MOBA Corporation

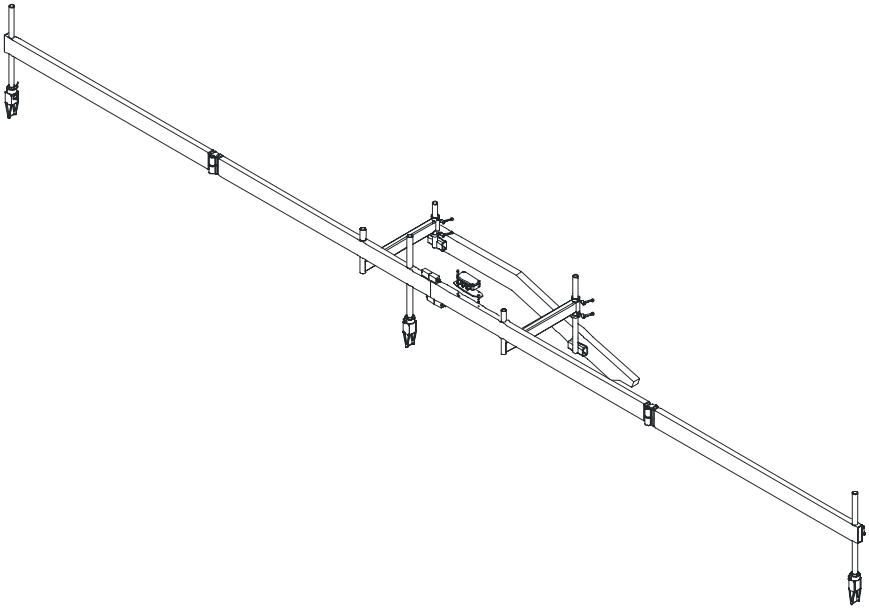
MOBA-Matic Big-Ski
Installation Manual

(10.2003)

TEREX
Roadbuilding

(P/N 499992526008) 23562 (02/05)

MOBA-Matic Big-Ski
Installation Manual
-english-



The text and graphics of this manual have been elaborated with the greatest possible care. However, we may not be held liable for possible errors and failure effects.

Should you wish to make suggestions regarding the arrangement of this manual or point out possible errors, please contact your local dealer. We will gladly use any of your ingenious ideas and suggestions.

Some company and label names are subject to label, patent or trade-mark protection.

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Order Number:XX-XX-XXXXX
Date: 10.2003

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1 General Information

1.1 Rights to changes

We try to ensure that these operating instructions are correct and up to date. In order to maintain our technical leadership, however, it might be necessary, without warning, to make changes to the product and to its operation that, under circumstances, do not correspond to the information given here. We accept no liability for disturbances, losses or damages caused thereby.

1.2 Packaging and storage

The product is carefully packed to ensure sufficient production shipment. Upon receipt, the packaging and the contents should be inspected for possible damage.

Should there signs of damage the equipment must not be operated!!! Damaged cables and connectors are also a safety risk and must not be used!!!

In the event of damage contact your MOBA supplier.

The equipment must be protected against humidity and dirt if not used immediately.

1.3 Safety measures

Warning:

Before assembly, setting up and operating the equipment, read the operating instructions carefully and fully. Should questions arise, contact you MOBA supplier.

Safety precautions:

The safety precautions recommended here correspond to basic regulations regarding operation of electrical systems. They can be applied for all applications in conjunction with MOBA equipment.

Assembly:

Only original MOBA cables may be used. Plugs and sockets must not be removed from the cable as they are protected against humidity and removing them would destroy their protection. Ensure that the safety screw fasteners are secure on the connectors. Further information about the assembly of the equipment, and the sensors, can be found in the attached data sheets or in these operating instructions.

Wiring and cabling:

The wiring and cabling must be correctly carried out in accordance with these instructions. All supply cables and terminals must be sized according to the current used. Furthermore, all connections must be made in accordance with VDE regulations of the area in which the equipment is used.

