

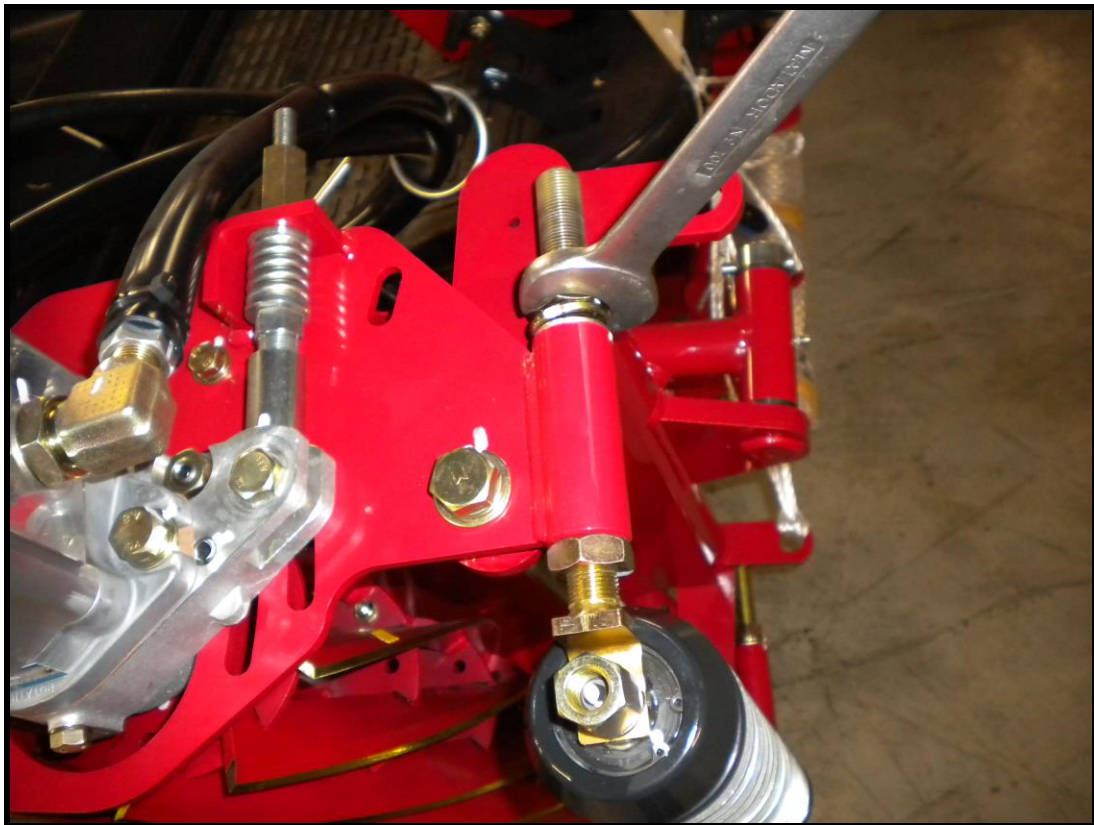
# **BARONESS**

Quality on Demand

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## **Technical Information Leaflet**

