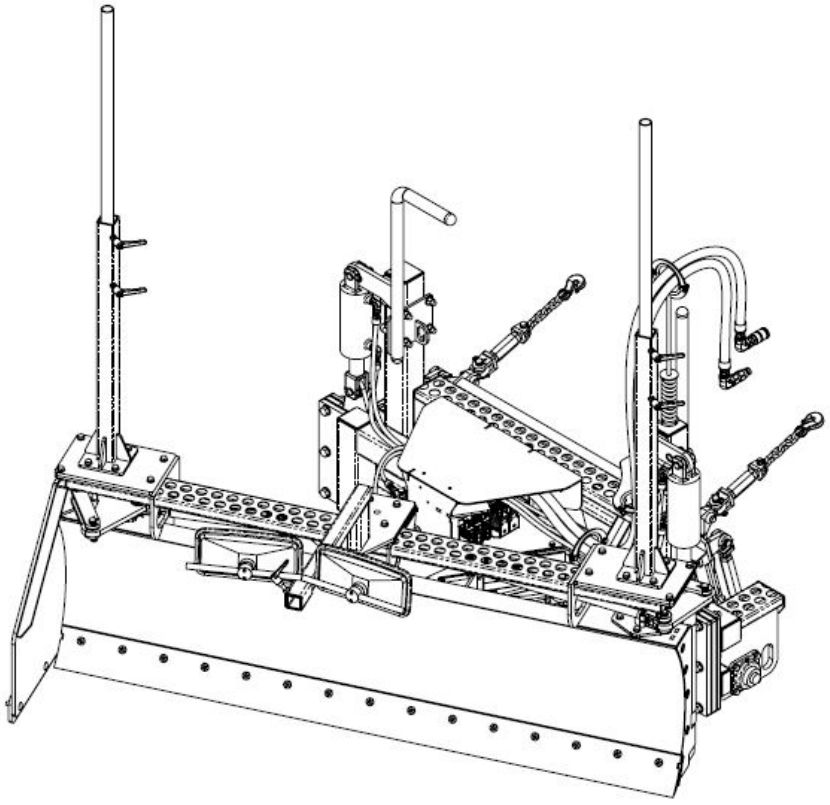
BURCHLAND

LGX

LASER GRADER



SET UP INSTRUCTIONS

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1. Introduction

The grader's receiver plate is designed to match various skid steer boom heights. A properly adjusted receiver plate allows the operator to lower the skid steer's boom completely, producing a consistent pressure from the stabilizing skid shoe. It is required to adjust the receiver plate's height, so when the boom is fully lowered, the back edge of the skid shoe is .25" to .375" off the ground when on a hard, flat surface. The skid shoe should have a slight 1 degree angle upwards
(**Figure 1**).

When the skid shoe is set too low (**Figure 2**), there will be too much pressure on the material you are operating in. When the skid shoe is set too high, it will never contact the material you are operating in, giving the attachment and skid steer zero added stability.

