



**SERIES 09 CHAIN HARROW SET
PRODUCT MANUAL**

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CHAIN HARROW SERIES 09

PRODUCT MANUAL

This Product Manual must be given to the Owner of the Harrow and the Operator(s) of the Harrow and any person(s) who carry out any service work / repairs to the Harrow.

This Product Manual contains important information about the Harrow and its Intended Use, Safety, Set Up & Assembly Instructions and Operating Instructions.

Please read this Product Manual. Thank you.

Additional copies of this publication are readily available direct from Murray Agricultural Equipment.

SERIES 09 CHAIN HARROW

Thank-you for selecting an item of equipment or service part manufactured or supplied by Murray Agricultural Equipment – building quality & value priced harrows for Australia & export markets. This product manual covers complete harrow sets, components and service parts

Please study the information contained in this product manual. Please retain this product manual for reference and re-read it from time to time to refresh your memory. Please ensure all future operators and owners of this product study this manual or the latest edition of this manual. Additional copies of this publication or the most recent edition are readily available direct from Murray Agricultural Equipment.

Correctly assembled, operated & maintained, and used for the purpose for which it was designed, this product should provide productive service. Your attention is drawn to information contained in this manual. Following the appropriate guidelines and instructions will contribute to reliable, effective performance and maintain the manufacturer's product warranty cover.

SAFETY

“A Special note – Please read it”

- Work safely and promote safety at all times.
- Familiarize yourself, employees & contractors and other people with all and any safety warnings, marks or instructions issued, marked or affixed to this product. Work in accordance with these instructions at all times when around this product.
- This product is intended to be pulled (towed) by a tractor correctly fitted with an approved rollover protection structure. This product is NOT intended for use with an “ATV” or “Ride on Lawn Mower” or similar machine.
- This equipment is not intended to be used or operated, serviced or repaired by children under the age of 18 years or persons who are not medically fit.
- Children, especially young children, should be supervised to ensure that they do not play with or near this equipment. Encourage children to keep away from farm machinery including this product.
- Do Not climb on Agricultural Equipment including this product.
- You and other people must be especially aware of the dangers from moving, sharp, falling or mobile components or equipment including tractors and engines, and of the danger from mechanisms or assemblies that can be activated remotely by other people.
- Wear and use the appropriate safety clothing and equipment.

- This equipment is not intended to be used on or travel on roads or freeways.
- When transporting this product in conjunction with (connected to) a tractor or another vehicle, transport only when safe to do so and **transport speed** (not work speed) should not exceed 20 kph.
- Electrical Safety; “Look Up And Live” When near powerlines, always Look Up And Live & Look Around And Live. Contact with powerlines and other electrical wires can end in tragedy.
- Replace any safety or warning labels on this product if they become damaged, unclear or unreadable. Labels are available as a service part.

SERIES 09 CHAIN HARROW SET: USAGE INFORMATION

The Murray Series 09 Chain Harrow is designed to be used as a “reduced tillage” harrow helping to spread organic matter and / or assisting to level small scale seedbeds, pulled (towed) by a **tractor correctly fitted with an approved rollover protection structure**. In general, this harrow is **Not** effective when used on regular pasture. For Harrows recommended for pasture, please refer to the Murray Series 20 Pasture Harrow – “Medium / Heavy Duty” and the Murray Series 05 Pastureland Harrow – “Light Duty”. Maximum operating speed is 7 km / hour. The Series 09 Chain Harrow is **Not** intended to be used as a “Medium / Heavy Duty” style “Pasture Harrow” (refer to the Murray Series 20) or as a “Light Duty” style “Pasture Harrow” (refer to the Murray Series 05) or as a “Cultivation” style harrow or as a “Broadacre Levelling” style harrow etc.

NOT INTENDED FOR USE WITH AN “ATV” OR “RIDE ON LAWN MOWER”

THE MURRAY SERIES 09 CHAIN HARROW (OR ANY OTHER MURRAY HARROW) IS NOT TO BE ATTACHED TO / USED IN CONJUNCTION WITH OR PULLED BY AN “ATV” OR “RIDE ON LAWN MOWER” OR SIMILAR MOTIVE POWER MACHINE.

Murray Agricultural Equipment expressly prohibit the attachment to / use with or pulling by an “ATV” or “Ride On Lawn Mower” or similar form of machine regarding a Series 09 Chain Harrow or any other Murray Harrow.