Safety in the event of disturbances:

This equipment has been developed and tested for industrial environments. However, microprocessor technology requires careful installation. Therefore, we would like to point out the following points, which if not followed, can lead to disturbances during the operation later.

- Pay attention to the correct polarity of the connections.
- Do not exceed (either too high or too low) the specified voltage supply range.
- Protect the equipment with a suitable supply fuse.
- Use cables of adequate current and voltage ratings.
- Use the shortest possible cable paths. (Avoid loops)
- Lay out load, control and signal cables in separate channels here possible.
- Use suppression diodes on contactor and relay coils.
- A prerequisite for good operation is a good electrical connection between the machine frame and unit housings.
- Connect shielded cables to ground at one end only (equipment end).
- Do not supply other equipment directly from the supply terminals.
- Do not use unused terminals as connections for other equipment.

Maximum Voltages:
Do not exceed the maximum voltages. The maximum voltage between any two circuits isolated from each other, or between any isolated circuit

and ground is, unless otherwise stated, limited to its highest input voltage or the supply voltage. A suitable fuse must be used.

Fuses:
The equipment has electronic fuses that protect against wrong polarity, voltage transients and over voltages of short duration. The voltages specified in the technical data may not be exceeded.

Configuration:
The equipment can be be configured by the user. It is their responsibility of the user to configure it according to the operating conditions of the system.

Alarm supervision:
In complex systems, in which a fault could endanger operating personnel or damage to the system, it is advisable, to use an independent alarm unit. An independent alarm unit provides protection and shutdown of the system in the event of an alarm. In many cases, the use of an alarm from within the controller itself does not, because of on the system, offer adequate protection.

Explosive areas:
The equipment is not designed for use in explosive areas.

Fault clearance:
Before starting to clear faults make sure that all voltages have been turned off. Defective equipment should be tested in an area that has been built especially for this purpose. Any attempt to remove faults from the equipment that is still installed can be dangerous to personnel and to the system itself. Before removing or replacing sensors make sure that power has been turned off.

Failure to observe the above safety measures can cause breakdown of the equipment or of the system. Damages caused by such negligence are not covered by the manufacturer's system guarantee.

1.4 General description

The MOBA-Matic Big Ski bracketry should allow the Big Ski system to be installed on all highway class asphalt pavers. The MOBA-Matic Global system is designed to be used on asphalt pavers, highway profilers and

trimmers. Please call your MOBA supplier for information on bracketry for profilers and trimmers.

The Big Ski has several configuration possibilities, depending on the sensors. The center sensor can be any of the 4 sensors listed below. The front and rear sensor must be either the Sonic Ski or the Dual sonic.

The following sensors are available for use with the Big Ski at this time.

· Sonic-Ski
(multiple transducer non-contacting ultrasonic grade sensor)
· Dual Sonic
(dual transducer non-contacting ultrasonic grade sensor)
· Digi-Rotor Sensor
(mechanical contacting grade sensor)
· Yo-Yo Sensor
(wire rope grade sensor)

2.0 Installation

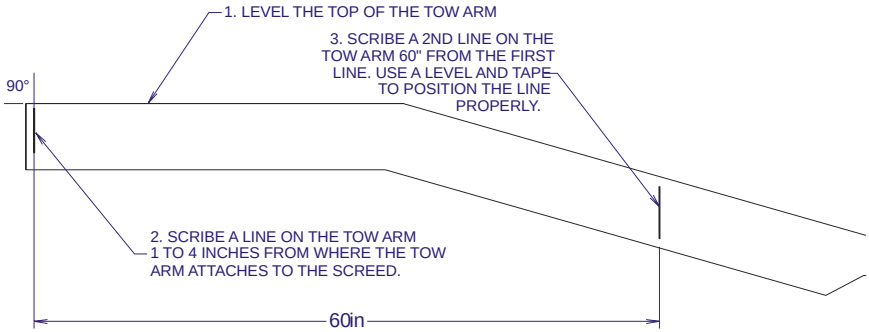
2.1 Machine setup

Lower the screed onto a pipe that is 2 to 3 inches on diameter. Place the pipe so that it is perpendicular to the pavers direction of travel.
Place a level on the top of the tow arm and adjust the tow arm so that it is parallel to the surface that the paver is sitting on.

