

HM-W0073



60" and 72" Chassis Mounted Snowplough P000911 and P001009

for use on the following John Deere Compact Tractor models

(if no front 3 point linkage is installed):

**3033R, 3038R, 3039R, 3045R, 3046R, 3320, 3520, 3720, 4200, 4300, 4400, 4310, 4410,
4049R, 4052M, 4052R, 4066M, 4066R.**

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Original Language

HME reserve the right to change specification and design of products without notice.

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APPENDIX

- A. General Assembly Diagram and Parts list**
- B. Hydraulic Oil Safety Data Sheet (upon request)**
- C. Hinge Grease Safety Data Sheet (upon request)**

NOTICE

Please read through and understand the entire contents of the operator's manual prior to using the implement.

The information in this manual was correct at the date of print. Howard Marshall Engineering Ltd (HME) reserve the right to change the specification of products as required without prior notice. Please contact HME if there are any aspects of the manual that you do not understand.

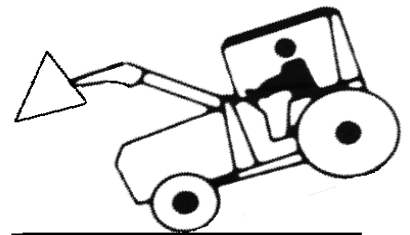
One operator's manual is supplied with each attachment to inform the user how it should be operated and maintained. It is therefore advised that every operator must read and study the text in this manual thoroughly before using the implement.



SAFETY

WARNING

Refer to the serial number plate on the attachment for the weight of your model as it will effect the maximum load capacity. During use be aware of increased weights due to shock loading. Shock loading is the result of magnified load weight from bouncing caused by driving at speed on uneven surfaces for example. This can cause dangerous overload.



WARNING

Do not stand between the front loader and power unit. Risk of crushing and jamming. Always lower the loader/attachment to the ground prior to working on it.



WARNING

Do not allow persons to sit or ride on the attachment at any time, or perform adjustments unless the machine is stopped, switched off, and the implement is on the ground.



SAFETY CONTINUED

WARNING

Always ensure the working area is clear of persons or live-stock, take extra care when operating in farmyards or tight spaces.



Only use the attachment with the correct loader/attachment it was designed for. HME do not accept any damages to bracket as a result of incorrect fitting or from the use of adapters or any home-made conversions.

Do not use the implement for any other purpose than for which it was designed for. Please see operating instructions, limitations of equipment.

Ensure that the attachment is used within the lift capacity of the loader.

Ensure that the attachment works correctly once it is attached to the loader.

As an operator it is your responsibility to familiarise yourself with the functions to ensure your competence.

Use the appropriate guards / tine and fork covers when driving on public roads.

Remember that driving characteristics of the power unit can be influenced by the attachment.

Never use the attachment if it has been damaged or is not working properly.

OVERVIEW

For weight of unit, parts list and dimensions, please see appendix A General Assembly.

Intended use:

The Loader Mounted Snowplough is designed for the removal of fresh snow on smooth road surfaces. The Snowplough consists of a mounting bracket and the snowplough mounted on a pivot point. The snowplough angle and height is set with two hydraulic cylinders.

The attachment has been designed to be used on the stated compact tractor and should only be connected to that unit. The unit can be moved for transport or storage using the designated lifting points.

The commercial use of the attachment should be incorporated into a task specific Risk Assessment and Method Statement, to mitigate possible injury, damage or death.

The Maximum Working Load for this product is 100kg **or** the Maximum Working Load of the loader, **whichever is less. The attachment is not designed to directly lift, only to support the build up of snow.**

SAFETY DECALS

Warning decals are fitted in different locations on the attachment. For decal locations, see general assembly.

Do not cover or remove any of the decals.

If a decal is missing or illegible replace it with a new decal.

New warning decals are available from HME.

Decals used on this unit are shown below.

