

## Chapter 10 - Pump Jacks

### Things to Consider

- Blocks must be placed below pump jack poles.
- Screws must be installed into framing lumber.

### Components

Brackets  
 Poles  
 Walk Boards  
 Work Boards / Safety Rails

### Timing & Prerequisites

- This phase of the project cannot begin until the roofing is installed.
- The House/Project Lead will work with the Habitat Superintendent to coordinate these volunteer activities.

### Materials Needed

#### Pump Jacks

2 ½" Wood Screws  
 Blocks of 2x10s

### Phase Specific Tools Needed

Description:	Quantity:
○ Pump Jack Poles	3 per site
○ Pump Jack Brackets	6 per site
○ Pump Jacks	3 per site
○ 24' Walk Boards	2 per site
○ 16' Walk Boards	2 per site

### Activities

#### Set Pump Jack Brackets

#### Critical Issues

- ◆ Pump Jack brackets must be screwed into the trusses or framing lumber.

For roof installation

1. Attach bracket to the roof under the 3<sup>rd</sup> course of shingles over a roof truss.

Measure back to the first common truss; about 30" from the rake board; and raise the tab of the shingle in the 3<sup>rd</sup> course.

Set the bracket on the roof.

Set (2) 2 ½" screws through the holes in the bracket.

2. Set the remaining 2 brackets using the same procedure.

There will be 1 bracket 30" in from the front/right of the house; and 1 bracket 30" from the back/left of the house; and 1 bracket in the middle.

3. If there are two sets of brackets, set 3 more brackets on the opposite side of the house using the same procedure.

For installation into the siding

1. Attach bracket to the sheathing on the exterior wall into stud or framing lumber.

Measure back to the first stud; about 16" from the corner.

Set (2) 2 ½" screws through the holes in the bracket into the stud.

2. Set the remaining 2 brackets using the same procedure.

There will be 1 bracket 16" in from the front/right of the house; and 1 bracket 16" from the back/left of the house; and 1 bracket in the middle.

### Set Pump Jack Poles

#### **Critical Issues**

- ◆ **Pump Jack poles must be blocked.**

1. Cut supporting blocks for each pole. Cut 6 blocks of 2x10s which are about 10" long. These will be placed under the pump jack poles to keep them from sinking into the ground.
2. Assemble the poles by inserting the top and bottom sections into the coupling until they lock into place.
3. Setup poles.

With one volunteer on an extension ladder near the bracket; 2 or 3 volunteers positioned to lift the top of the pole; and one volunteer holding the bottom of the pole in place, raise the pole and slide it into the bracket. The volunteer on the ladder will guide the pole into place; and then lock and tighten the bracket.
4. Position the bottom of the jack poles on the 2x10 blocks

Move the bottom of the pole until the pole is plumb. Be sure to check all sides of the pole.

Lift the pole enough to allow a 2x10 block to be set under the pole.

5. Set remaining poles using the same procedure.

### **Attach Pump Jacks**

#### ***Critical Issues***

- ◆ **Wear gloves and watch for pinched figures.**

1. Open the gate on the pump jacks.
2. Hold the pump jacks in place on the poles.
3. Lock the pump jacks onto the poles.

### **Set Walk Boards**

#### ***Critical Issues***

- ◆ **Walk boards must be long enough to extend past the support poles by 12”.**

1. Raise all of the pump jacks to the same level.
2. Using 3 volunteers, move the first walk board to the back/left of the house in line with the pump jack poles.
3. Slide the walk board between the pump jack poles and the house.
4. Set the walk board on the pump jacks.
5. Lock the walk board to the pump jacks with the chains.

### **Set the Safety Boards**

#### ***Critical Issues***

- ◆ **Extension ladders make a great safety rail and work well as a work surface.**

1. Set a 16’ extension ladder across the work board supports.
2. Attach the ladder to the pump jacks with the chains.

## **Tips & Techniques**

## **Quality Assurance Checklist**