

Surface Transportation Board

Rail Energy Transportation Advisory Committee

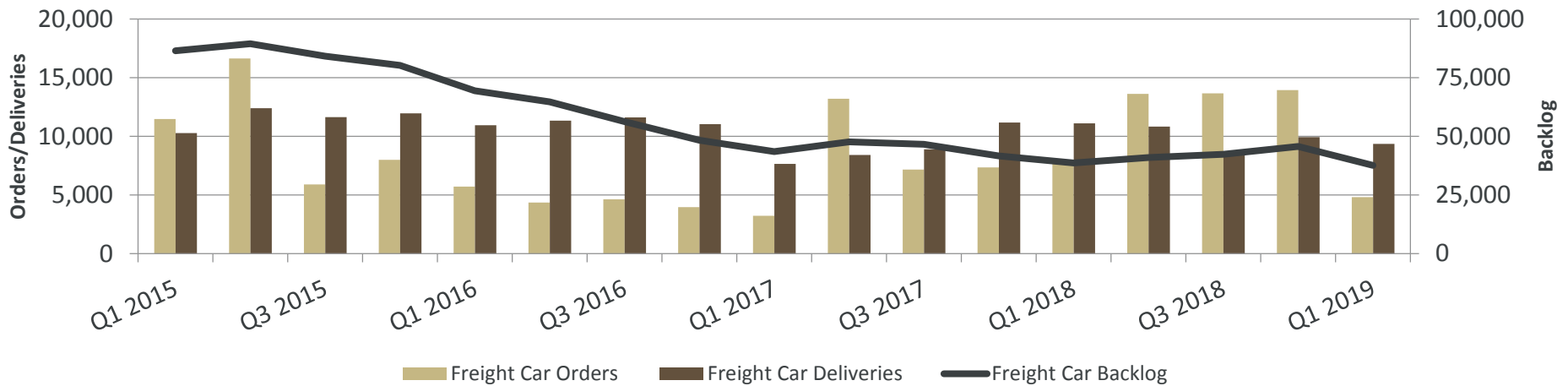
Railcar Update

May 15, 2019

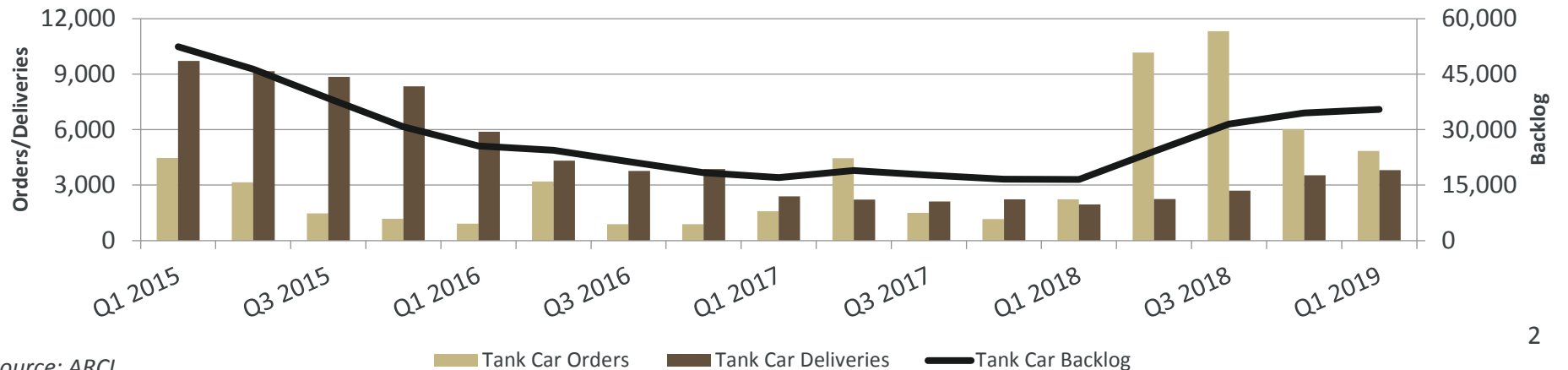


Industry order activity recovery of 2018 weakening in Q1 2019

Freight Car Activity



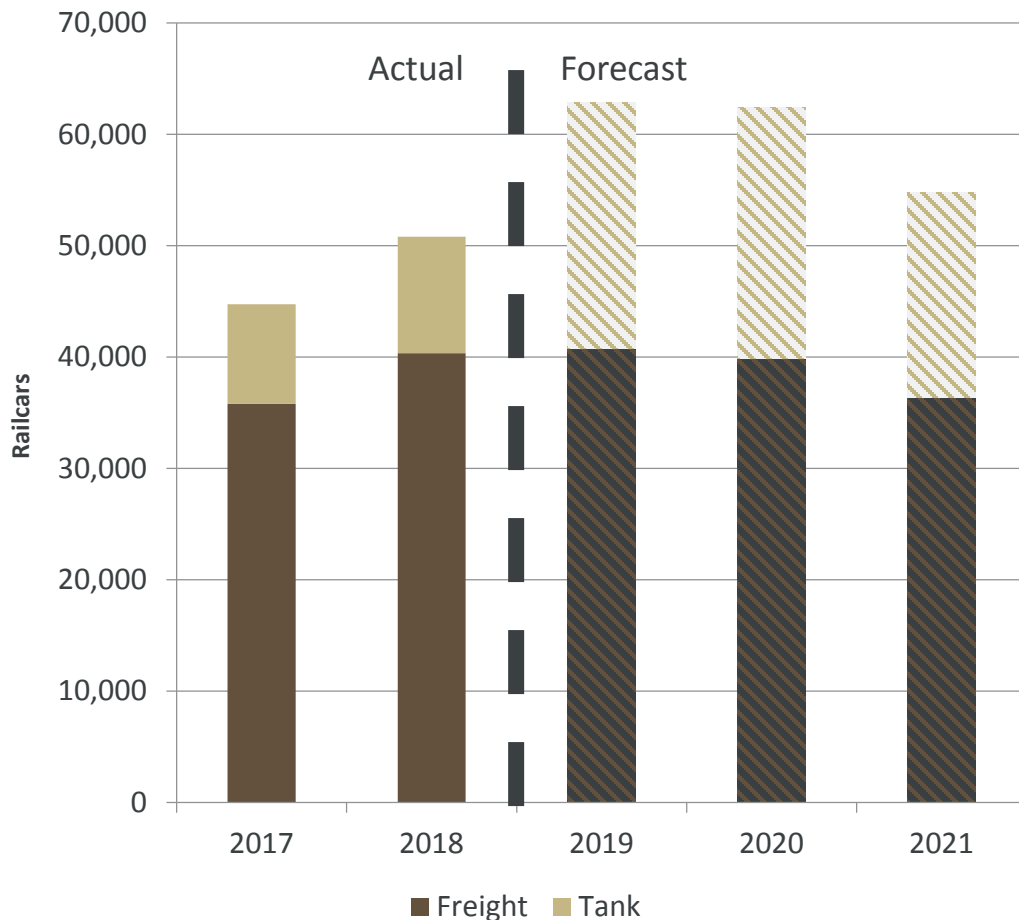
Tank Car Activity



The outlook for industry railcar deliveries is positive

Railcar Delivery Forecast