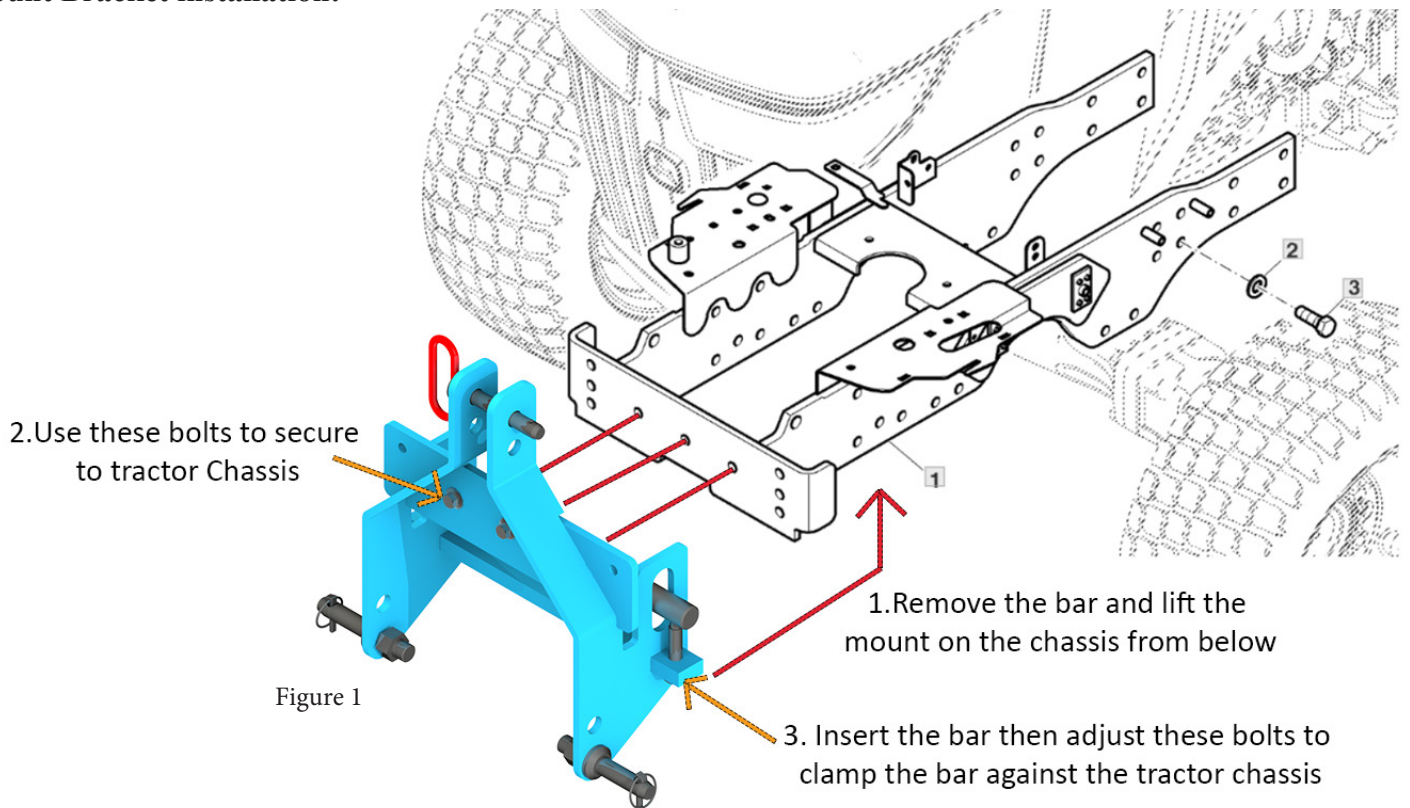


OPERATING INSTRUCTIONS

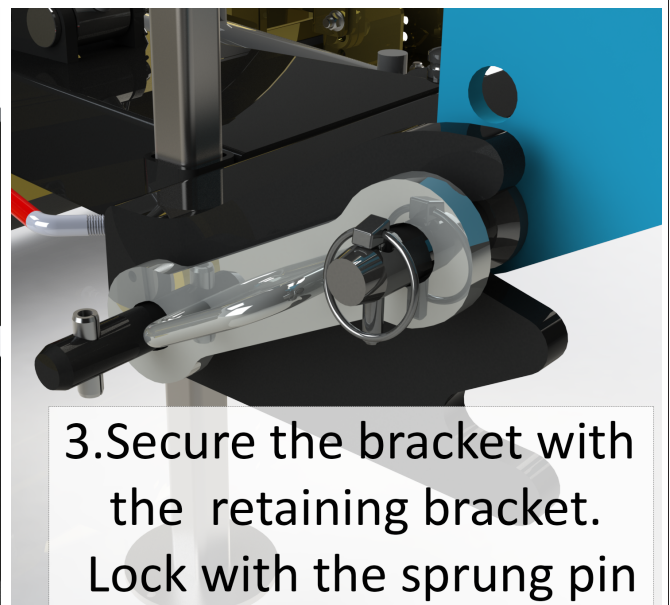
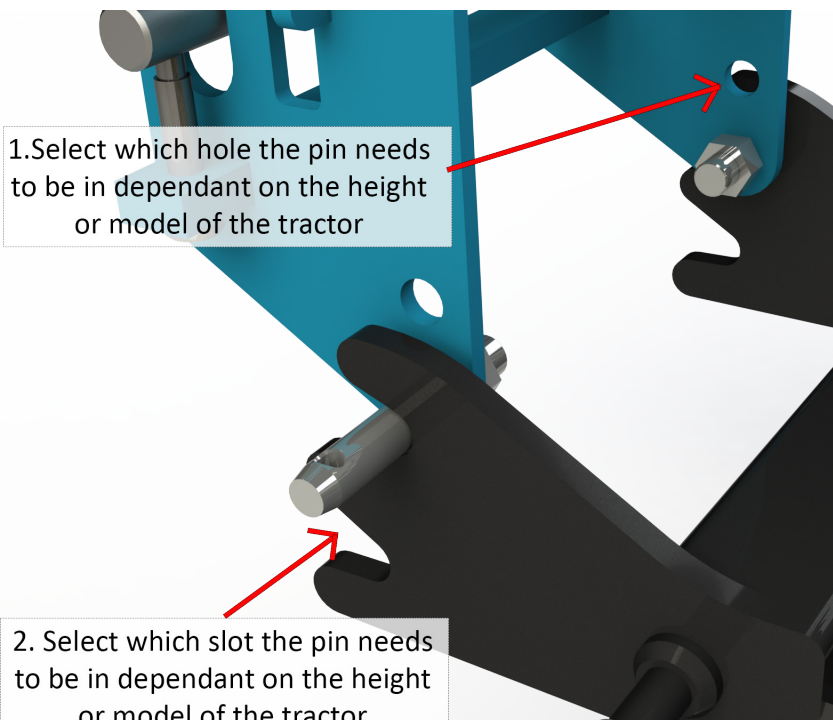
Mounting of attachment

Mounting of the equipment shall only be carried out by a single operator. The installation consists of two parts, the installation of the mount bracket and the connection of the snow plough to the mount bracket.

Mount Bracket installation:



Connecting the snow plough:



4. Lift the hydraulic ram up and fix into position with the pin and clip. Ensure the stand is fully up and tightened.



Figure 4

5. Route the hoses safely back to the couplers, allowing for all possible movement of the snow plough. Connect the single lift cylinder hose into the lift lower SCV outlets (backwards and forwards on joystick) Connect the two hydraulic angle cylinder hoses to the tilt/crowd scv (left and right on the joystick)

