Mechanics and motion have always fascinated me. During college I studied physics, engineering and chemistry to further my understanding of how things worked. I graduated with a degree in physics from Boston University in 1974. This intuitive understanding of motion and mechanics combined with the artistic influences of my wife, Marji, led me to the creation of kinetic sculptures. In 1975 we started "Wood That Works" and I became a full time sculptor. Since then I have designed and hand-crafted over 80 different limited edition and one-of-a-kind kinetic sculptures. I have exhibited in numerous invitational and group events. My work is displayed in galleries and private collections around the world. I currently maintain a studio in rural northeastern Connecticut.
Reinstalling the Long Drive Belt:

Migration is shipped with all belts installed but accidents happen and they can become dislodged during shipping, installation or just from curious fingers later on. This is not normally a problem for simple belts but the lower side long drive belt follows a rather complex path so I thought I’ve give directions on how to reinstall it. After a lot of practice I can install the belt by myself but it is easier with an extra set of hands.

- Remove both the left and right short drive belts.

- Lay the long drive belt over the small pulley in front of the large connecting pulley wheel. (see diagram)

About Migration:

Migration is a blend of simple forms and complex motion.

The primary action of Migration takes place in the upper portion of the sculpture. The central carrier arm supports and drives the two smaller carrier arms through a spring moderated ratchet mechanism. Each of the smaller carrier arms have 2 "circle bird" forms attached. The bird forms are free to rotate but balanced to stay more or less horizontal.

The motion created is a dynamic mix of sweeping arcs and frozen forms. At times all 4 bird forms will move in a synchronized dance and at other times one pair will appear to freeze in place while the other pair moves to its own music. Each of the "birds" picks up some of the motion and will gently rock back and forth at times.

The lower portion of the sculpture is the power source. It is a double drive system of belts and pulleys powered by 2 constant force springs. A small burst of torque is generated each time the upper portion of the sculpture slows down and starts reversing. The sculpture will run for just over 12 hours on a full wind of both springs.

Specifications:

Limited Edition of 15
Size: 56” h x 62” w x 12” d
Power Source: 2 negator springs
Approximate Run Time: 12+ hours
Materials: hardwood plywood, bearings, string
Migration © 2002
Patent No. 4637152
Directions (con't):

Winding the Sculpture
- Insert your index finger at the juncture of the spoke and the rim of the winding wheel and turn the winding wheel 24 turns counter-clockwise.
- Repeat for both left and right winding wheels.

Starting the Sculpture
- Migration will usually start by itself after winding. If it doesn't just give the large carrying arm a gentle push to in the clockwise direction.

Repacking Instructions:

Follow these instructions whenever you must move the sculpture. It will then be in the correct orientation for reassembly according to this booklet.

**Packing directions:**
- Before removing sculpture from the wall, carefully tape the belts in place as shown in diagram on page 4. Disconnect the connecting belt.
- Put one inch layer of Styrofoam peanuts on bottom of large box and cover with a layer of paper or cardboard.
To the Owner...

Hello,

Welcome to the world of Wood That Works. This Migration is number ______ out of a possible 15 pieces. It was made by me during the month of___________ in 2005. I build, test and pack each sculpture myself, doing 3-6 pieces of an edition per month. It takes several years for me to complete an edition and some are never finished as I move on to new designs. Designing and building kinetic sculptures like Migration has been my full time occupation for more than 25 years. I hope Migration brings you and other viewers as much enjoyment as I’ve found in making it.

Migration has been mounted on a wall in my shop and running for at least 2 complete windings (several hours) before I pack it. I make every effort in design, construction and packing to make sure the piece will perform problem free for years to come. I use only the finest materials. Of course, problems can still occur no matter how hard I try to prevent them. I will repair it for a reasonable charge. The sculpture needs to be returned to me post paid.

It leaves me happy and satisfied to find that my work has made it’s way into new lives. I hope it brings you years of enjoyment.

David C. Roy

Reinstalling the Long Drive Belt (con't):

- Hold the belt in place against the left side of the small pulley and wrap the belt around the lower right pulley, up and over the center pulley and then down and under the lower left pulley.

- Reinstall the short drive belts. They are the same so sides don't matter.
Directions:

NOTE: Do not remove any of the tape holding belts in place until the sculpture is fully installed.

To mount on wall:
- Hold the lower template against the wall in the desired location.
- Level the bottom edge.
- Temporarily attach the template to the wall using the marked screw holes in the template. Partially screw in the screws.
- Hold the top template against the bottom one lining up the left side edges. Mark the screw holes for the upper template.
- Remove the bottom template from the wall.
- Install wall anchors if necessary.
- Screw the lower part of the sculpture to the wall using the marked holes. Be careful not to dislodge the black belts from the pulleys.
- Screw the upper part of the sculpture to the wall using the marked holes. IMPORTANT: The circular base of the upper part must be mounted in the correct orientation. There is a black arrow on the back showing up. The other clue is that the small brass pin very near to the center mounting axle is always above the axle.

Packing directions (con't):
- Lay the bottom mechanism in the box as shown. Secure it with crumpled packing paper.
- Place the upper portion of the sculpture over the lower portion in the box with the "birds" down first.
- Secure with crumpled packing paper. Fill voids with packing peanuts.
- Fill the remaining space with packing peanuts until 1 inch below the top of the box.
- Lay in the packing templates as shown. Include directions, screws, and connecting belt on this layer.
- Add several crumpled pieces of packing paper to secure a tight pack, close and seal the box.
Directions (con't):

**Installing the connecting belt.**
- Place the connecting belt around the slot in the lower connecting wheel on the lower part of the sculpture and over the smaller center pulley of the top part.

- Hook the 2 ends of the belt together. Make sure the belt is in the pulley slots.

**Finish Installation:**
- Remove the masking tape that secured the belts and strings for shipping.
**Directions (con't):**

**Installing the connecting belt.**
- Place the connecting belt around the slot in the lower connecting wheel on the lower part of the sculpture and over the smaller center pulley of the top part.

- Hook the 2 ends of the belt together. Make sure the belt is in the pulley slots.

**Finish Installation:**
- Remove the masking tape that secured the belts and strings for shipping.
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