HAVE YOU CHECKED YOUR VEHICLE TODAY

When You Rent a Car, Do You Remember to Check the Tires’ Tread Wear?

**Narrative**
A Public Information Officer trainer was traveling in a rental car from the Cabin Lake Fire to Denver for a demobil flight the following day.

While driving on I-70 near Frisco, Colorado, she became caught in a severe storm with heavy rainfall.

Her vehicle began to hydroplane, went off the road, and overturned.

She received a broken right arm and left shoulder, was treated at a local hospital, and kept overnight. When she returns home, she will require surgery.

**LESSONS**
- The State Trooper investigating this accident said that the tread levels on rental car’s rear tires were well below the allowable limits.
- With all the mobilization that’s going on around the West right now, there are surely a lot of vehicles being rented from various sources.
- We look for dents and dings when we pick up a rental vehicle, but rarely think to check for tire wear.

---

Event Type: Vehicle Accident while Demobilizing from Fire

Date: August 21, 2018

Location: On Interstate I-70 near Frisco, Colorado

This RLS was submitted by:

Incident Overhead

Do you have a Rapid Lesson to share?
Click this button:

Share Your Lessons

This Could Be You
When you rent a car, you should become familiar with all aspects of the vehicle before you leave the lot. Here are 10 things to check before you drive off: (Allstate)

1. Start the Car
2. Turn on the Air Conditioning or Heat
3. Look in the Glove Compartment
4. Check the Gas Gauge
5. Familiarize Yourself with Safety Features
6. Inspect the Exterior
7. Pop the Trunk
8. Try Out the Lights
9. Adjust the Seat and Mirrors
10. Investigate Entertainment and Navigation Systems

Do you perform a walk around?
Do you take a Before and After picture?

Outside the Vehicle

- Inspect the headlights, windshield, side and rear windows, turn signals, brake lights and taillights.
- Visually inspect your tires for obvious signs of a problem and notice which direction the front wheels are pointed.
- Check under the vehicle for fluid leaks.
- Check roof and car body for damages.
Rental Damage Evaluator Card

Body, Wheel & Metal Bumper
Damage is:
• Any dent, scratch or scrape larger than the largest circle
• Holes and tears regardless of size
• Note: A dent, scratch or scrape smaller than the largest circle is wear and tear

Plastic Bumper Damage is:
• Scratches and scuffs that cannot be completely covered by the Damage Evaluator
• Holes or tears regardless of size
• Dents larger than the largest circle
• Any misalignment
• Note: Scrapes to only the bottom edge of the bumper are not damage (i.e. parking block scrapes/scuffs)

Burn
Damage is:
• Any hole or burn mark larger than the smallest circle

Glass Damage is:
• A star or crack larger than the middle circle
• A star of any size between imaginary lines extending upward from the sides of the steering wheel

Hail:
• Any hail damage is damage
Rental Damage Evaluator Card – Visual Questions

**Body, Scratch & Metal Bumpers** Damage is:
- Any dent, scratch or scraper larger than the largest circle
- Hole or tears regardless
- **Note:** A dent, scratch or scrape smaller than the largest circle is wear and tear

**Plastic Bumpers** Damage is:
- Scratches & scuffs that cannot be completely covered by the Damage Evaluator
- Holes or tears regardless of size
- Dents larger than the largest circle
- Any misalignment
- **NOTE:** Scratches to only the bottom edge of the bumper are not damage (i.e., parking block scrapes/scuffs)

**Burn** Damage is: Any hole or burn mark larger than the smallest circle

**Hail** Any hail damage is damage

**Glass** Damage is:
- A start or crack larger than the middle circle
- A star of any size between imaginary line extending upward from side of the steering wheel
Tire Wear Bars

It's important that the tires on your vehicle have adequate tread depth so they can maintain grip on the road in a variety of conditions. Using tires that still have enough tread is so important that tires are required to have tire wear bars—also called tire wear indicators or just wear bars—to make it easy for you to know if your tires need to be replaced just by looking at the tread.

