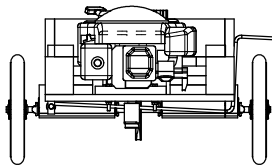
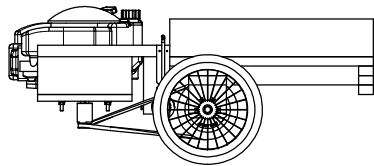
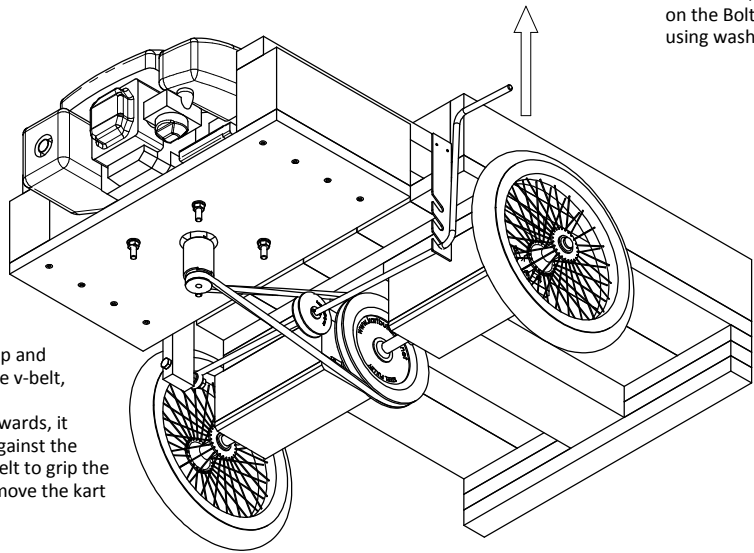


## BELT TENSIONER / CLUTCH

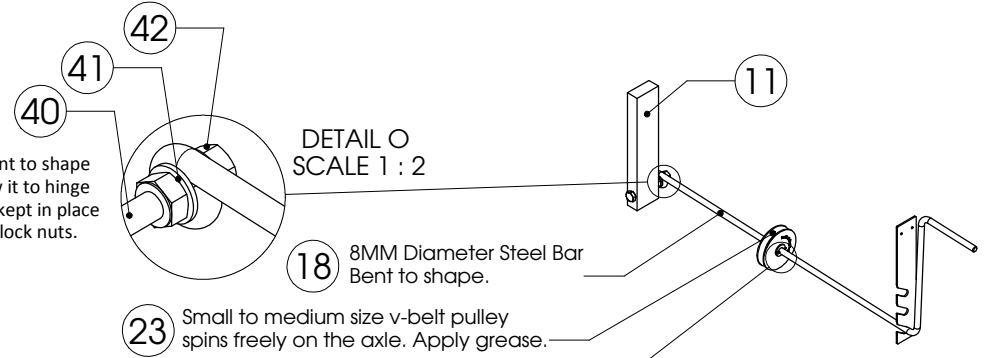
It was mentioned on "Engine Mounting #1" how it would be possible to create a "direct drive" where the belt was left tensioned permanently and the engine mount board screwed into position. This means that once the engine started, the kart would take off. It also meant that in order to stop the kart, the engine had to be stopped.

This page outlines how a 3rd Pulley Wheel can be used as a "Belt Tensioner". A 3rd Pulley wheel is mounted on a lever which can be moved away from, or against the v-belt. When this 3rd pulley wheel moves against the v-belt, it takes up the slack in the belt, tensions it, and causes the v-belt to grip the pulleys on the engine and the rear axle, power is transferred and the kart moves off. (The front of the kart is removed below for clarity.)

The 3rd Pulley (Idler) must move up and out against the "return path" of the v-belt, as shown. When the driver pulls the lever upwards, it causes the idler pulley to pull up against the v-belt, tension it, and causes the belt to grip the engine and rear axle pulleys, and move the kart forward.



The 8MM Bar is bent to shape at the end, to allow it to hinge on the Bolt, and is kept in place using washers and lock nuts.

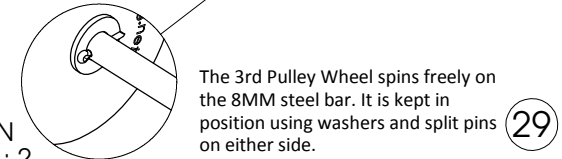


DETAIL O  
SCALE 1 : 2

18 8MM Diameter Steel Bar Bent to shape.

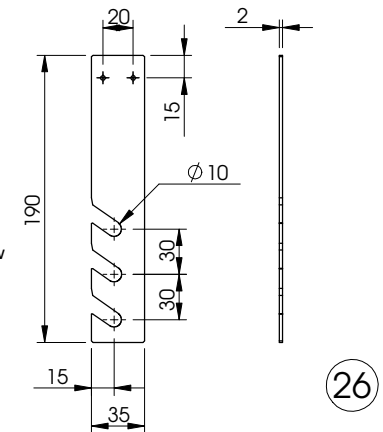
23 Small to medium size v-belt pulley spins freely on the axle. Apply grease.

DETAIL N  
SCALE 1 : 2



The 3rd Pulley Wheel spins freely on the 8MM steel bar. It is kept in position using washers and split pins on either side.

Belt Tensioner Keeper  
This piece is easiest made from 2MM steel plate. Drill three 10MM Holes, and using a Hacksaw remove the rest of the material to form angled slots.



PROPRIETARY AND CONFIDENTIAL  
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF THE DESIGNER. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF THE DESIGNER IS PROHIBITED.

kartbuilding.net

TITLE: BELT TENSIONER / CLUTCH

MATERIAL AS SPECIFIED DATE: 17/10/2009

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

SCALE: 1:20 DESIGNER: STEPHEN BURKE SHEET 18 OF 21