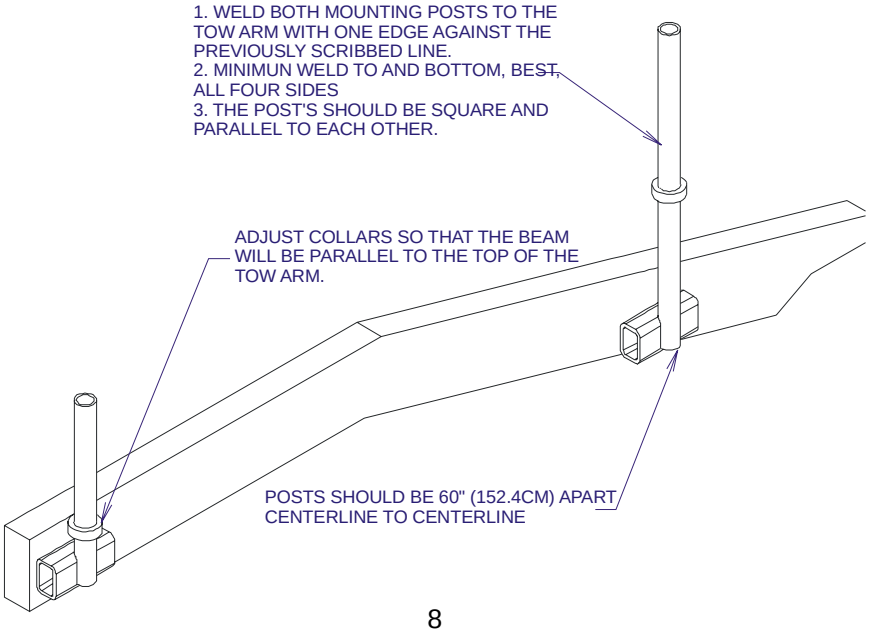
Note:
The following steps are very critical. Improper placement of the mounting posts will result in problems with the operation of the Big Ski beam and associated bracketry.

2.2 Mounting post placement

2.2.1 Using a square, scribe a vertical line, in relation to the top of the tow arm, on the tow arm about 3 to 4 inches from where the screed attaches to the tow arm.
2.2.2 With a tape measure level, and a square measure and scribe a line on the tow arm, 60” (5') forward on the tow arm.



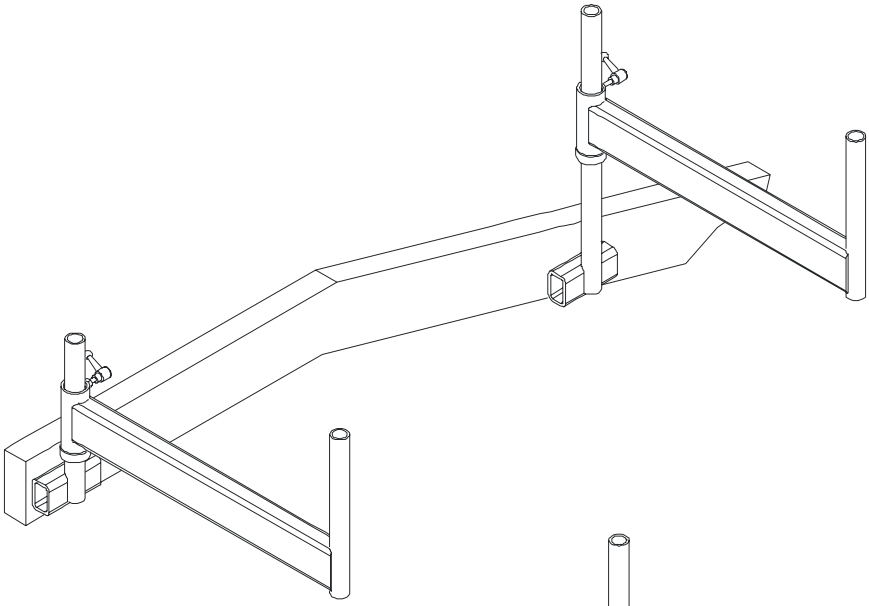
2.2.3 Align the edge of the short mount post with the vertical line scribed at the rear of tow arm.
2.2.4 Weld the base of the short mount post to the tow arm.
2.2.5 Align the edge of the long mount post with the vertical line scribed at the front of the tow arm.
2.2.6 Make sure that the post is parallel to the short mount post and 60” from centerline to centerline.



