T.O. power at 2200 rev/min (kW)	All the engine power					75			
Maximum torque									
Lubrication	Gear type pump - strainer on suction side and external canister type filter(s).								
Valves	Overhead, push-rod operated								
Valves clearance (Cold)	0.30 (0.012)				0.20 (0.008)				
- Inlet - mm (in)									
- Exhaust - mm (in)									
Engine oil cooler	no	no	yes	yes	yes	no	no	yes	yes

### Fuel system and air cleaner

	3050	3060	3065	3065 S	3075	3085	3095	3120/20T	3125/40
Lift pump	ACDELCO								
Fuel filter with sediment bowl	CAV								
Number of elements	1							2	
Fuel injection pump	CAV rotary with mechanical governor							Stanadyne	CAV
Injectors and nozzle holders	CAV							Stanadyne	CAV
Cold weather starting	Thermostart								
Air cleaner	Two-stage, dry element, with centrifugal prefilter and blockage indicator.								