Quilting Frame



Box 1 Parts

- A Complete Right Side PH1200-00 each 1 **B** - Right Gear Box PH1601-002 each 1 C - Large Wheel with knob PH1401-001 each 3 **D** - Side Support Plate PH1910 each 4 H - Complete Left Side PH1100-00 J - Left Gear Box PH1701-000 **K** - Complete Middle Leg PH1300-000 L - Back Support Plate PH1912-000 P - Front Support Plate
 - Front Support Plate PH1911-000







Box 2 Parts

Q - Plastic Table PH1908-000 each 2
R - Plastic Tracks 6 Foot PH1909-006 each 4
S - Plastic Tracks 12 Foot PH1909-012 each 4
T - Front Bar PH1901 each 2
U - Track Support PH1907-000 each 4
V - Frame Table PH1906-000 each 2
X - Track Support Coupler

Box 3 Parts

- **Y** Shaft 1828.8mm PH1902-000 each 1
- Z Shaft 950mm PH1601-001 each 2
- AA Shaft Coupler PH1903 each 2
- AB Fabric Rail with ratchet wheel PH1905-200 each 3

PH1913-000 each 4

- AC Fabric Rail without ratchet wheel PH1905-100 each 5
- AD Rail Coupler PH1904-000 each 2

Box 4 Parts

- AE Complete Top Carriage PH1802-000 each 1
- AF Complete Bottom Carriage PH1801-001 each 1
- AG Hardware
- AH Tools
- AJ Gearbox bushing PH1601-004 each 2
- AK Bevel Gear 1 PH1601-003 each 2
- AL Take up rail wheel assembly PH1400-100











Frame Orientation Reference

This is the back of the frame. Pantograph can be placed back here for you to follow

This is the Left side of the frame.



This is the right side of the frame.

Fabric loads from this side of the frame. This is the front of the frame.

Height Adjustable Leg Assembly

Preset the Leg height for your comfort adjustments can be made once you have the table assembled.

Parts Used:

- 1 Right side Assembly
- 1 Left side Assembly
- 1 Middle Leg Assembly * (for 12 foot)

Step 1: To adjust the height of the leg, remove the pre-assembled M8 x 50mm bolt with cap nut and loosen the M8 x 16mm Socket Head Screw.

Step 2: Using the bungee support as a guide. Adjust the Assemblies so that the bungee support is close to your waist height. This is were the base of the machine will be once you have everything assembled.

Step 3: Reinsert the M8 x 50mm bolt with cap nut into the leg at desired height. Then tighten the M8 x 16mm Socket Head Screw.

Step 4: Repeat steps 1 - 3 for all the other legs. Ensuring the assemblies are all the same height.



Table Top to Side

Parts Used:

- 16 M8 x 16mm Socket Head Screw
- 1 Right Side Assembly
- 1 Left Side Assembly
- 2 Frame Table * (1 Frame Top for 6 foot)
- 4 Side Support Plate

Step 1: With your Right Side Assembly and (1) Frame Table, Slide the Frame Table in the brackets. Then use (2) M8 x 16mm Socket Head Screws to connect the Right Side Assembly to the Frame Table. Do not tighten these screws yet. Make sure the side of the Frame Table with the holes are towards the back.

Step 2: Using 4 M8 x 16mm Socket Head Screws and one Side Support Plate. Attach to the corner of the table and the leg. Ensure that the Side Support Plate is square with the leg and the table top.

Step 3: Tighten the Side Support Plate once square with the four screws. Now tighten the two screws holding the Frame Table to the leg.

Step 4: Using (2) M8 x 16mm Socket Head Screw attach the (1) front support plate attach to the side you just assembled. Ensure the plates are square with the legs. Tighten the Socket Head Screws.

Step 5: Repeat Step 1 - 4 for the Left Side Assembly, using the same Frame Table for 6 foot and the second Frame Table for the 12 foot.

The side assemblies have two built-in supports to help hold the table during assembly.

Holes and black pad strip position up. Holes on the back side.



Fig 3 Table Frame screws

Attach Middle Assembly *

(for 12 foot frame)

Parts used:

- 4 M8 x 16mm Socket Head Screw
- 1 Right Side Assembly with Frame Table
- 1 Left Side Assembly with Frame Table
- 1 Middle Assembly
- 1 Back Support Plate

Step 1: Attach Right side assembly with table attached to the middle leg assembly using (2) M8 x 16mm Socket Head Screws, Don't tighten these screws at this time.