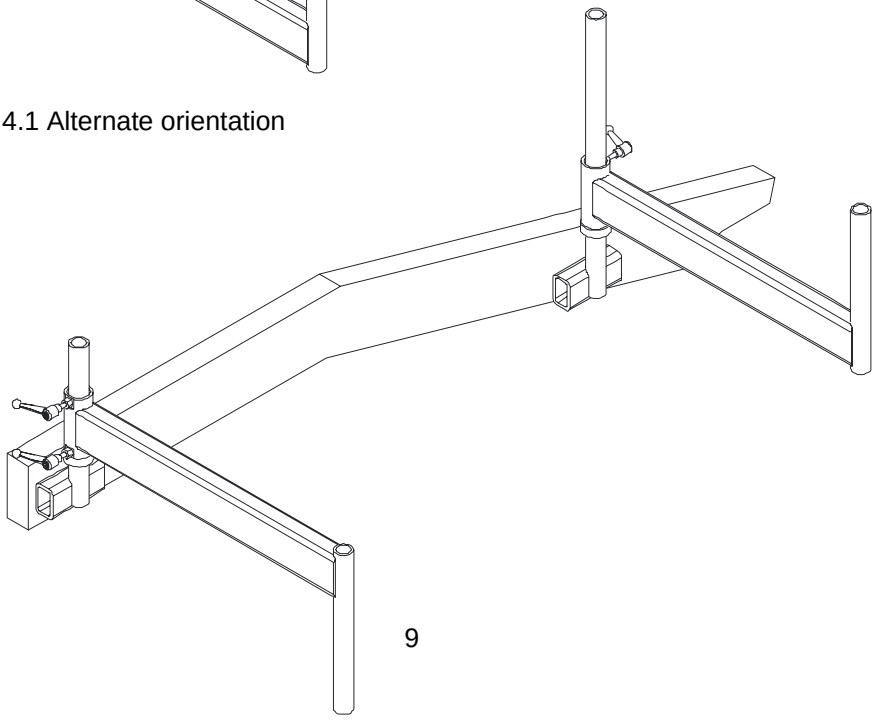
2.3 Collar clamp placement

2.3.1 The collar clamps are to help lock the Big Ski swing arms and or beam in place. Once the swing arm or beam is in place, position the collar so that it will prevent the swing arm or beam from moving.