Source: ARCI; FTR

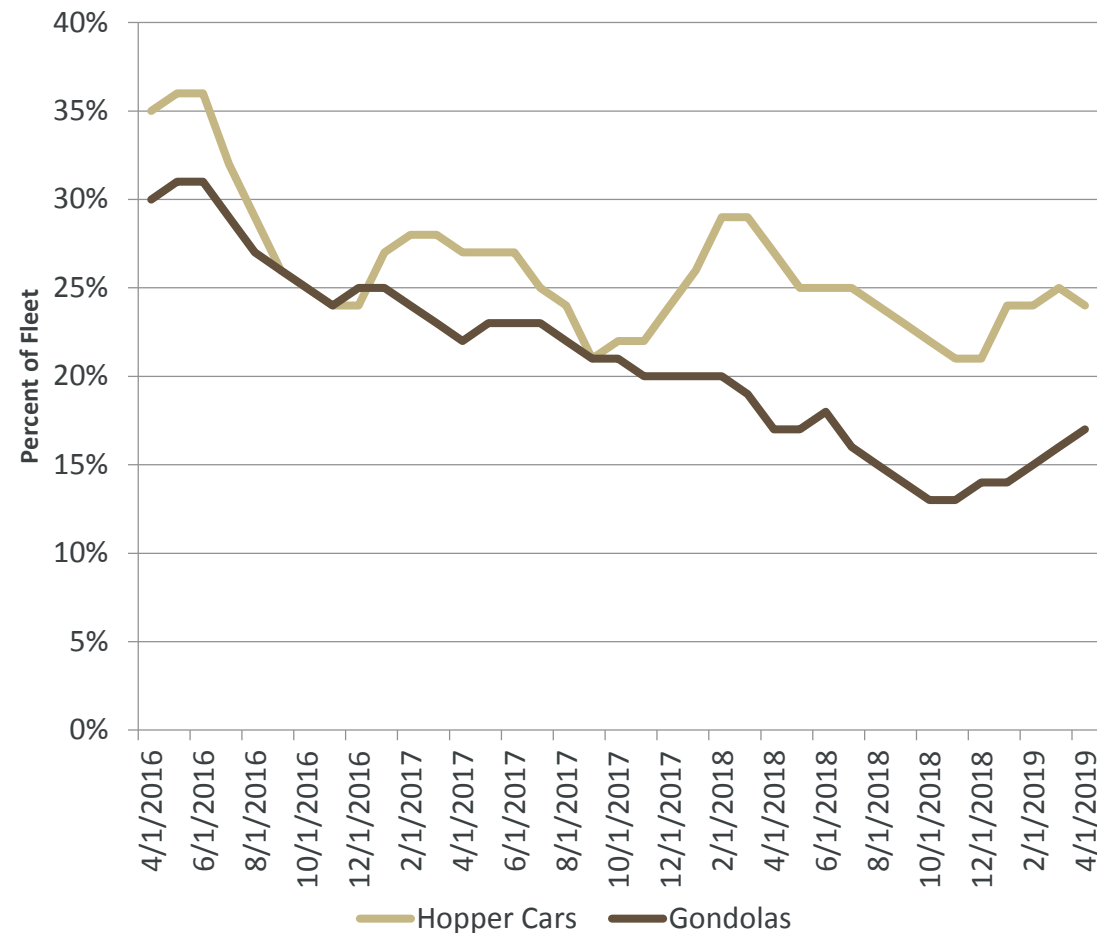


- Near term forecast shows increase in railcar deliveries
- Demand for new > 5,500cf Covered Hoppers for plastics and replacement demand for 3,500 – 5,500cf Covered Hoppers have supported freight car deliveries
- Ethanol fleet has remained relatively consistent
- Crude oil, refined products, and NGL's continue to drive new tank car demand

