Auto Hauler Tire Failure Due to Improper Operation and Maintenance

40-11

FLA COE
FLB COE
FLD Conventional
Business Class
FLC 112 Conventional
Century Class Conventional
Argosy COE
Cargo
> Columbia
> 122SD and Coronado
> Business Class M2
Cascadia
> 108SD/114SD

Freightliner Service Bulletin

General Information

Owners and operators must understand the interdependency between tire load, inflation pressure, speed, and temperature in order to prevent tire failures on auto haulers. Reports of recent steer axle tire failures have shown that the front tires on auto haulers are potentially being overloaded, incorrectly inflated, and/or operated at speeds in excess of the tire rating. If a tire is underinflated, the load that it can carry is reduced. Speed also plays a similar role in regard to tire pressure. Many tire failures on auto haulers are caused by failure to maintain the correct tire inflation pressure, not following correct loading procedures, and/or operating the truck faster than permitted by the tire manufacturer. Driver's must be aware of:

- maximum tire weight rating—under certain conditions, the maximum load may be less than what is indicated on the sidewall of the tire;
- maximum tire inflation pressure—depending on the rim, the maximum inflation pressure for the tire/rim combination may be less than what is indicated on the sidewall of the tire;
- maximum tire speed rating—maximum tire speed ratings may depend on the actual gross axle load of a loaded auto hauler;
- the interdependency of tire load, inflation pressure, and vehicle speed.

For more information about specific tire brands, see the following manufacturer websites:

- **www.michelintruck.com**
- **www.goodyeartrucktires.com**
- **www.continental-truck.com/www/transport_us_en/**

⚠ DANGER

Overloading, improper inflation, and/or exceeding the speed rating of tires are dangerous operating practices and may lead to sudden tire failure without prior warning. Failure to avoid these operating practices could lead to property damage, severe personal injury, or death.

To prevent overloading of the steer tires, proper positioning and adhering to the specified weight limit is required. Auto hauler configurations vary; contact the manufacturer of the auto hauler body for proper vehicle loading instructions.

Tire inflation pressure must be checked regularly to ensure that the vehicle is operating with the desired pressure. The load carrying capacity of the tires decreases dramatically with even a small decrease in tire inflation pressure.

NOTICE

Setting the speed limiter may help the driver maintain a given speed, but in no way guarantees that the vehicle will never exceed that speed. Driver awareness is required to limit the vehicle speed to within safe limits.

Tire speed limits may vary depending on the load and how the load is distributed on the vehicle. Ensure the speed limit for the tire and load combination is adhered to. To help manage the optimal speed of the truck, Daimler Trucks North America (DTNA) will adjust the vehicle speed limiter free of charge.

Centering the vehicle on the auto hauler over the truck cab is very important. Crowding the car to one side or the other can change the load on the steer tires considerably. It is possible that the overall load on the steer tires is within the permissible limit, but one tire may still be overloaded. See **Fig. 1** for an example of a properly loaded vehicle.

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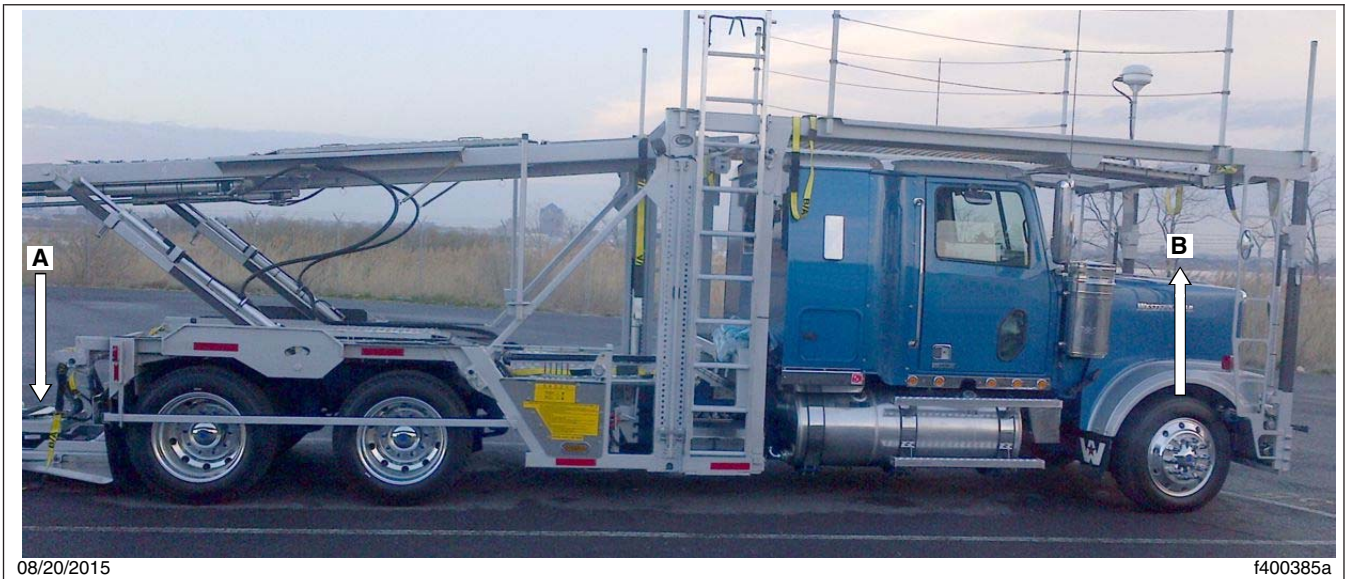
Fig. 1, Centering the Vehicle Over the Cab

When the trailer is loaded, it pulls weight off the steer axle and tires because the weight of the trailer load is behind the drive axles. See **Fig. 2**. Conversely, if the weight is removed from the trailer, additional weight may be transferred to the steer axle, and the remaining load may need to be readjusted to ensure the front axle and tires are not overloaded.



