

Based on his observations, the inspector issued Citation No. 4366124. The citation alleges a violation of section 77.404(a) of the Secretary's regulations, 30 C.F.R. ' 77.404(a), ¹ because:

The right rear inside tire on the 793B Caterpillar end dump haul truck # 386 is in an unsafe condition. A chunk of the rubber tread approximately 6" x 6" in size has been cut away leaving the steel belt cords exposed. The 3 outer steel cord layers are completely worn through in the 6" x 6" area. The 4th steel cord layer is worn through in 2/3 of the 6" x 6" area. At least 7 steel cords are broken in the 5th layer. The tire is a 40.00R57 tubeless v-steel E-lug radial Bridgestone (serial # 55R002896). The truck has been removed from service until the tire can be replaced.

(Govt. Ex. P-2.)

Findings of Fact and Conclusions of Law

The Commission has long recognized that Asection 77.404(a) imposes two duties: (1) to maintain equipment in safe operating condition; and (2) to remove unsafe equipment from service immediately. *Peabody Coal Co.*, 1 FMSHRC 1494, 1495 (October 1979). The >[d]erogation of either duty violates the regulation.= *Id.*@ *Ambrosia Coal & Construction Co.*, 18 FMSHRC 1552, 1556 (September 1996). It has further held that A[e]quipment is in unsafe operating condition under section 77.404(a) when a reasonably prudent person familiar with the factual circumstances surrounding the allegedly hazardous condition, including any facts peculiar to the mining industry, would recognize a hazard warranting corrective action. *See Alabama By-Products Corp.*, 4 FMSHRC 2128, 2129 (December 1982) (involving identical standard applicable to underground coal mines).@ *Id.* at 1557.

In this case, I find that a reasonably prudent person familiar with the factual circumstances surrounding the damaged tire would not have recognized a hazard warranting corrective action. In doing so, I find that the company's witnesses were more knowledgeable concerning the tire in question than was the inspector, who, furthermore, was not aware of all of the facts pertaining to the tire.

Inspector Skeens described the tire as follows:

¹ Section 77.404(a) provides that: AMobile and stationary machinery and equipment shall be maintained in safe operating condition and machinery or equipment in unsafe condition shall be removed from service immediately.@

What I found was an area that was six-by-six inches, approximately. And in that six-by-six area, the entire tread, rubber layer was missing, was gone away. Whether it had been skived² out or torn out, I'm not sure. That exposed the steel belts underneath the tread layers.

Okay. This six-by-six area left the steel belts exposed underneath the rubber. And in that area, I counted the outer three layers of those steel belts were completely worn through. The fourth layer, which is underneath those, there was approximately two-thirds of that steel belt in that six-by-six area that was worn completely through. And then the fifth layer, I counted a minimum of seven steel cords broken in that fifth layer on that tire.

(Tr. 24.) He further stated that his concern was that the damage to the tire compromised the structural integrity of that tire greatly and that tire would fail at any time, blow out. (Tr. 26.)

On the other hand, Steve Laird, an AMAX safety manager who accompanied the inspector on the inspection, Jeff Carter, the General Coordinator of Maintenance at the mine, and T. J. Wesley, the store manager for Fletcher's Cobre Tire in Gillette, all testified that the tire was not in an unsafe condition. While they agreed with the inspector that there was a six-by-six hole in the tire and that three steel belts had been skived out of that area, they did not agree that there was any danger of a blow out. I find their testimony more persuasive.

Inspector Skeens related that he had gained his knowledge of tires from having acted as a maintenance foreman and safety director for small mines in Virginia and Kentucky, where the largest haul truck was 40 to 50 tons, from his entry and intermediate level training for coal mine inspectors at the National Mine Academy, and from a one day training session in Gillette put on by Cobre Tire. Concerning his actual knowledge of tires and tire maintenance, I find the following exchange illuminating:

Q. Now, you said that the three outer steel cords were worn through in your citation. That's what you said?

A. Yes.

Q. Could they have been -- rather than being worn through, could they have been skived out in repairing that tire previously?

A. That's possible.

² Skiving is the [r]emoval of a material in thin layers or chips Bureau of Mines, U.S. Department of Interior, *A Dictionary of Mining, Mineral, and Related Terms* 1022 (1968).

Q. That's fairly standard practice when you have a damaged area of a tire, to skive it out?

A. In some cases.

Q. And the purpose of skiving it out, I guess you use -- what is it? A skiving knife is the first step to cut away the damaged portion?

A. They have some kind of tool to cut or skive it out.

Q. You're not sure what type?

A. No.

Q. And do they use power tools like grinders and that to skive out a tire?

A. I'm not sure what they use.

Q. I take it you have never been part of any maintenance group that's been in charge of maintenance of tires.

A. No.

(Tr. 45-46.)