Storage of the coal railcar fleet has increased in recent months

Percent of Hoppers and Gondolas in Storage

Source: Association of American Railroads

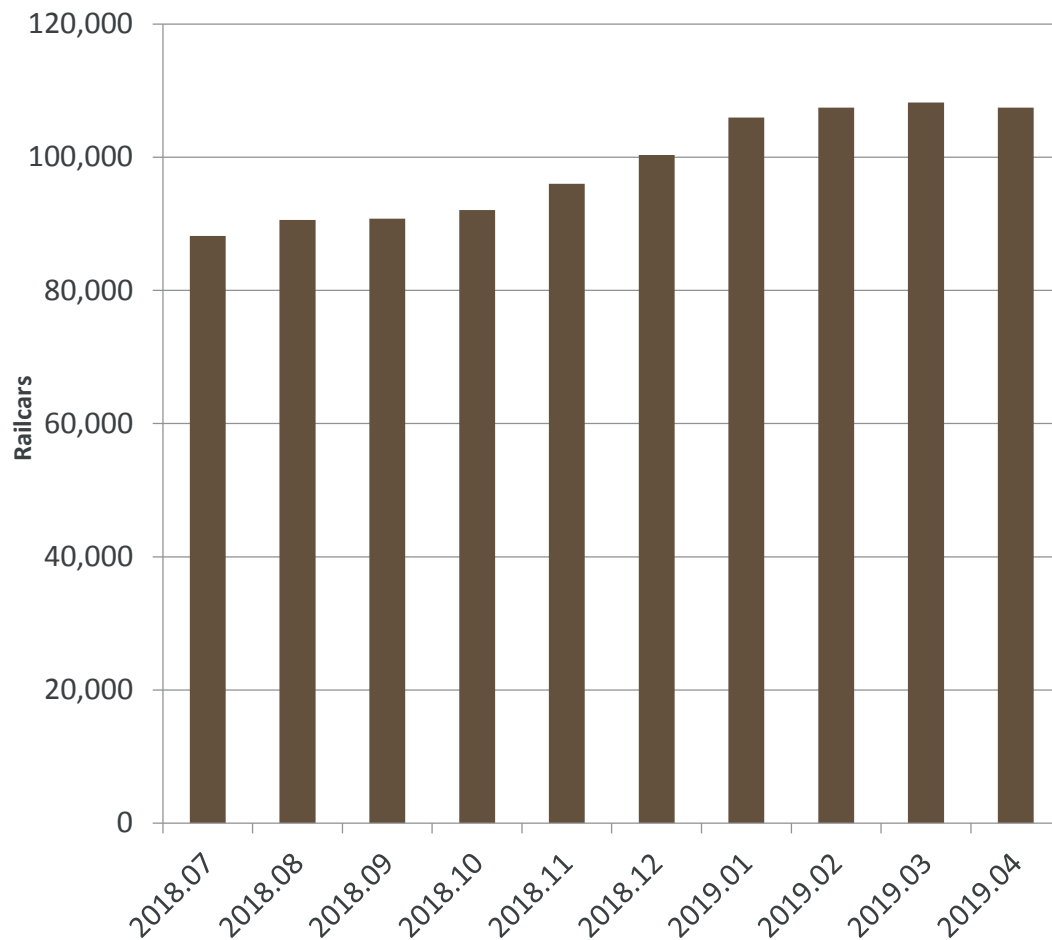


- An improving coal market in 2018 likely led to the reduced storage levels of hoppers and gondolas seen last year
- However, utilization of these fleets has likely declined in 2019
- Heightened attrition in the coming years may not offset the persistent oversupply of railcars in the coal market
- The coal fleet consists of ~117,000 gondolas and ~110,000 hoppers

