



INTERNATIONAL MARKETING, INC. TECHNICAL BULLETIN

SUBJECT: Proper & Adequate Surface Preparation

DATE: October 19, 2004

A definition of proper and adequate surface preparation for refinishing truck wheels and rims could be summed up with the following words: “Clean, bare blasting steel to create a ‘white steel’ surface with just enough etch in the profile for adhesion of a coating but not too much etch so as to take a coating beyond its operating parameters.” This is all a function of the choice of media for the blast process. Or, stated in these words: “Developing the balance in the shot blast media to remove old coatings and corrosion, to prepare the wheel surface for a compliant paint application (.003 or 3 mils in the mounting areas), but not to prematurely destroy the truck wheel or the refinishing machinery.” Again, this is a function of the choice of blast media.

OE RECOMMENDATIONS

1. Refer to the TMC’s *Guide to Wheels & Rims* for out of service conditions.
2. OE’s strongly recommend that S460 and larger shot is not to be used in the reconditioning process.
3. OE’s strongly recommend that if the wheel is severely pitted and/or the manufacturer/DOT/ID stamping cannot be read, the wheel should be pulled out of service.

INDUSTRY RECOMMENDATIONS

Shot Blast Media Guidelines:

Sling box style blasters: 1750 – 2000 rpm – (IMI 2000, 2010, Hardline, Darue and LS Industries blasters) generally should use nothing larger than the 300 range of shot media (S330 – S390). Anything larger (S460, S550*) will definitely affect the profile of the surface making it near impossible to re-apply a compliant coating in the mounting areas (no thicker than 3.5 mils of coating). Anything smaller than S330 in these style blasters will not clean a wheel properly, if at all.

Centrifugal blast wheels: IMI 2020 and Delta style blasters (sometimes known as scatter blasters) operating at 3600 rpm, are able to use the 200 range of shot or smaller (S230 and S280). Using larger shot than this in these styles of blasters is detrimental to the truck wheel surface profile as well as destructive to the machinery. The 2020 dual centrifugal wheel blaster utilizes a standard grade blend of S170 shot and G25 grit** added to the working mix in the recommended frequencies, aids to sharpen the mix to help remove the coating but keep the wheel smooth and compliant in its profile. Grit larger in size than the G25 or harder than the S range (402-558 KHN – 40-51 HRC) will be detrimental to both the truck wheel and the machinery.

NOTE: Adding the fresh blend to the working mix of the 2020 blaster is the key to efficient cleaning as well as reducing the wear and tear on the blaster. The blaster will use ½ pound of the blend for every 3 minutes of operation. Five pounds of fresh blend should be added to the blaster every ½ hour to keep it running efficiently (also adding back into the Blaster any media removed while removing the truck wheel from the Blast cabinet).

**S460 and S550 are used in the industry for peening and stress relief, not paint preparation.*

***The 2020 blend is prepared specifically for IMI by Ervin Industries, AMASTEEL. Both the shot and grit used in this blend are within the S hardness range – 90% minimum 402-558 KHN (40-51 HRC).*

Questions regarding the above technical bulletin may be directed to:

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