The company witnesses had far more experience with, and knowledge of, haul truck tires. Laird has a degree in Mining Engineering, has been in the mining industry since 1977, has operated large haul trucks and supervised operators of large haul trucks and has examined numerous tires. Carter is in charge of maintenance at the mine. He has worked in maintenance for 20 years and been responsible for tire repairs since 1988. He works closely with the two Cobre employees who are continuously at the mine and perform tire inspections, changes and repairs. He demonstrated considerable knowledge of tire components, tire requirements for haul trucks and tire repairs. Wesley has been in the tire business for more than 20 years. He was a tire repairman for over 15 years, more than 13 of which were as a repairman at mines. For the last 7 years he has worked for tire dealers supplying tires and tire maintenance to mines.

That the inspector had less expertise than the company witnesses about tires is further evidenced by his lack of general familiarity with tires. For instance, he testified that the tire's steel belts were part of the casing. (Tr. 60.) In fact, according to the 1990 Bridgestone *Technical Data* manual for off-the-road tires, they are not. (Resp. Ex. 1, at 6.) He testified that the term carcass referred to the tread, belts and casing of a tire. (Tr. 50.) In fact, according to the Bridgestone manual, a radial tire does not have a carcass as a bias ply tire does, but its equivalent would be the casing. (Resp. Ex. 1, at 6.)

Furthermore, the citation was issued without an awareness of all the facts concerning this specific tire. For example, the inspector testified that the tire had six steel belts including the casing belt. (Tr. 31, 45.) In fact, the tire had six steel belts plus a casing belt. (Tr. 148, Resp. Ex. 5.) In addition, he was not aware that the tire had been repaired at an earlier date. Nor was he aware that the reinforcement patch had been placed inside that tire during the repair. (Tr. 111, Resp. Ex. 3)

Since the inspector was not aware that the tire had been repaired, he did not know that the top three belts had been skived out, rather than worn out. Moreover, he demonstrated a limited knowledge of MSHA's *Tire and Rim Safety Awareness Program* (Rev. 1996). (Govt. Ex. 3.) Thus, while he used it to point out that excessive speeds and rocky terrain, neither of which were shown to be present in this case, could have a detrimental affect on tires, he did not appear to be aware of section G(3)(b) which states that: **Reinforcement Repairs** -- are for cuts that penetrate more than 1/4 but less than 3/4 of the tire plies. In such cases, strength must be reinforced. Fabric repair material is used to reinforce the tire@ (Govt. Ex. 3 at 19.) That was done to the tire in this case. Indeed, although more than 3/4 of the plies were not penetrated, nor the casing ruptured, a reinforcing patch was placed on the inside of the tire as recommended for such severe damage in section G(3)(c) **Section Repairs**.@ Instead, the inspector operated under a **Rule of thumb**,@ not found in the manual, that if two belts of a tire are penetrated it must be taken out of service. (Tr. 56-58.)

Wesley, Carter and Laird testified that the tire was safe for use on the truck. All examined the tire at, or near, the same time as the inspector. They concluded that the tire was safe because the tire was not hot, meaning that there was no belt movement or separation; the remaining belts did not appear to be moving because their protective rubber covering was still intact; the remaining belts were not separated; the tire had no other cuts or anomalous conditions and was otherwise in good condition; the casing of the tire was not damaged; the tire had been reinforced on the inside; and the tire was the inside tire of dual tires on the rear, so that even if it did blow out, which they considered extremely unlikely, operation of the truck would not be adversely affected enough that the driver could not safely bring it to a halt.

As Wesley testified, the tire was not unsafe because:

The damage that was done to that tire was nothing to hurt the structural integrity of it. You know, we have talked about the tire, and what you need to know is . . . there is a steel cord that wraps around the bead and that is the casing. And that is the strength of the tire.

You in fact could have that tire with no tread, no belts and run that tire. The strength is not there. Carry the same load. Then you have them belts there for -- they are put in there to protect. All they are there for is to protect the casing. And then the tread is on there to protect the belts.

(Tr. 141.)

It is evident that when this tire was repaired it had been plugged and the plug had subsequently fallen out. However, as Wesley stated, the only reason the plug is there for is to keep dirt, water away from the steel. It's not there to make the tire strength [sic] or anything. (Tr. 165.) The difference between dirt and water getting into tire that has been cut, but not skived out, and a tire that has been skived out is that dirt and rocks can get trapped inside the cut and cause belt separation, but cannot be caught inside a skived out area because there is nothing to contain them.³ Consequently, the plug having fallen out did not make it any less safe, it only meant that the tire might not wear as long.

In sum, because of their greater knowledge and expertise, I accept the testimony of the company's witnesses over that of the inspector. I find that the damage to the tire was not as severe as the inspector believed. I further find that the company's witnesses are reasonably prudent men with more familiarity with the factual circumstances surrounding the hole in the tire than the inspector, particularly as the tire was being used at this mine, and that they properly did not recognize any hazard warranting corrective action. Accordingly, I conclude that the tire was not in an unsafe condition and that AMAX did not, therefore, violate section 77.404(a).

ORDER

It is **ORDERED** that Citation No. 4366124 is **VACATED** and this case is **DISMISSED**.

T. Todd Hodgdon
Administrative Law Judge

³ If you cut a tire, what's going to damage the tire is not skiving it out. If you get dirt or rocks in there, then that's what's going to start the separation. (Tr. 102.) Skiving it out prevents the dirt from getting in there and starting the separation process. (*Id.*)

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