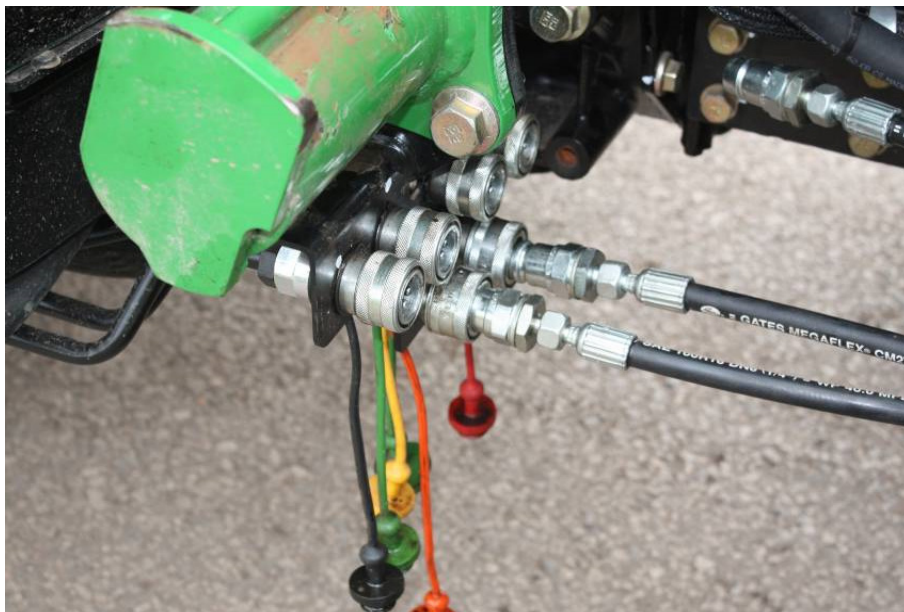


Figure 5

Pre operation checklist

Before each use, carry out the following checks:

- Check the power unit and loader are in good working order;
- Check hydraulic hose connection;
- Check mounting connection is secure (ensure clevis pins are in place);
- Ensure no one is immediately around the equipment or in the direction of travel. Do not allow riders;
- Check all safety decals are present and legible;
- Ensure an appropriate counter balance is connected to power unit for the intended task;
- Check all hinges are suitably greased and top up as required. Hinges should be greased after every 10 hours of use or after a wash.

Clearing of snow

1. Please refer to the loader and power unit user manuals on the operation of equipment controlling the attachment and to identify suitable Personal Protective Equipment (PPE);
2. Before commencing ploughing, ensure the vertical hydraulic cylinder of the chassis mount is put into a float position. This will allow the plough to move up and down with the road and bumps;
3. Ensure that the plough is angled to push the snow to the nearside driver side, ie not into the middle of the road;
4. Ensure that the power unit remains at a steady speed and avoids large bumps or curbs;
5. Ensure that the loader arms are not pressing the snowplough into the road throughout use;
6. Frequently check that there is not too much snow build up on the plough and remove as necessary during use.

Limitations of equipment

The Snow Plough is not designed for the following, as such should not be undertaken or risk damage to equipment, injury or death:

- Mining work;
- The breaking up of rubble or frozen material;
- Demolition work;
- The moving of personnel or live-stock;
- Deforestation work, including stump pulling;
- The plough should not be used as a lever to lift or push anything.

STORAGE

Position

The attachment should be stored in the position shown in figure 6. Note the adjustable stand leg.

Location

The attachment should be placed on a hard and level surface to prevent it sinking or tipping over time. The attachment should be kept in a cool and dry environment to prolong service life. If it cannot be kept under a shelter, the unit should be covered to prevent exposure to the elements. Ensure that the attachment is not accessible to live-stock or anyone who is not suitably qualified to use it.