How Wear Bars Act as a Tread Wear Indicator

Tread depth is measured in 32nds of an inch. A typical tire starts out with a tread depth of around 10/32”. If a tire's tread is worn down to 2/32”, it could put you in a dangerous situation and must be replaced immediately. In fact, 2/32” is the legal minimum tread depth in most states and any tires worn more than that are illegal. Because of this, Federal Motor Vehicle Safety Standards (FMVSS) require that tires be manufactured with tire wear bars. Most tires have at least six or more tread wear bars.
Tire Wear Bars

- Look in the grooves between tire tread for raised patches of rubber, called wear bars. These 2/32-inch tall patches will help you identify a worn out tire. (In most states 3/32-inch is the minimum legal tread depth.)
- If tread is worn to a level where wear bars are flush with the tread it indicates that tread depth is 2/32-inch or less. Replace worn tires.
Wear indicators

The tyres tread has clearly worn down to the legal limit

A Brand new tyre with full tread depth above the wear bar indicator

TREAD WEAR INDICATORS

REPLACE TIRE SOON
You should get into the habit of checking your tires before driving.

What are your Tires telling You?

- Wear Indicator
- Overinflation
- Underinflation
- Camber Wear
- Feathered Wear (Excessive Toe In or Out)
- Spotty / Chopped Wear (Multiple Problems)
Poor Tires
What Are the RISK!

- Compromises braking and traction
- Loss of traction
- Leads to unsafe driving
- Reduces steering response
- Compromises braking and traction
- Leads to unsafe driving
- Reduces tire life
- Reduces tire life by 15 per cent or more
- Decreases fuel economy by as much as 15 per cent because underinflated tires make your engine work harder
Where is my Tire Information

Somewhere on the **sidewall of your tire**, just below the big, bold letters of the manufacturer, for example, you might have noticed the words ‘Max. Press. 35 PSI.’ That number tells you the maximum cold pressure needed for your tire to carry its maximum load.

Along with its size codes and performance grades, your tire sidewall also displays the tire’s **maximum load limit and inflation pressure**. You’ll see these specs explicitly called out:

The **maximum load capacity**, like the load index, identifies your tire’s load carrying capacity when inflated to its maximum air pressure.

The **maximum air pressure** represents the tire’s maximum operating inflation pressure.
P225/60R16 97T – (Passenger Example) Size marking and service description (load index and speed symbol) for a P-Metric speed-rated passenger tire.

DOT MA L9 ABCD 0309 The last four digits are numbers identifying the week and year of manufacture (Example: "0309" means third week of the year 2009.) If a tire DOT ends in only three (3) digits, the tire was manufactured before January 2000 and should be removed from service and be scrapped because it is over 10 years old.

LT245/75R16 120/116Q Load Range E – (Light Truck Example) Size marking, service description (load index and speed symbol) and load range for a metric light truck tire. The load range identifies the tire's load and inflation limits.

Max Load 730 kg (1609 lbs) and 240 kPa (35 psi) Max Pressure Cold

Plies/Fabric Information - The ply/fabric information identifies the number of plies and type of cord materials in the tire tread and sidewall areas.

Radial - A tire with a radial construction must show the word “RADIAL” on the sidewall. A radial tire is also indicated by the character “R” in the size designation.
Max. Load Capacity & Tire Speed Symbol

*Number* indicates the max. load that can be carried by the tire. *Symbol* indicates the max. speed at which a tire is designed to be driven for extended periods of time.

