**X-Press Type Press – Requires Welding**  
Author – Unknown, but believed to be someone from ArcheryTalk.com

Please note the construction of this press will require some general fabrication skills so if you struggle with these things you should seek some assistance. This is more a guide than a set of hard and fast instructions and as such you will have to excuse the plans and diagrams.

All components are readily available, except the jack which is commonly referred to as a “sidewinder jack stand”. These are available from campervan / caravan manufacturers. Basically all you need is a Square Sidewinder jack rated at over 1000Kg with about 300mm of stroke. Mine goes from 580mm - 960mm overall length with the jack. Usually these have a telescopic leg as well for more height variations which you don't need here). Mine is rated for 1800kg (If I remember correctly).

You actually only need a couple of inches of stroke but longer is better as it allows more options for locating the press arm linkages.

You should be able to source these from any campervan manufacturer... just check the yellow pages (I found over 20 listed under "Caravans & Camper Trailers&/or Equipment & supplies" Just use whatever they have in stock and is cheap (it isn't critical to use one the same as mine).

I’ll start by giving instructions on how to fabricate components and construct the assemblies. From there and with the assistance of the pictures you should be able to assemble the press.

My apologies to the older generation for listing the dimensions in metric.
Fabricating the Components

Step 1 - Jack Mount. (make 2)

Start with 2 pieces of 75mm x 6mm mild steel flat bar 125mm long and drill the holes and cut the plates to the dimensions shown in the picture below.
Tip: For duplicate items it may be easier to tack weld all pieces together and drill the holes all at once.
Note: Make sure the cut out in the jack plates are suitable for your jack type, the jack should rest against the main frame once fitted.
Jack Mount 2 required

Material: 75mm x 6mm Mild Steel Flat Bar

not to scale
**Step 2 - Legs (make 2)**

Using 40mm square hollow section ("SHS") cut the pieces and assemble the leg as shown in the picture below.

In the top of the leg insert a piece of 12mm thick plate with a M12 thread as shown in the picture and weld in 10mm down from the top. Paint welded areas.

Tip: Weld the 12mm plates in before welding into the T shape so you can face the end of the tube in the lathe and achieve a nice 90-degree surface to clamp the main frame to.

Note: You may wish to alter the height of the leg to suit your desired working height.
**Leg**

2 required

Material: 40mm x 2mm Duralal RHS
35mm x 10mm Mild Steel Flat Bar

not to scale
**Step 3 - Main frame (make 1)**

Using 40mm SHS cut and drill to the specifications shown below.  
Note: The holes in this piece are in the centre of the 40mm section. Please excuse the 2D drawing here but the simplicity of this part does not warrant a 3D drawing.
Step 4 - Press Arm (make 2)

Using 2 pieces of 40mm SHS cut and drill to the dimensions shown below. Take 2 pieces of 40mm x 6mm mild steel flat bar 50mm long and weld in the position shown in the picture below. Paint welded areas. Tip: Bevel the end of the SHS to get a nice penetrating fillet weld and then dress the edges back to a nice smooth finish for a professional look.

Press Arm 2 required

Material: 40mm x 2mm Duranal RHS
40mm x 6mm Mild Steel Flat Bar

not to scale
Step 5 - Limb Contact Bar (make 2)

Take a piece of 19mm bright mild steel round bar and turn the end down to 12mm and cut an M12 thread as shown below. Note: Please excuse the 2D drawing here but the simplicity of this part does not warrant a 3D drawing.

Limb Contact Bar 2 required

Material: 19mm Bright Mild Steel round bar

not to scale
**Step 6 - Riser contact bar (make 2)**

Easy one… Take a piece of 19mm bright mild steel round bar and cut to length as shown below.
Note: Please excuse the 2D drawing here but the simplicity of this part does not warrant a 3D drawing.

**Riser Contact Bar** 2 required

Material: 19mm Bright Mild Steel round bar

*not to scale*
**Step 7/ Slider spacer plates (make 8)**

Another easy one... Take a piece of 75mm x 3mm mild steel flat bar and cut to length as shown below. Note: Please excuse the 2D drawing here but the simplicity of this part does not warrant a 3D drawing.

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**Slider Spacer Piece**  
8 required

Material: 75mm x 3mm Mild Steel Flat Bar  
*not to scale*
**Step 8 - Limb support mount (make 2 of each set)**

These are among the most complicated components made in this press and it is vital they are made as accurately as possible. Take a piece of 75mm x 6mm mild steel flat bar and cut and drill to the dimensions shown below.

Tip: There are 2 of each of these plates; the only difference is the size of the holes. Tack weld all 4 together and drill the small hole then split off 2 and drill the larger hole.