If, for whatever reason, attachment / or use in conjunction with or pulling by an “ATV” or “Ride On Mower” or similar form of machine was being considered **STOP NOW!**

DO NOT PROCEED WITH ASSEMBLY OR ATTACHMENT!

If you purchased this Harrow **brand new** contact the Murray Dealer that sold this Harrow to you or Murray Agricultural Equipment NOW to **arrange a return of this Harrow.**

SET UP INSTRUCTIONS

DANGER; Use extreme caution to prevent injury when handling or working with the harrow components.

When assembling equipment for delivery or in preparation for field work please follow these general instructions.

Always refer to the appropriate assembly drawings and / or instructions during assembly.

“Left” and “Right” are relative to a position behind the implement looking forward to the hitch point.

Assemble the implement on solid, level surface wherever possible.

SERIES 09 CHAIN HARROW SET: NORMAL PACKAGING

The following items should be included;

“DRAG” TYPE SET;

Quantity Description

- | | |
|--------|---|
| 1 | “Front” Harrow Drawbar |
| 1 | Bundle of Harrow Chain Mesh |
| 1 or 2 | (as required) Harrow Chain Mesh “Spreader Bar(s)” |

ADDITIONALLY, FOR A SERIES 21 3-POINT LINKAGE “HOIST LIFT” TYPE SET;

Quantity Description

- | | |
|---|--|
| 1 | Hoist Frame (2 Pull, use the plates welded in each corner) |
| 1 | Set of “Lift Chain Assemblies” attached to the Chain Mesh |

And when required; 1 4.57 M / 15’ Sets only “Rear Lift / Hoist Extension” Bar

SERIES 09 CHAIN HARROW SET: ASSEMBLY INSTRUCTIONS

SAFETY TIP: Safety Glasses should be correctly worn by the person(s) removing tie-wires.

STEP 1: Remove all tie-wires and shipping tags from components.

STEP 2: **ASSEMBLY TIP;** *We suggest you use the front harrow drawbar as an assembly guide, therefore;* Lay out front harrow drawbar, with labels facing up, on solid level ground large enough for the harrow set. (Naturally, leave enough space for the remainder of the set.)

STEP 3: Carefully position the “rolled-up” chain mesh section on the drawbar ring set side of the front harrow drawbar (with the chain mesh front couplings facing the ring sets). With care, unroll and position the chain mesh section so that each of the chain mesh front couplings line up with their respective drawbar ring sets. Note: The chain mesh section can lay either way; there is no top or bottom. The spacing of the drawbar ring sets is 190mm / 7 1/2”.

ASSEMBLY TIP: Due to the flexible nature of the chain mesh section, it is possible when it is unrolled and not stretched out far enough from side to side that it may appear to be too narrow for the front harrow drawbar. If that appears to be the case, please count the number of drawbar ring sets and chain mesh front couplings to ensure they are matched. If they are correctly matched just carefully align the chain mesh

section (move out the chain mesh section) so the front couplings are lined up to their respective drawbar ring sets.

STEP 4: Assemble each chain mesh front coupling to their respective end ring of each drawbar ring set.

STEP 5: **“Spreader Bar(s)”** 0.76 Metre (2’6”) deep mesh chain Sets feature 1 Spreader Bar. 1.5 Metre (5’) and 2.28 Metre (7’6”) deep mesh chain Sets feature 2 Spreader Bars. **SAFETY TIP:** Safety Glasses should be correctly worn by the person(s) hammering spreader bar “hooks”. **All Sets;** Assemble a Spreader Bar through the 2nd last row (from the weights at the rear) of mesh links. Carefully close each outside “hook” of the spreader bar on its respective outside square link. **1.5 Metre (5’) and 2.28 Metre (7’6”) deep mesh chain Sets ONLY;** Assemble the 2nd Spreader Bar through the middle row (from front to rear) of the mesh links. Carefully close each outside “hook” of the spreader bar on its respective outside square link.

SAFETY TIP: Safety Glasses should be correctly worn by the person(s) hammering spreader bar “hooks”.

If you are assembling a “Hoist Lift” type set, please continue from Step 6. If not, please refer to sections; Special Notes & Operating Instructions.

STEP 6: Place the Hoist Frame over * the assembled Front Lift Harrow Drawbar and Mesh Chain section with the 3-point linkage mount pins just forward of the Front Harrow Drawbar.

* Alternatively, the Hoist Frame may be fitted to the tractor's 3-point linkage system prior to attaching the harrow set and then, with care, the harrow connected to the Hoist Frame.