**TIL: 001**

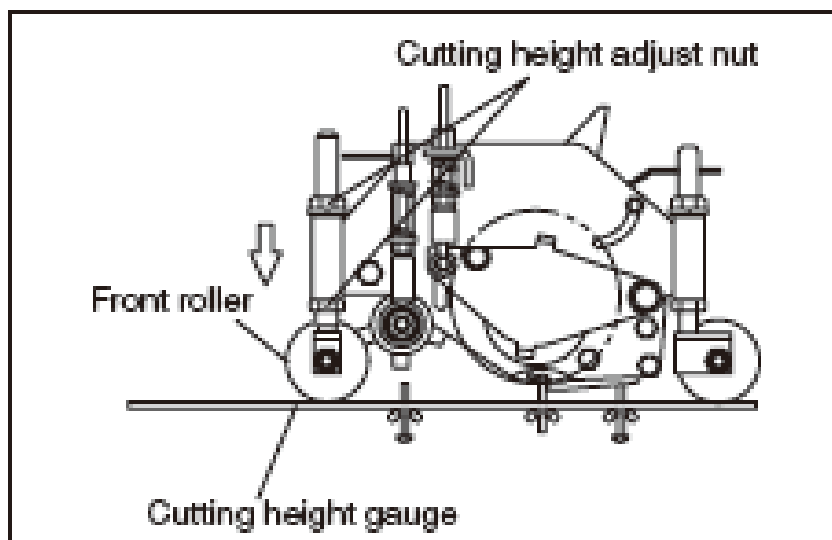
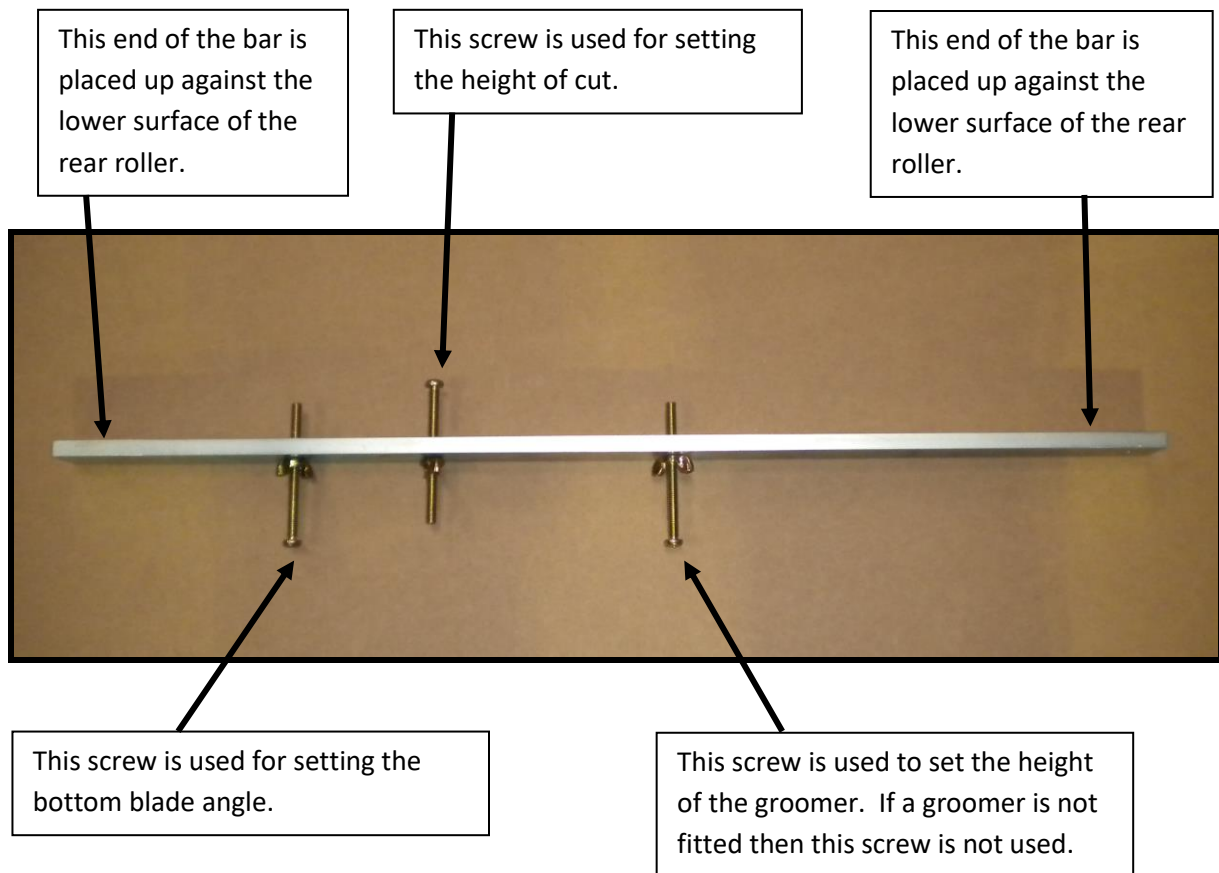


**Synchronising LM2700 Bedknife Angles  
&  
Adjusting the Height of Cut**

## BARONESS LM2700 – BOTTOM BLADE ANGLES

### The Setting Bar

The setting bar for the Baroness LM2700 has three adjusting screws which are used as follows:



## Bottom Blade Angle

The angle of the bottom blade will affect the way that the grass is cut. If all of the bottom blades on a machine are not synchronized to the same angle then it is possible to get an uneven cut and a poor quality of finish.