2.4 Swing arm orientation



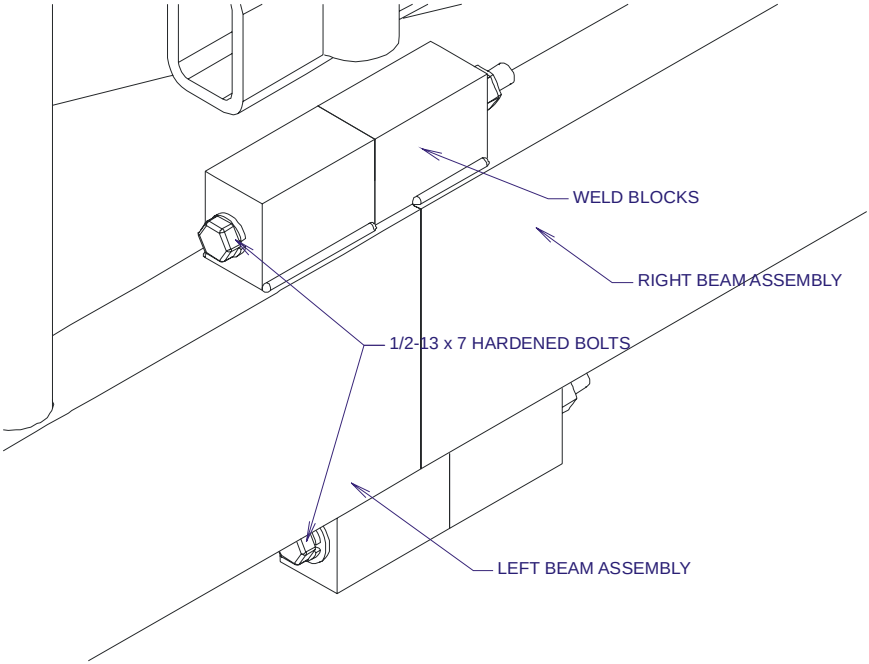
2.4.1 Alternate orientation



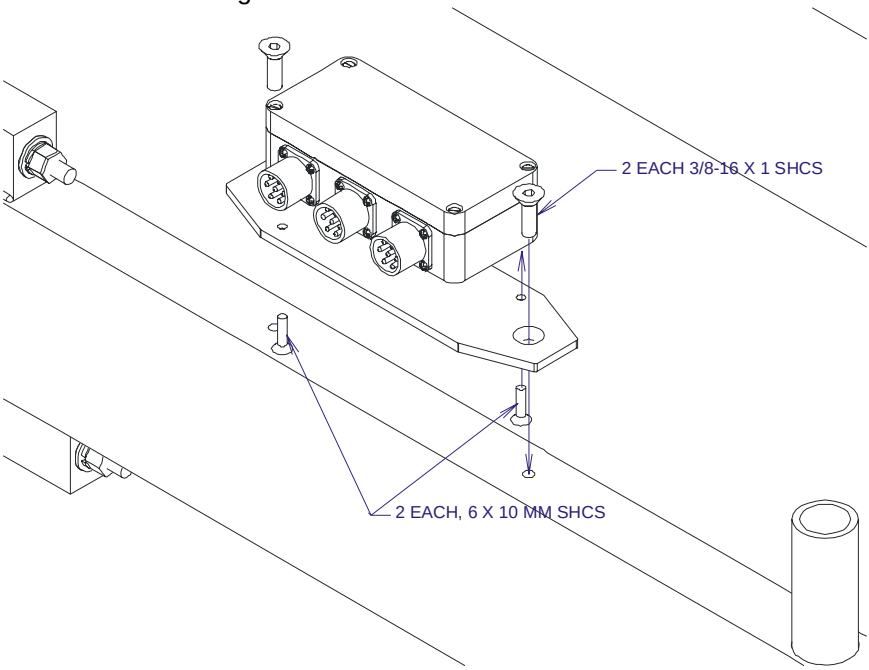
2.4.2 Long swing arms.
If the averaging beam need to be extended beyond the outer edge of the screed longer swing arms are available. Contact your MOBA supplier for more information.