The Hoist Frame is fitted with Category I and Category II lower link pins and top holes. A Category I top pin is supplied. Please use a bush (not supplied) to convert the category I top pin to category II or use a category II pin (not supplied). Use the 3 supplied lynch clips for the top and lower fittings to ensure these areas do not become disassembled.

STEP 7: Disassemble the 2 pull bolts located on the front of the hoist frame and position the front (lift) harrow drawbar so that each of the 2 front pull rings are between the mount plates located on each front corner of the hoist frame. With the bolt head underneath, assemble the pull bolts through the bottom and top one hole plates with the pull ring in between the plates and secure with the nut and steel split pin supplied. When the harrow is fully assembled bend the split pin's legs to avoid the nut becoming undone.

STEP 8: Where rear "lift chain assemblies" are supplied: The number of lift chains varies according to size of set and whether the chain mesh is a 0.76 Metre (2'6" deep), a 1.5 Metre (5' deep) or 2.28 Metre (7'6" deep) model. A 0.76 Metre (2'6") deep mesh chain model has a single row of 2 or 3 "lift chains". A 1.5 Metre (5') deep and 2.28 Metre (7'6") deep mesh chain model has two rows (front & rear) of 2 or 3 "lift chains" making a total of 4 or 6 "lift chains". The

centre lift chain(s), if supplied, slips over the centre hook on the rear of the hoist frame and the outside lift chains slip over their respective outside hooks (except for 4.57 metre / 15' sets where they slip over the lift hooks of the rear lift drawbar). Where ever possible, select the end link of each "lift chain assembly" to slip over a lifting hook. We recommend, wherever possible, that the "lift chain assemblies" are not in tension while the harrow is in operation on the ground. By having the assemblies "loose" it assists in the correct operation of the harrow set and reduces the wear on the chain itself. Adjustment of the tractor's 3-point linkage fittings may assist in complying with this recommendation.

STEP 9: Applicable to Lift Sets with a coverage of 4.57 Metres / 15' Where a "Rear Lift" / Hoist Extension Bar is supplied: Fit the rear lift drawbar on the back of the hoist frame by placing the 2 pull rings on the drawbar over the hoist's 2 outside rear lifting hooks. Slip the end link of the outside lift chains over the lift hooks of the rear drawbar.

SPECIAL NOTES:

If the harrow set is **not** required to be "taken apart" we generally recommend that all or some the couplings, links etc, be closed up. Safety Glasses should be correctly worn by the person(s) hammering the couplings, links etc closed. For a permanent situation welding of these closed up components may be considered. Please ensure the person who is carrying out any welding work is qualified as a welder

if this step is undertaken. Ensure all safety procedures are adhered to when any welding work is undertaken.

Please dispose of any packaging and shipping items thoughtfully. Thankyou.

SERIES 09 CHAIN HARROW SET: OPERATING INSTRUCTIONS

Recommended maximum working speed is 7 kph. For better results, and to safeguard the implement, do not operate the harrow above this speed. Operation at a speed greater than 7 kph will result in premature wear and damage to this harrow and may void manufacturer's product warranty.

For a "hoist lift" type set we recommend, wherever possible, that the harrow's "lift chain assemblies" are **not in tension** when the harrow is in operation on the ground. For further details please refer to Step 11 of the set up instructions in this manual.

Special operating note: flexibility is essential for effective working of a Murray Chain Harrow. Wear is a natural consequence of flexibility. Operation below the recommended maximum working speed will assist to optimise the implement's working life.

Replace any safety or warning labels on this product if they become damaged, unclear or unreadable. Labels are available as a service part.

Inspect this product prior to use. Ensure that all couplings, rings, hooks, etc are correctly assembled / attached. Replace

any parts (couplings, rings, links etc) on this product if they become worn or unserviceable.

Safety Glasses should be correctly worn by the person(s) hammering couplings, rings, hooks, links etc.

NEVER GET UNDERNEATH A HARROW; Safe work practice directs that operators and other persons never get underneath a Harrow Set or components of a Harrow at any time while attempting to clear or clean the Harrow of grass matter or any other material or blockage and when carrying out maintenance or at any other time whether the Harrow Set or components of a Harrow are attached to a 3 point Linkage Lift frame or a drag type set. Failure to do so will / may result in death or serious injury.

NO RIDING ON A HARROW; Owners and Operators must ensure that no person(s) or animals ride or are carried etc on a Murray Harrow. Failure to do so will / may result in death or serious injury.

