

4200 Series Cab Tractor Operator Instruction Book

Tractor Models Applicable:

For cab tractor models:

4225, 4235, 4245, 4255, 4260, 4270.

Serial numbers applicable:

K 27456 onwards.

Manufactured from 2001 onwards.

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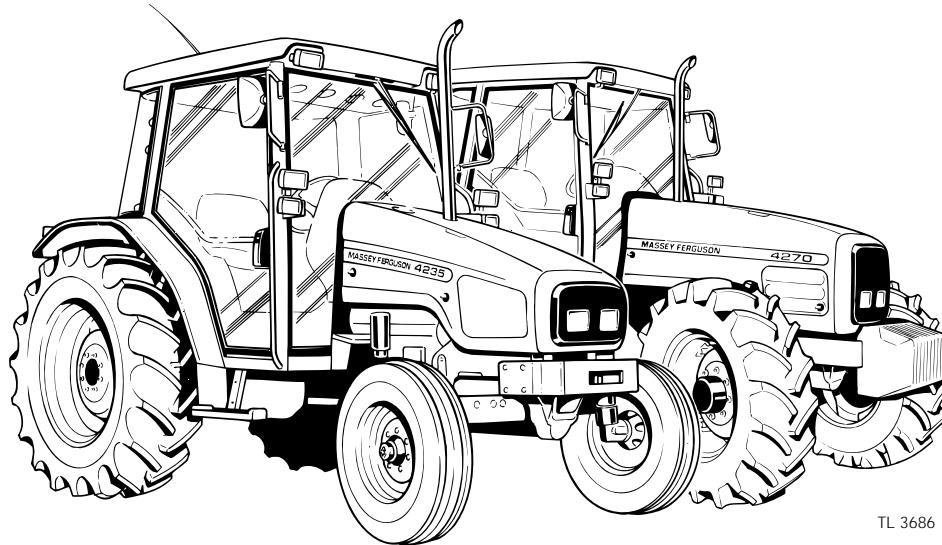
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Tractor Identification

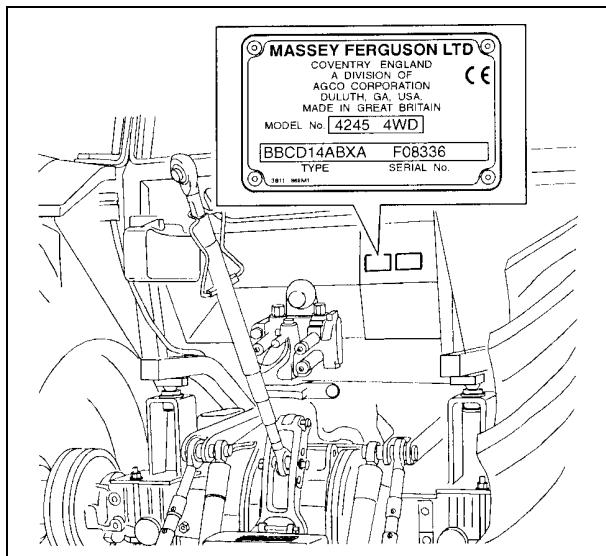


Fig. 1

Serial Numbers

NOTE: Observe the serial numbers of your tractor. Always quote the serial numbers in any communication to your Massey Ferguson Dealer.

Tractor Model:.....

Tractor Serial No. (Fig. 1 and Fig. 2):

Engine Serial No. (Fig. 3):

Four-wheel Drive Front Axle Serial No. (Fig. 4)

Axle Type:

Nearest Massey Ferguson Dealer:

.....

..... Phone:.....

Date of Installation on the Farm:

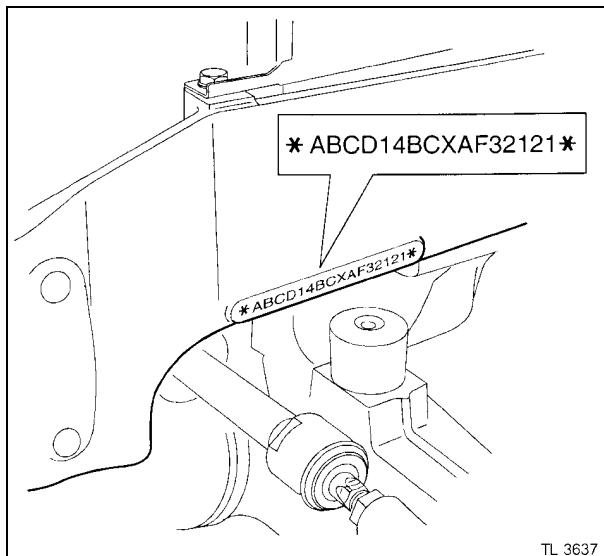


Fig. 2

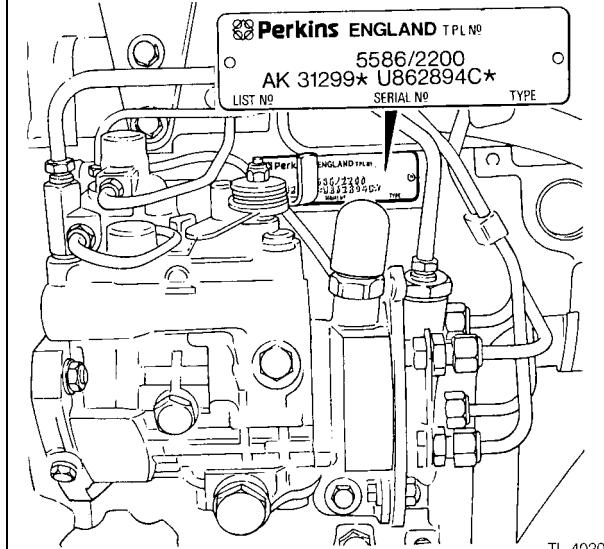


Fig. 3

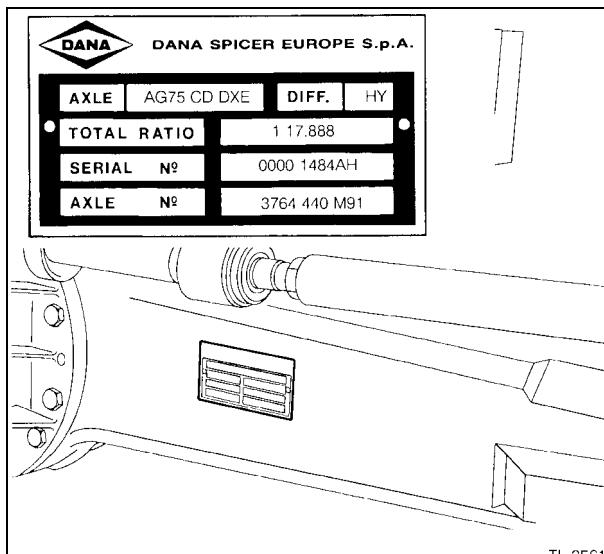


Fig. 4

This publication is written in accordance with International Standard ISO 3600 'Guide to: Information, Content, and Presentation of Operators Manuals Provided for Tractors and Machinery for Agriculture and Forestry'.

Introduction, Warranty and Safety Notes

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Introduction and Warranty

Introduction

NOTE: *This book is published for worldwide distribution, and the availability of equipment shown either as basic or accessory may vary according to the territory in which the tractor is to be operated. Full details of equipment available in your area can be obtained from your Massey Ferguson Dealer. Use only Massey Ferguson approved attachments and equipment.*

The purpose of this book is to enable the owner and driver to operate the tractor in a safe manner. Providing that the instructions are followed carefully, the tractor will give years of service in the tradition of Massey Ferguson.

The installation of the product on the farm by the Dealer gives the opportunity to ensure that these operating and maintenance instructions are understood. Always consult your Dealer if you do not understand any part of this book. It is important that these instructions are understood and observed. Daily maintenance should become a routine, and a record of hours in service should be kept.

