

**PLEASE READ  
IT MAY SAVE A LIFE**



**SAFETY IS YOUR  
RESPONSIBILITY**

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**SAFETY INSTRUCTIONS**

**Including:  
MACHINE COMMISSIONING,  
WARRANTY REGISTRATION &  
WARRANTY POLICY**

## BE AWARE

Manufacturers, retailers, owners and operators all have responsibilities with regard to safety. Be aware of your responsibilities and carry them out. The owner or an appropriately designated officer, if the owner is a company or corporation, is responsible for the safe operation and maintenance of this equipment.

The most important safety device attached to this equipment is a **SAFETY CONSCIOUS OPERATOR** whose training and experience should include:

- Correct / complete installation and commissioning of the machine to ensure safe and reliable operation in the intended application.
- Reading and understanding the safety, operation and maintenance instructions.
- Being aware of their environment to the extent that unforeseen safety issues that may arise are dealt with to ensure the safety of all personnel (including operators, maintenance personnel and bystanders).

This booklet has been written primarily to address the safety issues relating to tractor implements sold by Howard Australia however it is applicable to most related equipment.

Remember that your safety and the safety of others, is at risk.





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## PRINCIPAL SAFETY ISSUES



Due to their potential frequency of occurrence and capability to cause serious injury or death these issues must be addressed.



### HIGH SPEED EJECTED DEBRIS

- Be aware that equipment such as slashers and mowers are capable of ejecting debris at over 300 km/h (flails at over 150 km/h) and such debris is capable of severe injury or death. Debris can readily travel up to 200m if guarding is insufficient for the application or has been removed.
- The requirements for guarding against debris being ejected from slashers, mowers or flails must be appropriate for the situation in which the unit is to be used. For example, operation on roadsides or within residential areas will require extensive guarding, whereas scrub clearing well away from other personnel will require minimal guarding. Refer also to 'Safety Precautions' within the Rotaslasher Operating Instructions Manual for additional detail in relation to guarding against high speed ejected debris.
- When operating a slasher on an incline (for example a roadside) be aware that the trajectory of any ejected debris may come well up off the ground, closer to bystanders' heads and eyes (which more easily sustain serious injuries) while also increasing the possible distance the object can travel.
- Do not allow people to stand directly behind slashers, flails or mowers or direct the discharge towards persons, animals, buildings or vehicles.
- Check the area for debris that may be picked up and thrown by the implement, causing injury or damage. Be alert for hidden obstructions.



### ENTANGLEMENT IN TRANSMISSION COMPONENTS

- Contact with rotating transmission equipment can result in severe injury or death.
- Ensure that all shielding is in place before operating. If transmission guards are removed for maintenance work, ensure they are replaced correctly upon completion. Repair or replace any damaged guards. Warning or instruction decals must be kept in a readable condition; replace unreadable decals immediately.



## CONTACT WITH CUTTING ELEMENTS

- Contact with working cutting elements can result in severe injury or death.
- Do not allow anybody (operators, maintenance personnel or bystanders) anywhere near the cutting elements whilst the implement is operating.
- Be aware that some cutting elements such as rotary hoe blades will not only cut, but also drag limbs etc. into further danger.
- Ensure that all shielding is in place before operating. If guards are removed for maintenance work, ensure they are replaced correctly upon completion. Repair or replace any damaged guards. Warning or instruction decals are to be kept in a readable condition; replace unreadable decals immediately.
- NEVER place hands or feet under slashers, mowers, flails, hoes or power harrows, nor endeavour to make any repairs or adjustments, while the blades are rotating; they are capable of inflicting serious injury.
- NEVER touch the blades or attempt to free any jammed obstacle while the tractor engine is running. The clutch may be slipping and removal of any obstruction may allow the blades to suddenly begin rotating with serious injuries being a very real possibility.



## CRUSH INJURIES DUE TO MACHINE FALLING

- While not appearing to be a principle safety issue, crush injuries, due to the machine falling, are capable of causing horrific injuries. These may even be as a result of a false sense of safety when the machine is connected to the tractor and/or the tractor is turned off.
- Unless the machine is sitting in a stable position on level ground, always assume it could fall, roll or slide onto anyone working (or children playing) under or near the unit.
- If working on, or under the machine when it is raised, you must ensure:
  - It is fully supported in a stable manner, e.g. Use purpose built artificial support stands, positioned on concrete or stable wood blocks - NOT drums, rocks or other less stable items.
  - Lifting machinery (front end loader, forklift, crane, hoist, tractor three point linkage, chains, ropes, straps, etc) is capable of safely supporting the machine's full weight.
  - Attachment points selected on the machine are sufficiently strong and secure to support it. Use of the linkage pins as attachment points is recommended for safety and strength.
  - Secondary or backup supports are used to offer additional protection, should any of the above fail.