### Maximum Load-Carrying Capacity Per Tire

<table>
<thead>
<tr>
<th>Load Index</th>
<th>Pounds</th>
<th>Kilograms</th>
<th>Load Index</th>
<th>Pounds</th>
<th>Kilograms</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>761</td>
<td>345</td>
<td>90</td>
<td>1709</td>
<td>777</td>
</tr>
<tr>
<td>72</td>
<td>780</td>
<td>355</td>
<td>100</td>
<td>1794</td>
<td>800</td>
</tr>
<tr>
<td>73</td>
<td>805</td>
<td>363</td>
<td>121</td>
<td>1819</td>
<td>825</td>
</tr>
<tr>
<td>74</td>
<td>827</td>
<td>375</td>
<td>122</td>
<td>1874</td>
<td>850</td>
</tr>
<tr>
<td>75</td>
<td>853</td>
<td>387</td>
<td>123</td>
<td>1938</td>
<td>875</td>
</tr>
<tr>
<td>76</td>
<td>882</td>
<td>400</td>
<td>154</td>
<td>1984</td>
<td>900</td>
</tr>
<tr>
<td>77</td>
<td>908</td>
<td>418</td>
<td>156</td>
<td>2038</td>
<td>925</td>
</tr>
<tr>
<td>78</td>
<td>927</td>
<td>425</td>
<td>158</td>
<td>2094</td>
<td>950</td>
</tr>
<tr>
<td>79</td>
<td>943</td>
<td>437</td>
<td>159</td>
<td>2143</td>
<td>975</td>
</tr>
<tr>
<td>80</td>
<td>962</td>
<td>450</td>
<td>164</td>
<td>2205</td>
<td>1000</td>
</tr>
<tr>
<td>81</td>
<td>1019</td>
<td>463</td>
<td>166</td>
<td>2271</td>
<td>1026</td>
</tr>
<tr>
<td>82</td>
<td>1047</td>
<td>475</td>
<td>170</td>
<td>2337</td>
<td>1060</td>
</tr>
<tr>
<td>83</td>
<td>1074</td>
<td>487</td>
<td>171</td>
<td>2393</td>
<td>1095</td>
</tr>
<tr>
<td>84</td>
<td>1129</td>
<td>500</td>
<td>172</td>
<td>2448</td>
<td>1129</td>
</tr>
<tr>
<td>85</td>
<td>1135</td>
<td>515</td>
<td>173</td>
<td>2501</td>
<td>1164</td>
</tr>
<tr>
<td>86</td>
<td>1194</td>
<td>530</td>
<td>174</td>
<td>2564</td>
<td>1200</td>
</tr>
<tr>
<td>87</td>
<td>1201</td>
<td>545</td>
<td>175</td>
<td>2621</td>
<td>1237</td>
</tr>
<tr>
<td>88</td>
<td>1230</td>
<td>560</td>
<td>176</td>
<td>2668</td>
<td>1272</td>
</tr>
<tr>
<td>89</td>
<td>1279</td>
<td>580</td>
<td>177</td>
<td>2792</td>
<td>1315</td>
</tr>
<tr>
<td>90</td>
<td>1325</td>
<td>600</td>
<td>178</td>
<td>2922</td>
<td>1355</td>
</tr>
<tr>
<td>91</td>
<td>1355</td>
<td>615</td>
<td>179</td>
<td>3074</td>
<td>1397</td>
</tr>
<tr>
<td>92</td>
<td>1389</td>
<td>630</td>
<td>180</td>
<td>3168</td>
<td>1440</td>
</tr>
<tr>
<td>93</td>
<td>1433</td>
<td>650</td>
<td>181</td>
<td>3287</td>
<td>1485</td>
</tr>
<tr>
<td>94</td>
<td>1437</td>
<td>650</td>
<td>182</td>
<td>3308</td>
<td>1511</td>
</tr>
<tr>
<td>95</td>
<td>1521</td>
<td>690</td>
<td>183</td>
<td>3672</td>
<td>1578</td>
</tr>
<tr>
<td>96</td>
<td>1551</td>
<td>710</td>
<td>184</td>
<td>3799</td>
<td>1627</td>
</tr>
<tr>
<td>97</td>
<td>1699</td>
<td>750</td>
<td>185</td>
<td>3650</td>
<td>1677</td>
</tr>
</tbody>
</table>

### Speed Symbol

<table>
<thead>
<tr>
<th>Speed Symbol</th>
<th>Maximum Speed (km/h)</th>
<th>Maximum Speed (mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q</td>
<td>160</td>
<td>100</td>
</tr>
<tr>
<td>R</td>
<td>170</td>
<td>106</td>
</tr>
<tr>
<td>S</td>
<td>180</td>
<td>112</td>
</tr>
<tr>
<td>T</td>
<td>190</td>
<td>118</td>
</tr>
<tr>
<td>U</td>
<td>200</td>
<td>124</td>
</tr>
<tr>
<td>H</td>
<td>210</td>
<td>130</td>
</tr>
<tr>
<td>V*</td>
<td>Above 210</td>
<td>Above 130</td>
</tr>
<tr>
<td>V</td>
<td>240</td>
<td>149</td>
</tr>
<tr>
<td>W</td>
<td>270</td>
<td>168</td>
</tr>
<tr>
<td>Y</td>
<td>300</td>
<td>186</td>
</tr>
<tr>
<td>Z</td>
<td>Above 300</td>
<td>Above 186</td>
</tr>
</tbody>
</table>
QUICK TIRE DEPTH TEST

↓ New tires recommended
↓ New tires suggested soon

LIBERTY
2010

10/32 - New
What are you going to do?