When new parts are required it is important that only genuine Massey Ferguson service parts are used. Massey Ferguson Dealers supply genuine parts and can give advice regarding their fitment and use. Extensive damage may occur as a result of the fitment of parts of inferior quality. Customers are advised to buy their service parts only from an authorized Massey Ferguson Dealer.

Owing to wide variations in operating conditions, it is impossible for the Company to make comprehensive or definitive statements in its publications regarding performance or methods of use of its machines, or to accept liability for any loss or damage which may result from these statements, or from any errors or omissions. If the tractor is to be used for abnormal conditions which may be detrimental, (e.g. deep water or paddy fields) consult your Massey Ferguson Dealer for special instructions, or the warranty may be invalidated.

These tractors are designed solely for use in customary agricultural operations (intended use).

Use in any other way is considered as contrary to the intended use. Massey Ferguson accepts no liability for any damage or injury resulting from misuse and these risks must be borne solely by the user.

Compliance with, and strict adherence to, the conditions of operation, service and repair as specified by Massey Ferguson also constitute essential elements for the intended use.

These tractors should be operated, serviced and repaired only by persons familiar with all their particular characteristics and who are acquainted with the relevant safety rules (accident prevention).

Customers are strongly advised to use an official Massey Ferguson Dealer in connection with any service problems and adjustments that may occur.

Pre-delivery, Installation on the Farm and Warranty

The Company, when selling new goods to their Dealers, gives a warranty which, subject to certain conditions, guarantees that the goods are free from defects in material and workmanship. Since this book is published for worldwide circulation, it is impossible to detail the exact terms and conditions of warranty that apply to a retail customer in any particular country. Purchasers of new Massey Ferguson equipment should request full details from their supplying Dealer.

In accordance with the Company's policy of continuous improvement to its machines, alterations in the specifications of machines may be made at any time without notice. The Company accepts no responsibility for discrepancies which may occur between the specifications of its machines and the descriptions thereof contained in its publications.

Pre-delivery and Installation on the Farm

A Dealer is required to carry out certain activities when supplying a new Massey Ferguson tractor. These consist of a full pre-delivery inspection to ensure that the tractor supplied is ready for immediate use, and to give full instruction in the basic principles of operation and maintenance of the tractor. These instructions will cover instruments and controls, routine maintenance and safety precautions. All persons who will be concerned with the operation and maintenance of the machine should be present during this instruction period.

NOTE: *Massey Ferguson will not accept responsibility for any claim resulting from the fitment of non-approved parts or attachments, or unauthorized modification or alteration.*

Warranty Procedure

Correct installation on the farm, coupled with regular maintenance, will do much to prevent breakdowns. If, however, operating trouble is experienced during the warranty period, the following procedure must be adopted:-

- Immediately notify the Dealer from whom you purchased the tractor, quoting the Model and Serial Number. It is most important that there should be no delay, and you should realise that, even where the original failure is covered by warranty, if the failure is not repaired immediately, warranty cover may not apply.
- Provide your Dealer with as much background information as you can. It will help him to know how many hours service has been achieved, the type of work on which you are engaged and the symptoms of the trouble.

It should be noted that normal maintenance services such as tuning, brake/clutch adjustments, and the supply of materials used to service the tractor (oil, filters, fuel and antifreeze) are not covered by the terms of warranty.

Introduction and Warranty

Parts Warning

The fitment of non Massey Ferguson parts may result in a part of substandard quality being used. Massey Ferguson will not take the responsibility for any loss, damage or liability resulting from the fitment of such parts, and, if fitted during the normal warranty period the manufacturer's guarantee may be invalidated.

Moving to a new Location

Only the Massey Ferguson Dealer from whom you purchased the tractor is responsible for the protection afforded by your warranty and, where possible, you should always take your tractor to him for repair. If, however, you move to another area or if your tractor should be working temporarily at some distance from the Dealer from whom it was purchased, you are recommended to obtain from that Dealer the name and address of the Massey Ferguson Dealer nearest to your new location and to ask for arrangements to be made for outstanding service warranty commitments to be transferred to the latter. If you have left the area in which the original Dealer operates and have not made arrangements with a new Dealer, the latter will readily provide assistance in an emergency but you will be charged at normal rates for any work undertaken unless:

- You make it clear that the warranty has not expired,
and
- You give the repairing Dealer the opportunity to make suitable arrangements with the retailing Dealer.

Service After Warranty

During the warranty period, you should have all your repairs and maintenance performed by your Massey Ferguson Dealer. This ensures that a detailed check is kept on the progress and performance of your new tractor.

In order to obtain the best results from your Massey Ferguson tractor, it is important that regular maintenance and service checks continue after the warranty period has expired. Make use of your local Massey Ferguson Dealer for all major tractor services; a trained mechanic will spot any problems between one service and the next.

The mechanics are regularly trained and updated on the product, servicing techniques and the use of modern service tools and diagnostic equipment. They receive regular Service Bulletins, have all Workshop Manuals and other such technical information to ensure that the repair or service is to the standard required by Massey Ferguson.

Safety

The safety of the operator is one of the main concerns in designing and developing a new tractor. Designers incorporate as many safety features as is possible in constructing our tractors. However, every year many accidents occur which could have been avoided by a few seconds thought and a more careful approach to handling farm machinery and implements.

Read and practice the safety instructions detailed in the next section of this book.



WARNING: In some of the illustrations used in this Operator Instruction Book, panels or guards may have been removed for clarity. Never operate the tractor without these components in position. If the removal of panels or guards is necessary to make a repair, they MUST be replaced before operation.

EU Declaration of Conformity

Massey Ferguson tractors conform with the protection requirements relating to Electromagnetic Compatibility.

Tractor and Machine Noise

The Massey Ferguson range of 4200 series tractors meet the sound level requirements in accordance with Directive 77/311 ECC Annex 1, with cab doors and windows closed.

Safety Notes

Safety Alert Symbol and Terms

This safety alert symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



The safety alert symbol identifies important safety messages on machines, safety signs, in manuals, or elsewhere.

When you see this symbol, be alert to the possibility of personal injury or death.

Follow the instructions in the safety message.

Why is SAFETY important to you?

★ ACCIDENTS DISABLE and KILL ★

★ ACCIDENTS are COSTLY ★

★ ACCIDENTS can be AVOIDED ★

Tractor and Implement Safety

The tractor is a source of power - Mechanical and Hydraulic.

On its own, the tractor is of little practical value. Only when used in conjunction with an implement or other attachment does it become a working unit.

This instruction book is compiled to cover those safe working practices that are associated with the base tractor operation.

It does not cover all operation and safety instructions relevant to all known implements and attachments that may be fitted at the time of tractor delivery or at some future date.

It is essential that operators use and understand the relevant instruction manual of such implements and attachments.

Introduction to Safety

This safety section of your Operator Instruction Book is intended to point out some of the basic safety situations which may be encountered during the normal operation and maintenance of your FOOTSTEP (ROPS) or CAB tractor, and to suggest possible ways of dealing with these situations. This section is **NOT** a replacement for other safety practices featured in other sections of this book.

Additional precautions may be necessary, depending on attachments used and conditions at the work site or in the service area. Massey Ferguson has no direct control over tractor application, operation, inspection, lubrication, or maintenance. Therefore it is **YOUR** responsibility to use good safety practices in these areas.

A Word to the Operator

It is **YOUR** responsibility to read and understand the safety section in this book before operating your tractor. You must follow these safety instructions that take you step by step through your working day.

In reading this section, you will note that illustrations have been used to highlight certain situations. Each illustration is numbered and the same number appears in the text in parenthesis. This number is placed at the end of the written text that refers to the illustration.

Remember that **YOU** are the key to safety. Good safety practices not only protect you, but also the people around you. Study the features in this manual and make them a working part of your safety programme. Keep in mind that this safety section is written only for this type of machine. Practice all other usual and customary safe working precautions, and above all - **REMEMBER - SAFETY IS YOUR RESPONSIBILITY. YOU CAN PREVENT SERIOUS INJURY OR DEATH.**

Use only AGCO - Massey Ferguson approved attachments and equipment.

