

ISETTA 300 ENGINE CRATE

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When shipping an Isetta engine it is very important to provide protection from the hazards that exist in the shipping industry. Failure to protect the engine can result in minor air duct damage to a destroyed carburetor or other expensive engine component. In another document, I have described the fabrication of a wooden crate for shipping the Isetta engine. If you have very little scrap wood or are not very handy with building wooden crates, this option may be of interest to you. You can purchase a commercially available crate from locations like Lowes that may be used to ship your Isetta engine. There is still a small amount of wooden parts that must be fabricated, but it is minimal. The time it takes to secure the engine in this crate verse the time it takes to construct a completely wooden crate is much less.

This document contains instructions on how to secure the engine in the purchased crate.

Items you will need are as follows:

- (1) Contico Pro Tuff Bin (item # 91573, model 3725)
- (1) 8' long 2" x 4" stud
- (8) 3/8" x 2-1/2" long bolts with nuts
- (32) 3/8" flat washers
- (8) 3/8" lock washers
- (16) 3-1/2" long decking screws
- A piece of 3/4" plywood 13" x 11"



Using the 2" x 4", cut (2) 2" x 4s" to a length of 31". Also cut (2) 2" x 4" to a length of 11". The shorter, eleven inch 2" x 4s" will now be ripped down to a width of 2-1/4" from the stock width of 3-1/2".

Attach the shorter pieces of board to the longer as shown in the pictures to the right (except further in from the end as described below). The shorter boards should be attached with at least (4) 3-1/2" decking screws. The decking screws should be installed from the bottom side of the 31" boards. The 11" boards should be spaced about 5" from the end of the 31" boards. The 11" boards should be aligned with the inside edge of the 31" board. The photo below shows this a little clearer.

The pictures to the right shows the shorter boards installed on the inside edge of the 31" long boards. The distance from the right end of the short boards to the right end of the 31" boards is shown incorrectly. The correct distance from the right end of the 31" board to the right end of the 11" boards should be about 5".



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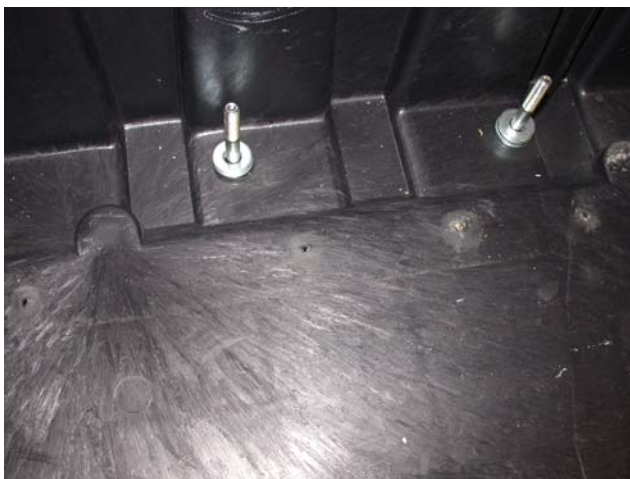
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Drill eight 3/8" holes in the bottom of the crate in the locations shown at the right (see bolt heads against the black case along the upper and lower edges).



Have an assistance hold in place one of the 31" 2"x4" boards in either the front or rear of the box on the inside. Mark the holes on the board using a pencil. Drill 3/8" holes through the 2"x4" at the locations marked. Do the same for the opposite side.



When installing the bolts through the holes, use flat washers on the outside of the crate.

Also, install four to five flat washers at each of the four middle locations on the inside of the crate. These washers should be placed between the 31" board and the crate bottom. This is necessary to take up the space between the recessed areas these center bolts are installed and the 31" board.

Complete the securing of the 31" boards by placing a flat washer and nut on top of the board and tightening securely.



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Using a piece of $\frac{3}{4}$ " plywood, cut a rectangle 11" x 13". Using the engine as a template, mark the locations of the four studs that mount the engine to the transmission. Drill these marked locations with an $\frac{11}{32}$ " drill bit. This will allow the engine to be mounted to the board using flat washers and 8 mm hex nuts.

The bottom edge of the board should be about even with the bottom edge of the oil pan.



Using a minimum of 6 (3 on each side) 3" long decking screws attached the engine mounting board to the 2-1/4" high boards mounted in one end of the crate.

If you are shipping the round funnel piece that fits over the fan housing, it will need to be removed, wrapped in protective wrapping and shipped loose in the box (I suggest you tie it down to the sides or bottom with tape or screws).



Be sure to label the box with a "DO NOT STACK" label. Also use plenty of tape to secure the shipping label to the box. It is also a good idea to place identification information inside the enclosure (shipped to / shipped from). This will be helpful to the shipping company in the event the label is torn off during shipping. Secure the enclosure with either bolts or cable ties through the pad lock holes. I do NOT suggest you lock the box. If the shipper needs to get inside (due to a lost label) he will only destroy the box if it is locked.