Frac sand has seen a significant downturn in recent months

Covered Hoppers in Storage

Source: Association of American Railroads

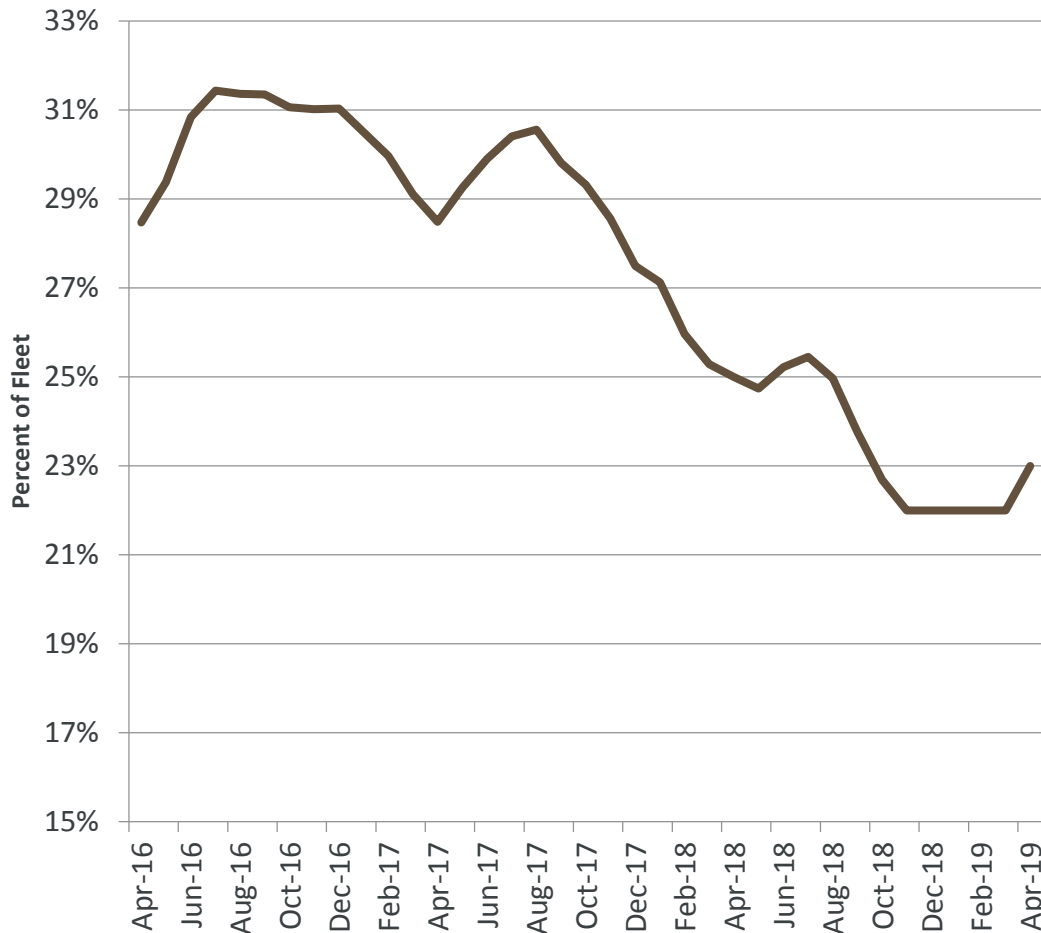


- Adoption of in-basin sand in the Permian has led to a downturn in frac sand rail traffic
- This has likely contributed to a storage build of covered hoppers since the summer of 2018
- The fleet of covered hoppers 3,000cf – 4,000cf is ~121,000 railcars out of ~571,000 covered hoppers in service
- Frac sand made up ~69% of all 3,000cf – 4,000cf covered hopper carloads in 2017

