

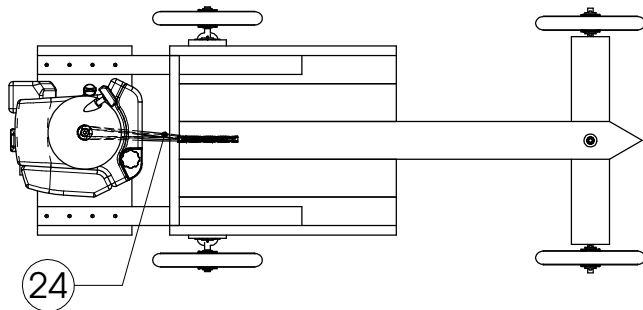
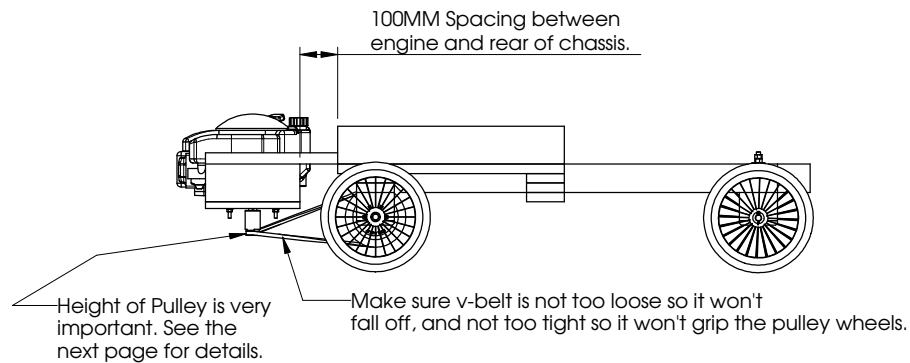
MOUNTING THE LAWNMOWER ENGINE TO THE CHASSIS #1

With the rolling chassis now complete, it is time to attach the lawnmower engine, and connect up the V belt.

The first step is to secure the engine to the mounting base. This mounting base is then in turn screwed to the Rear Engine Support Arms.

While it is possible to directly connect and tension the V-Belt between the engine and rear axle at this point, and then to screw the mounting base in position, this direct drive setup means that once the engine is started, the kart would take off. (The author tried this once, and had it working. The kart was raised up on blocks, the engine started, turning the wheels, and then the kart was slowly lowered off the blocks onto the ground, and off the kart would go. To stop the kart, the engine had to be stopped.) Instead, this set of plans show how an "idler" pulley is used to apply tension to the drive belt to act like a clutch.

As a result when screwing the mounting base to the rear support arms, make sure that the v-belt is loose enough not to grip the pulley wheels, but tight enough as not to fall off the engine pulley and onto the ground.

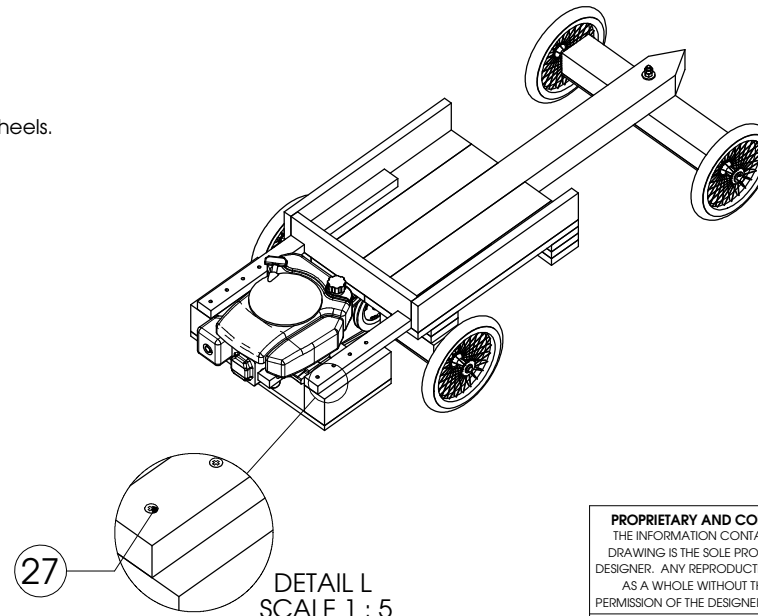
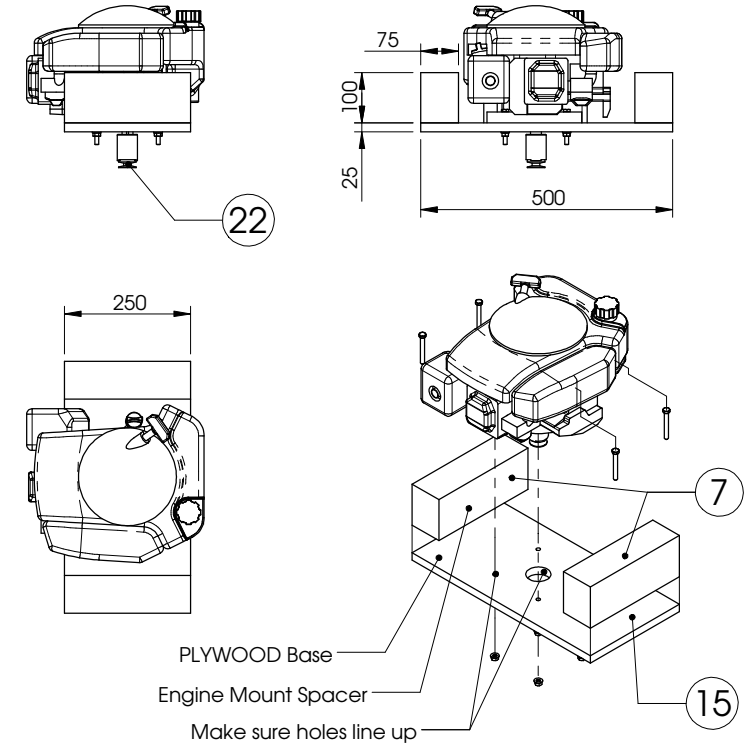


V-Belt and Pulleys shown for clarity. The alignment of the two pulleys is important (See next page).

The Lawnmower engine is first secured to a piece of 25MM (1") plywood, 500 x 250, using 4 bolts. There should already be bolt holes in the engine you can use. Make sure to drill corresponding holes in the plywood to match up with the holes in the engine. Typically M8 Bolts 50MM Long (2") will suffice. use a washer and 'nyloc' lock nut to secure. Make sure to cut a single large hole in the middle to allow the engine's output to shaft to protrude out.

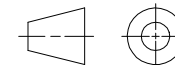
For reasons which will be discussed later, an "Engine Spacer" is required. This is a large piece of timber/wood, 100x75x250MM which is screwed to either side of the plywood as shown. It is better to use wood screws in this case instead of nails for better security (wood screws not shown on the right).

The lawnmower engine should now be secured to this plywood base, with the drive-shaft pointing out the bottom. Further details on securing the small pulley wheel to the engine drive shaft is outlined on the next page.



The Engine Mounting is screwed to the two "Engine Support Arms" at the rear.

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TITLE: ENGINE MOUNTING # 1

MATERIAL AS SPECIFIED DATE: 17/10/2009

FILE NAME: Main-Wooden-Kart- SIZE: A4 REV. 1

SCALE: 1:20 DESIGNER: STEPHEN BURKE SHEET 16 OF 21