

**National FFA Agricultural Mechanic
Career Development Event
2013
Team Activity**

Scenario

Part I.

Construct wood base as a part of mount for a Briggs and Stratton engine and pump. This base must:

- ☐ **Be constructed according to the dimensions specified in the drawings provided.**
- ☐ **Be assembled as illustrated in Figure 1.**
- ☐ **Support the metal frame illustrated in Figure 2.**

Part II.

Construct a metal frame to be attached to the wooden base. This frame must:

- ☐ **Be constructed according to the dimensions illustrated in the drawings provided.**
- ☐ **Be welded together as directed in the drawings.**
- ☐ **Be able to be mounted on the wooden base as illustrated in Figure 3.**
- ☐ **Have mounting holes that fit the Briggs and Stratton engine illustrated in Figure 4.**

When part I and part II are completed, you are to mount metal frame on the wooden base.

Materials provided:

- ☐ **2" x 4" x 6' pine dimension lumber**
- ☐ **2½" construction screws**
- ☐ **¼" by 1" lag screws with ¼" washers**
- ☐ **⅛" x 1½" x 1½" Angle iron – 40" long**
- ☐ **⅛" x 1½" x 1½" Angle iron tab with hole – 1½" long**

Tools available:

- ☐ **Circular saw**
- ☐ **Milwaukee metal chop saw**
- ☐ **Framing square**
- ☐ **Tape measure**
- ☐ **½" wrench**
- ☐ **Drill/Driver**
- ☐ **Phillip head driver**
- ☐ **⅛" twist drill**
- ☐ **½" spade bit**
- ☐ **1" spade bit**
- ☐ **⅜" twist drill**
- ☐ **Saw horses**

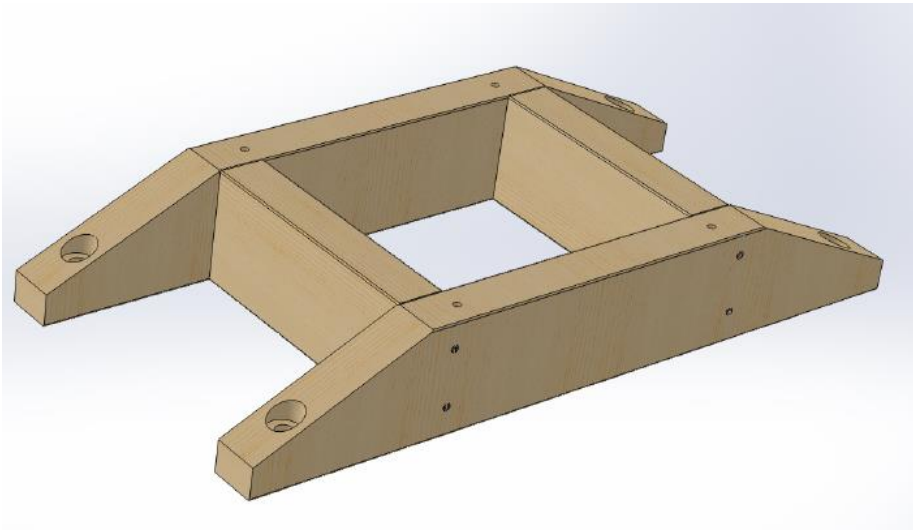


Figure 1. Wooden base for engine stand.

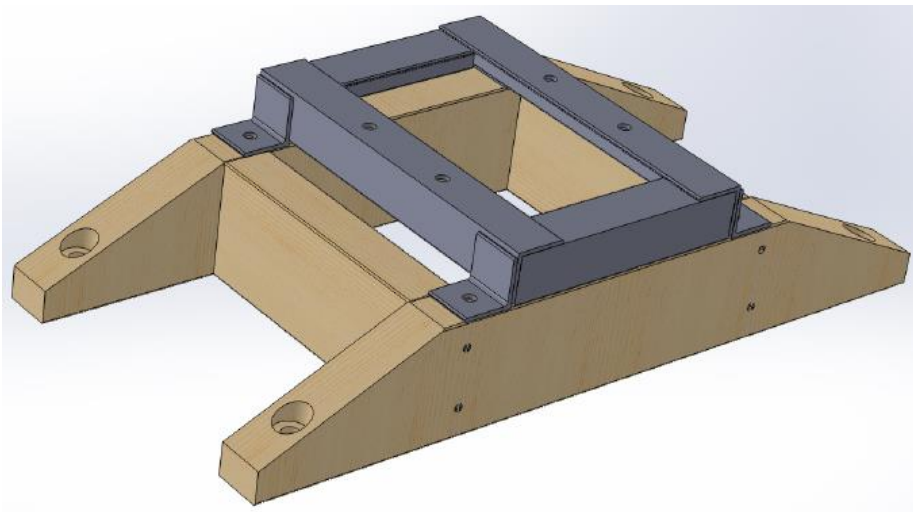


Figure 3. Engine stand assembled.

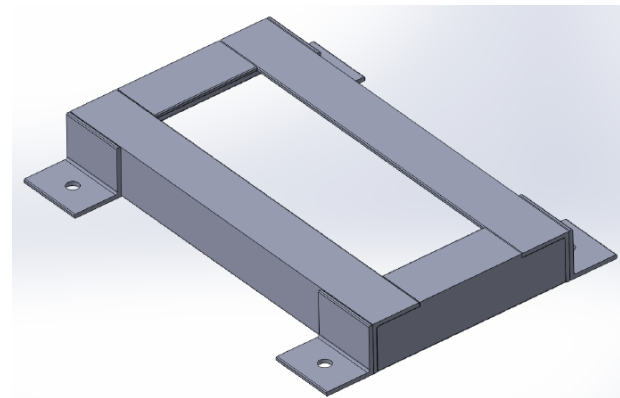


Figure 2. Metal frame for engine stand



Figure 4. Briggs and Stratton engine and pump. The mounting frame is not included on your engine.