

- 9** Our Harrow frames are universal and designed to accommodate our complete range of harrow mats. To this end when assembling 10ft wide and over Heavy Grass, Medium Grass or Concord Flexible Harrow, ensure that you leave the end connecting point free.
- 10** Only use the end connecting point if you are assembling a Chain and Spike Harrow.
- 11** Concorde Flexible Tine Chain Harrows are multi-directional and can be used in an aggressive or passive pull option. To achieve this simply disconnect Shackles and turn frame around and reconnect Shackles as previously described.
- 12** Our range of Mounted Chain Harrows are designed to harrow the land and should not be used as a 'leveller' (running harrow frame at ground level) Failure to adhere to this instruction will cause damage to the Harrow Mat and render the Warranty null and void. We recommend that the frame operates approximately 6 – 12" (150mm – 300mm) above ground level so that all the tines are in contact with the ground.



Hackett Harrows

Universal Frame Assembly Instructions

Mounted Chain Harrow 10'-0" - 20'-0" Width

Distributed By:



Hackett Harrows

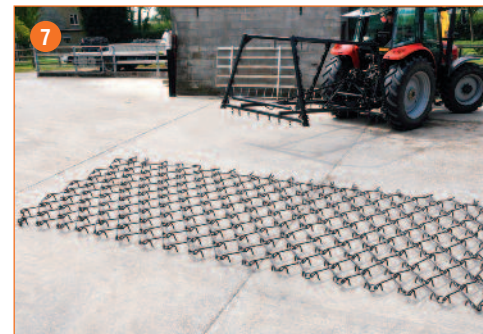
Manufactured in the UK



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Mounted Chain Harrow 10'-0" - 20'-0" Width

Frame Component Parts	Fixings supplied separately in a bag		
1 no. Centre Section	1 no. M20 x 120 Bolt	7 no. M20 Nyloc Nut	
1 no. 'A' Frame Section	4 no. M18.5 x 122 Clevis Pin	4 no. M20 Washer	
1 no. 'Y' Frame Section	2 no. M20 x 50 Bolt	1 no. Safety Chain	
2 no. Frame Wing Section	4 no. M20 x 65 Bolt	2 no. M18.5 x 62 Clevis Pin (Hydraulic option)	
1 no. Harrow Mat (where applicable)	4 no. 4mm x 43mm Cotter Pin	2 no. M20 Washer (Hydraulic option)	
	2 no. Lynch Pin (11mm)	2 no. 4mm x 43mm Cotter Pin (Hydraulic option)	



Important Safety Notice

The harrow mat and frame must be assembled and tested by a competent person. The operator must be competent and fully understand the operation and dangers inherent in using this equipment. When the frame is being transported with the frame wings folded the safety chain must be secured to prevent the frame wings from opening unexpectedly. Ensure the towing vehicle being used is suitable for purpose. If in doubt - consult your approved dealer. For Shackles, Bolts and Nuts used to attach the mat to frame; the number required will depend on the width of the frame. All mats are fitted with Pig Tail Hooks front and side and Rings at the back. When used with Mounted Frames these hooks are not required and can be left loose or removed if necessary.

Instructions

Remove all packaging and dispose of and recycle where possible. Check all components listed are present.

- 1 Lay frame centre section on a flat, level surface.
- 2 Attach 'A' frame using 4 x M20 x 65 bolts, M20 Nyloc nuts and M20 washers supplied.
Do not fully tighten nuts at this stage
- 3 Attach 'Y' section using 2 x M20 x 50 & 1 x M20 x 120 bolts and M20 Nyloc nuts supplied.
Once the 'Y' section is in position, all bolts can be fully tightened
- 4 Connect harrow frame to tractor using 3-point linkage and attach Frame Wings using 18.5mm x 122mm Clevis pins and 4mm Cotter pins provided. **Ensure that pins are facing backward away from the tractor.**
- 5 **Hydraulic Option:** With the Frame Wings in the **upright position**, fit Hydraulic Cylinder using the M18.5 x 62 Clevis Pins, M20 Washers and 4mm Cotter Pins provided. Once hose connections are fitted to hydraulic system on tractor, lower side arms. **Care must be taken when lowering side arms for the first time due to differing hydraulic flow in various machines.**
- 6 **Hydraulic Option:** Secure hydraulic hoses along frame, 'Y' section and 'A' frame using zip ties provided. **Ensure that you allow for 18" (460mm) of movement in hydraulic cylinder before fully securing the zip ties.**
- 7 Remove assembled frame and roll out harrow mat ensuring that it is positioned for the correct direction of pull (William Hackett Chains Limited recommend that the hooks are positioned at the front of the harrow with the rings at the back, but this is for guidance only).
- 8 Position assembled frame over harrow mat and secure to frame using M12 shackles, bolts and nuts provided.