Danger, Warning and Caution

Whenever you see the words and symbols shown below, used in this book and on decals, you **MUST** take note of their instructions as they relate to personal safety.



DANGER: *This symbol together with the word DANGER indicates an imminently hazardous situation that, if not avoided, will result in DEATH OR VERY SERIOUS INJURY.*



WARNING: *This symbol together with the word WARNING indicates a potentially hazardous situation that if not avoided could result in DEATH or SERIOUS INJURY.*



CAUTION: *This symbol together with the word CAUTION is used to indicate a potentially hazardous situation that, if not avoided, may result in MINOR INJURY.*

IMPORTANT: The word **IMPORTANT** is used to identify special instructions or procedures which, if not strictly observed, could result in damage to, or destruction of the machine, process or its surroundings.

NOTE: The word **NOTE** is used to indicate points of particular interest for more efficient and convenient repair or operation.

Decals



WARNING: *DO NOT remove or obscure Danger, Warning, Caution or Instruction Decals. Replace any Danger, Warning, Caution or Instruction Decals that are not readable or are missing. Replacement decals are available from your Dealer in the event of loss or damage. The actual location of these Safety Decals is illustrated at the end of this section.*

If a used tractor has been purchased, refer to the illustrations at the end of this section to ensure that all the safety warning decals are in the correct position and are readable.

Follow a Safety Programme

For Safe Operation

For safe operation of an agricultural tractor, you must be a qualified and authorized operator. To be qualified you must understand the written instructions supplied in this Operator Instruction Book, have training, and know the safety rules and regulations for the job.

Some regulations specify that no one under the age of 16 years, for example, may operate power machinery. This includes tractors. It is your responsibility to know what these regulations are, and obey them, in the operating area or situation.

These will include, but are not limited to, the following instructions for safe tractor operation.



WARNING: *An operator should not use alcohol or drugs which can affect his alertness or co-ordination. An operator on prescription or 'over the counter' drugs needs medical advice on whether or not he or she can safely operate machines.*

Observe the Following

- DO NOT allow children or unqualified persons to operate your tractor. Keep others away from your area of work.
- Securely fasten your seat belt when the tractor has a ROPS (Roll Over Protective Structure) frame in the upright position or is fitted with a cab.
- Where possible, avoid operating the tractor near ditches, embankments and holes. Reduce speed when turning, crossing slopes, and on rough, slippery, or muddy surfaces.
- Stay off slopes too steep for safe operation.
- Watch where you are going, especially at row ends, on roads, and around trees.
- DO NOT permit others to ride on the tractor or the implement unless an approved passenger seat and seat belt is fitted.
- Hitch only to the drawbar and hitch points recommended, and never above the centre line of the rear axle.
- Operate the tractor smoothly - no jerky turns, starts or stops. When the tractor is stopped, apply the parking brake securely. Lower the implement and remove the key.
- DO NOT modify or remove any part of the equipment and DO NOT use attachments unless they are properly matched to your tractor.

Safety Notes

Protective Structures

Roll Over Protective Structures

A Roll Over Protective Structure (ROPS) and seat belt is fitted as standard equipment to the footstep tractor at the time of factory assembly. If the ROPS was removed 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 (Fig. 5).

If a fold down ROPS is installed **DO NOT** wear seat belt when the ROPS is 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 afterwards 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 except when operating with a folded down ROPS.
- Check the seat belt for damage. A damaged seat belt must be replaced (Fig. 6).

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 replaced 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.

Cab

The safety cab has been designed for fitment to this series of tractor and meets all the legal requirements of cab safety and noise levels.

The safety cab conforms to the various international safety standards. The cab must **NEVER** be drilled, or modified to install accessories or implements. Welding components to the cab or repairing damaged components is **NOT PERMITTED**. **DO NOT** attach chains or ropes to the main frame of the cab for pulling purposes.

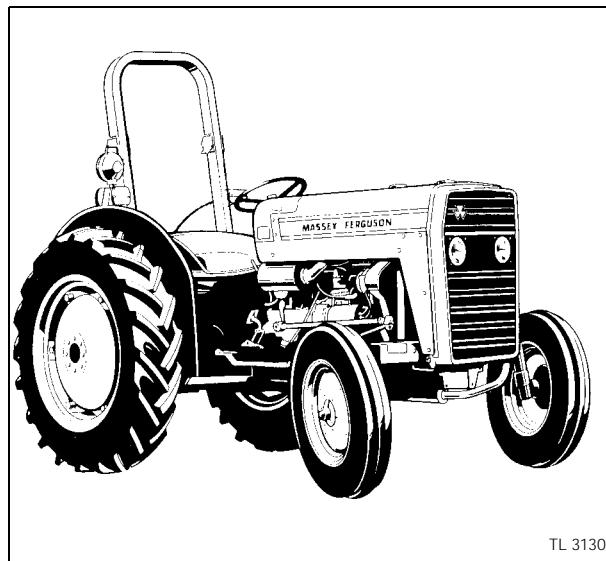


Fig. 5

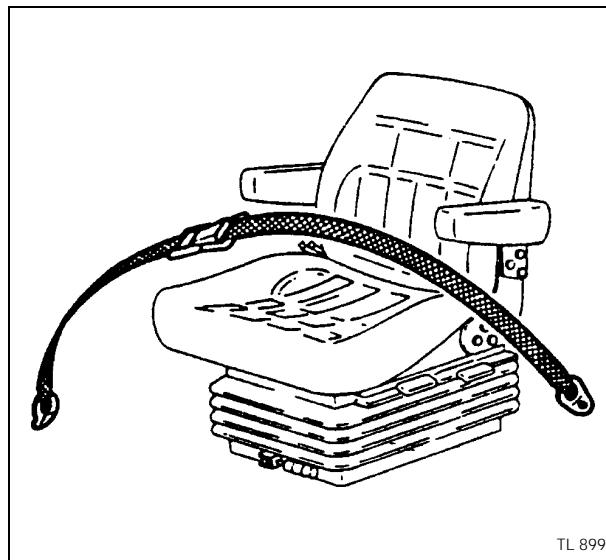


Fig. 6

If additional controls or displays are to be added to the operator's area contact your Massey Ferguson Dealer for information as to how this can best be done.

The ROPS cab together with the seat belt is effective in reducing injuries during overturn accidents. Wearing the seat belt is an important part of this protection.

- Always wear your seat belt - adjusted snugly.
- Check the seat belt for damage. A damaged seat belt must be replaced (Fig. 6).

Prepare for Safe Operation

Protect Yourself

Wear all the protective clothing and personal safety devices issued to you or called for by job conditions. Don't take chances (Fig. 7).

You may need:

- A hard hat.
- Safety glasses, goggles, or face shield.
- Hearing protection.
- Respirator or filter mask.
- Foul weather clothing.
- Reflective clothing.
- Heavy gloves (neoprene for chemicals, leather for rough work).
- Safety boots.

DO NOT wear loose clothing, jewellery or other items and tie up long hair which could entangle in controls or other parts of the tractor.

Note where fire extinguishers and first-aid or emergency equipment is kept and get to know where to find help in a hurry. Make sure you know how to use this equipment (Fig. 8).

Know Your Equipment

Know your tractor. Know how to operate all equipment on your machine and the implements and attachments used with it. Know the purpose of all the controls, gauges and dials. Know the rated load capacity, speed range, braking and steering characteristics, turning radius, and operating clearances.

Keep in mind that rain, snow, ice, loose gravel, soft ground, etc. can change the way your tractor operates.

Under poor conditions, slow down and be extra careful, engage four-wheel drive, if fitted.

Study the **DANGER**, **WARNING**, or **CAUTION** safety signs on your tractor and the information signs also.

READ THIS OPERATOR INSTRUCTION BOOK BEFORE STARTING THE ENGINE.

STUDY IT BEFORE YOU START WORK (Fig. 9).

