

Stephen E. Van Gaasbeck, Esq.  
1227 S.W. Military Drive  
San Antonio, TX 78221

Dear Mr. Van Gaasbeck:

This responds to your letter asking whether you may replace the air bag in your 1997 vehicle with a depowered 1998 air bag. You specifically wanted to know whether replacing the air bag would violate any standards or regulations issued by the National Highway Traffic Safety Administration (NHTSA).

As discussed below, there is no legal impediment to modifying older vehicles so that they have the same kinds of redesigned air bags being offered on most new vehicles. However, depending on the vehicle, such modifications may be very complicated and potentially expensive. Additionally, since the replacement air bag is different from the one for the original occupant protection system was designed, such a modification may have a negative effect on the integrity of the entire occupant protection system. You may wish to ask your vehicle manufacturer whether it your vehicle can be modified in this manner without a degradation in overall safety and at what cost.

By way of background information, NHTSA is authorized to issue Federal motor vehicle safety standards that apply to the manufacture and sale of new motor vehicles and new motor vehicle equipment. One of the standards we have issued is Standard No. 208, Occupant Crash Protection (49 CFR 571.208). Manufacturers install air bags in passenger cars as part of complying with the occupant protection requirements of Standard No. 208.

While the Federal motor vehicle safety standards apply only to new motor vehicles and new motor vehicle equipment, Federal law limits the modifications that can be made by certain businesses to used vehicles. Manufacturers, distributors, dealers, and repair businesses are prohibited from "knowingly making inoperative" any device or element of design installed on or in a motor vehicle in compliance with an applicable safety standard (49 U.S.C. § 30122).

A manufacturer, dealer or other business which modified the air bags on your 1997 Ford F150 would not violate the "make inoperative" provision if, after the modification, the vehicle continued to meet the relevant requirements in effect either on the date of manufacture or as later amended. In 1997, NHTSA amended Standard No. 208 to make it easier for manufacturers to quickly redesign their air bags, e.g., by reducing the power as compared to previous years. Modifications that assured that the vehicle complied with the amended requirements would thus not violate the "make inoperative" provision, even if the vehicle might no longer comply with the requirements in effect at the time it was built. As noted earlier, however, the modifications that would need to be made to an existing vehicle so that it would have redesigned air bags could be very complicated and potentially expensive.

I have enclosed a copy of the NHTSA publication "Air Bags and On-Off Switches, Information for an Informed Decision." While this publication does not address your concerns directly, it does provide useful information on how one can reduce the risk of air bag injury.

I hope you find this information helpful. If you have any other questions, please contact Rebecca MacPherson of my staff at this address or by phone at (202)366-2992.

Sincerely,

John Womack  
Acting Chief Counsel

Enclosure  
ref:208  
d.4/19/01

Mr. Stephen Mamakas  
AIR Inc.  
1517 West 9 Street  
Brooklyn, NY 11204

Dear Mr. Mamakas:

This responds to your letter asking what Federal standards apply to the "repair" of deployed air bags. I am pleased to have this opportunity to explain our laws and regulations to you.

Section 103 of the National Traffic and Motor Vehicle Safety Act (the Safety Act; 15 U.S.C. 1392) authorizes this agency to issue Federal motor vehicle safety standards applicable to new motor vehicles and new items of motor vehicle equipment. We have exercised this authority to issue Standard No. 208, Occupant Crash Protection (49 CFR § 571.208). Standard No. 208 requires, among other things, that passenger cars provide automatic crash protection. Light trucks will also be required to provide automatic crash protection, beginning with the 1995 model year. Vehicles equipped with automatic crash protection protect their occupants by means that require no action by vehicle occupants. The compliance testing of vehicles to the requirement of Standard No. 208 is determined in a dynamic crash test. That is, a vehicle must comply with specified injury criteria (as measured on a test dummy) when tested by this agency in a 30 mph barrier crash test. The two types of automatic crash protection currently offered on new passenger cars are automatic safety belts (which help to assure belt use) and air bags (which supplement safety belts and offer some protection even when safety belts are not used). Automatic crash protection will save thousands of lives and prevent tens of thousands of serious injuries each year.