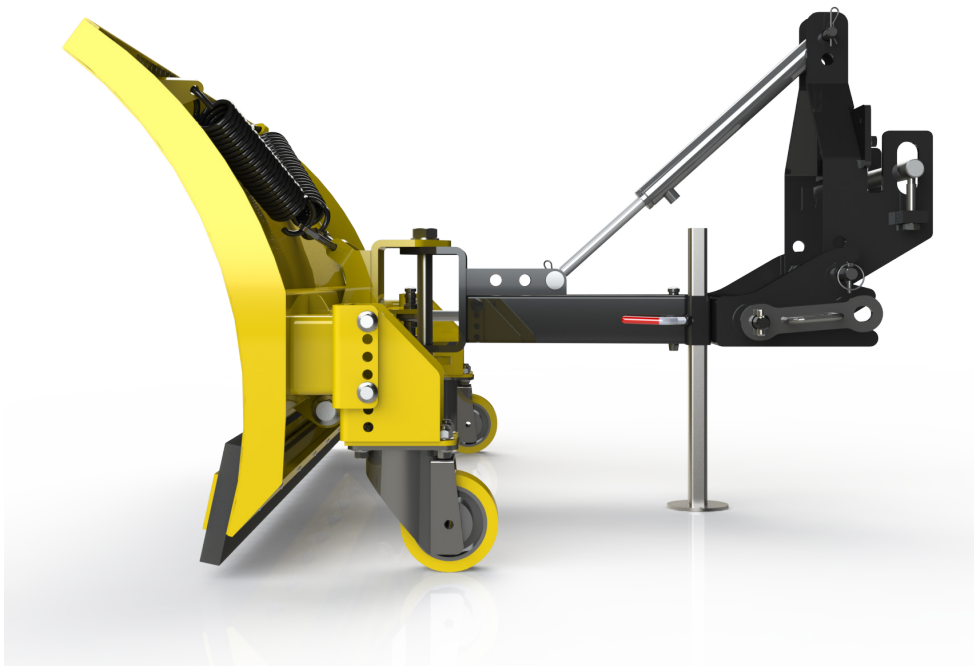


Figure 6

MAINTENANCE

Maintenance must be carried out by a suitably qualified person after 200 hours of use or after prolonged storage. Before any maintenance is carried out ensure the attachment is lowered to ground level so no works are carried out overhead. Ensure the engine is off, the breaks are engaged and the key is removed.

RECOMMENDED PPE FOR MAINTENANCE WORK



Hydraulics

Please refer to Hydraulic oil safety data sheet and the power units operating manual before commencing any maintenance.

Inspect the integrity of the hydraulic hoses by searching for any holes, damaged connections or degradation of the hose. This should be carried out wearing protective eye wear and gloves. Use a piece of wood or cardboard to find holes instead of using a hand to prevent possible injury.

Spare parts are available for purchase from HME, please see appendix A for parts list.

Hinges

Please refer to grease safety data sheet before commencing any maintenance.

The hinges should be periodically greased as required. This should be carried out wearing protective eyewear and gloves. Ensure that the grease nipples and the hinges are clear of dirt, sand or dust as these will increase the wear on the part and reduce service life.

Spare parts are available for purchase from HME, please see appendix A for parts list.

Paintwork

The paintwork should be monitored to identify any large scratches or scrapes which have left large areas of the bare steel exposed. Dependent on size and location, it may be suitable to protect the steel with a steel zinc oxide primer as this will extend the service life of the equipment.

If the paintwork has become degraded over years of use, HME offer a refurbishment service to repaint older products.

Framework

Carry out a visual inspect to identify if there are any cracks, large deflections, tears or broken parts on the body. If these are identified the unit should not be used until suitably repaired.

Spare parts are available for purchase from HME, please see appendix A for parts list.

Safety decals

Ensure all safety decals are present and legable. Replace as required. Please contact HME to source safety decals.