Different grasses require different blade angles in order to cut them efficiently. Generally in the UK most grass strains are cut best with a bottom blade angle of about 5 degrees, which is what we always set them to. However, the most important factor is that all of the bottom blades on a machine are set the same, as now explained.

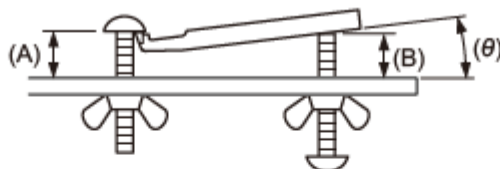
Generally, once the bottom blade angle has been initially set then it will not need to be set again until significant bottom blade wear occurs.

## Height of Cut Range

Before we can synchronize all of the bottom blades we need to find out the height of cut range that the machine is going to be used. Generally the following examples can be used:

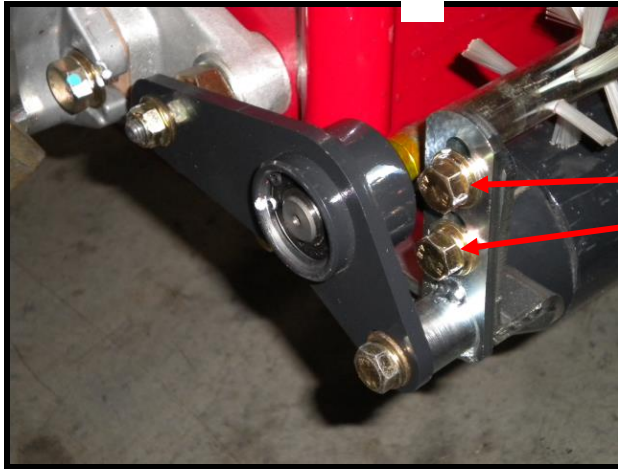
Height of Cut Range	Bedknife Screw Length 'B'	Blade Angle
10 to 20 mm	3 mm less than the height of cut 'A'	5 degrees
20 to 28 mm	5 mm less than the height of cut 'A'	3 degrees
28 to 35 mm	7 mm less than the height of cut 'A'	1 degree
35 to 45 mm	8 mm less than the height of cut 'A'	0 degrees

Whilst the above settings are usually correct, on some occasions you might need to change the aggression of the bedknife in order to cut specific grasses in certain conditions. The following table shows the settings that should be used to change the bedknife angles using a genuine Baroness LM2700 setting bar.



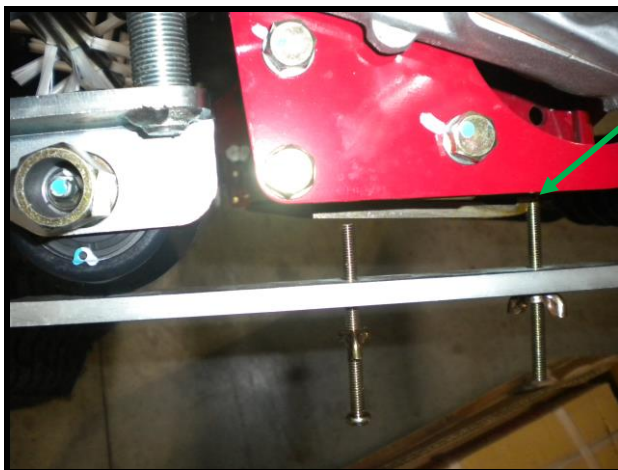
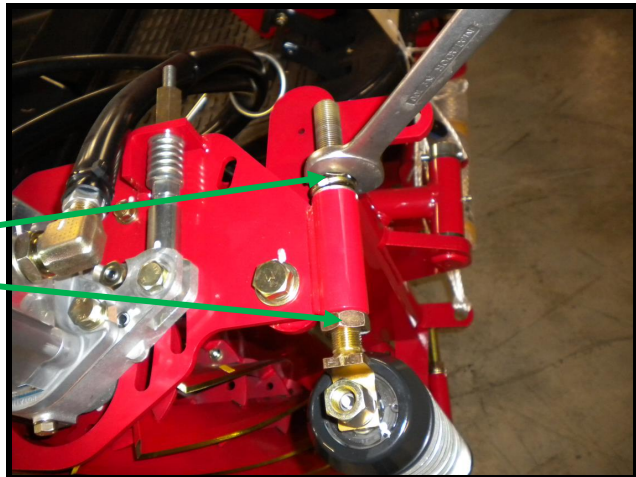
Bed knife angle ( $\theta$ )	Value of (B)
7°	Cutting height of (A) - 0.6mm
6°	Cutting height of (A) - 1.8mm
5°	Cutting height of (A) - 3.0mm
4°	Cutting height of (A) - 4.2mm
3°	Cutting height of (A) - 5.4mm
2°	Cutting height of (A) - 6.6mm
1°	Cutting height of (A) - 7.8mm