Note that the automatic crash protection requirement applies to the performance of the vehicle as a whole, instead of setting requirements for the air bag as an individual item of equipment. This approach permits vehicle manufacturers to "tune" the performance of the air bag to the crash pulse and other specific attributes of each of their vehicle models. However, this approach also means that the Federal standards do not specify specific performance attributes for air bags such as inflated dimensions, actuation time, and the like. Hence, there are no specific performance attributes with which repaired air bags must comply. The only Federal requirement that might affect your planned operation would be the "render inoperative" prohibition in section 108(a)(2)(A) of the National Traffic and Motor Vehicle Safety Act (15 U.S.C. 1397(a)(2)(A)). That section provides that, "No manufacturer, distributor, dealer, or motor vehicle repair business shall knowingly render inoperative, in whole or in part, any device or element of design installed on or in a motor vehicle . . . in compliance with an applicable Federal motor vehicle safety standard . . ." In this case, air bags are a "device or element of design" installed in passenger cars in compliance with Standard No. 208. Hence, your repair business would violate Federal law if it were to remove, deploy, disable, or otherwise "render inoperative" air bags installed in passenger cars.

However, your letter gives no indication that your company intends to perform repairs or other operations on air bags that have not yet deployed. Instead, your letter asks only about performing repairs on air bags that have already deployed. Deployed air bags have been "rendered inoperative" by the forces that caused deployment, not by anything a repair business does after that deployment. Thus, it seems unlikely that any repairs your company performs on deployed air bags would violate the "render inoperative" section of Federal law.

Although there is no Federal law prohibiting the sort of repairs you asked about, your planned "repair" of deployed air bags gives rise to a host of safety concerns. You will need to contact the manufacturer of each vehicle on which you repair an air bag to learn the exact formula and amount of gas generant in the

inflator canister for each air bag. This would be necessary to ensure that the "repaired" air bag will inflate at the time and in the manner intended by the original manufacturer. Additionally, you will need to replace the crash sensors, the inflation mechanism, and other electronic parts. Again, you will need to contact the vehicle manufacturer to obtain specifications for the performance of these electronic components. You will also need to refold and lubricate the fabric of the air bag in the same manner as the original air bag. If you fail to exactly duplicate the equipment and procedures used in the original air bag, your company could significantly reduce or even eliminate the protection that would have been provided by the original air bag. This, in turn, could expose your company to substantial liability under State laws for such repairs. You may wish to consult a private attorney for more information in this regard.

I hope this information is helpful.

Sincerely,

Paul Jackson Rice Chief Counsel

ref:208#VSA d:5/13/91

Jay Lee, President  
Pacific Agritrade Inc.  
2601 Elliott Ave.  
Suite 5139  
Seattle, WA 98121

Dear Mr. Lee:

This responds to your January 14, 1993, letter asking for information on how to have an air bag you wish to import from Korea tested by the National Highway Traffic Safety Administration (NHTSA).

I am pleased to have this opportunity to explain our laws and regulations to you. NHTSA is authorized under the National Traffic and Motor Vehicle Safety Act (15 U.S.C. §1381 et seq.; Safety Act) to issue motor vehicle safety standards that apply to the manufacture and sale of new motor vehicles and new items of motor vehicle equipment. NHTSA, however, does not approve motor vehicles or motor vehicle equipment, nor do we endorse any commercial products or conduct pre-sale testing of any commercial products. Instead, the Safety Act establishes a "self-certification" process under which each manufacturer is responsible for certifying that its products meet all applicable safety standards. I note that the term "manufacturer" is defined by section 102(5) of the Safety Act to mean "any person engaged in the manufacturing or assembling of motor vehicles or motor vehicle equipment, including any person importing motor vehicles or motor vehicle equipment for resale." (Emphasis added.)

NHTSA has exercised its authority under the Safety Act to establish Standard No. 208, Occupant Crash Protection (49 CFR §571.208). Standard No. 208 requires, among other things, that passenger cars provide automatic crash protection. Light trucks will also be required to provide automatic crash protection beginning with the 1995 model year. Vehicles equipped with automatic crash protection protect their occupants by means that require no action by vehicle occupants. Compliance with the automatic crash protection requirements of Standard No. 208 is determined in a dynamic crash test. That is, a vehicle must comply with specified injury criteria, as measured on a test dummy, when tested by this agency in a 30 mph barrier crash test.

At this time, manufacturers are not required to use a specific method of automatic crash protection to meet the requirements of Standard No. 208. Instead, each automobile manufacturer is allowed to select the particular method for the automatic crash protection installed in its vehicles. The two types of automatic crash protection currently offered on new passenger cars are automatic safety belts (which help to assure belt use) and air bags (which supplement safety belts and offer some protection even when safety belts are not used).

