



# **MEASURING INSTRUCTION**

Correctly log scaling and calibration with four point measuring

# FOUR POINT MEASURING

#### FEED ROLLERS

Log Max harvesting head have feed rollers that pushes from the sides unlike other head manufacturers that have angled feed rollers. There are many benefits with "straight" feed rollers. One is that we measure the diameter of the stems using four points instead of three.

#### THE DIFFERENCE FOR YOU

For the diameter measuring with four point measuring to be correct, you should always measure diameter A where the feed rollers have gone and then diameter B at a 90 ° angle from diameter A, where the lower knife has gone.

#### **READ MORE**

Under the "Diameter Measuring" section, you can read more about what to consider when you are log scaling with four point measuring with a Log Max head.

### **BEFORE YOU START**

#### **NEVER INCREASING DIAMETERS**

Remember that the measuring system never records a rising diameter. If a stem is registered in the system with a rising diameter, the computer will automatically filter out the rising part and instead create a so-called flat area in the stem profile. Therefore, always look for the smallest diameter when log scaling.

#### **UPDATED CALIPER**

In order to calibrate four point measuring, you need a caliper that supports the function. The support was for exemple introduced in Haglöfs version 6.9.

#### **GOOD CONDITION AT TOOLS**

In order to get a good measuring result, all your measuring tools must be in a good condition. Make sure that details, such as measuring wheels are not worn. The tape also needs to be checked at regular intervals. Remember that mechanical tapes also can be incorrect.



# LENGTH MEASURING



#### MEASURE IN THE MEASUREMENT WHEEL TRACK

Place the tape along the log. A good guideline is to place it in the measuring wheel track.

#### HOOK IT PROPERLY

Make sure the tape hook is firmly pressed in, and sits perpendicular to the stem, otherwise the measurement result becomes incorrect.

#### THE TAPE AGAINST THE STEM

Check that the tape measure follows the stem and that nothing affects the length, for example twigs or knots.

#### **ROUND OFF**

Depending on where you are operating in the world, the standards for how you should do the rounding, is different. Check this before you continue.

#### ENTER TO CALIPER

Enter the numbers to the caliper.

## **DIAMETER MEASURING**

#### SPECIAL FOR FOUR POINT MEASURING

Diameter A is measured where the feed rollers have gone and Diameter B is measured at a 90° angle from Diameter A, where the lower knife has gone.

This is how the four point measuring works in the computer of your head, and it is therefore important that you measure equally.

> FOUR POINT MEASURING







#### TOP DIAMETER

The top diameter is measured at least 10cm from the top, **or where the diameter is at its lowest**. This means that if the top dimension is at a bulging point, the measurement should instead be taken at the smallest diameter towards the root.

#### ALWAYS LOOK FOR THE SMALLEST DIAMETERS

After marking the top diameter, measure the diameter at each full meter along the log down to the root end. Always look for the smallest known diameter of the stem against the root, regardless of where the intended measuring point is.

This means that you have to move the caliper further up the stem towards the root if the intended measuring point is on a bump or other injury and instead measure the diameter at the smallest diameter against the root.

The measuring system accepts that you move the measuring point but not that the diameter of the stem increases. If you do not do this, your measurement result will be incorrect.

#### **BE CONSISTENT!**

In order to get good measuring results, it is important that you are consistent in your handling of the caliper.

# REMEBER

- + ALWAYS LOOK FOR THE SMALLEST DIAMETER
- + THE MEASUREMENT SYSTEM NEVER ALLOWS RISING DIAMETERS
- + TO BE CONSISTENT IN HANDLING OF THE CALIPER
- TO SCALE THE DIAMETER A WHERE THE FEED ROLLERS + WERE GOING, AND DIAMETER B AT AN 90° ANGLE FROM THERE, WHERE THE LOWER KNIFE WAS GOING
- + THAT THE TOP DIAMETER IS MEASURED AT LEAST 10CM FROM THE TOP OR WHERE THE DIAMETER IS LOWER

# **GOOD LUCK!**



HEADS ABOVE THE COMPETITION