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**Limb Support Mount** 2 off Each required

Material: 75mm x 6mm Mild Steel Flat Bar

*not to scale*
**Step 9 - Press arm mount (make 4)**

These are among the most complicated components made in this press and it is vital they are made as accurately as possible. Take a piece of 75mm x 6mm mild steel flat bar and cut and drill to the dimensions shown below. Tip: For duplicate items it may be easier to tack weld all pieces together and drill the holes all at once.
Press Arm Mount  4 Required

Material: 75mm x 6mm Mild Steel Flat Bar  
(not to scale)
Step 10 - Press linkages (make 2)

Using a 40mm x 6mm mild steel flat bar cut and drill to the dimensions shown below and paint.
Tip: For duplicate items it may be easier to tack weld all pieces together and drill the holes all at once.
Note: Please excuse the 2D drawing here but the simplicity of this part does not warrant a 3D drawing.

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Press Linkages  2 required

Material: 40mm x 6mm Mild Steel Flat Bar

not to scale
Assembly.

Step 1 - Press arm - riser support mount assembly (assemble 2)

A/ Using two each of components 7 and 9 and one of component 6, weld into a square shape as shown in the picture below. Note: The 19mm bar is slipped through both holes in the plates. Weld on the inside of the support bar only. In the picture you will note mine is bolted… this is unnecessary
Tip: To achieve a good fit use a scrap piece of 40 mm SHS with a wrap of masking tape around it to allow for a clearance fit.
Tip: Bevel the end of component 7 to get a nice penetrating fillet weld and then dress the edges back to a nice smooth finish for a professional look.
B/ Drill a hole in the centre of the bottom of each assembly and weld a nut to accept nylon handle thumbscrews of your choice, (I used 5/16 BSW)
C/ Once welded, paint and allow to dry.
D/ Once dry, slip a piece of 19mm hose over the support bar (component 6).
**Step 2 - Linkage - Limb support Assembly**

A/ Using two each of components 7 and 8 (one each of the small and large hole plates) and one of component 5, weld into a square shape as shown in the picture below.

Note: The 19mm bar is slipped through the plate with the large hole and through the 12mm hole. Weld on the inside of the support bar only. The M12 thread protruding from the rear of the assembly will be used to mount the press linkages later on. you'll note in the pics mine has 1/2"bolts rather than a protruding thread. after building the press like this I decided it would be best if built the way I have described above.

Tip: To achieve a good fit use a scrap piece of 40 mm SHS with a wrap of masking tape around it to allow for a clearance fit.

Tip: Bevel the end of component 7 to get a nice penetrating fillet weld and then dress the edges back to a nice smooth finish for a professional look.

B/ Drill a hole in the back of each component and weld a nut to accept nylon handle thumbscrews of your choice, (I used 5/16 BSW)

C/ Once welded, paint and allow to dry.

D/ Once dry, slip a piece of 19mm hose over the support bar.
**Step 3 - Jack Assembly**

A/ Take two of component 1 and weld them in position on the jack. Take care to ensure that there is ample room to wind the jack handle once the jack is mounted on to the press frame. Depending on the jack used you may need to drill a hole in the top of the leg to accept a hitch pin to attach the press linkages too
B/ Once welded, paint and allow to dry.
Tip: To achieve a good fit use a scrap piece of 40 mm SHS with a wrap of masking tape around it to allow for a clearance fit.
Note: It may be necessary depending on the jack used to extend the crank handle to clear the frame.
Step 4 - Press Arm Assembly

A/ Using M10 x 65mm bolts, washers and nuts bolt component 4 into assembly 2 so that the protruding ends face up as shown below.
**Step 5 - Press Assembly**

A/ Take the main frame (component 3) and slide assembly 1 onto the main frame with both support bars facing in the same direction as shown in the pictures and nip up the thumb screws.
B/ Using 65mm long M12 bolts, washers and nuts, bolt the legs (component 2) to the outermost holes so that the legs sit at 90 degrees to the main frame.
C/ Using 65mm long M12 bolts, washers and nuts, bolt assembly 3 to the centre holes on the press main frame in between each of assembly 1.
D/ Using 65mm long M10 bolts, washers and nuts, bolt assembly 4 into assembly 1
E/ Using M12 nuts and washers bolt the press arm linkage (component 10) to the threaded area protruding from the back of assembly 2.
F/ Using a hitch pin or similar cross the linkages over and locate in the desired hole.
Final word

Please note due to the complexity of this post there may be some errors... I have done my best to check there are none but if you notice any please let me know so I can make the changes.

It needs to be said that while this press resembles a Sureloc X press I have never seen an X press in the flesh. I should also point out that I have no intentions or means to make any profit from the sharing of these plans. These plans have been drawn from my years of experience in my trade and have been built and proven to work. I will accept no responsibility or liability for any injuries or losses that result from the manufacture or use of this press.