Tank cars in storage have decreased meaningfully in the last two years

Percentage of Tank Car Fleet in Storage

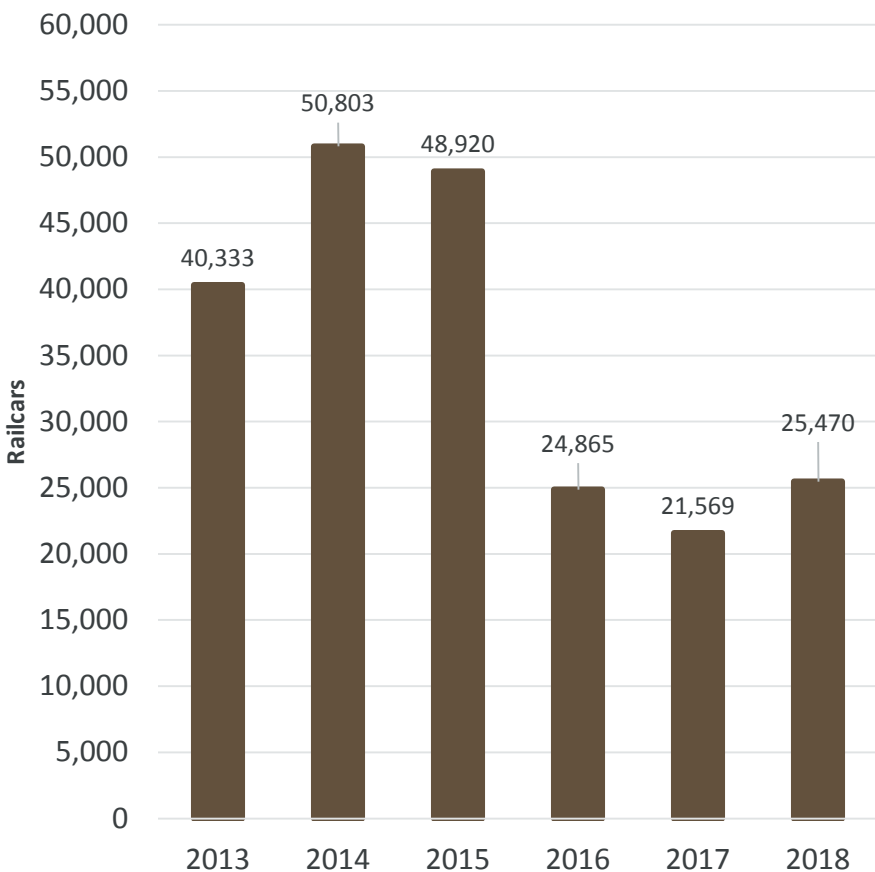
Source: Association of American Railroads



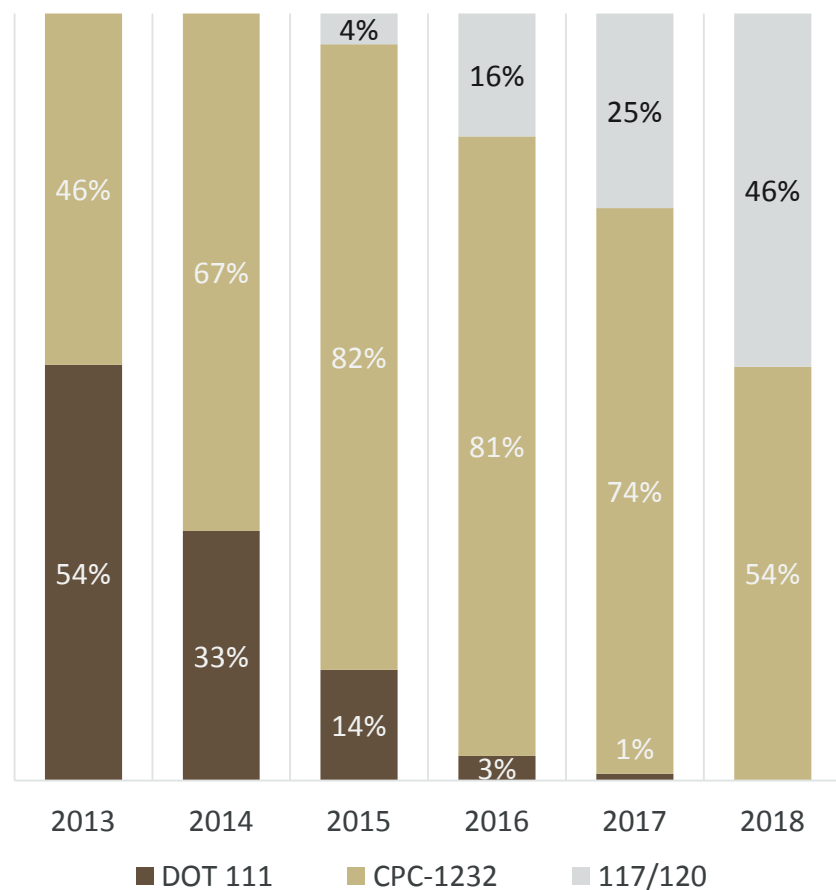
- Improving carloads across several tank car commodities have supported higher utilization of the tank car fleet
- Crude oil, refined products, and NGL carloads have all seen strong growth
- The tank car fleet has grown by ~107,000 railcars from 2012 to 2019
- PHMSA proposal for rulemaking to allow rail transport of LNG could improve tank car demand

