AG ATTACHMENTS LIMITED

FIELDMASTER®

• PREMIUM FARM EQUIPMENT •

Rotary Mulcher, Pasture Topper & Orchard/Vineyard Mower Models

Models: GMM, GMT, GML, GMS, GMR, GMX & XHD



OWNERS/OPERATORS MANUAL

This manual contains valuable information about your Fieldmaster mower. It has been carefully prepared to give you helpful suggestions for operating, adjusting, servicing repair parts.

Keep this manual in a convenient place for quick and easy reference. Study it carefully. You have purchased a dependable and sturdy implement, but only by proper care and operation can you expect to get the service and long life designed and built into it.

RIGHT-HAND AND LEFT-HAND sides are determined by watching from the tractor side.

Sometime in the future, your implement may need new parts to replace those are worn or broken. If so, go to nearest Fieldmaster dealer and provide them with the model and part number.

Congratulations for purchasing your new Fieldmaster implement.

This implement has been designed and manufactured following all safety and quality requirements needed for a safe and satisfactory use over time.

A careful reading of this manual will allow you to understand this new piece of equipment and will provide you all the tools needed to use it safely.

Proper maintenance and knowledge of the safety rules of use will ensure the best performance and extend the life of the machine.



The Safety Alert Symbol used throughout this manual and on safety decals of the machine indicates the presence of potential hazard to the operator. When you see this symbol, be alert and carefully read the message that follows it.

The Safety Alert Symbol is used in conjunction with following Signal Words, according to the degree of possible injuries that may result operating the implement:

 DANGER

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.

 WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

 CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

IMPORTANT

Indicates instructions or procedures that, if not observed, can cause damage to equipment or environment. NOTE

Indicates helpful information.

READ, UNDERSTAND, and FOLLOW the safety messages following the Safety Alert Symbol and Signal Words.
Failure to comply with safety messages could result in serious bodily injury or death.
ABOUT THIS MANUAL

The operator must read the manual for a correct understanding of the hazards that may present when operating the implement, as well as for obtaining optimum performance from the machine.

The manual is part of the machine, it must be kept in good condition and remain with the machine even in case of resale, until its demolition. In case of loss or damage, request a new copy from the Manufacturer, Importer or your Dealer.

The information, descriptions and illustrations in this manual describe the state of the product at the time of its publication, and may not reflect the product in the future.

The Manufacturer reserve the right to make design improvements or changes in specifications without incurring any obligation to install them on units previously sold.

Text, illustrations and drawings of this manual cannot be disclosed or transmitted, in whole or in part, to third parties without the written permission of the Manufacturer. All rights are reserved

SAFETY

Safety is a primary concern in the design and manufacturing of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

It has been said, "The best safety device is an informed careful operator." We ask you to be that kind of operator.

The manufacturer assumes no liability for any damage resulting from not applying the behavioral rules indicated in the manual.

GENERAL SAFETY INSTRUCTION ⚠ DANGER

The machine must be used only by authorized and well-trained operators. The operator must have read and understood the instructions of this manual. They must make adequate preparation for the proper use of the machine and in case of doubt about the use of the machine and/or the interpretation of this manual, the operator must contact the Manufacturer or the Dealer immediately.

⚠ WARNING

The manual must always remain with the machine. In case of loss or damage, request a new copy from the Manufacturer or your Dealer.

⚠ WARNING

Follow strictly the rules prescribed by the safety pictograms applied to the machine.

⚠ WARNING

Be sure that all safety pictograms are legible. If pictograms are worn, they must be replaced with others obtained from the Manufacturer and placed in the position indicated by this manual.

⚠ DANGER

Before using the machine, make sure that all safety devices are installed and in good working conditions. In case of damages of shields, replace them immediately.

⚠ DANGER

Is absolutely forbidden to remove or alter safety devices.

⚠ DANGER

Before starting and during operation of the implement make sure there are no people or animals in the area of operation: the machine can project material from the back, front or side, with risks of serious injury or death.

⚠ DANGER

Pay maximum attention to avoid any accidental contact with rotating parts of the machine.

⚠ DANGER

During operation, adjustment, maintenance, repairing or transportation of the machine, the operator must always use appropriate Personal Protective Equipment (PPE).