SERIES 21 HOIST FRAME – 3 POINT LINKAGE FRAME; (Where supplied)

NO RIDING ON A HOIST FRAME; Owners and Operators must ensure that no person(s) or animals ride or are carried etc on a Murray Series 21 Hoist Frame or a Murray Harrow. Failure to do so will / may result in death or serious injury.

NO CARRYING OF ITEMS ON A HOIST FRAME; Owners and Operators must ensure that no item(s) apart from one Murray Harrow Set designed to attach to a Murray Series 21 Hoist Frame is placed or carried on a Hoist Frame. The

Murray Series 21 3 Point Linkage Hoist Frame is designed to carry, when correctly attached, one Murray Harrow set only. It is **not** intended to be used at a load carrying device or a material handling lifting device or a pulling / pushing device. Failure to do so will / may result in death or serious injury.

Murray Series 21 Hoist Frames must never have their maximum lifting capacity exceeded at any time. Exceeding a Murray Series 21 Hoist Frame's maximum lifting capacity at any time will / may result in damage to the Hoist Frame and property & equipment etc and will / may result in death or serious injury to person(s) and animals. Safe work practice directs that operators and other persons never get underneath, nearby or on top of a Murray Hoist Frame. Ensure all people have their feet, arms and body clear of Harrows and Hoist Frame when the Harrows & Frame are being raised, lowered and during field work & transport. Failure to do so will / may result in death or serious injury.

STAND CLEAR OF "PINCH POINTS"; Owners and Operators must ensure no person(s) or animal(s) are permitted to stand within or be allowed to be nearby a "Pinch Point". A Pinch Point maybe an area between the front of a Hoist Frame & Harrow Front Lift Drawbar and the rear of a tractor when the Hoist Frame is connected to a tractor.

A Pinch Point maybe an area between a Harrow Set and the rear of a tractor when the Harrow Set is NOT connected to a tractor and the tractor is being reversed so as to enable the Harrow Set to be attached to the tractor. A Pinch Point maybe an area between the tractor's rear tyres and a drag type Harrow Front Drawbar when the tractor and attached Harrow Set is turning a corner.

Operating Instructions for Towing Vehicles;

This equipment is not intended to be used on or travel on roads or freeways. When transporting this product in conjunction with (connected to) a tractor or another vehicle, transport only when safe to do so and **transport speed** (not work speed) should not exceed 20 kph.

When towing equipment combinations, the maximum equipment combination ground speed shall be limited to the lowest specified ground speed of any of the towed machines.

The maximum travel speed is that specified in the operator's manual(s), Speed Identification Symbol (S I S), or information sign of towed equipment, or the limit of the road conditions, **whichever is the lesser**.

GENERAL

Additional copies of this publication are readily available. Please contact Murray Agricultural Equipment.

We do not recommend the adding of any extra weight to this harrow.

If you require assistance in any way with the Murray Series 09 Chain Harrow please contact your dealer, area distributor (where applicable) or Murray Agricultural Equipment.

Information contained herein is from data available at time of publishing. Due to a policy of continual product research and evaluation, Hugh Murray & Son Pty Ltd trading as Murray Agricultural Equipment reserves the right to change specifications without notice and without obligation.

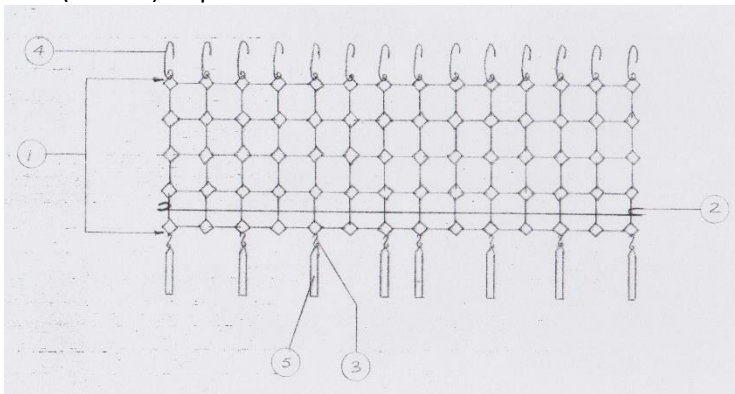
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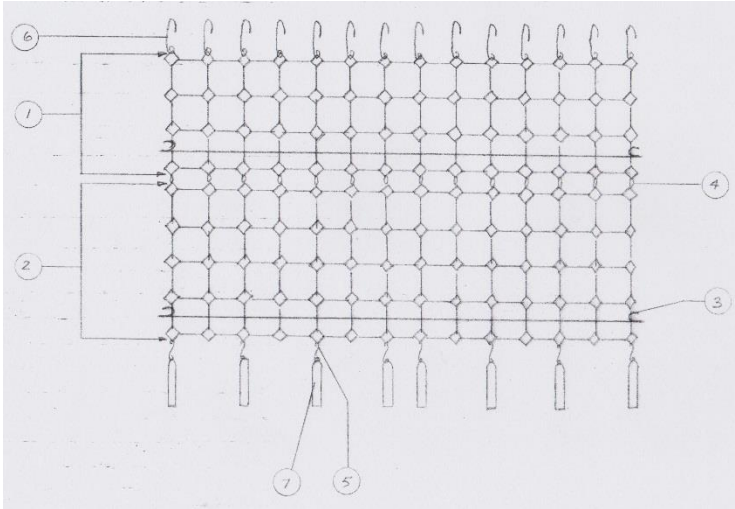
SERIES 09 CHAIN HARROW SECTION: PARTS BREAKDOWN