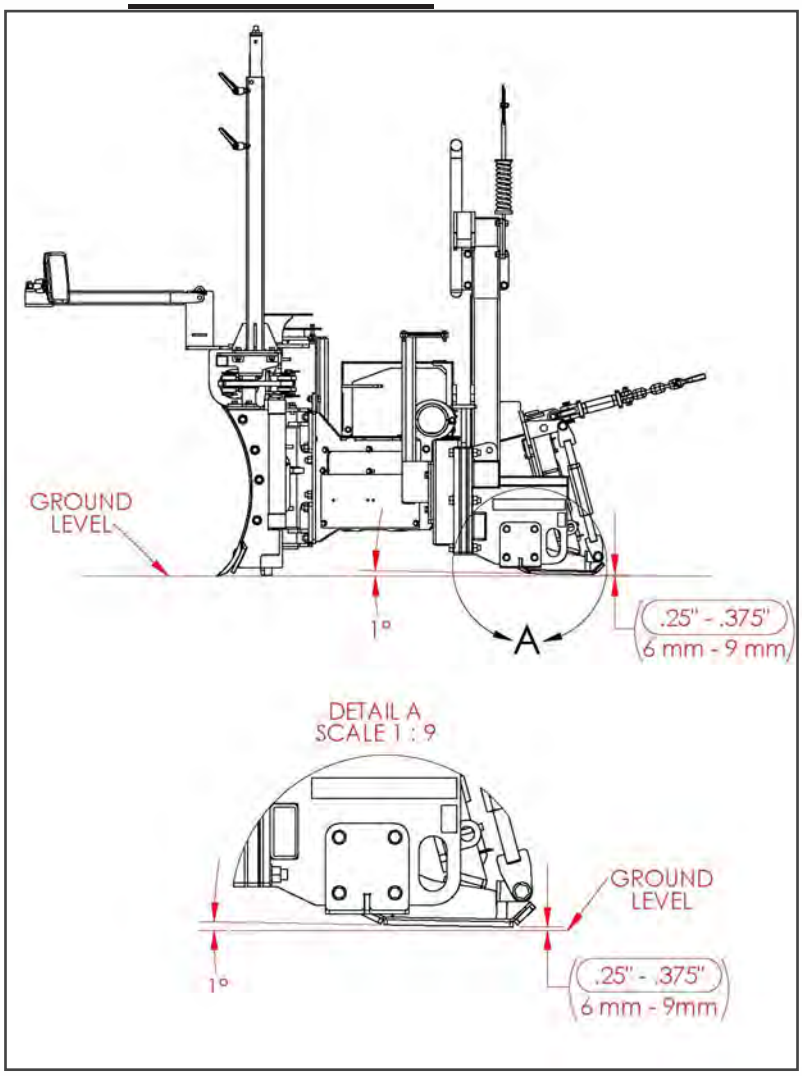


Figure 1 - A properly setup grader, set on a flat, level surface

1.1 Tools Needed

For all mechanical adjustments on the grader blade attachment, you will need....

-1 1/2 inch wrench
-1 5/8 inch wrench
-Magnetic bubble level
-Tape measure
-1/2 inch impact gun
-1 1/8 impact rated socket (1/2 inch drive)

