

# BIGFOOT RIG WALKING SYSTEM



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# BIGFOOT

## RIG WALKING SYSTEM



For over thirty years, Columbia Industries has been designing and manufacturing equipment for the oilfield industry.

We pride ourselves in commitment to our customers, our products, and our people. From the beginning, we have been known for superior innovation. These values, combined with our many years of manufacturing experience, have helped us grow to a position of leadership in the oilfield equipment design and manufacturing industries.



## ABOUT THE BIGFOOT RIG WALKING SYSTEM

The Bigfoot Rig Walking System is a patented, scalable-capacity drilling rig and substructure moving system. The system employs the use of rollers paired with lift cylinders and a safe low-pressure hydraulic system to lift the main walking beams that carry the rig weight. Smaller plank beams run the full length of the walking beams and support the rollers. Travel cylinders are connected between the main beams and the plank beams to accomplish the horizontal movement that moves the rig. The lift cylinders and travel cylinders actuate in sequence to move the rig at a very safe and controlled pace. This efficient design is field-proven to be the safest, most reliable and precisely controlled rig moving system in the world.

Bigfoot Rig Walking Systems are being used in many countries and climates around the world, from the sub-zero temperatures of Alaska's North Slope to the scorching heat of the deserts of Saudi Arabia. Columbia Industries can design a system to fit your operational environment and design constraints.



## FEATURES

### SITE-TO-SITE PORTABILITY

The entire Bigfoot system can be disassembled into truckable loads. Each of the beams has an integrated tail rolling hitch, making them easy to move with standard oilfield trucks. The Bigfoot system can be operated in poorly prepared locations and can be used to jack up the entire rig vertically for leveling if required.

### EFFICIENT ON-SITE SETUP

The Bigfoot system is easily assembled by a small crew with a crane and basic equipment. Although detailed setup instructions are provided to all customers, Columbia Industries setup assistance is readily available for interested customers to ensure a fast, efficient, and safe setup.

### WIRELESS PENDANT CONTROL

We offer the secure, encoded wireless pendant as the standard for your Columbia Rig Walking System. This allows the system operator the most freedom and visibility during rig moves. This unit also incorporates an easy access emergency stop. The E-Stop will shut down the HPU motors and valves when activated.

### HARD-WIRED PENDANT CONTROL

A hard-wired pendant control is supplied as an option for the Bigfoot system. Once set up in operational condition, all movement can be controlled through the pendant. Steering and spin modes are made by easily-adjustable steering linkages. Multiple travel speeds allow rig positioning within 1/4 of an inch.

### SCALABLE CAPACITY & CUSTOM DESIGN

The design concepts employed by Columbia Industries in this design are customizable and scalable. Contact us for information and options regarding your specific application. Custom design and fabrication is our specialty.

## CHECK OUT OUR ONLINE VIDEOS

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# SPECIFICATIONS

### **CAPACITY**

Scalable capacity from 2,000,000 lbs. to well over 12,000,000 lbs.

### **CYCLE TIME**

Approximately 4 feet per minute allows for precise positioning of the entire structure within 1/4".

### **SAFETY FEATURES**

The Bigfoot Walker uses a safe, low-pressure hydraulic system. The main lift cylinder hydraulic circuit is equipped with counterbalance valves. In the event of a hose rupture or breakage on the walking system, these valves will hold the cylinders in position. Emergency stops are mounted on the power unit as well as the wireless controls. The E-stops shut down the HPU motors and valves in the event of an emergency stop, while holding the load.

### **WALKING CYCLE**

Lift cylinders raise the rig, then travel cylinders push the substructure along the center plank on rollers. The lift cylinders then lower the load and the travel cylinders retract for another pushing cycle. Steering adjustments are made by hydraulic cylinders while the load is off the rollers.

### **HYDRAULIC POWER UNIT**

A self-contained hydraulic power unit is included, requiring only a 3-phase power connection for operation. The power unit can be located on top of the unit itself, near the rig modules, or within the rig structure.

### **PAINT**

We prepare surfaces for the paint process with a thorough cleaning and apply a three-part epoxy paint system in the customer's choice of color.

Columbia Industries LLC reserves the right to make changes to specified features and components without notice.



# CUSTOMER SUPPORT

866.531.0600