Step 2: Attach the Left side assembly with table attached to the middle leg assembly using (2) M8 x 16mm Socket Head Screws, Don't tighten these screws at this time.

Step 3: Use (6) M8 x 16mm Socket Head Screws and the Back Support Plate, Attach where the Frame Tables meet and the Middle Assembly. Do not tighten at this time.

Step 4. Check the Back Support Plate for being square on the middle leg. Use the two (2) M8 x 16mm Socket Head Screws to tighten the Back Support Plate to the middle leg.

Step 5: With the Frame Tables and Back Support Plate in place on the Middle Leg Assembly lift all the parts together about 3 to 4 inches off the floor.

Step 6: Gently place the Frame Tables and Middle Leg Assembly back on the floor. Check that the two (2) Frame Tables are very close together touching is good. Also check to ensure that they are flush with each other and that one is not higher than the other.

Step 7: Repeat step 5 if they are not flush and touching. This helps to ensure they are level and that your track will lay flat across them.

Step 8: Tighten the Back Support Plate once you have





Fig 4

Fig 5



Fig 6





Fig 8



the Frame Tables square and the Middle Assembly straight. Now tighten all (4) M8 x 16mm Socket Head Screws for the Back Support Plate screws and the (4) M8 x 16mm Socket Head Screws holding the Middle Assembly to the Frame Tables.

Connecting the Front Bars

Parts used:

- 16 M8 x 16mm Socket Head Screw*
- 2 Front Bar*
- 2 Side Support Plate
- 1 Front Support Plate*

*(6 foot frame you will not need 1 front bar and the Front Support Plate. You will also use only 10 Socket Head Screws)

Step 1: Place the (1) Front Bar at the front of the frame with the slotted holes on top,

Step 2: Attach to the frame using (2) M8 x 16mm Socket Head Screws, These screws are on the bottom, Do not tighten at this time.

Step 3: Attach the Front Support Plate using (4) M8 x 16mm Socket Head Screws. Ensure the Front Bars are tight together and flush with the top of the Front Support Plate. Tighten the Front Support Plate with the Front Bars using the M8 x 16mm Socket Head Screws.

Step 4: While pushing the Front Support Plate against the Middle Leg Assembly, Tighten the two (2) M8 x 16mm Socket Head Screws holding the Middle Leg Assembly to the Front Bars.

Step 5: Ensure that your Front Bars are level and square with the front Support Plate and tighten into place.

Step 6: Tighten the (2) Socket Head Screws holding the Front Bars to the Left, Right Leg Assemblies

* For the 6 foot frame attach one Front bar to both sides and not the middle.



Fig 10



Fig 11



Fig 12



Fig 14 Two screw to tighten under the bars on the middle leg



Fig 15

Gearbox and Shaft Assembly

Parts Used:

- 1 Shaft 1828.8mm*
- 2 Shaft Coupler*
- 2 Shaft 950mm
- 2 Bevel Gear 1
- 2 Gear box bushing
- 2 M10 x 55mm Sock Button Head Screw
- 2 M10 Jam nut
- 2 Washer 11mm ID x 28mm OD
- 1 Right Gearbox
- 1 Left Gearbox
- 4 M8 x 16mm Hex Bolts
- 2 Large wheel with wheel knob

*(The Shaft and (1) Shaft Coupler are not used in the 6 foot frame. Skip steps 2 and 3 for 6 foot frame.)

Step 1: Collect the following parts.

- 1 Shaft 950mm
- 1 Bevel Gear 1
- 1 M10 x 55mm Socket button head screw
- 1 M10 Jam nut
- 1 Washer

Step 2: Feed the M10 x 55mm socket button head screw into the center of the Bevel Gear 1, Screw head with washer needs to be on the narrow side.

Step 3: Thread the 10mm jam nut onto the M10 screw, only thread until the nut is flush with the bottom of the screw.

Step 4: While holding the Bevel Gear 1 in your hand slide the Shaft 950mm into the Bevel Gear 1 side with the nut which is attached to the screw.

Step 5: Slide the Shaft, short all the way into the wide side of the Bevel Gear 1.

Step 6: With the Shaft and Bevel Gear 1 together tighten the M10 x 55mm Socket Button Head Screw. Do



not over tighten as you will remove once installed on the frame to add the Large wheel with wheel knob.