2.5 Beam assembly

2.5.1 Left and right side assembly.



2.5.2 J-Box Mounting



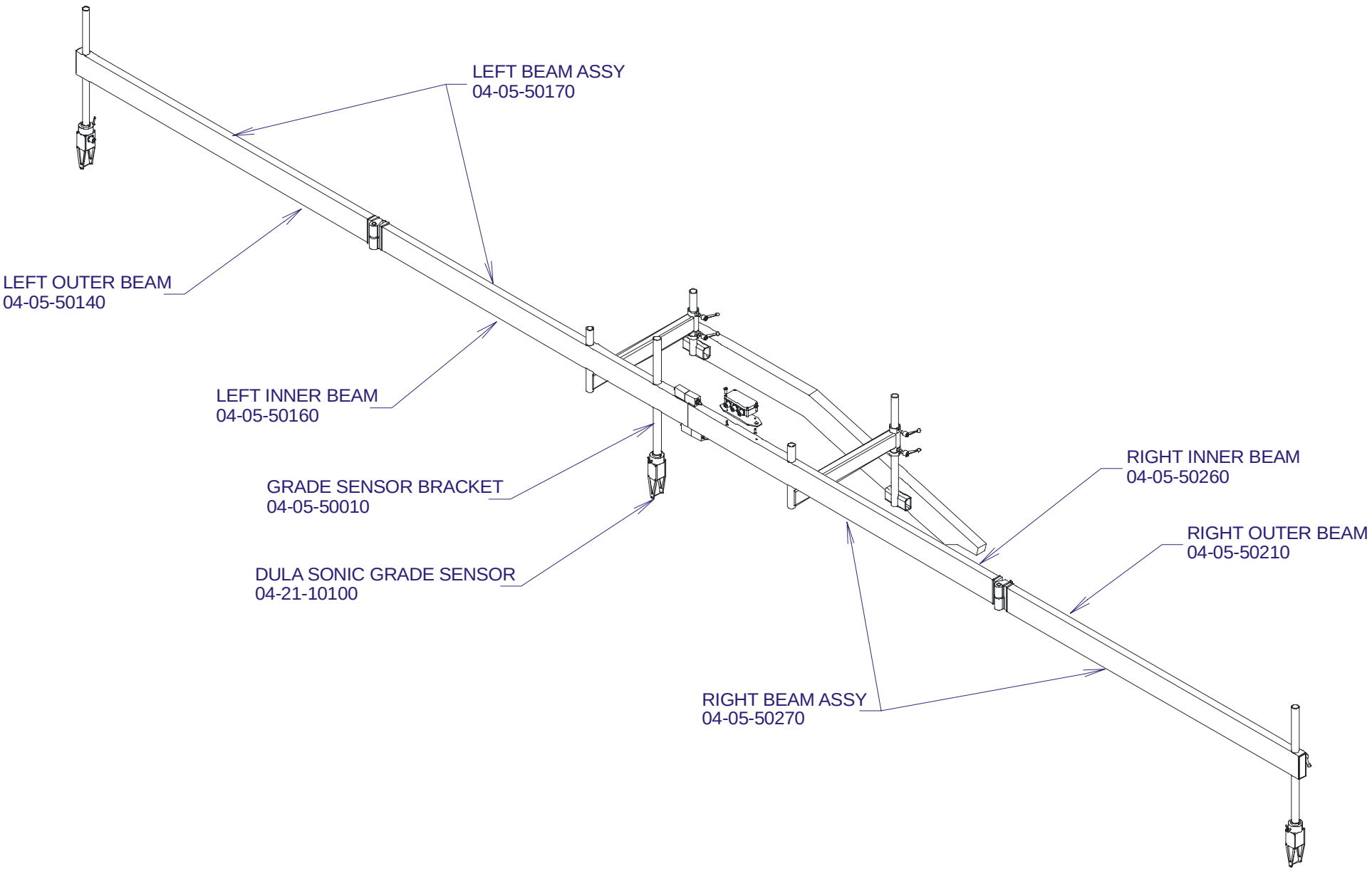
3 Operation

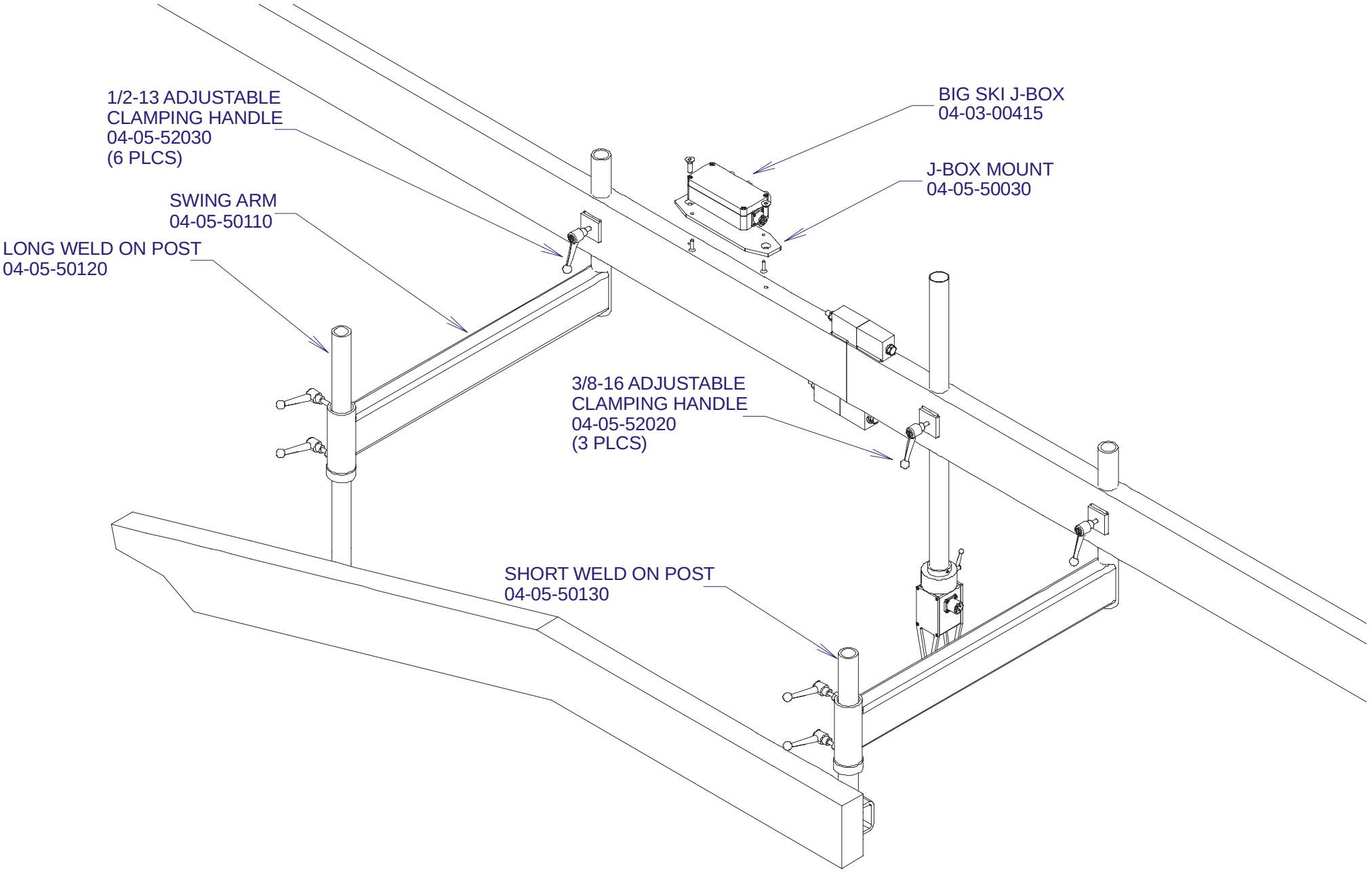
See the operator's manual section 10.5 for the Big-Ski operation instructions.

4 Transport

Raise screed.
If the screed is raised before the front outer beam assembly there is a chance that the front sensor will hit the ground.
Short distance,
Fold the front and rear outer beam assemblies in, and lock in place.
Truck transport
Remove the beam and swing arms from the paver before transporting the paver on a truck.

5 Parts


LEFT BEAM ASSY
04-05-50170
LEFT OUTER BEAM
04-05-50140
LEFT INNER BEAM
04-05-50160
GRADE SENSOR BRACKET
04-05-50010
DULA SONIC GRADE SENSOR
04-21-10100
RIGHT INNER BEAM
04-05-50260
RIGHT OUTER BEAM
04-05-50210
RIGHT BEAM ASSY
04-05-50270


1/2-13 ADJUSTABLE
CLAMPING HANDLE
04-05-52030
(6 PLCS)
SWING ARM
04-05-50110
LONG WELD ON POST
04-05-50120
BIG SKI J-BOX
04-03-00415
J-BOX MOUNT
04-05-50030
3/8-16 ADJUSTABLE
CLAMPING HANDLE
04-05-52020
(3 PLCS)
SHORT WELD ON POST
04-05-50130