

FUEL ECONOMY

CHEAT SHEET

We spend roughly \$150 Million on fuel every year to keep our trucks moving.

Fuel is one of the largest costs for our entire company and it requires constant attention and effort to improve our fuel economy and reduce extra cost.

Knight calculates miles per gallon (MPG) as total completed dispatch miles divided by total gallons of fuel purchased over a rolling 4-week period.

The calculated dispatch MPG will often differ from the MPG displayed on the dash of the truck. We calculate it this way so that we can track "out of route" miles, potential theft of fuel, and proper functioning of equipment.

$$\text{MPG} = \frac{\text{COMPLETED DISPATCH MILES}}{\text{GALLONS PURCHASED}}$$

1 Out of Route Miles (OOR)

As it relates to fuel economy, we define OOR as any additional miles driven which are not accounted for in the dispatch (aka unpaid miles).

These additional miles can negatively impact a Driving Associate's MPG. Any OOR which has been authorized by the Driver Manager, needs to be reflected in the route line on that dispatch.

OOR should always be kept to a minimum as the associated cost of fuel, maintenance, and production is ultimately paid for by the Terminal.

2 Engine Idle

Our trucks burn just under 1 gallon of diesel per hour when idling.

If a Driving Associate idles for five hours per day, it costs a Service Center about \$5,850 a year. (Assuming \$4.50/-gallon at 5 days/week.) For a fleet of 80 drivers that costs almost \$470,000 a year.

Instead of idling the truck, we encourage our Driving Associates to utilize bunk heaters, Terminal facilities, and customer break rooms.

When idling is necessary, engine RPMs should be kept to a minimum. If possible, utilizing a fan to circulate the air, curtains, shade from other trucks, buildings, signs, trees, etc. may also help keep the truck cool.

3 Road Speed

Reducing the highway speed will greatly improve fuel mileage. Every mile per hour over 55 decreases fuel efficiency by 0.1 miles per gallon.

Increasing your speed from 55mph to 65mph will mean a decrease of 1 mpg.

4 Efficient Driving/ Cruise Control Usage

Simple behaviors, like coasting to a stop instead of staying on the accelerator & then braking hard or accelerating quickly from a stop, add up to significant fuel savings after thousands of miles.

Maintaining a high field of vision & establishing proper following distances will help to anticipate changes in traffic and road conditions. Cruise control will also help provide smooth, consistent operation of the engine. Using cruise control while running in top gear can improve fuel economy by as much as 0.40 MPG.

5 Tires

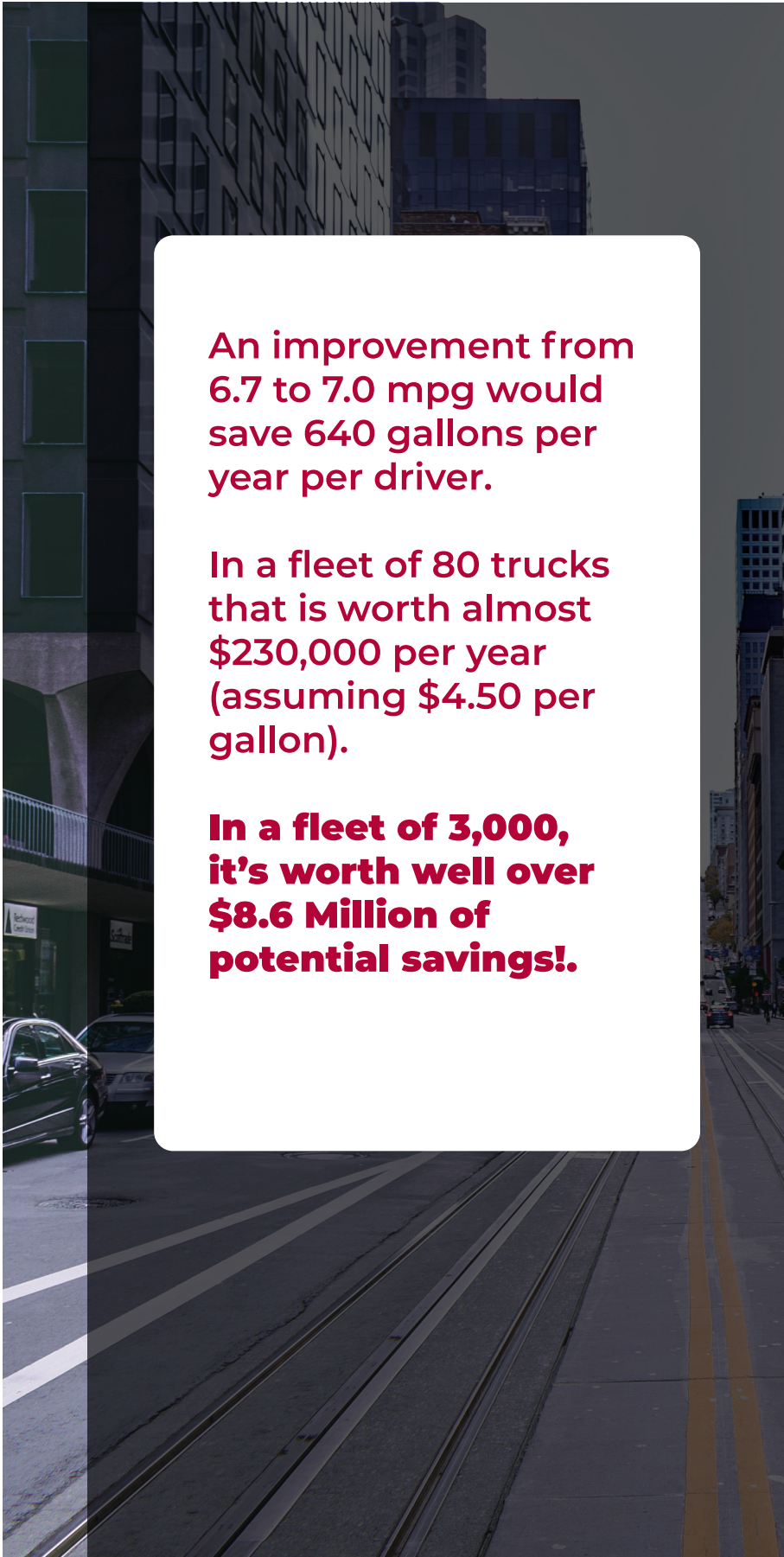
Keep tires at 110 PSI for optimal fuel economy. For every 10 psi of under-inflation, we see a 1% decrease in fuel efficiency.

A slight misalignment can result in another 1% decrease in fuel efficiency.

6 Reduce Weight

Remove any heavy items from the truck that you would consider unnecessary. One example might be carrying chains in the summer.

During summer it might be best to leave those behind and pick them back up when it becomes closer to winter.

A vertical photograph of a city street with tall buildings, cars, and a tram track in the foreground. The image is partially obscured by a white text box on the right side.

An improvement from 6.7 to 7.0 mpg would save 640 gallons per year per driver.

In a fleet of 80 trucks that is worth almost \$230,000 per year (assuming \$4.50 per gallon).

In a fleet of 3,000, it's worth well over \$8.6 Million of potential savings!.