Figure 2 - Skid shoe lifts the tracks/wheels off the ground

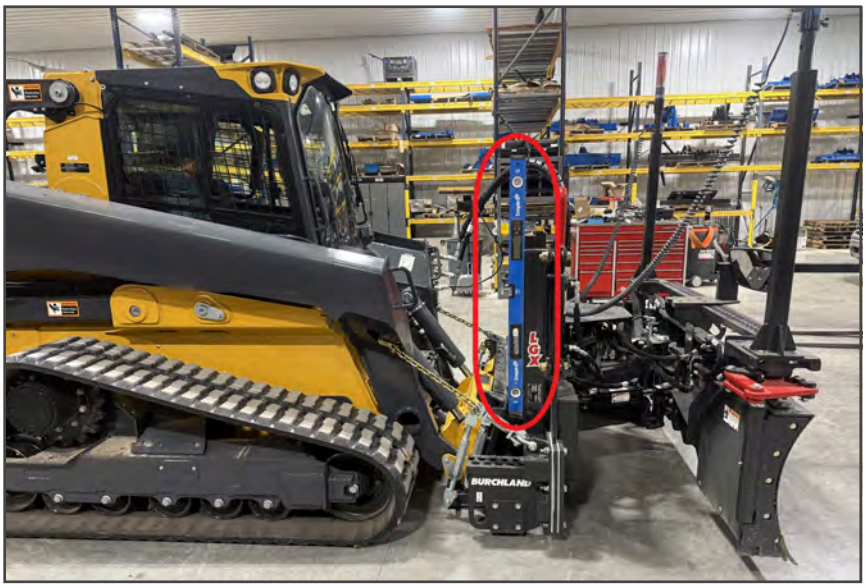


Figure 3 - Magnetic bubble level on mast

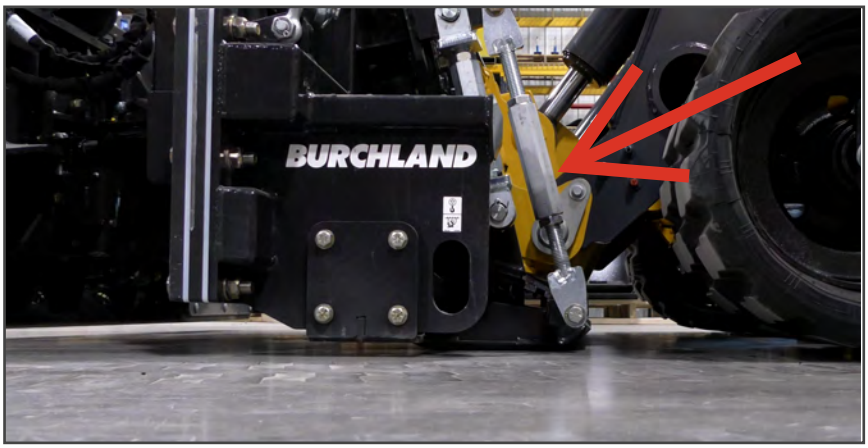


Figure 4 - Rear turnbuckle for skid plate angle adjustment

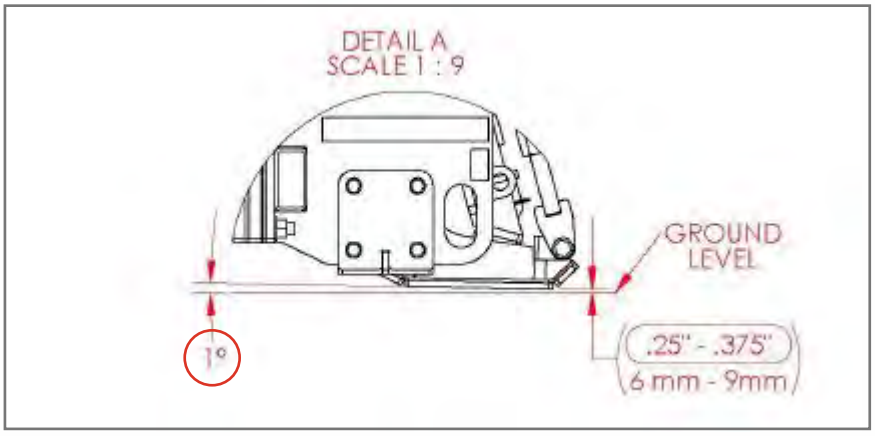


Figure 5 - Detailed view of a properly set up grader

2. Adjust Skid Shoe Angle

The grader attachment operates best with the skid shoe set to have a slight 1 degree angle from the back edge to the front (**Figure 5**). This angle can be achieved by adjusting the rear turnbuckles on the attachment (**Figure 4**).

1. Begin by connecting the skid steer to the grader attachment.
2. Lower the grader onto a flat, level surface using the skid steer's boom.
3. Level the grader by adjusting the bucket tilt. Place a level on one of the masts for the elevation cylinders to confirm that the attachment is perpendicular to the ground (**Figure 3**).
4. Observe the current angle of your skid shoe, if adjustment is needed, loosen the turnbuckle jam nuts on the rear turnbuckles on both sides of the attachment (**Figure 4**) with your 1 1/2 inch wrench.
5. With your 1 5/8 inch wrench, extend or retract the rear turnbuckles until the back edge of the skid plate is about 1/8 inch to 1/4 inch closer to the ground than the front lip of the skid shoe. This will give you the slight 1 degree angle with the skid shoe. You can match the turnbuckles on both sides by measuring the distance between the two mounting bolts for each rear turnbuckle.
6. When both rear turnbuckles are even and adjusted so that the skid shoe is at the desired angle (**Figure 5**), re-tighten the turnbuckle jam nuts to lock the turnbuckle length.

3. Adjust Receiver Plate

1. Begin with the grader still attached, level, and over a flat hard surface.
2. Lower the skid steer boom all the way down to the hard stops.
3. Measure the distance from the bottom of the skid shoe to the ground.
   a. If there is a gap larger than 1/4" to 3/8", the receiver plate needs to be raised by the difference.
   b. If the front of the wheels/tracks raise up when the boom is fully lowered, the receiver plate needs to be lowered.
4. If the skid shoe is not at the desired height **(Figure 1,Page 3)**, detach the grader from the skid steer.
5. Loosen the six receiver plate nuts, but do not remove them **(Figure 6).**
6. Loosen the two jam nuts on both front turnbuckles. **(Figure 8).**
7. Adjust the length of both front turnbuckles **(Figure 9)** to move the receiver plate to the desired position. Use a tape measure for reference to keep the receiver plate level **(Figure 10)**.
   a. Move the receiver plate down to raise the skid plate.
   b. Move the receiver plate up to lower the skid plate.
8. Tighten the six nuts **(Figure 6)** and the two locking nuts **(Figure 8)** on both front turnbuckles.
9. Re-attach to the grader attachment, and re-check the distance of the skid shoe to the ground.
   Repeat steps 1 through 9 as needed.

