This is my experience moving a Bridgeport 2J Head Milling Machine.

These machines weigh in the vicinity of 2200 lbs, and the trailer to transport it must be capable of that load. I rented a 16 foot U Haul trailer for this.

This is the seller loading the mill onto the trailer. Notice the blocks of wood between the forklift arms and the underside of the ram.

I had three 2” Straps from Harbor Freight rated at 2500 Lb average strength, and one heavier strap from Home Depot rated at 10,000 lbs breaking strength. The trailer floor was corrugated steel and “slippery”. I used the heavy strap to keep the mill from tipping forward in a panic stop. Two of the lighter duty HF straps were placed top and bottom to keep the mill from sliding or tipping backwards. The third HF strap was placed over the top and wrapped around the ram. This was intended to pull the mill down onto the trailer deck and to keep it from tipping side to side. I wished that I had had one more HF strap to use. Instead I used a heavy rope which you’ll see in the next photo below.

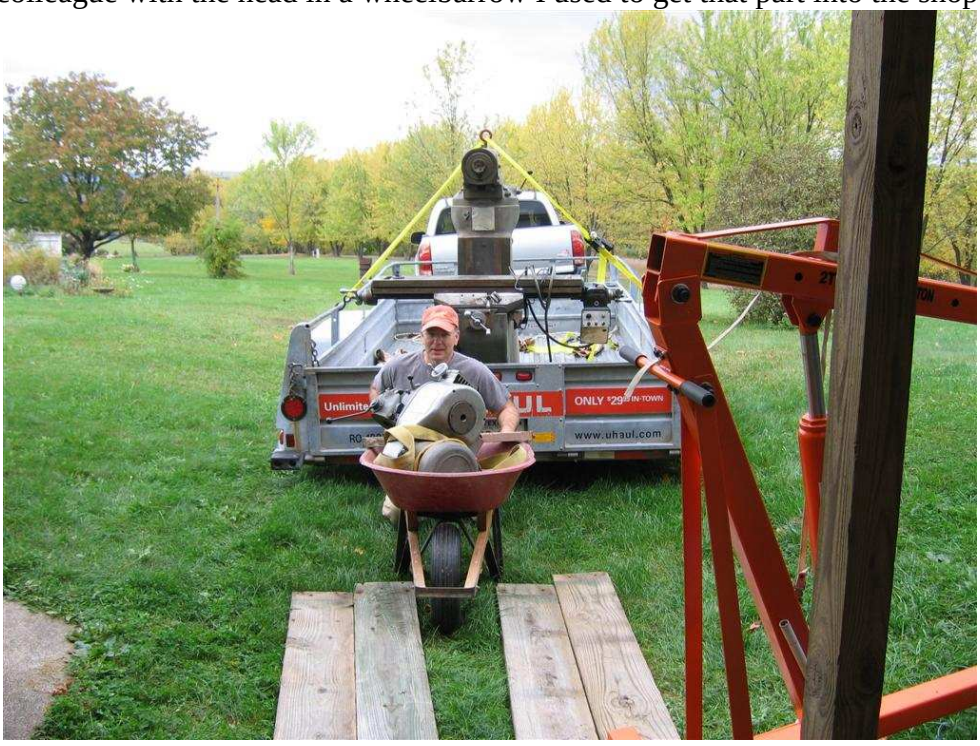
I was concerned that the mill base might slide forward in a panic stop and used multiple strands of 3/8” diameter poly rope for this.

Notice in the photos that the mill head is inverted to lower the center of gravity. The table is lowered AND a 2x4 is placed under the knee to take the weight off of the elevation screw.

The points of attachment to the trailer were less than ideal, but the setup worked. This was a 3 hour journey with some really steep hills. No panic stops.

The difficult part came upon arrival at home. The plan had been to lift the mill with a shop crane, pull the trailer out, and lower it to planks and 1" dia. pipes for its roll into the shop. This is soft earth and there was no solid perfectly level place for the Harbor Freight shop crane. Every time we started to lift the mill, the crane / cherry picker would tilt to the side a little.

We tried taking it apart thinking that it might lessen the tilt on the shop crane. Here's my boss / colleague with the head in a wheelbarrow I used to get that part into the shop.



In the end I got the neighbor to lift it off with his Bobcat loader. If we had tried to lift it using the strap directly around the yoke inside the column that holds the turret it would have broken the yoke. Note that I used 4 threaded rods into the yoke and then clamped a few 2x4 pieces on the top with unistrut to use as a lifting point. We put a 2nd strap under the knee to keep it from tipping forward or backward, potentially hitting the Bobcat.

The next task was rolling it into the shop as the sun was going down. We rolled it on 1" black pipe over some 2x10's to the concrete pad outside the cellar door.

Here's the technique for getting a 40+inch wide table through a 36" wide door.

Back the mill up to the door and get the column inside. Crank the table all the way to the left, so that the right end will fit through the doorway at an angle as seen in the photo below.

The right end of the table will just clear the door frame. Wiggle the right side of the table through the door. Note that we didn't even have to take the power feed off of this 42" table.

Once the right end has cleared the door, crank the table all the way to the right, so that the left end of the table will pass through the door.

As the sun set, we finally got the mill in its designated place in the shop.

Over the next few days I reassembled it. Here's the shop crane setting the ram and turret on the base.

Figuring out how to attach straps to lift the head without bending or breaking levers was tricky. Getting the bolts in the ram lined up with the holes in the head was equally challenging. I was afraid to put a bar up through the spindle for fear of marring a critical surface, but in retrospect, that would have made things a lot easier and wouldn't have damaged anything.

After it was all assembled and in place, I repeated lifting it with my Harbor Freight shop crane, confirming again that a folding 2 Ton Harbor Freight shop crane can lift a 2200 lb Bridgeport.

If I had to do it over again, I would make some sort of outriggers with screw adjustable feet at the outer points of my shop crane to make it level and solid on soft ground.

When was I initially posting my queries on rec.crafts.metalworking regarding how to move the mill, there were a few negative comments that the folding HF shop crane was inadequate, and was going to collapse. I've confirmed that it doesn't at least when static, but I wouldn't try to roll it around with 2200 lbs suspended. Others have reported lowering the mill onto the legs and rolling it around that way. I note the photo of the one person who did that didn't have the folding model.

Here are some photos from the web that I used in my planning. I do not include Richard Kinch's photos here. He also did a good photo essay and I used his advice to do the strapping to the trailer.

RWL


U-HAUL
SPEED
45
LIMIT