This includes but is not limited to the following -

- A hard hat
- Protective shoes with slip resistant soles
- Protective goggles, glasses or face shield
- Heavy gloves
- Protective clothing
- Hair net or similar to contain long hair
- Suitable ear protection (ear muffs, ear plugs)

⚠ DANGER

Do not operate the implement while wearing loose-fitting clothing that can give rise to entanglement in parts of the machine.

⚠ DANGER

Do not operate the implement when tired, not in good condition or under the influence of alcohol or drugs.

⚠ CAUTION

If the use of the machine is required at night or in conditions of reduced visibility, use the lighting system of the tractor and possibly an auxiliary lighting system.

EQUIPMENT SAFETY INSTRUCTIONS ⚠ WARNING

Use the implement for its intended purpose only. Improper use can damage the implement and cause serious injury to persons, animals, or death.

⚠ DANGER

The machine should be used by a single operator driving the tractor.

⚠ WARNING

Any unauthorized modification of the machine may cause problems in safety and relieves the Manufacturer from any liability for damages or injuries that may result in operators, third parties and objects.

⚠ WARNING

Before using the machine, familiarize yourself with its controls and its working capacity.

⚠ WARNING

Do not leave the implement unattended with tractor engine running.

⚠ WARNING

Do not operate implement on unstable (muddy or sandy) or rocky ground.

⚠ WARNING

Keep the machine clean from debris and foreign objects which may damage functioning or cause injury.

⚠ WARNING

Do not use the machine if the category of the connecting pins of the implement does not match that of the tractor hitch system.

⚠ WARNING

Do not use the machine with missing bolts, screws, pins, safety guards or safety pins.

⚠ WARNING

Never use the machine to transport or lift people, animals or objects

⚠ WARNING

Make certain that at least 20% of the total weight (tractor, implement and ballast) is on the front axle of the tractor to ensure stability. Add front ballast if required.

⚠ WARNING

Before engaging the tractor PTO, make sure the tractor PTO speed is set as required for this implement (540 rpm or 1000rpm). Do not over speed PTO or machine breakage may result.

⚠ DANGER

Do not operate the implement if the driveshaft is damaged. The driveshaft could break during operation, causing serious injury or death. Remove the driveshaft and repair or replace it before continuing operation.

OPERATING SAFETY INSTRUCTIONS

⚠ WARNING

Before using the machine, be sure to have cleared the operating area from obstacles (stones, branches, debris, etc...). Mark all the obstacles that cannot be removed (e.g. by means flags).

⚠ DANGER

Never engage the tractor PTO in the presence of people close to the driveshaft. The body, hair or clothing of a person can get caught in rotating parts, causing serious injury or death.

⚠ DANGER

Before engaging the PTO and during all operations, make sure that no person or animal is in the immediate area of action of the machine. Never use the implement if people are in the working area.

⚠ DANGER

It's absolutely forbidden to stand near an implement like this when parts are moving.

⚠ WARNING

The operator must operate implement (lifting/lowering) only from the driving seat of the tractor. Do not perform lifting manoeuvres on the side or behind the tractor.

⚠ WARNING

Before making changes in direction, turns or going in reverse, slightly lift the implement off the ground after disengaging the power take-off, to avoid damage to the machine.

⚠ DANGER

In presence of steep slopes the action of this machine may cause instability of the tractor with a risk of tipping off which a consequence may be serious injury or death hazard. Consult the manual for the tractor to determine the maximum slope that the tractor is able to deal with.

⚠ DANGER

Always disengage the PTO before raising the implement and never engage the PTO with the implement raised. The machine might throw objects at high speed, causing serious injury or death.

⚠ WARNING

Never leave the driver's seat when the tractor is turned on. Before leaving the tractor, lower the implement to the ground, disengage the PTO, insert the parking brake, stop the engine and remove the key from the control panel.

⚠ DANGER

The PTO shields of the tractor and implement side, the driveshaft shielding and the driveshaft retaining chains must be properly installed and in good condition, to avoid the risk of entanglement with serious injury or death.

⚠ DANGER

Before engaging the PTO of the tractor, always make sure that the drive shaft is mounted in the correct direction, and that its clamping elements are properly connected both to tractor side and to Rotary Hoe side.