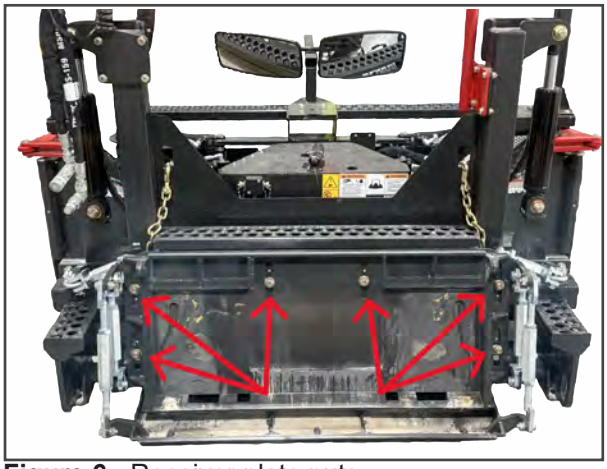


Figure 6 - Receiver plate nuts

Figure 7 - Receiver plate slides up and down in slots

Figure 8 - Turnbuckle jam nut

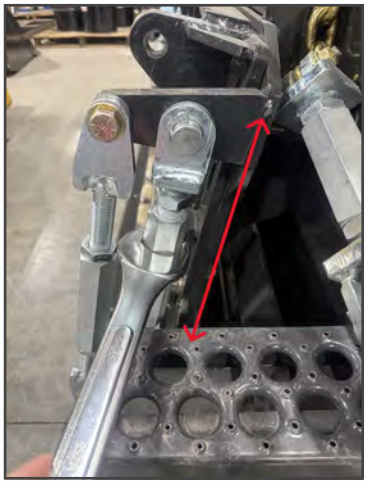


Figure 9 - Front turnbuckle

Figure 10 - Reference measurement

Figure 11 - Tilt lock chain and turnbuckle properly adjusted. Grader attachment is level.

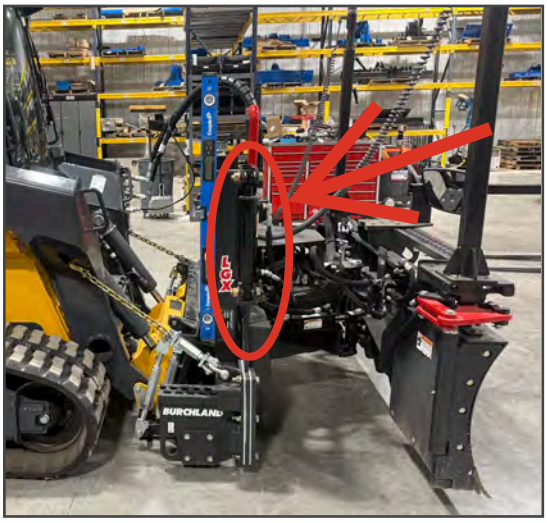


Figure 12 - Lift cylinders are fully retracted

Figure 13 - Cutting edge height at 5 inches

4. Set Up Tilt Lock Chains

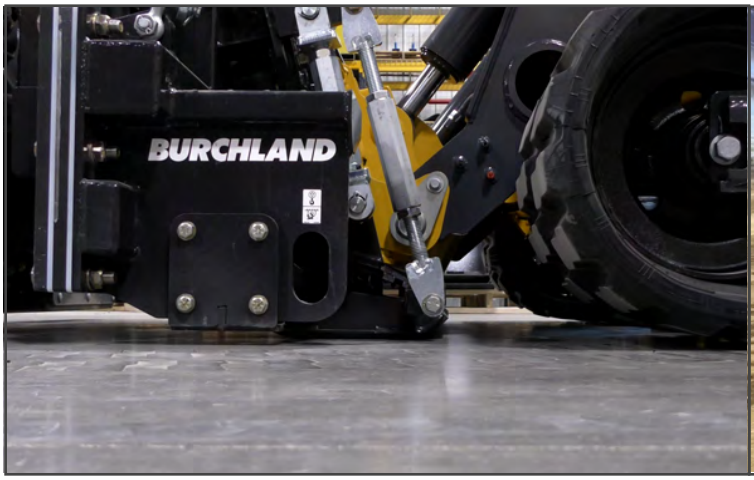
The Tilt Lock Chains are installed to prevent the bucket-tilt cylinders from drifting forward/down. They keep the grader level while operating. Make sure all operators are aware of the chains. Once the chains are tight, the operator should not adjust the bucket-tilt, and only raise and lower the grader using the skid steer boom.