Crude oil fleet includes DOT-117 and CPC-1232 tank cars, NO DOT-111 remain

Crude Oil Fleet Size

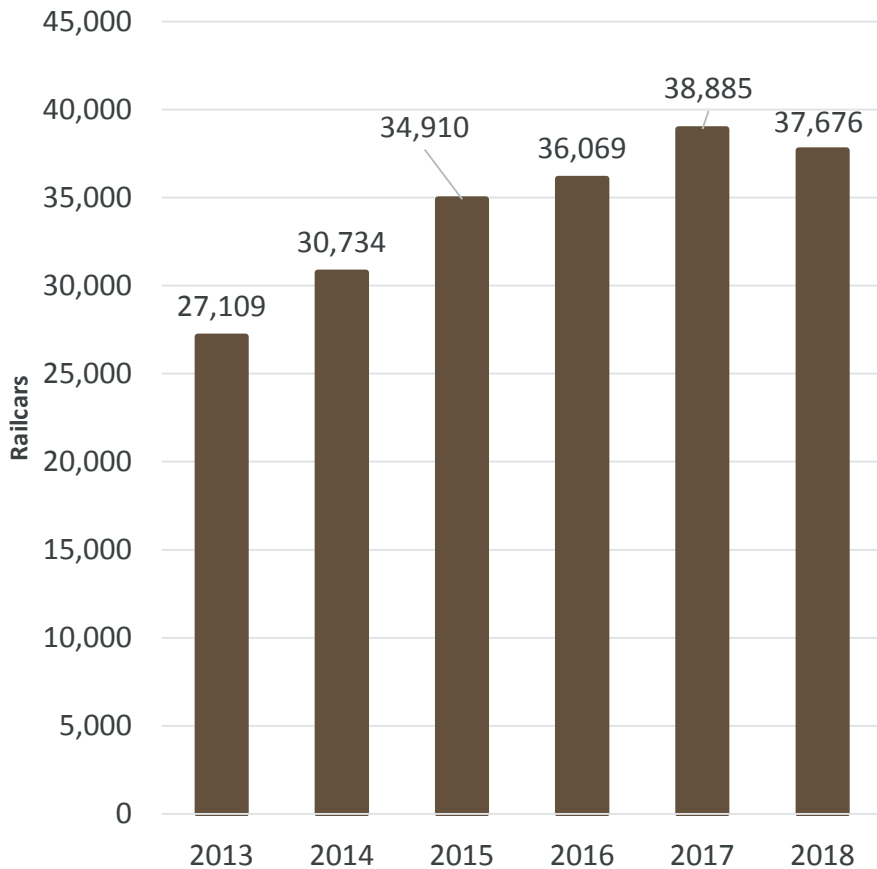


Crude Oil Fleet Composition

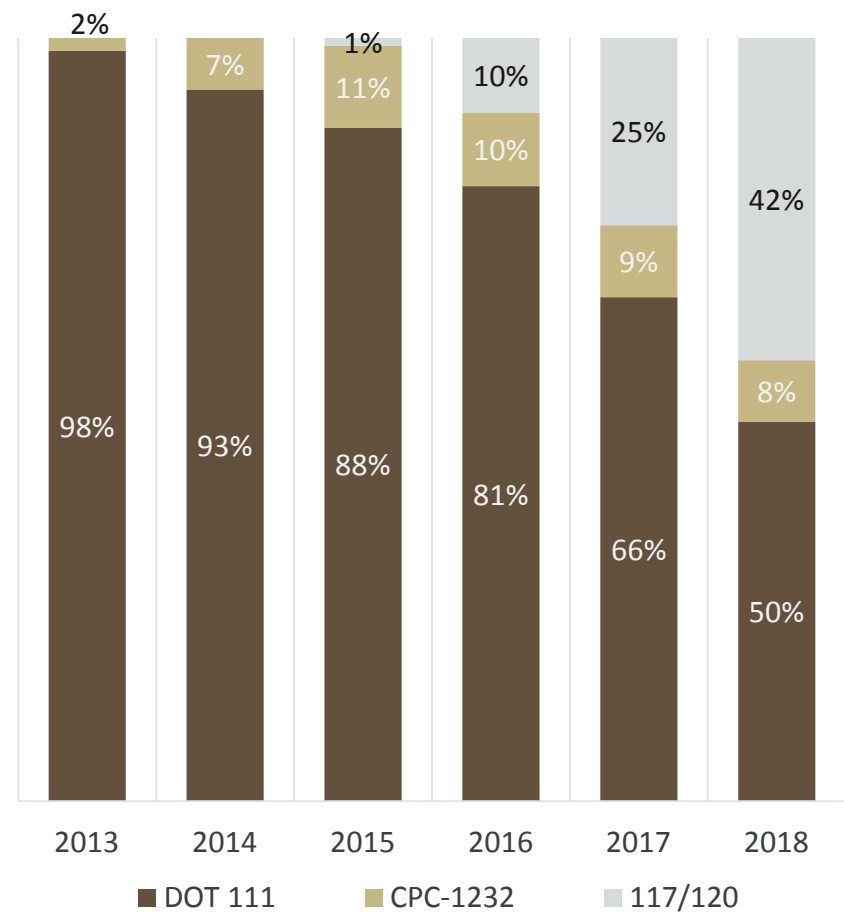


The ethanol fleet consists of 50% legacy tank cars

Ethanol Fleet Size