IF THERE IS SOMETHING IN THE MANUAL YOU DON'T UNDERSTAND, ASK SOMEONE (such as your equipment Dealer) **TO EXPLAIN IT TO YOU.**

IMPORTANT: *This manual covers general safe practices for agricultural tractors. It must always be kept with the tractor. For further copies contact your Massey Ferguson Dealer.*

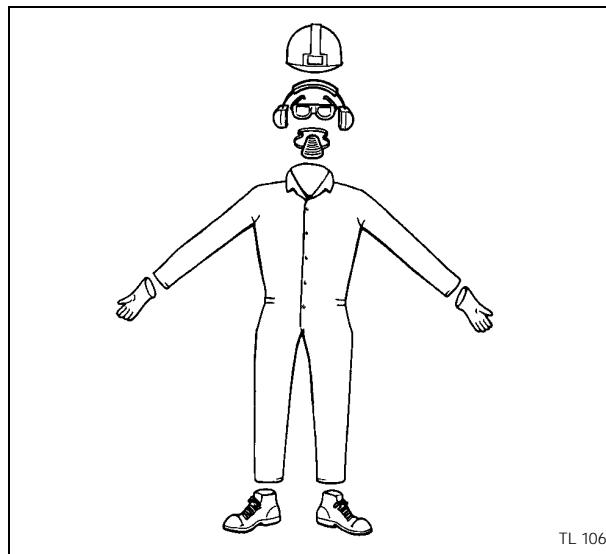


Fig. 7



Fig. 8

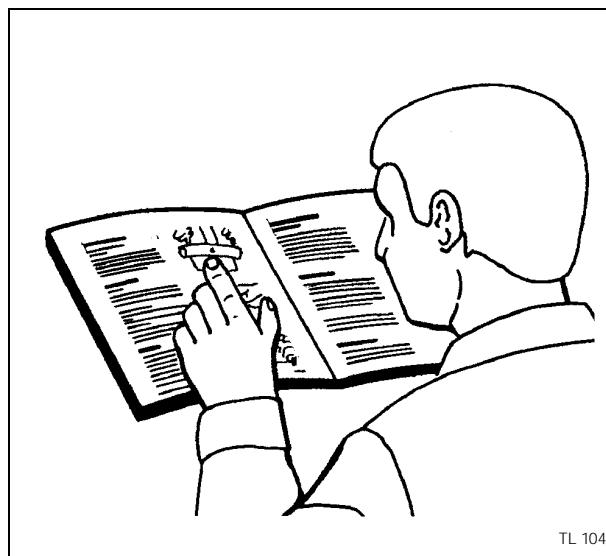


Fig. 9

Safety Notes

Use all Available Protective and Safety Devices

Keep all protective devices in place and securely fastened. Make certain all guards, shields and safety signs are properly installed, as specified, and are in good condition.

To help keep you and others around you safe, your tractor must be equipped with:

- Roll Over Protective Structure (ROPS), and seat belt.
- Tractor PTO shield.

Your tractor may also need:

- Rear view mirror.
- Fire extinguisher.
- ROPS, FOPS (Falling Object Protective Structure), protective enclosure or protective screens (Fig. 10). Remember FOPS are protection from light falling objects and are not intended as protection from large falling objects such as large round bales or fence rails.
- SMV (slow moving vehicle) emblem, additional safety guards, lights or decals and a back up alarm.

Know which devices are required for safe operation of your tractor. Use them. Make sure they are in place and in good condition. **DO NOT** remove or disconnect any safety device.

Check the Equipment

Before you begin your working day, take time to check your tractor and ensure that all systems are in good operational condition.

- **DO NOT** smoke while refuelling the tractor. Keep any type of open flame away (Fig. 11).
- Stop the engine and wait for it to cool before refuelling.
- Check for loose, broken, missing, or damaged parts. Have everything put into good repair. Make certain all safety devices are in place.
- Check ROPS and seat belt for damage. A damaged ROPS or seat belt (see Fig. 6) **MUST** be replaced.
- Ensure that implements and attachments are properly installed and that the tractor and implement PTO rev/min ratings match.
- Check the tyres for cuts, bulges and correct pressure. Replace worn or damaged tyres.
- Check the engine oil level and add oil if required.
- Perform all maintenance procedures outlined in the maintenance and adjustment section of this manual.
- Check foot and parking brakes for proper operation, adjust if necessary.

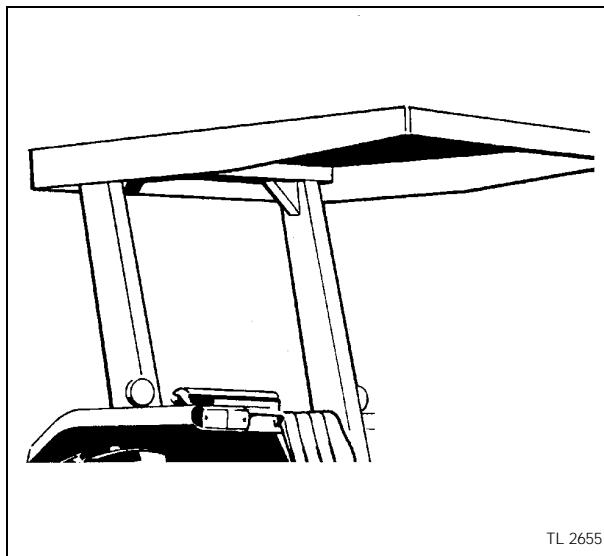


Fig. 10

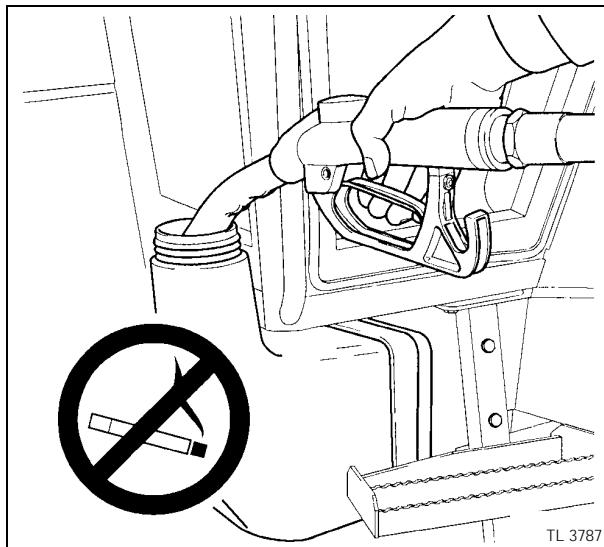


Fig. 11

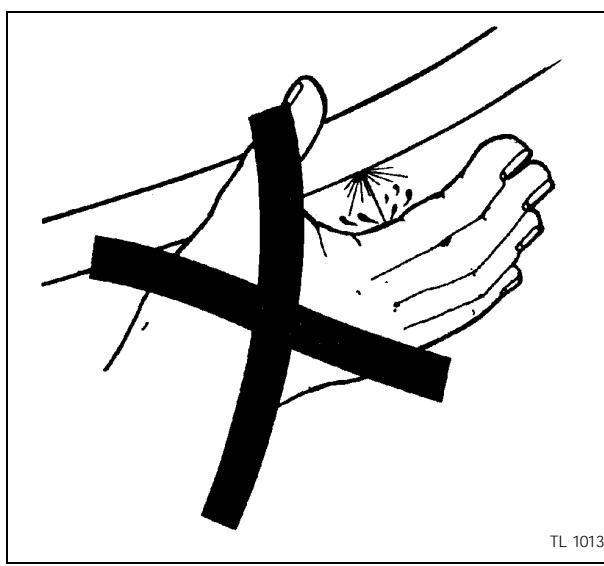


Fig. 12

- Check that the PTO driveline locking devices are latched.
- Check that the tractor PTO shield and driveline guards are in place and operating properly.
- Check the tractor and implement hydraulic system. Have any leaks or damaged parts repaired or replaced.