A. When the trailer is loaded its weight is distributed behind the drive axles.
B. The loaded trailer lifts weight off the steer axle and tires.

Fig. 2, The Effect of Adding Weight on the Car Hauler

NOTICE

Unloading the auto hauler trailer and leaving a single vehicle over the cab may overload the steer axle and damage the tires. See Fig. 3.

If the auto hauler will be partially unloaded at one location and the truck is driven to another location for final unloading, the load needs to be readjusted to ensure the steer axle and tires are not overloaded; if a single vehicle on the auto hauler is loaded over the cab with the remaining positions of the auto hauler empty, there is a high potential of overloading the front axle.

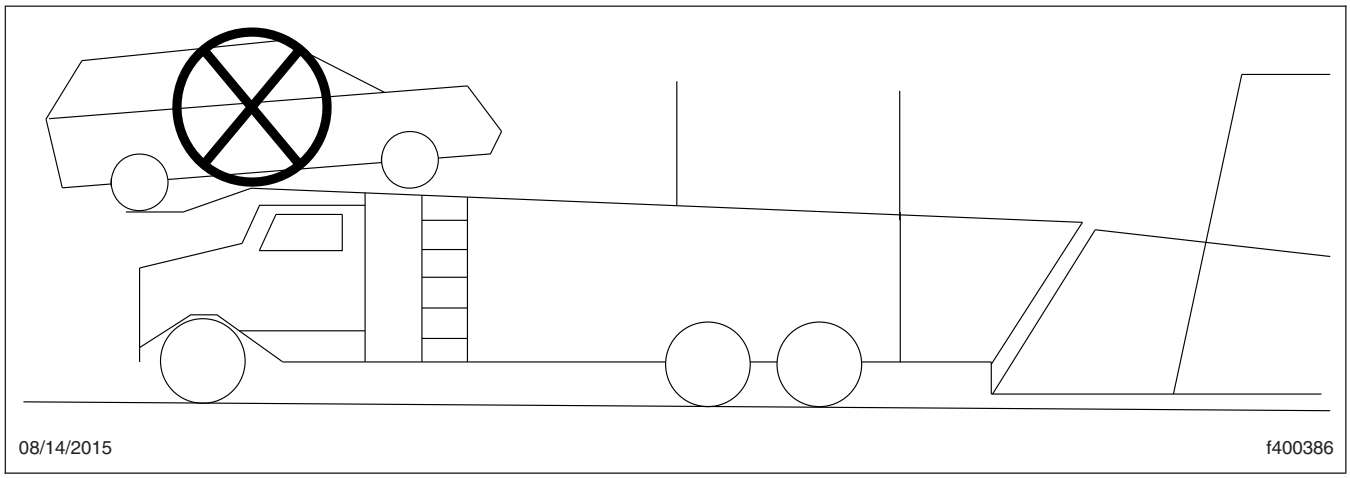


Fig. 3, Improperly Hauling a Single Vehicle

An example list of tire operating parameters is shown in **Fig. 4**. See **Table 1** for a blank list to fill in with data that applies to your vehicle.

Example Tire Checklist	
Tire Parameters	**Data**
Tire Size	295/60R225
For Maximum Loading:	
Tire weight rating	14,780 lb
At what inflation pressure	130 lb
At what speed	65 mph
At what rim size	9.00
For Maximum Speed:	
Tire weight rating	14,320 lb
At what inflation pressure	130 lb
At what speed	75 mph
At what rim size	9.00
For Reduced Inflation Pressure:	
Tire weight rating	14,320 lb
At what inflation pressure	125 lb
At what speed	65 mph
At what rim size	9.00
For Rim Change:	
Tire weight rating	12,350 lb
At what inflation pressure	120 lb
At what speed	75 mph
At what rim size	8.25

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Fig. 4, Example Tire Checklist

Tire Checklist	
Tire Parameters	**Data**
Tire Size	_____
For Maximum Loading:	
Tire weight rating	_____
At what inflation pressure	_____
At what speed	_____
At what rim size	_____

Tire Checklist	
Tire Parameters	**Data**
For Maximum Speed:	
Tire weight rating	_____
At what inflation pressure	_____
At what speed	_____
At what rim size	_____
For Reduced Inflation Pressure:	
Tire weight rating	_____
At what inflation pressure	_____
At what speed	_____
At what rim size	_____
For Rim Change:	
Tire weight rating	_____
At what inflation pressure	_____
At what speed	_____
At what rim size	_____

Table 1, Tire Checklist

Warranty

This is an informational bulletin only; warranty does not apply.