## Setting the Bottom Blade Angle

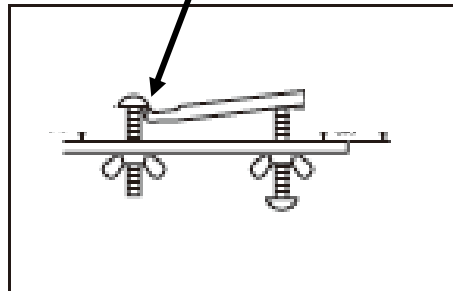


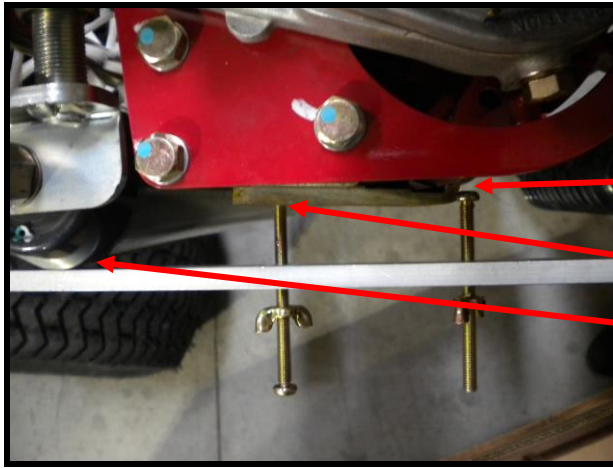
If a rear roller power-brush is fitted, slacken off Power-brush height adjuster nuts and raise the Power-brush to its highest setting away from the roller

Raise the front roller up. Firstly loosen the top nut first. Then screw the roller adjuster bracket nuts (both sides) down towards the roller thus raising the roller.



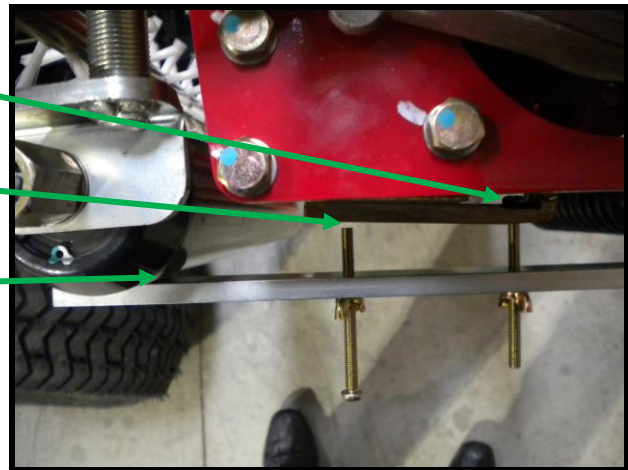
Fit the setting bar as shown with the height adjusting screw head resting on the top cutting edge of the bottom blade.