! **WARNING:** Diesel fuel or hydraulic fluid under pressure can penetrate the skin or eyes and cause serious personal injury, blindness or death. Fluid leaks, under pressure, may not be visible. Use a piece of cardboard or wood to find leaks. DO NOT use your bare hand. Wear safety goggles for eye protection. If any fluid is injected into the skin, it MUST be surgically removed within a few hours by a doctor familiar with this type of injury (see Fig. 12).

Before applying pressure to the fuel or hydraulic system, be sure all connections are tight and that lines, pipes, and hoses are not damaged. Before disconnecting fuel or hydraulic lines, be sure to relieve all pressure.

Make sure that all hydraulic lines are correctly installed and not crossed.

! **WARNING:** Liquid cooling systems build up pressure as the engine gets hot. Before removing the radiator cap, stop the engine and let the system cool.

▲ **Check the engine cooling system and add coolant as required.**

Clean the Tractor

- Keep work surfaces and engine compartments clean.
- Before cleaning the machine, always lower implements to the ground, place transmission in neutral, engage the parking brake, shut off the engine and remove the key.
- Clean steps, pedals and floor. Remove grease or oil. Brush away dust or mud. In winter, scrape away snow and ice. Remember - slippery surfaces are dangerous.
- Remove or put away tools, buckets, chains and hooks.

Protect the Environment

- It is illegal to pollute drains, water courses or soil. Use authorised waste disposal facilities, including civic amenity sites and garages providing facilities for disposal of used oil. If in doubt, contact your local authority for advice.

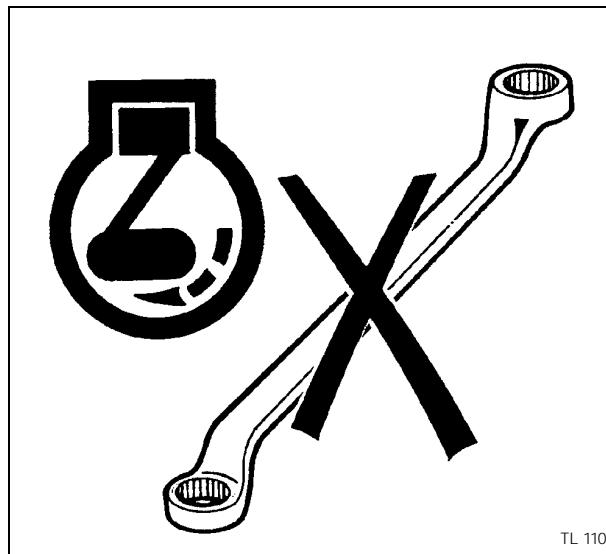


Fig. 13

Servicing the Tractor

- DO NOT service the tractor while the engine is running or hot, or if the tractor is in motion (Fig. 13).
- Before making adjustments to, or servicing the electrical system, disconnect the battery negative (-) cable first.
- To prevent fires or explosions keep open flame away from the battery or cold weather starting aids. To prevent sparks which could cause explosions use jump cables according to instructions.
- When making repairs or adjustments it is recommended that you consult your Massey Ferguson Dealer, and have the work carried out by trained personnel.
- The implement and/or tractor must be supported on suitable wooden blocks or stands. NOT a hydraulic jack.
- Check all nuts and bolts periodically for tightness, especially wheel hub and rim nuts. Tighten to the prescribed torque values.
- Check the brakes regularly, top up the reservoir and/or adjust where necessary. Make sure that the brakes are evenly adjusted, especially when using a trailer.

Safety Notes

Starting

Warn Personnel before Starting

Before starting, walk completely around the tractor and any attached equipment. Make sure that no one is under it, on it, or close to it. Let other workers and bystanders know you are starting up and don't start until everyone is clear of the tractor, implements and towed equipment.

Ensure that all bystanders, **particularly children**, are a suitable distance away before starting the engine.

Mount and Dismount Safely

Always use 'three point contact' with the machine, and face the machine when you mount it. (Three point contact means both hands and one foot or one hand and both feet are in contact with the machine at all times during mounting and dismounting).

Clean your shoes and wipe your hands before climbing on. Use handrails, grab handles, ladders or steps (as provided) when mounting or dismounting.

DO NOT use control levers as a hand hold and never step on foot controls when mounting or dismounting.

DO NOT attempt to mount or dismount from a moving tractor. **DO NOT** jump off a tractor other than in an emergency.

Start Safely



WARNING: *Before starting the engine make sure there is plenty of ventilation. DO NOT operate the engine in a closed building. The exhaust fumes may cause asphyxiation.*

Always start the engine from the operator's seat with all the transmission levers and the PTO lever in neutral.

Make sure that the tractor's dual brake pedals are locked together at all times unless you are making turns in the field which require independent use of the brakes. Make sure the brakes are properly adjusted so that both brakes engage at the same time.

Adjust the seat, fasten the seat belt, apply the parking brake and put all controls in neutral before starting up.



DANGER: *Start the engine, with the starter key, from the operator's seat only. DO NOT attempt to start the engine by shorting across the starter terminals. The machine will start in gear if the neutral start circuit is bypassed. This could cause serious injury or death to anyone in the vicinity of the tractor (Fig. 14). Ensure that the engine starter solenoid cover is always in position.*

Follow Recommended Starting Procedures

Follow the starting procedures recommended in the Operation section of this Operator Instruction Book. This includes normal starting, cold starting, and the use of starting fluids.



Fig. 14

Test the Controls

After starting, re-check all gauges and lights. Make sure everything is functioning correctly. If the tractor does not respond correctly when each control is operated, **DO NOT** use the machine until the fault is rectified.

Starting Fluid

WARNING: *DO NOT use aerosol cans of starting aid on tractors with the thermostart connected to the electrical system. Ether combined with thermostart can cause an explosion with damage to engine, personal injury, or both.*

Your tractor has been fitted with a thermostart cold starting device. If aerosol cans of starting fluid, or ether start-aid, are to be used the thermostart must be disconnected. Remove the wire from the thermostart unit which will be found on the induction manifold. Tape the end of the wire to prevent an electrical short circuit.

Handle starting fluid as directed by the manufacturer. Starting fluid must only be used when an ether-start aid is fitted as original equipment by the manufacturer or when installed by a Dealer as an accessory. In cases of tractors being fitted with glow plugs or thermostart, these must be removed prior to the installation of an ether start-aid (Fig. 15).



Fig. 15

Work Safely

WARNING: *An unbalanced tractor could overturn and cause injury or death. Make sure front frame counterweights, wheel weights and wheel ballast are used as recommended by the manufacturer. DO NOT add extra counterweights to compensate for an overloaded tractor, it is recommended to reduce the load. Keep all parts of your body inside the operator's compartment while operating the tractor.*

Making the Right Moves

Make sure your tractor is ready for the job it must do. Know the rated load capacities of your tractor and never exceed them. Be certain that any equipment or implements you intend to use DO NOT exceed the load rating of your tractor. Be sure the tractor and implement PTO speed match.

Keep in mind that tractors normally operate on uneven, unpaved, and often bumpy or sloping surfaces. Operating conditions can reduce the amount of weight you should carry or pull.



Fig. 16

Follow Safe Operating Practices

- Operate the controls smoothly - don't jerk the steering wheel or other controls.
- DO NOT get on or off a moving tractor. Keep a firm grip on the steering wheel at all times, with the thumbs clear of the spokes when driving the tractor.
- Make sure you have adequate clearance in all directions for tractor, cab, ROPS and implement.
- DO NOT play games with a tractor or equipment. Use only for intended purpose.

- DO NOT attempt to work the controls except from the operator's seat.
- DO NOT carry passengers (Fig. 16).
- Before dismounting, always disengage the PTO, lower all attachments and implements to the ground, place the tractor in neutral, engage parking brake, shut off the engine and remove the key.

DO NOT touch, lean on, or reach through any implement mechanism or permit others to do so.