⚠ WARNING

Stop operating immediately if blades strike a foreign object. Repair all damage and make certain rotor, blades, couplings, PTO shaft and bolts are in good condition before resuming operation.

⚠ WARNING

Always disengage the tractor PTO when the driveshaft exceed an angle of 10 degrees up or down while operating. An excessive angle with driveshaft rotating can break the driveshaft and cause flying projectiles.

⚠ CAUTION

Avoid clutch overheating and wearing caused by too long or frequent slipping of the clutch, since it can damage the clutch components. Before checking the clutch, make sure it has cooled. Clutch could be extremely hot and cause a severe burn.

⚠ CAUTION

Prolonged use of the implement can cause overheating of the gearbox. Do not touch the gearbox during use and immediately after, it could be extremely hot and cause a severe burn.

⚠ WARNING

All repairs to the implement must be performed by qualified and trained operators, with the tractor engine off, the PTO disengaged, the implement lowered to the ground or on security stands, the ignition key off and the parking brake set.

TRANSPORTING SAFETY INSTRUCTIONS ⚠ WARNING

Before transporting, determine the stopping characteristics of the tractor and implement.

⚠ WARNING

Transport only at speeds where you can maintain control of the equipment.

⚠ WARNING

When driving on roads, the implement must be in transport position, adequately raised from the road surface, with tractor lifting hydraulics locked so that the implement cannot be lowered accidentally.

⚠ DANGER

The implement may be wider than the tractor. Pay attention to transporting for people, animals, buildings/sheds and/or other obstacles.

⚠ WARNING

When turning, use extreme care and reduce tractor speed.

⚠ WARNING

Do not operate the tractor with weak or faulty brakes or worn tires.

⚠ CAUTION

Always use tractor lighting system and auxiliary lighting system for an adequate warning to operators of other vehicles, especially when transporting at night or in conditions of reduced visibility.

⚠ DANGER

In the case of lifting this implement, make sure that any lifting device is suitable to perform the operation safely, and use only the lifting points prescribed on Rotary Hoe.

MAINTENANCE SAFETY INSTRUCTIONS ⚠ WARNING

All maintenance and repair operations must be performed by qualified and trained operators, with the tractor engine off, the PTO disengaged, the implement lowered to the ground or on security stands, the ignition key off and the parking brake set.

⚠ WARNING

Perform repairs and replacements part should only be original spare parts provided by the manufacturer, importer or your dealer.

⚠ DANGER

Perform maintenance operations using appropriate Personal Protective Equipment (protective eyeglasses, hard hat, hearing protection, safety shoes, overall and work gloves, filter mask).

⚠ CAUTION

Before any maintenance operation, make sure that the parts which become hot during use (friction clutch, gearbox...) have cooled.

⚠ WARNING

Do not perform repairs that you do not know. Always follow the manual instructions and in case of doubt contact the Manufacturer or your dealer.

⚠ DANGER

Do not swallow fuels or lubricants. In case of accidental contact with eyes, rinse well with water and consult a doctor.

STORAGE SAFETY INSTRUCTIONS ⚠ WARNING

Never leave the tractor unattended with the implement in the lifted position. Accidental operation of lifting lever or a hydraulic failure may cause a sudden drop of the unit which may result in injury/death.

⚠ DANGER

Following the operation, or before unhooking the implement, stop the tractor, set the brakes, disengage the PTO, lower the attached implement to the ground, shut off the engine, remove the ignition key and wait for all moving parts to stop.

⚠ WARNING

Make sure all parked machines are on a hard, level surface and engage all safety devices.

⚠ CAUTION

Place support blocks under implement as needed to prevent the unit from tipping over onto a child and/or an adult. An implement that tips over can result in injury or death.

⚠ CAUTION

Store the unit in an area away from human activity.

SAFETY LABELS

The safety labels applied on the machine give fundamental information for using the machine safely.

Make sure safety labels are in good conditions. If pictograms are worn, they must be replaced with others obtained from the manufacturer and placed in the position indicated by this manual.

Make sure the safety labels are legible. If necessary, wipe them by a cloth, with soap and water.