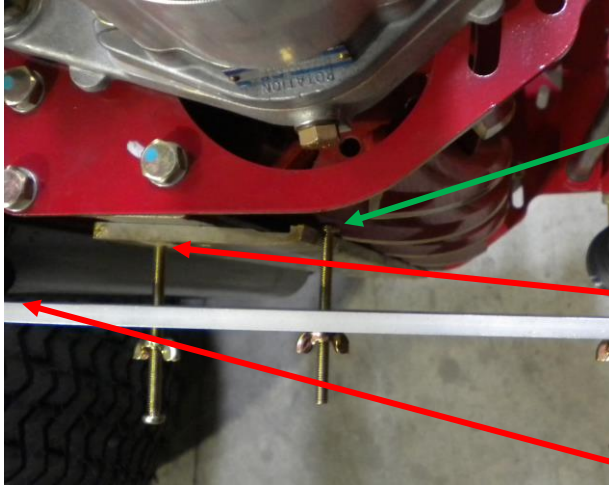
If the height adjustment screw head will not reach to go over the bottom blade cutting edge when the setting bar is up against the under surface of the rear roller **and** the blade angle screw is touching the surface of the bottom blade, then the rear roller is too low, and so it will need to be raised.

If there is a gap between the blade angle adjustment screw and the bottom blade surface when the setting bar is touching the under surface of the rear roller, and when the height setting screw is placed over the cutting edge of the bottom blade, then the rear roller needs to be raised up.



To adjust the rear roller, first of all loosen the top adjuster nuts on both sides.

Then screw the adjuster nuts either up or down (both sides), in order to raise or lower the rear roller.



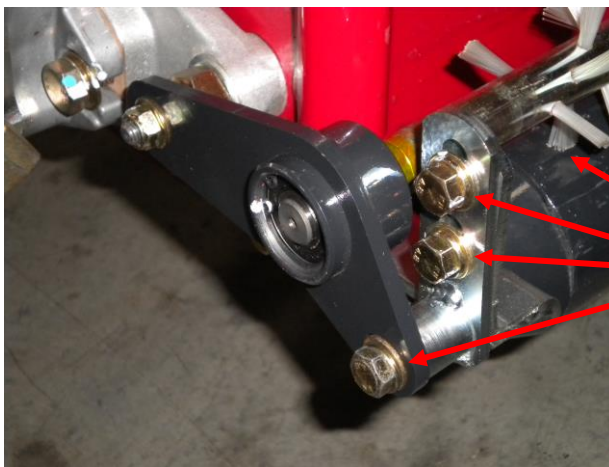
Adjust the rear roller either up or down to achieve the following:

The height setting screw head fits snugly over the cutting edge of the bottom blade.

The end of the blade angle adjustment screw is resting up against the surface of the bottom blade.

The end of the setting bar is resting up against the lower surface of the rear roller.

- Once all three of these points are adjusted correctly, the bottom blade angle will be set.
- Make sure all of the roller adjuster nuts are tight without altering the settings.
- This bottom blade angle should now not need to be adjusted again until significant blade wear occurs.