## TRANSPORT SAFETY



- Tractor Power and Weight must be suitable to ensure safe steering control and braking of attached implement or trailer under all conditions expected.  
 Implements must leave sufficient weight on front wheels for steering – add front weights if necessary. Requirements for trailers will vary depending on application and terrain, however the recommendation is that for flat land operation the ATM (Aggregate Trailer Mass = trailer weight + load) should be not more than:  
 1.5 x Tractor Mass for a 4WD tractor.  
 1.0 x Tractor Mass for a 2WD tractor.  
 If operating on other than flat land, additional braking and / or tractor capacity may be required.

- The majority of Agricultural Implement Trailers are intended for farm use only – they are not approved for road use. [Trailers approved for road use require; compliance identification plates, safety chains on drawbar, brakes including emergency braking systems, suspension and lights.]

- When transporting implements on a tractor on public roads ensure that you comply with relevant regulations. Note that if tractor and equipment is wider than 2.4m (8') all or some of the following may be applicable or required:

- Class of roads permitted for travel on may be restricted.
- Transport restricted to daylight or off peak traffic hours.
- Signs indicating whole vehicle width.
- Lights indicating vehicle width if transported within hours of darkness.

Note, regulations differ between areas within states and between states. If in doubt contact your government department responsible for road transport.

The Tractor and Machinery Association publication 'TMA FARM MACHINERY TRANSPORT GUIDELINES' summarises the applicable regulations for all states. These can be ordered from the TMA at [www.tractormachinery.com.au](http://www.tractormachinery.com.au)

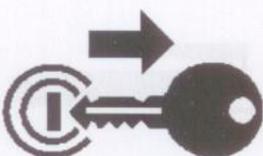
- Safety breakaway prevention chains should be fitted between all trailers and tractors – do not rely on the drawbar pin alone.
- Disengage the PTO when transporting the implement or when not in use.
- Do not allow anyone to ride on implement when it is being transported.
- Do not allow passengers to ride on tractor unless a specific seat is provided.
- Ensure all hitch pins are correctly fitted with retaining pins.
- Mechanically secure hydraulic cylinders to prevent cylinders creeping.



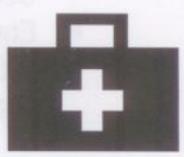
## MAINTENANCE SAFETY



- Maintain the equipment in accordance with the given schedule and check for any damage after use. Particular attention should be paid to the securing hardware of high-speed components due to the hazard they present should they come loose during operation.
- Maintenance is essential for safe, reliable and cost efficient operation. Additionally, documented maintenance records will maximise the resale value of equipment.
- Follow safe workshop practices during any maintenance:
  - Keep working area clean, dry and in particular free of oil spills.
  - Use tools suitably capable of the intended task.
  - Ensure electrical equipment is safe to use before operating.
  - Lifting or jacking equipment must be capable of supporting the intended load and be securely attached to/positioned under, the load.
- If working on the implement whilst it is raised on the tractor's three-point linkage, or front-end loader/forklift, ensure that it is properly supported by blocks or stands. DO NOT rely on the tractor's hydraulic system to support the implement.
- NEVER touch the blades or work under the implement unless the tractor engine is turned off and the driveline is disconnected.
- Ensure that all shielding is correctly in place when maintenance is completed. Repair or replace any damaged guards. Warning or instruction decals are to be kept in a readable condition; unreadable decals must be replaced.
- NEVER place hands or feet under slashers, mowers, flails, hoes or power harrows, nor endeavour to make any repairs or adjustments, while the blades are rotating; they are capable of inflicting serious injury.
- Do not wear baggy, ill-fitting or frayed clothing when working around transmission components.
- Wear suitable gloves when handling or working with sharpened cutting elements.
- Ensure bystanders, especially small children, are kept clear during maintenance or while making any adjustments.

	<h2>STORAGE SAFETY</h2>	
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- Store equipment away from human activity and in particular do not permit children to play around or on stored equipment.
- Store equipment in a dry level area with adequate support to prevent it tipping, falling over or rolling onto any personnel (particularly children).

	<h2>GENERAL SAFETY ISSUES</h2>	
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Although the following are not principal safety issues, they can still result in severe injuries or death consequently they must not be overlooked. Many varied and needless injuries are a result of failure to follow safe procedures in these areas.

- Ensure you have a first aid kit available and know how to use it.
- Ensure you have a filled and checked fire extinguisher available and know how to use it.
- Wear protective gear appropriate to the task. Such items include, but are not limited to:
  - Safety glasses or face shield.
  - Ear protection against noise.
  - Protective clothing.
  - Safety gloves.
  - Protective and slip resistant boots.
  - Hard hat.
- Read and understand the safety and operation manual before use or performing any maintenance or adjustments.
- Do not allow passengers on the tractor or machinery, unless a suitable seat is provided.
- Ensure that only responsible, properly instructed people operate the machinery. Inexperienced operators will require training, followed initially by careful supervision.
- Keep hands, feet, hair and loose clothing away from all moving parts.
- At least annually, review safety issues with all operational and maintenance personnel to ensure their adequacy.