STARTUP

Before the start-up and before each use, perform the following pre-operation inspections and service of the implement:

- Check that the implement has no damaged functional parts and has all mechanical parts are good condition. Repair and / or replace the damaged parts;
- check that the implement has no missing parts (pins, safety pins, plugs oil ...). Restore the missing parts;
- check that all guards and safety devices have no damages and are properly positioned. Repair and / or replace the damaged shields, restore the correct position;
- verify that the PTO driveshaft is properly installed (see section: Connection of the drive shaft);
- check that the driveshaft clutch is in good condition, and that its components are not subject to "sticking" (see section: Maintenance / Driveline);
- check the presence of lubricant in all greasing points of the implement (driveshaft, supports...)
- Check for oil leaks from the gearbox or the transmission side cover. Identify the reason of loss, then repair and / or replace the damaged components;
- check the correct oil level in the gearboxes
- check that blades are not excessively worn and the relating hardware is correctly tightened
- **Check that all hardware (nuts, bolts, etc.) are properly tightened.**
- check that all safety decals are correctly positioned, in good condition and legible. Replace any damaged decals;

- check that there is no constraints that may prevent the movement of equipment. Remove any constraint.

Before the startup and before each use, make the following checks on the operating area you intend to operate:

- check that area is clear of foreign objects (rocks, branches or debris). Remove any obstacle and visibly highlight obstacles that cannot be removed (e.g. with flags); • make sure that in the area you intend to operate there are no people or animals;
- make sure the soil to be worked is not too grassy, muddy, sandy or rocky.

WARNING

Before conducting the above inspections and service, make sure the tractor engine is off, all rotation parts are completely stopped and the tractor is in park with the parking brake engaged. Make sure the implement is resting on the ground or securely blocked up and the tractor lifting hydraulics locked.

Once all the checks above have been done, start the tractor and the implement as follows:

- start the tractor and engage the tractor PTO at low rpm, making sure that the implement is NOT in the raised position but close to the ground, then increase speed engine until to 540 or 1000 rpm (dependent on which size model you have purchased)
- lower the implement on the ground and simultaneously start driving the tractor forward at low speed. Subsequently, increase the ground speed depending on ground conditions;
- If the outside temperature is very cold, it's recommended to engage the PTO and have the implement operate at low speed (with the tractor stationary) to warm oil and lubricate parts;
- Drive for a while operating the implement then stop the tractor to check the quality of the work performed. If you need to get off the tractor, reduce engine speed and disengage PTO, set the parking brake, stop engine, and remove the ignition key.

All machine warranty provisions include correct operational and maintenance advice included in this manual.

1. Tractor horsepower and machine transmission rating match

To ensure long operational life of driveshaft, gearbox couplings etc, the following options should be added before use to avoid costly repairs and safety protection.

a. Tractors 90hp or higher should use matching clutch hp rated to tractor.
b. Tractors with PTO brake should use an overrun type of driveshaft.
c. For tractors over 100hp, we recommend purchasing a 3m wide machine which is designed to operate at 1000RPM and matching hp clutch.

These options are available from Fieldmaster.

If in doubt or need advice,

phone 0800 500 275 HELP

DESK

2. **Blade options – to suit application of use**
   a. 3 tier mulching blades – all mulching operations, stubble, kikuyu, prunings etc. Special Tungsten treated blade option for lower blade, recommended for abrasive conditions.
   b. Axe head flails – rushes, gorse & manuka up to 50mm
   c. Gold tips – replaceable flail tip for clean cut pasture topping.

These options are available from Fieldmaster and only take a few minutes to change.

Note: Blades must be replaced in pairs for balance – NEVER MIX WORN AND NEW BLADES

3. **Anti scalp options**

a. Rear roller is recommended for undulating contour and/or low cutting cut
b. Anti scalp saucers, top hat under rotor (does not limit scalping) fit where roller is not suitable.
c. Puncture proof castor wheels – orchard, vineyard, stony ground etc.

These options are available from Fieldmaster and can be retrofitted.