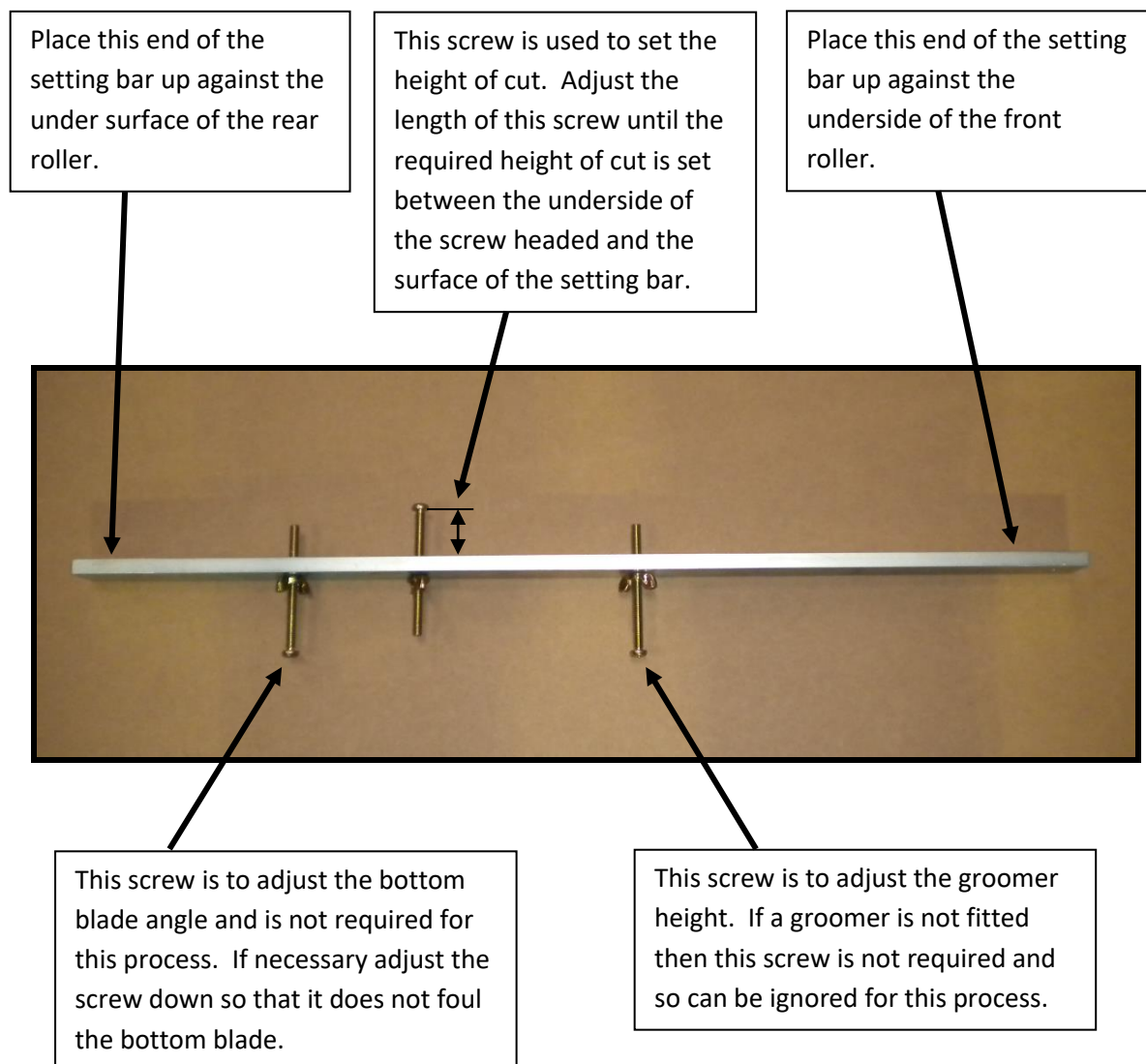
If a rear roller Power-Brush is fitted, re-adjust the brush so that the brush bristles are just flicking the rear roller evenly across the length of the roller and tighten all adjustment bolts.

**Now proceed on to adjusting the height of cut using the front roller only.**

## BARONESS LM2700 – ADJUSTING THE HEIGHT OF CUT

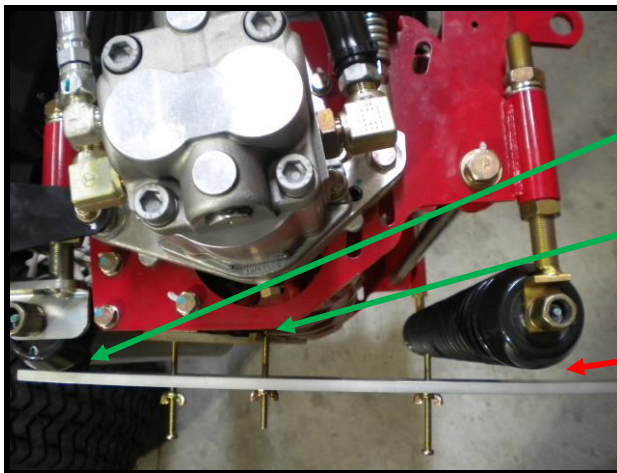
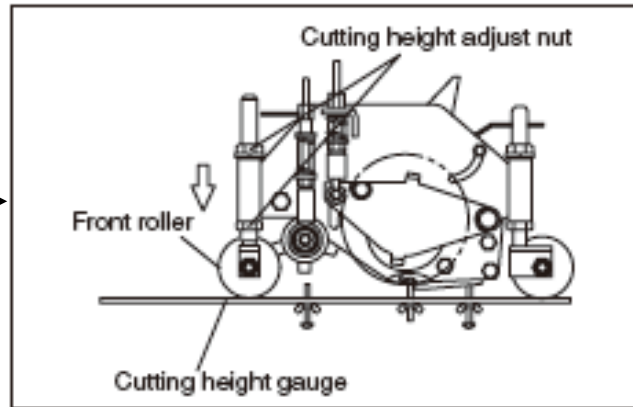
Before adjusting the height of cut make sure that the bottom blade angles have been previously synchronized.