Stay alert. Should something break, come loose, or fail to operate on your equipment, stop work, lower equipment to the ground, shut off the engine, inspect the machine and have repairs or adjustments made before resuming operation.

Safety Notes

Watch out for Others

- Be aware of what is going on. DO NOT 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. DO NOT permit others to ride on the tractor or the implement (see Fig. 16). In some territories a passenger seat must be fitted to carry passengers. DO NOT allow anyone to ride on the implements or other equipment including trailers, except on certain harvesting equipment, specifically designed for riders during the actual harvest operation only (not during transport). Such equipment must have provision for a safe riding area. DO NOT allow children on the tractor.*

- 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.
- DO NOT lift a load over anyone.
- Keep others away from your operation. DO NOT allow anyone to stand or pass under a raised implement (Fig. 17).
- DO NOT lift objects that can not be contained in the bucket, get the appropriate attachment. DO NOT allow anyone to stand on the ROPS or fenders.
- When using a loader, avoid sudden stops, starts, turns, or change of direction. Keep loads close to the ground when transporting.
- DO NOT stand (or allow anyone else to stand) in front of, under, or behind loaded or loading equipment. DO NOT drive a tractor up to someone standing in front of a fixed object.
- Keep others away from universal joints, hitches, drawbar, lift arms, PTO drives, cylinders, belts, pulleys, and other moving parts. Keep all shields and guards in place.

⚠ WARNING: *DO NOT 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, the key is removed, and all attachments or implements are lowered to the ground.*

Risk of Overturning

For your safety, it is strongly recommended that all footstep tractors are fitted with Roll Over Protective Structures (ROPS) and seat belts (Fig. 18).

In the event of an overturn with a tractor fitted with a cab or ROPS, hold the steering wheel firmly and DO NOT attempt to leave the seat until the tractor has come to rest. If the doors of the cab are obstructed, leave through the rear window or the roof hatch.



Fig. 17

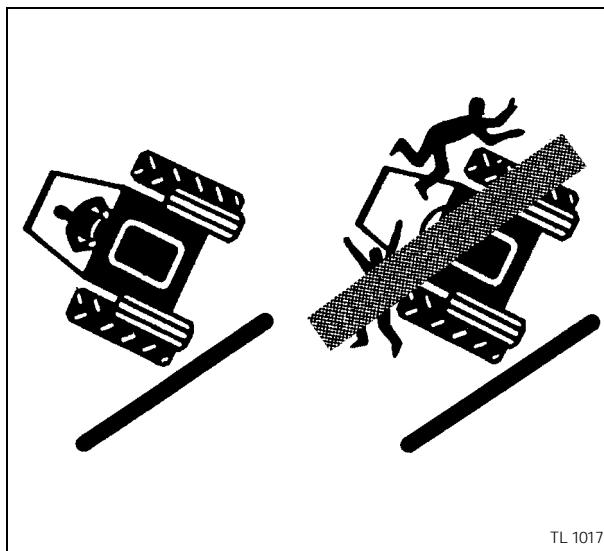


Fig. 18

To Avoid Side Overturns

- Set the wheel track at the widest setting suitable for the job being done.
- Lock the brake pedals together before driving at transport speeds.
- Reduce speed to match operating conditions. If the tractor is equipped with a front-end loader, carry the bucket and load as low as possible.
- Make wide slow turns at reduced speed. Don't let your tractor bounce. You may lose steering control.
- Don't pull a load too heavy for your tractor. It could run away on the down slope or the tractor could jackknife around a towed load.
- Don't brake suddenly. Apply brakes smoothly and gradually.

- When going down a slope, use the throttle to slow the tractor engine and use the same gear range you would use to go up the slope. Shift into gear before you start downhill.
- Engage four-wheel drive (if fitted), this will give four-wheel braking.



WARNING: DO NOT disengage the clutch or attempt to shift gear after you have started downhill.

- It is less likely that the tractor will overturn if you travel straight up or down a steep slope rather than across it.
- Avoid crossing steep slopes if possible. If you must do so, avoid any holes or depressions on the downhill side. Avoid any stumps, rocks, bumps or raised areas on the uphill side. When operating near ditches and banks, always keep your tractor behind the shear line (A, Fig. 19). Avoid ditches, embankments and river-banks which might cave in.
- If it is necessary to cross a steep slope, avoid turning uphill, slow down and make a wide turn. Travel directly up or down the slope, never across it. When travelling up or down a slope, keep the heavy end of the tractor on the uphill side.
- If when travelling across a slope with side mounted implements, keep the implement on the uphill side. Do not raise the implements. Keep them as low to the ground as possible when crossing a slope.
- When towing a load at transport speed or in the field, lock the drawbar in the centre position and use a safety chain.
- DO NOT use your tractor to round up farm animals.

To Avoid Rear Overturns



WARNING: Hitching to the rear axle, or any other point above the swinging drawbar, can cause a rear overturn.

- DO NOT pull anything using the top link connection, or from any point above the centre line of the rear axle. Always use an approved Massey Ferguson drawbar, and only use a drawbar pin that locks in place.
- High hitching can cause rear overturn, which may cause serious injury or death. Hitch loads to the drawbar only.
- Only use a three-point linkage drawbar when stays are fitted to keep it in the down position.
- Use front counterweights to increase tractor stability when towing a heavy load or to counter balance a heavy rear mounted implement (Fig. 20).
- Start forward slowly and gradually increase your speed. DO NOT rev the engine or drop the clutch. If the tractor is attached to a heavy load, or immovable object, improper clutching may cause overturn.
- If the front end of the tractor starts to lift, reduce your speed and, if necessary, disengage the clutch.
- If your tractor is bogged down in mud or frozen to the ground, DO NOT attempt to drive forwards. The tractor can rotate around its rear wheels and overturn. Lift any attached implement and attempt to BACK OUT. If this is not possible, tow it out with another vehicle.

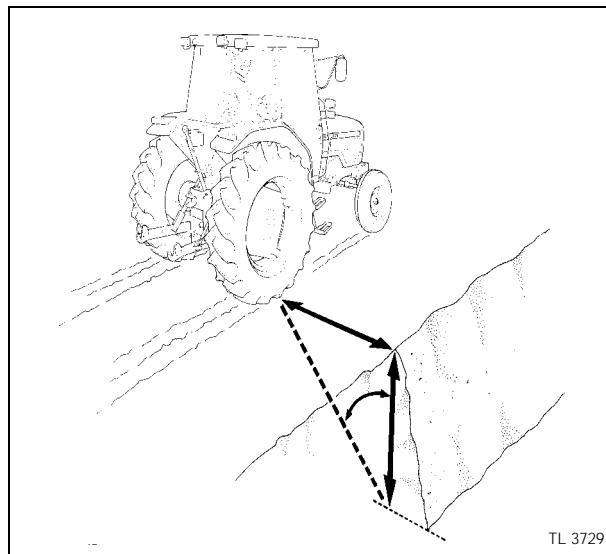


Fig. 19

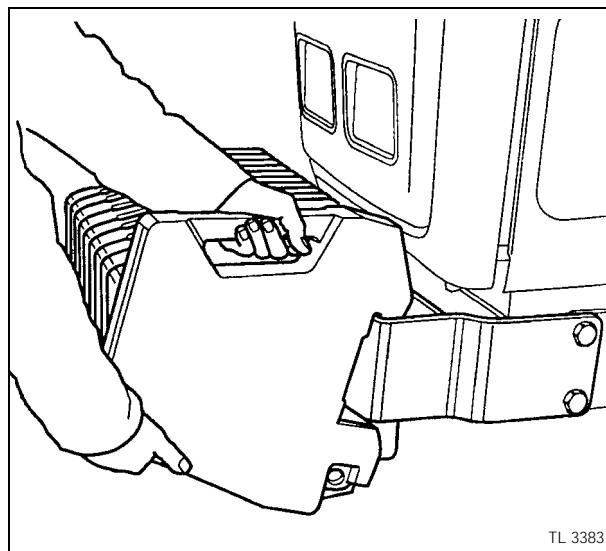


Fig. 20

- If you get stuck in a ditch, BACK OUT, if possible. If you must go forward, do it slowly and carefully.
- A bare tractor or tractor with rear mounted attachments should be backed up the slope in reverse and travel forward downhill.
- A tractor with a loaded front-end bucket should be backed down the slope and travel forward uphill. Keep the loader bucket as low as possible.
- Always keep the tractor in gear when going downhill. DO NOT permit the tractor to coast with clutch disengaged or transmission in neutral.