Step 7: Repeat steps 1 - 6 to complete the other Bevel Gear 1 and Shaft. Once you have two Bevel Gear 1 with Shafts together proceed to step 8 for 12 foot frame. Proceed to step xx for 6 foot frame

Step 8: Locate the Shaft 1828.8mm and the (2) Shaft Couplers.

Step 9: Slide (1) Shaft Coupler into each end of the Shaft. Position each shaft Coupler close to the edge of the screw hole opening and tighten in place with the set screws found in the Shaft Coupler.

Step 10: Insert the Shaft 1828.8mm with the two Shaft Couplers into opening located on the middle leg assembly. Feed the Shaft in from the left side to prevent damage to the Shaft Bushing.

Step 11: Slide (1) Bevel Gear 1 with Shaft 950mm onto the Shaft Coupler attached to the Shaft 1828.8mm on the right side.

Step 12: Using the Right Gear Box position under the take up roller riser. Place the Gearbox Bushing on the Screw Head side of the Bevel Gear 1 and slide into position on the Gearbox so that the Screw head is on the outside of the frame.

Step 13: Use (2) M8 x 16mm socket head screw to attach the Right Gearbox to the frame. This should be flush with the top edge of the right leg assembly.

Step 14: Repeat step 11 - 13 using the Left Gearbox and the remaining Bevel Gear 1 with Shaft 950mm.

Step 15: With both Gearboxes attached adjust Shafts so that all are connected and tighten the set screws so that both sides turn together and the take up rail riser adjust together.

Step 16: Remove the M10 x 55mm Socket Button



Fig 16







Fig 19



Fig 20

Head Screw and attach the Large Wheel with Knobs onto each Gearbox.

Option for 6 foot frame

Step 17: Slide a Shaft Coupler into the end of one of the Shaft 950mm connected to the Bevel Gear 1.

Step 18: Secure in place by tightening the installed set screws.

Step 19: Follow steps 11 - 13 connecting the two Shaft 950mm together rather than using the Shaft 1828.8mm between them.

Step 20: With both Gearboxes attached adjust Shafts so that all are connected and tighten the set screws so that both sides turn together and the take up rail riser adjust together.

Step 16: Remove the M10 x 55mm Socket Button Head Screw and attach the Large Wheel with Knobs onto each Gearbox.



Fig 22



Fig 23



Fig 24



Fig 25

Track Support Assembly*

(For 12 foot frame only)

Parts used:

- 8 M6 x 16mm Set Screw
- 4 Track Support
- 2 Track Support Coupler

Step 1: Slide half of a Track Support Coupler into a Track Support and lock the Coupler in place by using (2) M6 x 16mm Set Screws.

Step 2: Slide another Track Support over the rest of the Track Support Coupler and then lock the Coupler in place by using (2) M6 x 16mm Set Screws

Step 3: Repeat Steps 1 and 2 to create another Track Support Assembly.

Track Insertion

Parts Used:

- 2 Track Support Assembly
- 4 Plastic Track* (for 12 foot)
- 4 6ft. Plastic Track* (for 6 foot)

Step 1: Slide (2) Plastic track into the groves of the Track Support Assembly

Step 2: Repeat Step 1 for remaining Track Support Assembly

Track Installation

Parts Used:

2 - Track Support Assembly 16 - M6 x 10mm Connector Bolt*

*(only 8 Connector Bolts for 6 foot frame)

Step 1: Lay one of the Track Support Assemblies on the front and one on the back of your frame.

Step 2: Screw M6 x 10mm Connector Bolt into each of the holes. Do not completely tighten the bolts at this time.

Track Alignment

Parts used:

1 - Bottom Carriage

Step 1: Slide the Track Support Assembly to the back edge of the back of the frame.

Step 2: Secure in place by tightening the m6 x 10mm Connector Bolts.

Step 3: Place the Bottom Carriage on the tracks. Slide







the carriage across the frame to position the front Track Support Assembly.

Step 4: Now that you have the Track Support Assemblies lined up with each other and the bottom carriage gliding across the frame. Tighten the front Track Support Assembly

Step 5: Remove the Bottom Carriage until later.

Front Rail Support Adjustment*

(only for 26" Quilting Machine) The front rail supports are set up for the TinLizzie18 Machine. If you have the Ansley26 machine adjustments will need to be done.

Step 1: Remove the (4) bolt holding the rail support assembly in place.

Step 2: Slide the rail support assembly to the front set of holes.

