



10 Things To Know Before Buying A Fuel Tank

By John Benn, Propower Manufacturing

What could be so important to know about buying a fuel tank? After all, it's just a metal container with a fuel cap. Aren't they all pretty much the same?



John Benn

Absolutely not. Buying a fuel tank is like anything else – when you don't know what to look for you'll make your decision on price alone, and that can cost you in the long run. You could waste your money on lesser quality products if you don't know what to look for. Whether you buy your tank from us or not, you'll find this guide to be a useful tool to help you learn what's important about fuel tanks and suppliers. If you want a tank that lasts long, shows up in a reasonable time and pops into place without a lot of modifications or adjustments, use this guide as your benchmark and don't accept anything less.

1. Insist On Mechanical Drawings

We've done our research and spoken with hundreds of owner/ operators and fleet maintenance techs. They tell us that one of the most important things to them about a replacement fuel tank is the fit. If it's a nightmare just to get the unit installed it can cost a lot of time and money and further extend your down time. There's a bit more to it than just hanging a can on the frame. The ports need to line up, the cap has to be in the right place and the straps need to be the correct length. The only way to make sure you get a tank that fits like the original is to insist on mechanical drawings. Ask the supplier to fax or email the drawings to you, then spend a few minutes with a measuring tape and compare their design to what you currently have in there now. This can save you a lot of time and frustration and money. If they can't (or won't) send you drawings walk away. It's just not worth the risk.

2 . Material Thickness Matters

Replacing a fuel tank is a job you don't want to do often, so you want a tank that will last a long time. The best way to do this is to stack the odds in your favor. Material thickness plays a big part in durability and since material cost is also a big part of the overall cost of the fuel tank it is also one of the first places manufacturers could go to cut corners. Insist on 1/8 inch aluminum, 12 gauge steel or 14 gauge stainless steel.

3 . Specify The Coating

In many parts of the country road salt and salt in the sea air near coastal waters is one of the biggest enemies of metal fuel tanks. Ask the manufacturer what kind of coatings they use to protect their tanks from the elements. Insist on rust resistant enamel based paint or powder coat to inhibit rust caused by salt.

4 . Ask About Weld Types

Another factor affecting the life of your new tank is something most people simply take for granted and completely overlook. That is the type of weld used on the flanges. Much of the vibration and stress transfers to the welds along the flanges. The trouble is; it takes a lot of wear and tear before it shows up as a problem – probably long after the warranty expires. From a distance all welds look pretty much the same but TIG welds are much stronger than MIG welds on aluminum.



5 . Identifying A Proper Weld

While we're on the topic of welds, regardless of the material you choose, the welds hold the pieces together and prevent leaks if done correctly. Ask for a picture with a close up view of their welds. What you are looking for is a convex weld 1/4 inch wide that is continuous with no porosity. It should have deep penetration into the metal. The photos below show a close up view and a cross section of what you are looking for.



Weld Must Be 1/4 Inch Wide



Weld Must Have Deep Penetration



6 . Specify A Pressure Tested Tank

Ask the manufacturer if they do leak testing on their tanks. They are likely to tell you that they do. Now ask if they use SPC (statistical process checking) or 100% leak testing at 5 psi. Don't take the risk and accept SPC. Statistical process checking means they take a few random samples and pressure test them. It's a bit like Russian roulette. Do you want to take the risk of receiving the tank with a pinhole because yours wasn't pressure tested? We believe manufacturers should do more than talk about quality and testing every tank is the only way to ensure quality.

7 . Replace Dual Tanks Together

Here's a tip that could save you some frustration down the road. If you have dual tanks you should consider replacing them both at the same time. Chances are good that the other one is near the end of its life too. Otherwise its going to be like déjà vu all over again. As a bonus you'll save on freight charges. The cost of shipping two tanks is often the same or only slightly more than shipping one.

8 . How Does It Look?

We believe no matter what kind of tank you buy it should look great when you get it – no paint drips, no scratches, dents or scrapes. The guys that build it and package it should be proud of their work and you should expect nothing less than 100% satisfaction that even extends to the look of the tank.

9 . You Deserve Choices

If you have room for a tank 10 inches longer, why not install a larger tank to cut down on your refueling stops? Do you want your ports or fuel cap in a specific place? You should be entitled to choose where they go. Your supplier should offer options like locking fuel caps, fuel heaters, visual gauges, sending units and a variety of straps.

10 . Get Shipping Confirmation

Finally, you should get your tank when the supplier said you will receive it. Although your supplier can't control what happens when it leaves his dock, you should ask them to send you a confirmation of shipping and a tracking number. This will give you an independent report of the day it was picked up and where it is along the way so you can track the delivery progress.



We hope you will be able to put this guide to good use. We welcome you to share it with friends or colleagues. If you have any questions or comments please feel free to contact us.



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