Safety Notes

General Operating Hazards

- Ensure that the PTO shield (1) is in place and that the PTO cap (2) is fitted when the PTO driveline is not in use (Fig. 21).
- Before attaching, detaching, cleaning or adjusting PTO driven implements, disengage the PTO, stop the engine, remove the key, and make sure that the PTO driveline has stopped.
- Ensure that all the PTO driveline guards are in place and observe all safety decals (Fig. 22).
- 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, DO NOT 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.



DANGER: DO NOT attempt to unplug the hydraulic connections, or adjust an implement with the engine running or the PTO drive in operation. To do so may result in very 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.
- 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 may be 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 Maintenance and Adjustment section.
- 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.

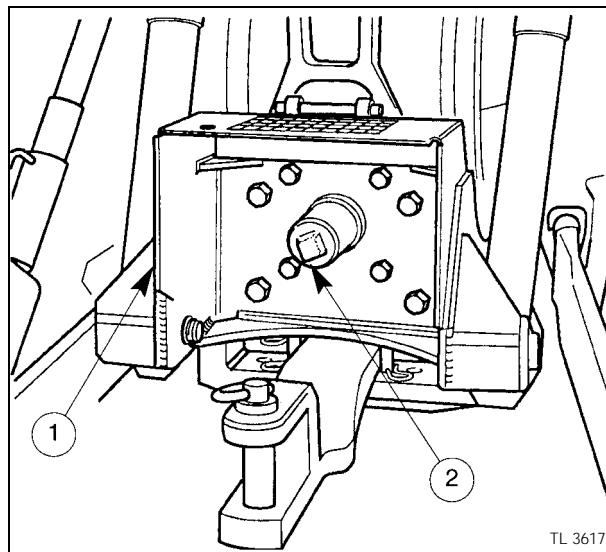


Fig. 21



Fig. 22

Implements and Attachments

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. Inadequately secured objects could also fall and injure bystanders.

- Three-point hitch and side mounted implements make a much larger arc when turning than towed equipment. Make certain to allow sufficient clearance for turning. Use only Massey Ferguson approved attachments and implements.
- 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.
- A safety chain will help control drawn equipment should it be accidentally separated from the drawbar while transporting. Using the appropriate adaptor parts, attach the chain to the tractor drawbar support or other specified anchor location. Provide only enough slack in the chain to permit turning. See your Massey Ferguson Dealer for a chain with a strength rating equal to, or greater than the gross weight of the towed machine (Fig. 23).
- Make sure any towed implements are equipped with a safety chain linking tractor and implement (Fig. 23).
- Pull only from the approved drawbar. Towing or attaching to other locations may cause the tractor to overturn (Fig. 24).

Safety - Towing

- For towed equipment WITHOUT brakes, DO NOT tow equipment:
 - at speeds over 32 km/h (20 miles/hour);
 - that, when fully loaded, weighs more than 1.5 times the weight of the towing unit.
- For towed equipment WITH brakes, DO NOT tow equipment:
 - at speeds over 40 km/h (25 miles/hour);
 - that, when fully loaded, weighs more than 4.5 times the weight of the towing unit.

NOTE: Tractor requires correct trailer braking equipment be installed and connected to the equipment.

Stopping distance increases with speed and weight of towed loads, and on hills and slopes. Towed loads with or without brakes that are too heavy for the tractor or are towed too fast can cause loss of control. Consider the total weight of the equipment and its load.

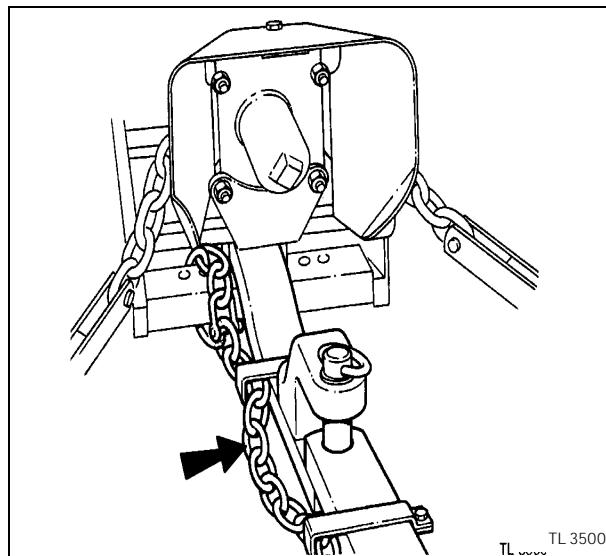


Fig. 23

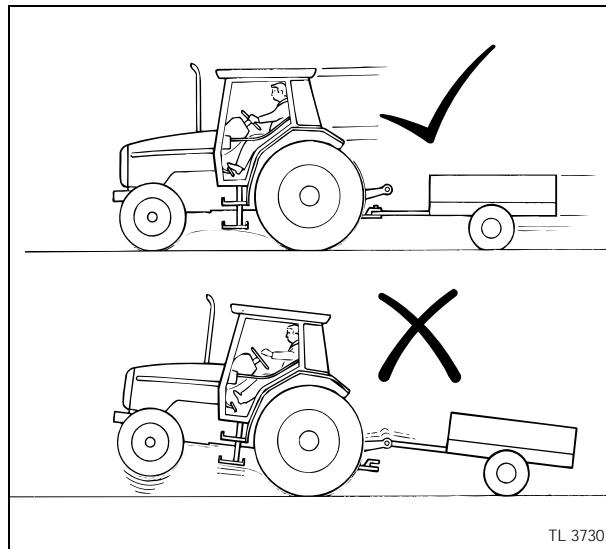


Fig. 24

Road Transport

BEFORE operating your tractor on a public road, a number of precautions must be taken.

- Familiarise yourself with - and obey - all laws appropriate to your tractor.
- Lock your brake pedals together.
- Raise all implements to their transport position and lock them in place.
- Place all implements into their narrowest transport configuration.
- Disengage the PTO and differential lock.
- Make sure any required clearance flags or hazard lights are in place and in working order.
- Make sure you use a proper hitch pin with a clip retainer.
- Clean off all reflectors and road lights, front and rear, and be certain they are in working order.

Safety Notes

- Make sure tractor and equipment are equipped with Slow Moving Vehicle (SMV) (Fig. 25) signs and other marking aids recommended for improved visibility, or beacon (Fig. 26) if the law requires them.

Rules of the Road

WHEN operating your tractor on a public road a number of precautions must be taken.



WARNING: DO NOT allow any passengers on the tractor or towed equipment.

- Know the route you are going to travel.
- Use flashing lights or beacon when travelling on roads, day or night, unless prohibited by law (Fig. 26).
- Use caution when towing a load at transport speeds especially if the towed equipment is NOT equipped with brakes.
- Observe all local or national regulations regarding the road speed of your tractor.
- Use extreme caution when transporting on snow-covered or slippery roads.
- Wait for traffic to clear before entering a public road.
- Beware of blind intersections. Slow down until you have a clear view.
- **DO NOT** attempt to pass at any intersection.
- Slow down for turns and curves.
- Make wide, gentle turns.
- Signal your intent to slow, stop or turn.
- Shift to a lower gear before going up or down hills.
- Keep tractor in gear. **DO NOT** coast with the clutch disengaged or transmission in neutral.
- Stay out of the path of oncoming traffic.
- Drive in your correct lane keeping as near to the kerb as possible.
- If traffic builds up behind you, pull off the road and let it go by.
- Drive defensively. Anticipate what other drivers might do.
- When towing a load, start braking sooner than normal and slow down gradually.
- Watch out for overhead obstructions.
- Make sure that the load does not obscure warning or any other lights.