⚠ CAUTION

Do not adjust skid steer bucket-tilt cylinders forward/down with the chains attached to the boom. This will cause damage.

1. Begin with the grader still attached, level, and over a flat hard surface.
2. Lower the skid steer boom all the way down to the hard stops.
3. Tilt the grader towards the skid steer and slide the hooks into the boom's slots **(Figure 11)**.
4. Hook up the grader attachment's hydraulic hoses and 14 pin connector.
5. With your hydraulic continuous flow on, fully retract both lift cylinders **(Figure 12)**.
6. Roll your bucket tilt back until the middle of the cutting edge on the front of the blade is 5 inches above the ground **(Figure 13)**.
7. Loosen the chain turnbuckle jam nuts with the 1 5/8" and 1 1/2" wrenches.
8. Retract/Tighten both chain turnbuckles until they are tight, with the cutting edge remaining 5 inches above the ground.
   With the chains set this way, it allows for 5 inches of movement both up and down when your cutting edge is on grade.
9. Tighten the jam nuts on the chain turnbuckles to lock them at that length.

5. Examples

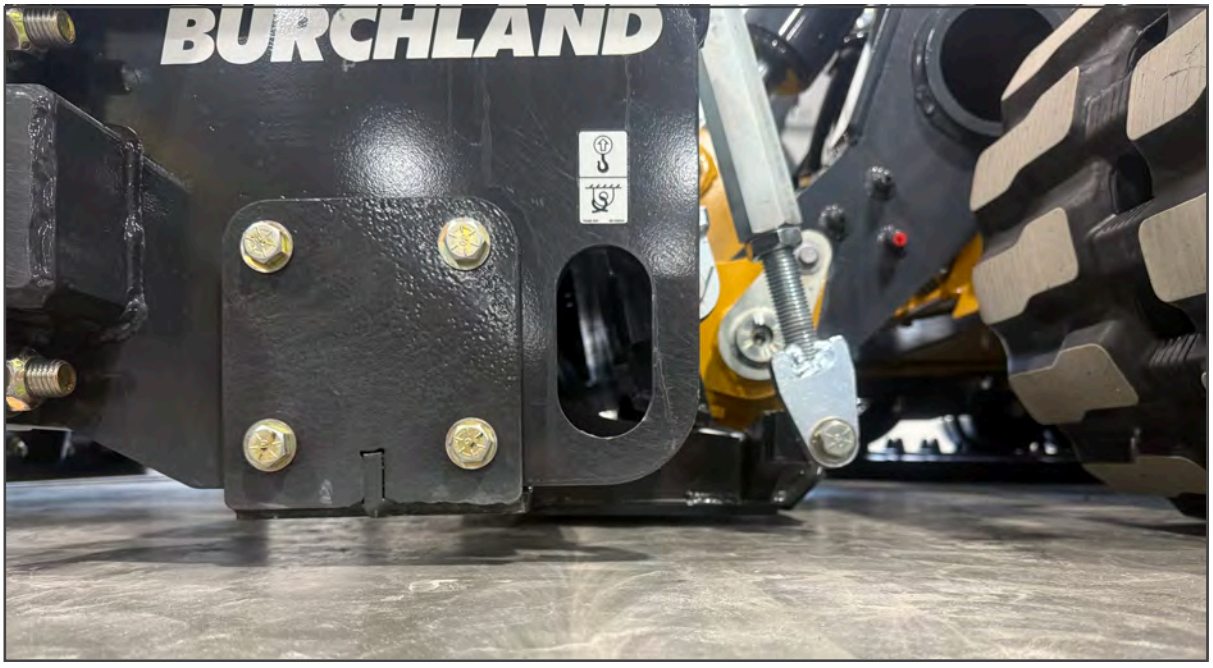


Skid Shoe too low

Here you can see an example of the skid shoe height being set too low. When on hard ground, the skid shoe will lift the front of the skid steer's tracks up. While operating, the skid shoe will push too much material in front of it. Behind the skid steer, The skid shoe will be deeper than the skid loader tracks.

Skid Shoe too high

When the skid shoe height is set too high, there will be no extra stability provided for the attachment. This will result in poor grading performance.



With the skid shoe set at the correct height, the grader attachment will leave the best possible grade. The shoe will apply a constant and even pressure. In the grade behind the skid steer, the footprint of the skid shoe will be even with the skid steer tracks.