### The Setting Bar



## Adjusting the Height of Cut

Offer up the setting bar to the cutting unit as shown.

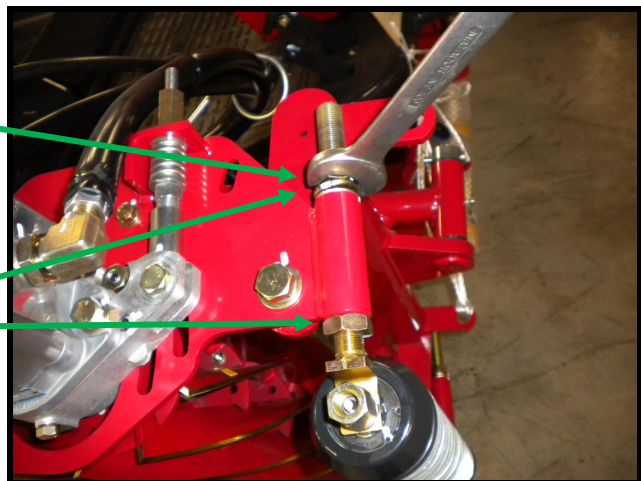


This photograph shows the height of cut as being too low. The setting bar and the rear roller are touching and the head of the setting screw is resting on top of the cutting edge of the bottom blade, but there is a gap between the front roller and the setting bar. The front roller is therefore too high and needs to be lowered until it is touching the setting bar.

If the setting bar is touching both rollers but the head of the height setting screw will not reach to go over the cutting edge of the bottom blade then the front roller is too low.

To adjust the front roller, first of all loosen the top adjusting nuts.

Then adjust the front roller adjusting nuts to raise or lower the roller.

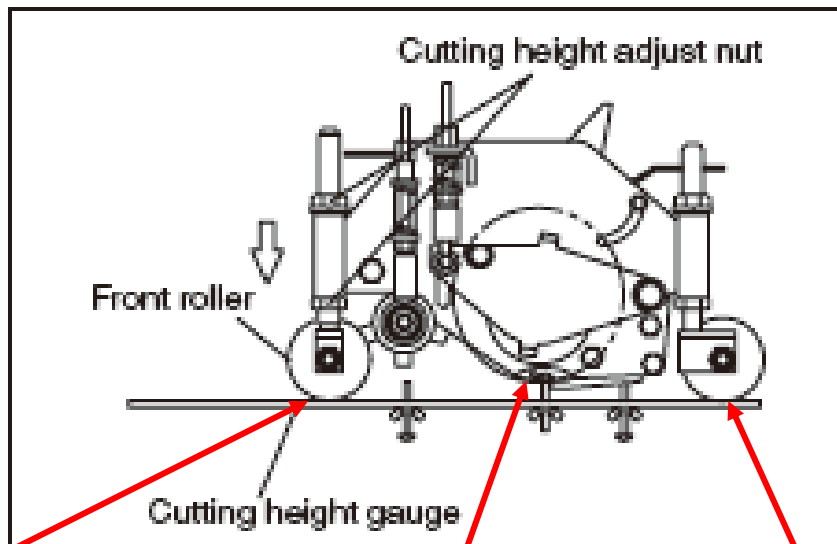


Repeat this procedure several times on either end of the roller until it is set correctly as adjusting one end can also change the setting at the other end.



Never adjust the height of cut on the rear roller as this will change the bottom blade angle. If you have to adjust the rear roller in order to achieve the desired height setting then make sure that you synchronize the bottom blade angles again as previously shown.

The height of cut is set when all three contact points are set correctly as shown below:



The setting bar is in contact with the front roller.

The underside of the head of the height adjusting screw is sat nicely onto the cutting edge of the bottom blade. You should be able to slide the setting bar out from this position with a light resistance. If the resistance is too hard then the front roller is down too low. If there is hardly any resistance then the front roller is up too high. Remember to double check both ends of the roller several times to ensure uniform adjustment.

The setting bar is in contact with the rear roller.