## TRACTOR SAFETY ISSUES



- Ensure you are familiar with the tractor's operation and controls. Read the tractor operators manual and request instruction if necessary. Ensure you know how to stop the tractor and implement quickly.
- Do not operate the machinery until correctly seated in the driver's seat.
- Take all possible precautions when leaving the tractor. Disengage the PTO drive, lower the three point linkage, engage the parking brake, stop the engine, and remove the key.
- Ensure the PTO clutch is disengaged and the tractor is in neutral prior to starting the tractor.
- Observe all safe driving procedures, for example reduce speed when working on sloping ground or during sharp turns.
- Do not attempt to work on steeply sloping ground where there is a risk of the tractor overturning.



## IMPLEMENT SAFETY - GENERAL



- Read and understand the operating instructions fully.
- Use the implement only for the purpose for which it has been designed.
- After striking an obstacle, stop the tractor and implement and inspect it for damage. Repair as necessary before continuing.
- If working on the implement whilst it is raised on the tractor's three-point linkage, ensure that it is properly supported by blocks or stands. DO NOT rely on the tractor's hydraulic system to support the implement.
- Maintain the equipment in accordance with the given schedule and check for any damage after use. Particular attention should be given to the securing hardware of high-speed components due to the hazard they present should they come loose.
- Disengage the PTO when transporting the implement or when not in use.



## HAZARD / RISK IDENTIFICATION



Owners and operators must assess their; equipment, operators, maintenance procedures, and applications to identify the most likely hazards. Appropriate methods to reduce the hazards identified must then be applied.

[Within Australia this procedure is now part of your legal obligations when operating any form of plant where safety is an issue. Refer to Worksafe Australia 'National Health and Safety Standard for Plant' for details. A package of documentation to assist in this area is available - ask for HAZPAK.]

Risk assessments for machinery sold by Howard Australia are available upon request and will progressively be added to the operators manuals.

Risk assessments must be reviewed, amended as required to suit your application and requirements enacted. Records of this process must be maintained.

It is also recommended that the risk assessments should also be a part of any training conducted.



## MACHINE SUITABILITY TO APPLICATION

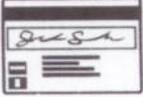


Often different varieties of equipment are considered or used in new applications for some of the following reasons:

- The machine is the only unit available at the time.
- Costs indicate cheaper operation is likely.
- Reliability is improved.

Operators manuals contain 'intended use' statements which detail typical uses expected, however other applications are not precluded provided appropriate risk assessments are conducted and steps to control all identified risks / hazards are implemented.

Before beginning work assess the effect of the machine on the safety of both the operator and any potential bystanders. If you need assistance with this procedure contact either the machine retailer or Howard Australia - it could save a life.

	<h2>AUTHORISED OPERATORS &amp; TRAINING</h2>	
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Do not assume an operator is suitably trained for use of this equipment. You would not let an unlicensed driver borrow your car!

- Ask to see licences if applicable, and record numbers and validity dates.
- Request details of previous experience in writing - and check them out if appropriate and ensure such records are retained.
- Devise a suitable training course for operators if appropriate, and ensure records of their completion are retained.
- An example of a suggested RECORD OF AUTHORISED USERS and RECORD OF TRAINING COMPLETION is attached.

	<h2>MAINTENANCE RECORDS</h2>	
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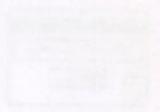
Recommended maintenance procedures are detailed in the parts and instruction books. Failure to follow these may jeopardise safety as well as economic operation.

Records of periodic maintenance are important as they detail, when and who carried out the last maintenance and inspection. Appropriate checklists should include maintenance as detailed in the parts and instruction book as well as the following safety aspects:

- SAFETY DECALS AFFIXED & LEGIBLE - Identify type, location and quantity if appropriate.
- GUARDING - All fitted and secure.
- CRITICAL FASTENERS SECURE.

An example of a suggested DAILY MAINTENANCE RECORD is attached.

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	<b>AUTHORISED OPERATORS &amp; TRAINING</b>	
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Do not operate an operator is safety trained for use of this equipment. You would not be authorized driver/operator can

- Ask to see records if applicable, and record number and verify date.
- Request date of previous experience and check them out if appropriate and ensure records are retained.
- Delete a suitable training course for operator if appropriate, and ensure records of that completion are retained.
- An example of a suggested RECORD OF AUTHORISED USERS and RECORD OF TRAINING COMPLETION is attached.

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	<b>MAINTENANCE RECORDS</b>	
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Recommended maintenance procedures are detailed in the parts and instruction books. Factors to follow these may indicate safety as well as economic operation.

Records of periodic maintenance are important as they detail, when and who carried out the last maintenance and inspection. Appropriate checklist should include maintenance as detailed in the parts and instruction books as well as the following safety aspects:

- SAFETY DECALS MARKED & LEGIBLE - identify type, location and quantity if appropriate.
- GUARDING - All fixed and swing.
- CRITICAL FASTENERS SECURE.

An example of a suggested DAILY MAINTENANCE RECORD is attached.