2'6" (0.76 m) Depth Chain Section



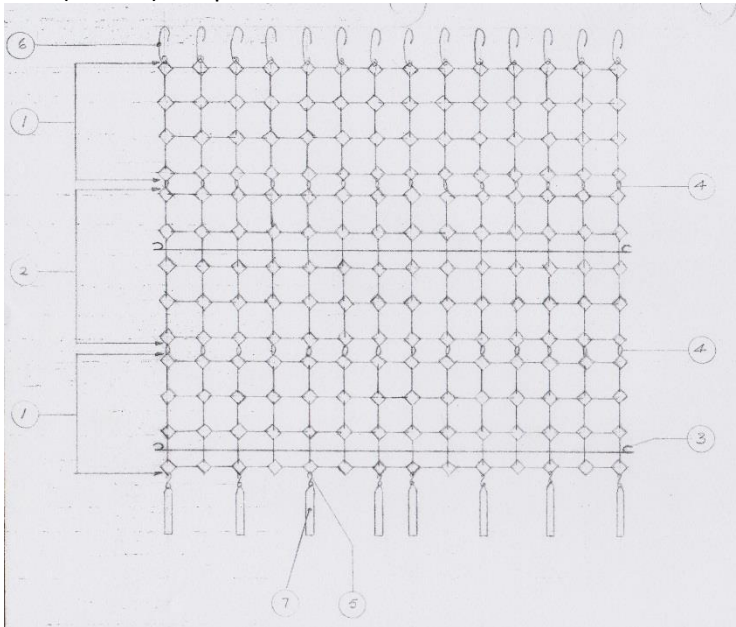
Ref No.	Part No.	Description
1	105012	10mm Square Link
2	105014	5' Spreader Bar
	105024	6' Spreader Bar
	105022	8' Spreader Bar
	109010	10' Spreader Bar
	109011	12' Spreader Bar
	109012	15' Spreader Bar
	109013	20' Spreader Bar
3	105019	Weight Coupling
4	105002	Front Coupling
5	105046	Weight Only

5' (1.5 m) Deep Chain Section



Ref No.	Part No.	Description
1 & 2	105012	10mm Square Link
3	105014	5' Spreader Bar
	105024	6' Spreader Bar
	105022	8' Spreader Bar
	109010	10' Spreader Bar
	109011	12' Spreader Bar
	109012	15' Spreader Bar
	109013	20' Spreader Bar
4	105003	13mm Oval Link
5	105019	Weight Coupling
6	105002	Front Coupling
7	105046	Weight Only

7'6" (2.28 m) Deep Chain Section



Ref No.	Part No.	Description
1 & 2	105012	10mm Square Link
3	105014	5' Spreader Bar
	105024	6' Spreader Bar
	105022	8' Spreader Bar
	109010	10' Spreader Bar
	109011	12' Spreader Bar
	109012	15' Spreader Bar
	109013	20' Spreader Bar
4	105003	13mm Oval Link
5	105019	Weight Coupling
6	105002	Front Coupling
7	105046	Weight Only

**MURRAY AGRICULTURAL EQUIPMENT CONTACT
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CUSTOMER PURCHASE INFORMATION:

Date of Purchase:

Dealer Purchased From:

Model No.:

The above information will help us to service any warranty
claims.