FITTING TO TRACTOR

3 point linkage

- When attached, make sure sway chains are adjusted taut
- Fit top link to fixed hole for transport position
- Fit top link in slot position for contour following approx 20mm form front end of slot
- Lateral movement of machine chassis can be gained using tractor hydraulic drop arm position (one side only)
- Use tractor draft control for partial weight transfer and to increase skid life.

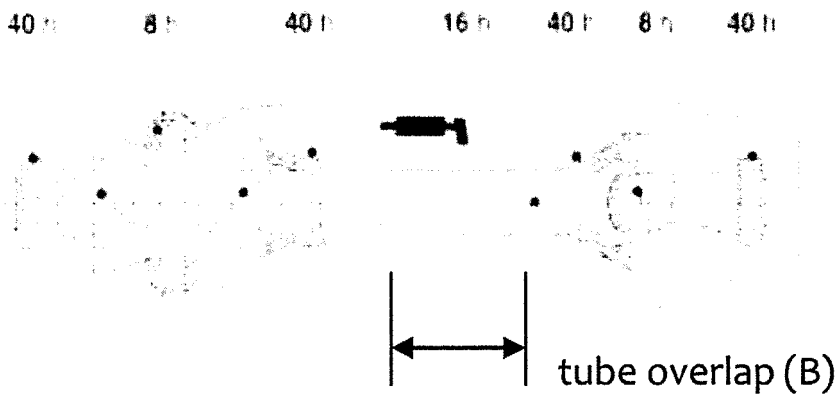
Care taken in observing linkage settings can avoid undue stresses to linkage and chassis resulting in premature fractures and/or other damage not covered by warranty.

NEW MACHINE

Fitting driveshaft

Driveshaft length: tractors vary, so driveshaft length needs checking. Driveshaft must not bottom out when lifting or lowering linkage.

See diagram – at any position driveshaft tubes (B) must be engaged by at least one third of the length of telescoping tube.



Shortening driveshaft

- Remove plastic safety covers.
- Cut steel tubing to required length – remove any burrs on cut ends.
- Re-cut safety cover ends and refit covers.

Ensure liberal grease is applied to sliding shaft before reassembling.

Grease cross nipples and small wipe on splines to make easier first fit of new splines.

Safety first – make sure locating pins are properly engaged in locating groove on tractor and machine gearbox. **DANGER HAZARD IF NOT PROPERLY SECURE.**

Check gearbox oil level

85W-140 or EP90 rated oil recommended

Fill from breather plug on top of gearbox – oil level plug on side of gearbox or dipstick check – must be above centre pinion shaft.

IMPORTANT OPERATIONAL ADVICE

Machines with slip clutch

a. To correctly set slip, compress tension springs fully then back off two turns. Note: fine tune so the clutch slips occasionally.

b. On 20 spline models, clutch retaining clamp bolt must be rechecked after first 5 hours work to 150ft/lbs and rechecked weekly after that.

LOOSE BOLTS = STRIPPED SPLINES

c. Once a year, release springs completely to allow clutch to slip and polish pressure plates. Otherwise, plates may adhere to each other and offer no slip protection.

d. If fitted with a cam clutch, this is factory set and it is advised to grease before operating.

Failure to attend to all of the above may void warranty

Start up caution

Engage PTO at low engine revs and then gradually bring up to operating speed (under load speed)

Safety practice

- Keep spectators and children etc. away from machine and out of range of any possible flying material being ejected.
- Do not use the machine with any safety guards missing or damaged.
- Make regular inspection of blades and flail bolts, and replace in the case of excessive wear, vibration, or loose flail bolt – flail bolts must be tight.



When inspecting underneath a machine raised on tractor linkage, please put blocks or chassis stands under the skid/rollers to prevent being crushed by machine in the case of any inadvertent dropping of the machine.

It is recommended to replace the flail bolt when replacing blades – always replace blades in sets on the same rotor. Note: double edged blades can be rotated for a fresh cutting edge – sharp blades mean less power required.

- Set cutting height high if mowing tall material in unknown areas. Avoid hazards such as stumps, rocks etc.

- ***Never*** adjust height or attempt to clear blockage etc while blades are rotating – ensure totally stopped.
- Operator is advised to start with slow ground speed until familiar with tractor and machines capacity. A lower gear with correct revs is easier on tractor and machine and will produce a better cut finish or mulching result.
- Never operate a vibrating machine. Establish the cause and remedy immediately.