Step 3: Replace the (4) bolts.

Step 4: Repeat for other side of frame.

Bungee Adjustment*

(only for 26" Quilting Machine)

Step 1: For a 26" Quilting Machine unscrew the (4) M8 x 16mm Socket Head Screws holding the (2) Bungee Tubes in place

Step 2: Move both Bungee Tubes closer to the front of the frame and reattach the (4) M8 x 16mm Socket Head Screws as shown





Fig 29



Fig 30

18 inch placement



Fig 31

26 inch placement



Plastic Table Installation

Parts Used:

2 - Table *

* (Only (1) Plastic Table is needed for the 6 foot frame)

Step 1: Lay the Plastic Table against the back Track Support and against one side of the frame, over the foam strips.

Step 2: Lay the other Table against the back Track Support and against the other side of the frame



Rail Connection *

(For 12 Foot Frame only) Parts Used:

- 1 Fabric Rail Assembly with Hand Wheel
- 5 Fabric Rail Assembly without Ratchet
- 2 Fabric Rail Assembly with Ratchet
- 4 Rail Coupler
- 16 M8 x 16mm Set Screw

Step 1: Slide a Rail Coupler into the open end of a Fabric Rail Assembly with a Ratchet and line the holes up. Use (2) M6 x 16mm Set Screw to tighten the Rail to the Coupler.

Step 2: Slide a fabric Rail Assembly without a Ratchet on the other end of the coupler. Again line up the holes and tighten (2) M6 x 16mm Set Screw into the coupler through the rail.

Step 3: Repeat Steps 1 and 2 until you have three Fabric Rail Assemblies and then make the fourth assembly using (2) Fabric Rail Assemblies without Ratchets for the batting rail.



Fig 34



Rail Installation

Parts Used:

- 1 Fabric Rail Assembly without Ratchet
- 2 Fabric Rail Assembly with Ratchet
- 1 Fabric Rail Assembly with Hand Wheel

Step 1: Place the Fabric Rail without Ratchet into the rail holder on the bottom of the frame for the batting rail.

Step 2: The (2) Fabric Rail Assembly with Ratchet go on the rail holders on the front of the frame with the ratchets going on the right side of the frame.

Step 3: The Fabric Rail Assembly with Hand Wheel goes in the rail holders on the top back of the frame with the hand wheel on the right side of the frame.

Step 4: Spin the Rails to make sure the ratchets are working.

Top Carriage Alignment

Parts Used:

- 1 Top Carriage
- 1 Bottom Carriage

Step 1: Place the Top Carriage on the Bottom Carriage, check that all 8 wheels are riding on the tracks of the bottom carriage.

Step 2: If needed loosen the 8 screws on the crossbars holding the top carriage together

Step 3: Line up the wheels so all (8) wheels are touching the track as it slides.

Step 4: Re-tighten all (8) M8 x 16mm Socket Head Screws.

Step 5: Place both the Bottom and Top Carriages on the frame.



Fig 36



Fig 37



Fig 38 Loosen these screws

Machine Attachment

Parts Used:

1 - Top Carriage

1 - Tin Lizzie Quilting Machine

Step 1: Loosen the M8 x 16mm Socket Head Screws on the Top Carriage, and center your machine side to side over the Top Carriage. Set the machine down on the Top Carriage.

Step 2: For the 26 inch machine move Top Carriage to the back of the Bottom Carriage and adjust the machine so the needle is about 1/4 inch in front of the Take Up Rail. For the 18 inch machine make sure the machine is centered so the needle can be in any point between the Rails.

Step 3: Re-tighten the M8 x 16mm Socket Head Screws on the Top Carriage

Congratulations! You have completed the assembly of your Phoenix XL Quilting Frame.

All that remains is to install your fabric leaders, quilt layers and begin quilting !

We recommend you begin with practice material allowing you to experiment with machine settings and stitching techniques.

Note: As you cut the fabric layers, we recommend making the quilt backing about 6 - 8" longer and 2 - 4" wider than the top. This will allow for quilting to the edge of your top if desired and leave room to square up the quilt sandwich without cutting your quilt top.

Fabric Installation

Using leader cloths enable you to finish your quilt completely, end to end, without having to take your quilt off the frame.