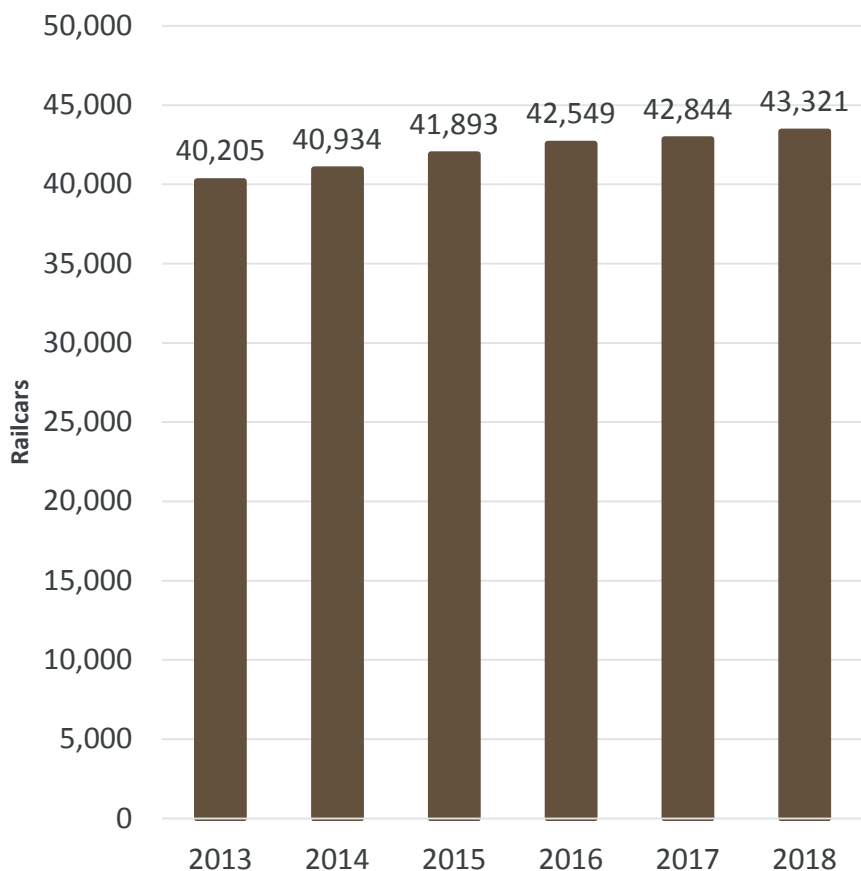


Ethanol Fleet Composition

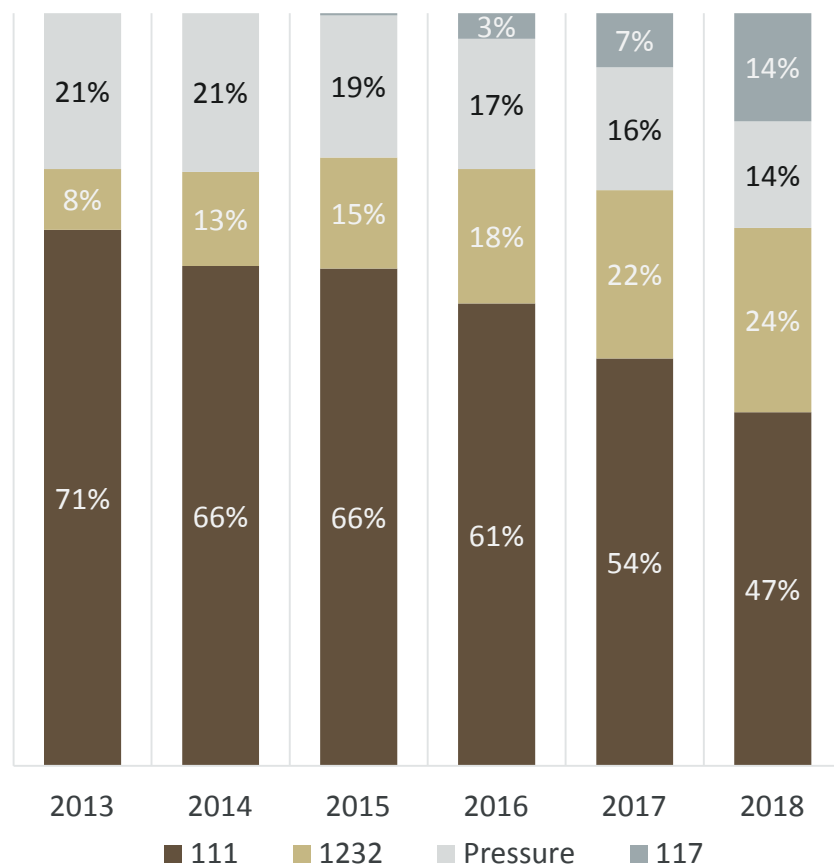


Slower influx of DOT-117 tank cars in other flammable liquids in response to extended compliance dates

Other Flammables Fleet Size

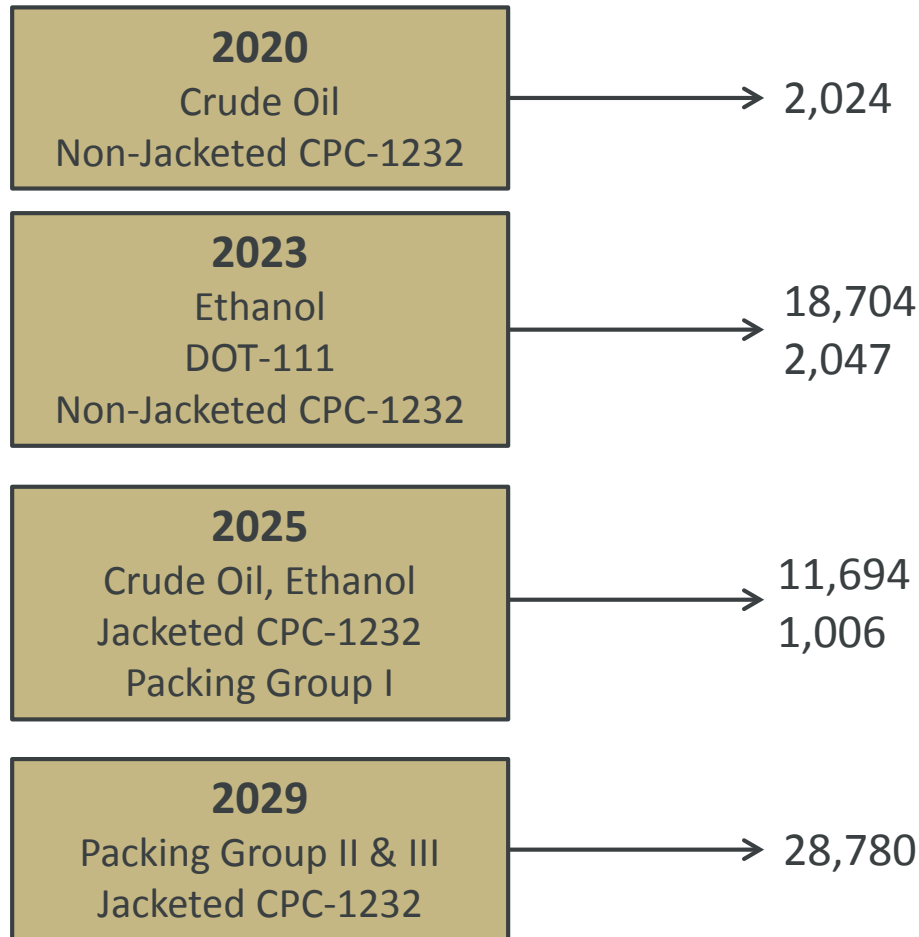


Other Flammables Fleet Composition



Demand for modifications will continue as compliance deadlines approach

Impacted Fleets



- Based on 4th Quarter 2018 numbers, the number of cars that need to be Replaced/Retrofit to DOT-117J or DOT-117R by Service/Date
- 64,303 tank cars will need to be retrofitted/replaced in the North American fleet