After Operation

When stopping at any time, bring the tractor to a complete halt, apply the parking brake, disengage the PTO, place all gear shift levers in neutral, lower the implement to the ground, stop the engine and remove the key BEFORE leaving the seat.

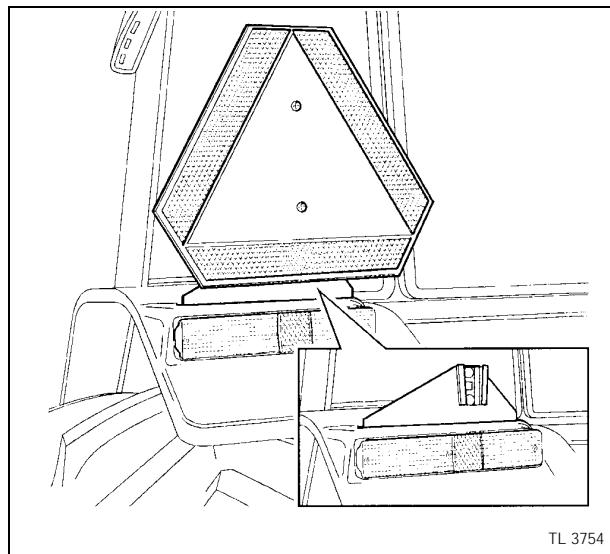


Fig. 25

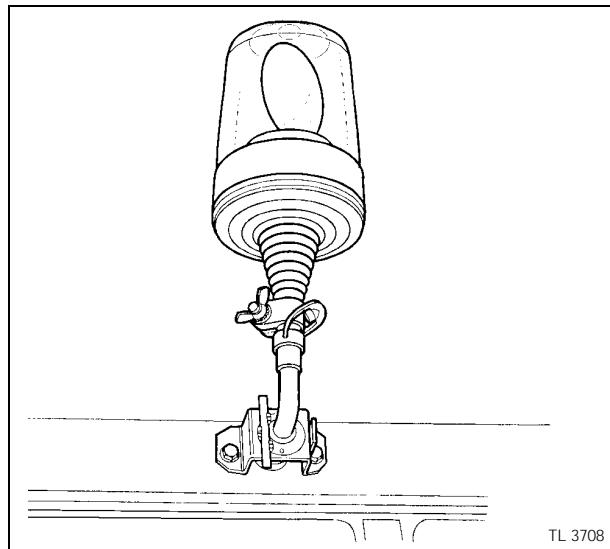


Fig. 26

Safety Decals and Locations

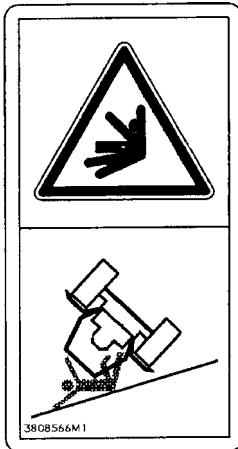
3808 566 M1

Located inside cab on right-hand centre pillar.

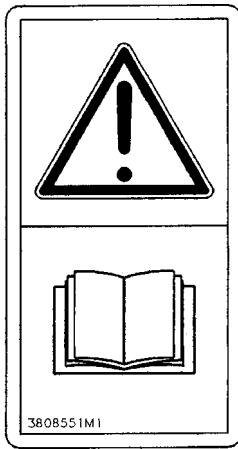
3808 551 M1

Located inside cab on right-hand centre pillar.

WARNING: *In the event of an overturn, hold on to the steering wheel. DO NOT jump out of the tractor.*



CAUTION: *Be aware - Read the Operator Instruction Book for safety information and operating instructions.*

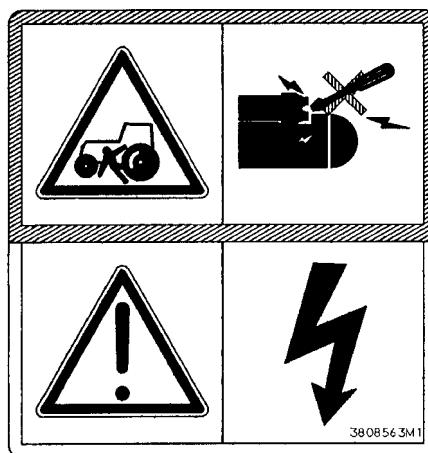


For interior decals above order Decal Pack Part No. 3808 518 M91

3808 563 M1

Located on the starter motor.

DANGER: *Start only from the operator's seat. DO NOT short circuit the starter motor to start the engine. You can be killed if you carry out this dangerous practice.*



CAUTION: *Disconnect the negative cables from the battery before removing the solenoid cover and before servicing the electrical system.*

3808 557 M1

Located at rear of cab adjacent to linkage.

DANGER: *Stand clear of rotating shafts. DO NOT become entangled in the PTO shaft. Keep all drive line, tractor and equipment guards in place during operation.*



WARNING: *Stand to one side of the tractor when using Remote Position Control. DO NOT stand between the tractor and implement, you could be crushed.*

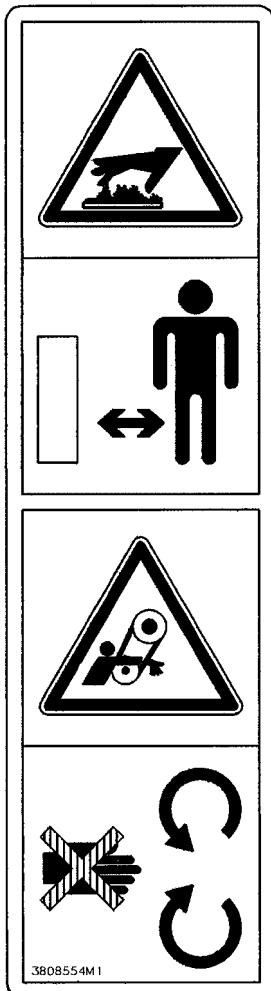
For exterior decals above order Decal Pack Part No. 3808 530 M91

Safety Notes

3808 554 M1

Located on right- and left-hand side of radiator.

**WARNING: Stand clear.
Beware hot parts**

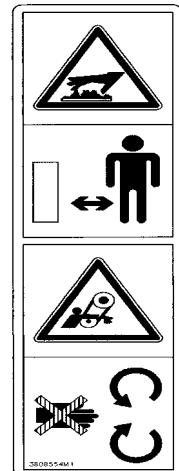


**WARNING: Keep hands
clear of rotating parts and
entanglement in belts while
the engine is running. Keep
guards in place.**

3808 499 M1

Located on right- and left-hand side of radiator.

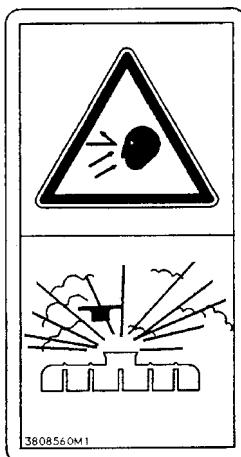
**WARNING: Keep hands
clear of rotating fan blades
while the engine is running.
Keep guards in place.**



3808 560 M1

Located adjacent to radiator header tank.

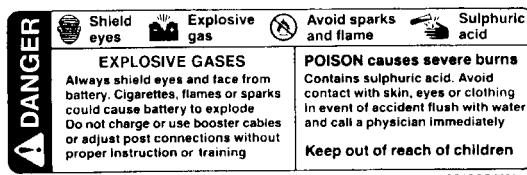
**WARNING: Protect your
face. High pressure steam
and hot water. Remove the
filler cap with extreme care.**



For exterior decals order Decal Pack No. 3808 530 M91

3810 054 M1

Battery -
Located on
top of the battery



To obtain the above decal order separately

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