Fabric Installation Overview

- Step 1: Install quilt top to 2nd rail and roll up.
- Step 2: Install quilt backing to the 3rd rail and roll up.
- **Step 3:** Install batting to the 4th rail and roll up.
- Step 4: Attach quilt backing to take up rail.
- Step 5: Attach batting to take up rail.
- Step 6: Attach quilt top to take up rail.

Leader Cloth Installation Instructions

Step 1: Make sure your rails are clean. We will be attaching adhesive back Velcro to three of the rails.

Step 2: Mark the center of each cloth leader on both edges (Length-wise). We will be placing the leaders where the rails meet in the middle.

Step 3: Attach the sticky back Velcro to each fabric rail. There are only three (3) rolls of this. The upper three rails are the only rails to get leaders. Start by finding the middle of the strip of Velcro, Line that mark with the center joint of the rail. Start in the middle and work your way down both sides.

Caution: The Velcro can give you a really bad burn if you run your hand down it. Position the Velcro straight on the Fabric Rail, using gloves, piece of fabric or the leader press firmly on the Velcro to secure to the Fabric Rail.

Step 4: Once you have the Velcro in place on each of the Fabric Rails you are ready to attach the leaders. Find the center of the leader, line it up with the center of the Velcro/Fabric Rail. Work your way down both sides to attach the leaders to the Fabric Rails.

2nd Rail Top Fabric Med Leader Top fabric feeds off the bottom of the rail rolling off the bottom

Take up Rail Short Leader All parts attach to this rail and roll under the rail.



3rd Rail Backing Fabric Longest Leader Backing feeds off the top of the rail rolling over the top of the rail



Fig 40



Fig 41



Fig 42

Installing Fabric Layers Onto Rails

Quilt Back To 3rd Rail

Step 1: Determine which will be the top and bottom edges of your quilt. Locate the center of the piece.

Step 2: Using the center of the bottom edge of the backing and the center of the leader on the 3rd Rail match up the two pieces.

Step 3: Pin this to the leader. Ensure that you are pinning the backing on so that the finished side is towards the floor.

Step 4: Roll your leader and backing onto the 3rd rail completely. Watch to make sure that the fabric stays lined up. Smooth out any wrinkles as you roll by brushing the fabric from the center out. However, be very careful not to stretch or pull the fabric excessively. *Note:* It is important that you roll the rail the proper direction so the fabric rolls over and onto the 3rd rail.



Fig 43

Quilt Top to 2nd Rail

Step 1: Determine the top and bottom of your quilt top. Also find the center.

Step 2: Using the center of your quilt top match it to the center of the leader for the 2nd rail. Pin the bottom edge to the leader.

Step 3: Do not stretch or pull the fabric let it lay as naturally as possible.

Step 4: Roll your leader and top onto the 2nd rail completely. Again be sure the fabric stays lined up. Smooth out any wrinkles as you roll by brushing the fabric from the center out, being very careful not to stretch or pull the fabric excessively

Note: It is important that you roll the rail the proper direction so the fabric rolls onto the 2nd rail the right way. When the fabric rolls off the rail toward the take-up rail, it



should roll under and off the rail.

Batting

Step 1: A light, bonded batting is recommended.

Step 2: Center the batting on the 4th rail. Roll the batting onto the 4th rail, being sure to roll the proper direction so that it, like the quilt top, comes off the rail from the bottom when unrolling.

Attaching Your Quilt Layers to the Take-Up Rail.

Step 1: Take the edge of the quilt backing and find the center. Match the center of the backing and the center of the Take-Up Rail leader. Pin it along the straight line of the Take-Up Rail leader in a smooth manner, without stretching your fabric.

Step 2: Bring your batting up in between the 3rd rail and 2nd rail, drape over the backing. Lay it along the pin line of your backing on the Take-Up Rail cloth leader.

Step 3: Bring the quilt top up over the backing and batting, Laying it over the batting along the pin line on the Take-Up Rail cloth leader. Pin your top and batting along the same line as your backing so that it is smooth.

Rolling your Fabric

When you have completed your work area and are ready to move to the next, simply release the ratchet stops on the 2nd and 3rd rails, allowing them to roll freely. Roll the 1st rail forward, rolling the completed work area onto that rail.

Tip! As you roll forward, the quilt will accumulate on the 1st rail. Be sure to raise the Take-Up Rail brackets slightly as needed, so that the bottom of the rolled up



Fig 45



Fig 46



Fig 47

fabric stays about 1/8" above the throat plate of your sewing machine base. Failing to do so will cause your carriage assembly to roll less smoothly.