TROUBLE SHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	POSSIBLE RESOLUTION
Excessive damage to rubber edge	<ol style="list-style-type: none"> 1. Plough incorrectly positioned; 2. Use on uneven dirt roads, causing the edge to contact the floor; 	<ol style="list-style-type: none"> 1. Reposition plough on mounting jig; 2. Adjust the height of the castor wheels; 3. Replace rubber edge as needed.
Rear tires slipping or lifting	<ol style="list-style-type: none"> 1. Insufficient traction; 2. Insufficient counter balance; 	<ol style="list-style-type: none"> 1. Use a heavier power unit or reduce the weight of load handled; 2. Attach appropriate counter balance or reduce the weight of load handled;
Attachment hydraulic cylinders will not move	<ol style="list-style-type: none"> 1. No or insufficient oil flow; 2. Cylinder or moving component's path is blocked with something; 3. One of the hydraulic hoses is disconnected. 	<ol style="list-style-type: none"> 1. <ol style="list-style-type: none"> a. Hydraulic connections not compatible; b. Hydraulic system provides insufficient pressure; c. Hydraulic system supplying lower than expected pressure. System may require repair or service; d. Hydraulic valve on power unit not engaged. 2. Ensure path of movement is clear or material that may snag or block the movement; 3. Connect all hoses.
Damaged components	Improper operation.	Spare parts are available for purchase from HME, please see appendix A for parts list.
Attachment won't tilt back	<ol style="list-style-type: none"> 1. Load carried is too heavy; 2. Hydraulic system has insufficient pressure. 	<ol style="list-style-type: none"> 1. Reduce the weight of the load; 2. Check pressure and adjust as required. See power unit user manual and guidance on hydraulic maintenance.
Hydraulic hose failure	<ol style="list-style-type: none"> 1. Hose is worn or damaged; 2. Hose is being pinched or compressed by either the attachment, the carried load, the power unit or the loader. 	<ol style="list-style-type: none"> 1. See guidance on hydraulic maintenance; 2. Reroute the hose and fasten.
Hydraulic oil over heating	<ol style="list-style-type: none"> 1. Hydraulic oil level in power unit is too low; 2. Hydraulic oil is contaminated; 3. Hydraulic oil filter is blocked; 4. Hydraulic oil reservoir of power unit is too small; 5. Oil cooler blocked. 	<ol style="list-style-type: none"> 1. Check and top up oil, as per power units manufacturer's instructions; 2. Change oil, as per power units manufacturer's instructions; 3. Change oil filter as per power units manufacturer's instructions; 4. Use a larger power unit or allow oil to cool; 5. Clean oil cooler screen.

WARRANTY

HME offer a 12 (twelve) month warranty on all products effective from the date of despatch from HME which covers against faulty materials and workmanship. The warranty is exclusively to the supplying agent. The warranty is on condition that the fault is reported immediately to the agent, and that the faulty component/part is made available to the HME via the agent. Replaced parts carry a 90 day warranty. HME's warranty does not cover faults caused by inadequate maintenance, improper use, modification or incorrect installation. HME warranty does not cover wear and tear.

Within the warranty period, testing or fault diagnosis at the request of the agent will be carried out without charge to the agent if the defects are established to be manufactures fault, otherwise the purchaser is liable for all costs.

Warranty does not cover malicious or accidental damage.



EC DECLARATION OF CONFORMITY

In accordance with BS EN ISO/IEC 17050-1:2010

Howard Marshall Engineering Ltd.

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In accordance with the following directive(s):

1. of May 17, "relating to machinery" 2006/42/EC

Hereby certifies that;

Equipment:	60" Chassis Mounted Snowplough	72" Chassis Mounted Snowplough
Part Number:	P000911	P001009
Serial Numbers:	P000911-1-1 to P000911-1-100	P001009-1-1 to P001009-1-100

is in conformity with the applicable requirements of the following documents:

1. BS EN 12525:2000 +AS:2010, Agricultural machinery-Front Loaders-Safety;
2. BS EN ISO 12100:2010, safety of Machinery. Basic concepts, general principles for design.
3. BS EN 13021:2003+A1:2008; Winter service machines. Safety requirements.
4. BS EN ISO 4413:2010, Hydraulic fluid power. General rules and safety requirements for systems and their components.

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specifications and is in accordance with the requirements of the Directive(s).

Howard Marshall
Director

(authorised representative for Howard Marshall Engineering Ltd and responsible for technical documentation)

Date of Issue: 31.12.2020

Location of completion: Barracks Farm, Papplewick

The technical documentation for the equipment is available from the manufacturer at the above address.

document Number: HM-W0074



UKCA DECLARATION OF CONFORMITY

In accordance with BS EN ISO/IEC 17050-1:2010

Howard Marshall Engineering Ltd.

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United Kingdom
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In accordance with the following directive(s):

1. Supply of Machinery (Safety) Regulations 2008;
2. Section 6 of the Health and Safety at Work Act 1974
3. Consumer Protection act 1987-Schedule 3, Paragraph 1

Hereby certifies that;

Equipment:	60" Chassis Mounted Snowplough	72" Chassis Mounted Snowplough
Part Number:	P000911	P001009
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Date of Issue: 31.12.2020

Location of completion: Barracks Farm, Papplewick

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document Number: HM-W0075

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