PLEASE MAKE SAFETY TOP PRIORITY – KEEP HANDS AND FEET CLEAR, WEAR APPROPRIATE CLOTHING, BOOTS AND EYE PROTECTION AS APPLICABLE.

SETTINGS

Model GMM & GMT '3 n 1' series skid cutting height control

a. Cutting height is changed by loosening the skid retaining bolts first then winding the screw height adjuster on the top of the skid flange to selected height setting on height gauge transfer on skid slot – central 'V' on the screw is the setting mark – then retighten skid retaining bolts.

Please note: the height setting transfers are factory set to ensure slight forward tilt of mower so blades cut principally on forward arc, saving power. The forward tilt of the deck may be noticeable – this is normal.
Note: the transfer height setting will be accurate only to the blade type originally fitted at the factory. It is important that both skids are set at matching heights and have the same deck tilt forward.

b. If the machine has a skid mounted rear roller, this will add approximately 15mm to the setting height. The full weight of the machine should run on the roller – take the front skids off the ground using the hydraulic lift to make them airborne or use the top link to do so in the fixed hole setting.

Model GML, GMS & GMR '2 n 1' series Mulcher/Mower cutting height

a. Cutting height is achieved by raising or lowering the roller bracket with selecting the hole on quadrant radius – the same selected position both on the front stubbie rollers and rear roller brackets.

Mulching:

For mulching prunings it will be found that low height settings will give best pruning pick up and mulching result – note that many prunings slit horizontally for fast composting.

Mulching vane retains material for fine cut results.

Mowing:

a. Bolt on mulching vane may be removed.
b. Side panels may be removed for LH/RH discharge of grass or retained for rear discharge of grass.
c. Axe head flails or gold tip blades can be optionally fitted if preferred for normal grass mowing applications.

General factory option recommendations

a. Rollers best for same track operation as vineyards and performs as safety barrier.
b. Puncture proof castor wheels – pneumatic absorbing wheel on stony conditions. May need extra guarding if rear discharge option for safety.

Phone Fieldmaster HELP DESK 0800 500 275

IMPORTANT: CONDITIONS OF WARRANTY COVERAGE

Initial check intervals after first 1 hour / 4 hours / 8 hours / 12 hours of operation from new.

'Bed in' can require attention to the following:

- **Gearbox bolts – check and tighten.**
- **Machine Body bolts – check and tighten.**
- **Headstock bolts – check and tighten.**
- **Blade Bolts/Nuts – Check and tighten.**
- **Oil levels of gearboxes – some initial seepage of output shaft is not uncommon**
- **Main hub nut on flail/blade carrier taper spline on gearbox output shaft – Check fitment on shaft**
- **Grease roller bearings, driveshaft, and wheel bearings as applicable**

**It is highly recommended that these checks be carried out as part of your pre-operation checklist before commencing operation of this machine. **

Operator tip: For machines fitted with rollers, grease bearings after a day's use and/or machine washing to force out water and foreign material will prolong bearing life.

- Flail bolts – check must be tight and not rotating
- Check clamp bolt on slip clutch150ft/lbs – very important on 20 spline models
- Remove cross shaft cover, check driveshaft clamps (grease driveshaft cross bearings on GM300), check coupling bolts and clamps. Replace cover.

Failure to attend to the above may cause premature failure and such failure is considered operator neglect and is not covered by warranty.

Routine servicing

Regular servicing is basic to getting the best service and component life from your machine. Lubrication is low cost yet essential to longevity of even quality componentry that Fieldmaster uses.

Service intervals

- Driveshaft cross and bearings – daily
- Roller bearings – daily
- Driveshaft slide pull apart and grease – weekly
- Wheel bearings and pivot points grease or oil as applicable – weekly
- Sharpening blades (careful when grinding not to blunt edge) – check weight with opposite blade as balance is critical

Spare parts

Using genuine safety tested Fieldmaster parts will ensure both safety and proven long service life

Birthday service

Machines in contractor and high hourage applications will find benefit in a 'Birthday Service' check by your dealer. Worn or suspect parts should be replaced before the new season to avoid costly downtime and inconvenience.