

## Steve Perniciaro

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**From:** Perniciaro, Stephen  
**Sent:** 10/31/2005 02:20:57 PM  
**To:** Mead, Joseph P.; Doolittle, James F.  
**CC:**  
**BCC:**  
**Subject:** FW: RH Blocker

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From: Marley, Matthew M.  
Sent: Monday, October 31, 2005 2:11 PM  
To: Perniciaro, Stephen  
Subject: FW: RH Blocker  
Importance: High

Steve-

This is an update to the work we have been doing on the SPL RH Blocker to increase the core hardness. It looks promising from this view.

Matt

-----Original Message-----

From: Wright, MaryAnn  
Sent: Monday, October 31, 2005 11:56 AM  
To: George, Ronald M.; Marley, Matthew M.; Nichols, Scott; Ogrodnik, Frank A.; Parkhurst, James L.  
Cc: Sietsema, Glen D.  
Subject: RE: RH Blocker  
Importance: High

I have reviewed the mount, and there is pearlite (a higher-carbon metallurgical phase) throughout the thinnest and thickest cross sections of the RH blocker, and, in particular, in the core. Therefore, I expect that the heat treating cycle may be shortened for these blockers, debound using a 6-1 db cycle, standard presinter, and then sintered at 2450 F (2425 F for the lot, to bring in the dimensions) for one hour in the Hayes # 4 Furnace, in an atmosphere of 300 cfh hydrogen and 900 cfh nitrogen.

We expect to have approximately 1200 of these RH blockers sintered tomorrow, and we will determine the apparent hardness, density, and dimensions.

Glen, then the next step is coining. I will get back to you with a date by which we will ship the parts to you for heat treatment.

Thank you.

Maryann

-----Original Message-----

From: Wright, MaryAnn

Sent: Tuesday, October 25, 2005 2:25 PM

To: George, Ronald M.; Marley, Matthew M.; Nichols, Scott; Ogrodnik, Frank A.; Parkhurst, James L.

Cc: Sietsema, Glen D.

Subject: FW: RH Blocker

These right hand blockers were sintered at 2450 F, but, for production, SHOULD be sintered at 2425 F, to bring the dimensions closer to the mean. The mid-HRB 80's apparent hardnesses seem to indicate that we have retained carbon in the part, since the previous parts were running in the HRB 40's-50's. Dave is making a mount, and, once I take a look at it, I will be able to provide a more definitive report. But, it looks promising.

Maryann

-----Original Message-----

From: Fusillo, David

Sent: Tuesday, October 25, 2005 1:49 PM

To: Wright, MaryAnn

Subject: RH Blocker

MaryAnn:

This RH blocker hardness and density data is from 5 parts sintered at 2425° in H4 with an atmosphere of 300/900.

Hardness; HRb block 86.6 get 87.4

Density; 5 piece average 7.5138

85.5, 84.5, 86.0, 85.0, 84.0

7.5179, 7.5140, 7.5063, 7.5152, 7.5157

Dave