

Mr. Philip Maddison
Old Church Colliery
Nr. Swansea.

My dear Sir,

I duly received yours of November 4th, I am glad you think you can manage the Engine, the Yoke with the side rods form the connecting rods which will unite with the crank pin exactly under the centre of the cylinder.

There is two Yokes one on the top of the piston rod and the other is under the bottom of the cylinder it is like a sayers frame you must not put any wood on the top of the pillar the cylinder bottom is cast sufficiently wide to stretch across the space left in the pillar which you may see by the plan, if you measure the plan by scale you will find the distance of any part, there is no need of a wall on the back frame—but if stone is cheaper than wood you may put a wall in its place but you would still want a piece of timber on the top of the wall and that piece of timber should reach to the shaft, if ever you intend to work a set of pumps otherwise it would not be kept fast there is no joint in any part of the connecting rod but only at the top and bottom, you will find the distance from the top of the cranks axle frame to the top of the cylinder pillar by measuring of the scale, if you take your compasses and extend it between the cylinder bottom and the crank frame and then lay it on to the scale it will give you the quantity of feet. It will answer very well to have the bottom of the cylinder level with the top of the pitt. I believe you will find the pillar measure about 17 feet high only take care to work by the scale and you will keep right I am afraid the work you have for a holing machine would not defray its expences however I will talk to Mr. Wood about one. I think by looking at your sketch you understand the Engine.

I am, Dear Philip

Yours sincerely

Geo Stephenson

Killingth Colly.

Nov. 10th 1822.