Media Blasting

Earlier, I alluded to doing some sandblasting on it after relating the powder-coater's concerns about media blasting and the filter mesh. The "rest-of-the-story" is that I had a cover that is broken and I know I will never try to place in-service, another one that is marginal and may be salvageable, another one that is pretty-good but perhaps not quite \$160-powder-coat worthy, and finally, one more on my son's '96 that I hope is near perfect, at least it shows good on the outside. I also have a small sand-blasting pot, a compressor that is up to the task (but only just) for sporadic, here and there blasting, and 4-5 years of experience as a sandblaster in my high-school and early college days, many years ago. The first step in determining if my 95 take-off cover could be salvaged was in cleaning up the spark-plug-wells. If I couldn't get those down to bare metal, it would be a fool's errand as the corrosion would resume apace upon installation and I'd soon be flooding the plugs with oil, at a minimum. Wire brush on a drill proved less than satisfying, so I broke out the sandblaster I'd purchased several years ago but hadn't yet used. I decided to start with the busted, experimental cover and see what results may be possible. I tried two different media; the coarse, black aluminum oxide I had plenty of, first, followed by the fine, silica sand of which I had only one, 100# bag, courtesy of dad saving it for me when he cleaned out his shop and pushing it out with me on my last visit home. This one was left-over from my earlier sandblasting days! The black oxide hits harder and makes shorter work of paint and scale, but you have to stay on it longer than is optimum to get the part to what sandblasters refer to as a "gray metal brush," and it leaves the surface considerably rougher, particularly on a soft metal such as this alloy. Unfortunately, the photos below don't show the results of the black-oxide very well as I started with that, then switched to the silica before taking pics. You can see it in the darker gray, but cleaned areas at the periphery of the light gray areas. I switched early-on because the speed of cut was not worth the hassle-of-use. As I said, a new, never-before-used sandblaster and the first obstacle was that the oxide media kept clogging the nozzle. I'll need to find a local source for the finer-grade silica if I'm to do much parts-blasting around the shop.



As you can see in the photo below, it did an excellent job at cleaning the inner surface of the well, but it did require you to stop, take off the hood and inspect from time-to-time as you can see an area of unclean surface there. While doing this, the sand is rebounding back into your face (I have a hood with face-shield on, but visibility is still near zero, so it is just "point the nozzle in there, swish it round-and-round a bit, then stop and inspect.



The lower-right corner of the photo below is probably the best view of how the black oxide performed.



Overall, I just did a quick, spot-blast on this one as "proof-of-concept" or perhaps what the industry I now work in might call "risk-reduction" activity. It assured me that it would get the spark plug wells clean without undue damage to the part, overall.



I put this one away and got out the true target piece. I didn't get to sandblast as much on this one as I'd like because nozzle clogs continued to be an issue and eventually, the whole hose choked-up. By then I was tired and frustrated, and "close enough" that I didn't feel like removing the hose and clearing the jam, so I just put it all away and cleaned up for the evening. Regarding the filter meshes, I stuffed rags into the opening to them, then taped over that with duct-tape, which was subsequently displaced during the process. However, filling the cavity kept a lot of it out, and in this case, I did the degreasing soak after the sandblasting. Reaching fingers in there and feeling around, I believe blasts of tap-water and compressed air, it is relatively grit-free. I think the thrust of it, is you probably can't count on your average sandblasting contractor to do that, or to exercise all that much care to avoid it if you do it before turning the piece over to them. Following are some photos of it after blasting and a bit of sanding some on top of that. The other unit shown alongside is the Dallas West Pick-n-Pull find in pre-degreased state.



No blasting on the underside. The bright areas you see are where I hit it with a wire brush. As you'll note in later pics, the one below was prior to degreasing.