Please note that the automatic crash protection requirement applies to the performance of the vehicle as a whole, instead of setting requirements for the air bag as an individual item of equipment. This approach permits vehicle manufacturers to "tune" the performance of the air bag to the crash pulse and other specific attributes of each of their vehicle models. However, this approach also means that the Federal standards do not specify specific performance attributes for air bags such as inflated dimensions, actuation time, and the like.

It is unclear from your letter if the air bags you wish to import will be sold to manufacturers for installation in new vehicles or if the air bags will be sold as replacement air bags or retrofit air bags for vehicles which do not have air bags as original equipment. If the air bags are sold to manufacturers for installation in new vehicles, the vehicle manufacturer is required to certify that the vehicle complies with all applicable safety standards, including Standard No. 208. If the air bag is added to a previously

certified new motor vehicle prior to its first sale, the person who modifies the vehicle would be an alterer of a previously certified motor vehicle and would be required to certify that, as altered, the vehicle continues to comply with all of the safety standards affected by the installation of the air bag. (See 49 CFR Part 567.7.)

While most of Standard No. 208's requirements are expressed in terms of the performance of the vehicle as a whole and apply only to new vehicles and not to aftermarket equipment, there is one exception to this. Pressure vessels and explosive devices for use in air bag systems must comply with section S9 of Standard No. 208 whether they are part of a new motor vehicle or are aftermarket equipment. Therefore, the manufacturer of these items must certify that they comply with the requirements of S9 of Standard No. 208.

Another Federal requirement that would affect the device if it were installed in a used vehicle, either as a replacement or retrofit air bag, is the "render inoperative" prohibition in section 108(a)(2)(A) of the Safety Act (15 U.S.C. 1397(a)(2)(A)) would apply. That section provides that:

No manufacturer, distributor, dealer, or motor vehicle repair business shall knowingly render inoperative, in whole or in part, any device or element of design installed on or in a motor vehicle ... in compliance with an applicable Federal motor vehicle safety standard.

The "render inoperative" provision would prohibit a commercial business from installing an aftermarket air bag in a manner that would negatively affect the vehicle's compliance with Standard No. 208.

You should also note that a replacement or retrofit air bag would be considered "motor vehicle equipment" within the meaning of the Safety Act. Therefore, if the air bag contained a defect (either in manufacture, design, or performance) that relates to motor vehicle safety, the manufacturer would be required to conduct a recall campaign to notify owners and to remedy the defect free of charge. You should be aware that recently the manufacturer of an aftermarket air bag that did not provide crash protection benefits to vehicle occupants ceased offering its air bags following a NHTSA investigation. In addition, NHTSA provided information to the Federal Trade Commission concerning the claims made by the manufacturer in its advertising. We suggest you carefully review the manufacturer's test data on the devices you are considering importing to assure yourself that the air bag would afford adequate protection to vehicle occupants in crashes and that the claims made in the company's advertising are true.

I have enclosed an information sheet that identifies relevant Federal statutes and NHTSA standards and regulations affecting motor vehicle and motor vehicle equipment manufacturers, and explains how to obtain copies of these materials.

I hope you find this information helpful. If you have any other questions, please contact Mary Versailles of my staff at this address or by phone at (202) 366-2992.

Sincerely,

John Womack Acting Chief Counsel

Enclosure

ref:VSA#208 d:3/26/93

Mr. C.H. Je  
Doosan Corporation  
Pusan Branch  
5KA-50  
Chungang-dong  
Chungku, Pusan  
KOREA

Dear Mr. Je:

This responds to your letter identifying your company as a "trading company" and asking for permission from the U.S. Department of Transportation to sell air bags in the United States. As I explain below, no such permission is necessary, but there are some requirements you should be aware of before you begin importing air bags.

I am pleased to have this opportunity to explain our laws and regulations to you. The National Highway Traffic Safety Administration (NHTSA) is authorized under Title 49, Chapter 301 of the U.S. Code to issue Federal Motor Vehicle Safety Standards for new motor vehicles and new items of motor vehicle equipment. NHTSA, however, does not approve motor vehicles or motor vehicle equipment, nor do we endorse any commercial products or conduct pre-sale testing of any commercial products. Instead, Chapter 301 establishes a "self-certification" process under which each manufacturer is responsible for certifying that its products meet all applicable safety standards. I note that the term "manufacturer" is defined in 49 U.S.C. '30102(5)(B) as "a person . . . manufacturing or assembling motor vehicles or motor vehicle equipment [or] importing motor vehicles or motor vehicle equipment for resale." (Emphasis added.)

NHTSA has exercised its authority under Chapter 301 to establish Standard No. 208, Occupant Crash Protection (49 CFR '571.208). Standard No. 208 requires, among other things, that passenger cars provide automatic crash protection. Also, a phase-in of automatic crash protection requirements for light trucks is in progress. Vehicles equipped with automatic crash protection protect their occupants by means that require no action by vehicle occupants. Compliance with the automatic crash protection requirements of Standard No. 208 is

determined in a dynamic crash test. That is, a vehicle must comply with specified injury criteria, as measured on a test dummy, when tested by this agency in a 30 mph barrier crash test.

At this time, manufacturers are not required to use a specific method of automatic crash protection to meet the requirements of Standard No. 208. Instead, each automobile manufacturer is allowed to select the particular method for the automatic crash protection installed in its vehicles. The two types of automatic crash protection currently offered on new passenger cars are automatic safety belts (which help to assure belt use) and air bags (which supplement safety belts and offer some protection even when safety belts are not used). However, a recent amendment of Standard No. 208 makes air bags mandatory in all passenger cars and light trucks by the late 1990's.

Please note that the automatic crash protection requirement applies to the performance of the vehicle as a whole, instead of setting requirements for the air bag as an individual item of equipment. This approach permits vehicle manufacturers to "tune" the performance of the air bag to the crash pulse and other specific attributes of each of their vehicle models. However, this approach also means that the Federal standards do not specify specific performance attributes for air bags such as inflated dimensions, actuation time, and the like.

It is unclear from your letter if the air bags you wish to import will be sold to manufacturers for installation in new vehicles or if the air bags will be sold as replacement air bags or retrofit air bags for vehicles which do not have air bags as original equipment. If the air bags are sold to manufacturers for installation in new vehicles, the vehicle manufacturer is required to certify that the vehicle complies with all applicable safety standards, including Standard No. 208. If the air bag is added to a previously certified new motor vehicle prior to its first sale, the person who modifies the vehicle would be an alterer of a previously certified motor vehicle and would be required to certify that, as altered, the vehicle continues to comply with all of the safety standards affected by the installation of the air bag. (See 49 CFR Part 567.7.)

While most of Standard No. 208's requirements are expressed in terms of the performance of the vehicle as a whole and apply only to new vehicles and not to aftermarket equipment, there is one exception to this. Pressure vessels and explosive devices for use in air bag systems must comply with section S9 of Standard No. 208 whether they are part of a new motor vehicle or are aftermarket equipment. Therefore, the manufacturer of these items must certify that they comply with the requirements of S9 of Standard No. 208.

Another Federal requirement that would affect the device if it were installed in a used vehicle, either as a replacement or retrofit air bag, is the "make inoperative" prohibition in U.S. Code Section 30122(b), which provides that:

A manufacturer, distributor, dealer, or motor vehicle repair business may not knowingly make inoperative any part of a device or element of design installed on or in a motor vehicle ... in compliance with an applicable Federal motor vehicle safety standard . . .

The "make inoperative" provision would prohibit a commercial business from installing an aftermarket air bag in a manner that would negatively affect the vehicle's compliance with Standard No. 208.

You should also note that a replacement or retrofit air bag would be considered "motor vehicle equipment" within the meaning of the U.S. Code. Therefore, if the air bag contained a defect (either in manufacture, design, or performance) that relates to motor vehicle safety, the manufacturer would be required to conduct a recall campaign to notify owners and to remedy the defect free of charge. You should be aware that recently the manufacturer of an aftermarket air bag that did not provide crash protection benefits to vehicle occupants ceased offering its air bags following a NHTSA investigation. In addition, NHTSA provided information to the Federal Trade Commission concerning the claims made by the manufacturer in its advertising. We suggest you carefully review the manufacturer's test data on the devices you are considering importing to assure yourself that the air bag would afford adequate protection to vehicle occupants in crashes and that the claims made in the company's advertising are true.

I have enclosed an information sheet that identifies relevant Federal statutes and NHTSA standards and regulations affecting motor vehicle and motor vehicle equipment manufacturers, and explains how to obtain copies of these materials. Please note the regulations concerning manufacturer identification and designation of agent.

I hope you find this information helpful. If you have any other questions, please contact Mary Versailles of my staff at this address or by phone at (202) 366-2992.

Sincerely,

Philip R. Recht Chief Counsel

Enclosure

ref:208 d:10/12/94