

## REFRIGERATED

### About the Business

- Refrigerated “Reefer” carriers not only carry fresh food, but also pharmaceuticals, tobacco products, fine art and antiques, personal care products, and chemicals.
- Reefers drive hundreds of miles in the blazing sun while protecting cargo that must be maintained at a specific temperature from dock to dock.
  - If a shipment **spoils**, it can cost thousands of dollars in replacement and shipping fees, as well as the potential loss of customers.
  - Fleets are willing to **spend more** on their equipment to help prevent spoilage.
    - This means they are also likely to spend more on **premium quality tires**.
- Fleets must deliver on time, so they are focused on keeping their fleet in top-notch shape to avoid mechanical breakdowns and/or delays.
- Often “**weigh-out**” before they “**cube-out**”, but since they are **for-hire** and not private, they have difficulty incorporating weight savings into their business model.
  - Fleet may need help translating weight savings into additional value for their customers and thus additional revenue for the fleet.
- Many reefers are Peterbuilt, Kenworth, etc. The more expensive units are a reflection of the emphasis they put on **protecting their freight**.
  - Trailers can cost a significant amount more than a typical dry van (upwards of \$50,000), so asset utilization is key.

### Questions to Ask

- What is the cost of an average breakdown event?
- What Smartway initiative has the fleet adopted?
- How many tire related infractions are impacting your CSA score? What are you doing to improve it?
- Where is your growth coming from (organic or acquisition)?
- Which dealers are you currently using?
- What's the average age of your fleet (power and trailer)?
- What's your typical OE purchase cycle?
- Which OE manufacturers are your primary partners?
- Are you on a mounted wheel program or do you perform the service in-house?
- How many times a week does your current service provider show up on the premises?

### What they Track

- Operating Ratio
- Revenue per **Loaded** Mile
- Asset Utilization (of expensive trailers)
- On-time deliveries (in right condition)
- At temperature (thermal efficiency)
- CSA Scores
- TCO (Fuel, Weight, and CPM)

### Vehicle Specs

- Majority classes 6-8
- Annual miles: 125,000+
- Primarily Line Haul applications
- Both straight and tractor-refrigerated trailer
- Majority tire diameter: 22.5

**Long-haul reefers** want light weight trailers that can carry higher payloads. They prefer aluminum structural members and thinner walls, with fewer door openings. These trailers wear out faster, but planned life cycles are also shorter.

**Food-service reefers** (grouped in Food & Bev Segment) are usually built more stoutly than long-haul reefers because they need strength and durability to run 10-20 years. Local distribution trailers may have many doors and thicker insulation, requiring a reefer capable of quickly recovering from heat gain.

### Hot Buttons

- **UPTIME** -- arriving on time and delivering the goods at the right temperature are of utmost importance.
- **SAFETY & SANITATION** -- especially for trailers carrying food items
- **ISSUES** -- can include spoiled loads, thermal efficiency and moisture intrusion

### Product Needs

- Fuel efficiency / low rolling resistance
- Long, even tread wear
- Casing durability and retreadability
- CARB/Smartway
- Smooth, quiet ride

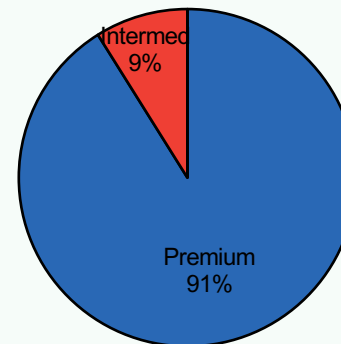
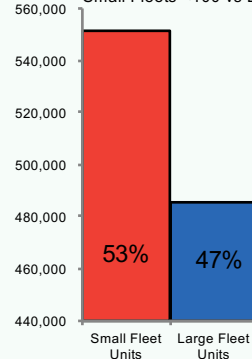
### Service Needs

- Preventative Maintenance
- Help improve CSA scores
- Reduce the possibility of DOT interventions and ensure compliance
- Breakdown solutions
- Mounted wheel programs
- Reduce operating costs and complexity through fuel efficiency, uptime maximization, tire lifecycle program management, and warranty management
- Increase operational efficiencies and shorten length of hauls (where applicable)

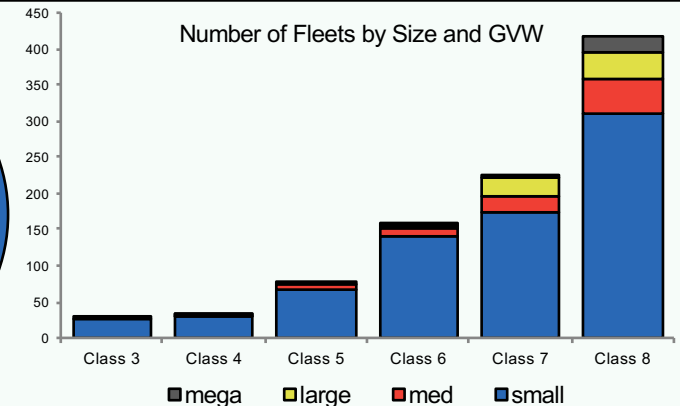


### Segment Size & Composition

Small Fleets <100 vs Large Fleets



Number of Fleets by Size and GWW



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## Talking Points & Terminology

### Trailer Maintenance

It is important to keep water out of the insulated cavities. Repairs should be made immediately to interiors and exteriors when damage occurs in order to keep water out. In addition, corrosion is one of the top reasons trailer life is limited.

### TPMS (Tire Pressure Monitoring System)

Reefers are likely to consider TPMS to reduce downtime and protect their loads. These systems can also extend the tire's life and protect the casing for enhanced retreadability.

### Cost of Ownership

It costs more to own a reefer than a typical dry van for several reasons:

- 1) insulating and refrigerating costs
- 2) Repairs are more complex
- 3) Trailers typically do not run as long (around 7 years total)

### Compliance with FDA's Food Transport Regulations

FSMA (Food Safety Modernization Act) - Focuses on Temperature Management and Trailer Requirements

**TRU** = Transport Refrigeration Unit

### Rise of Regional/Dedicated Refrigerated Routes

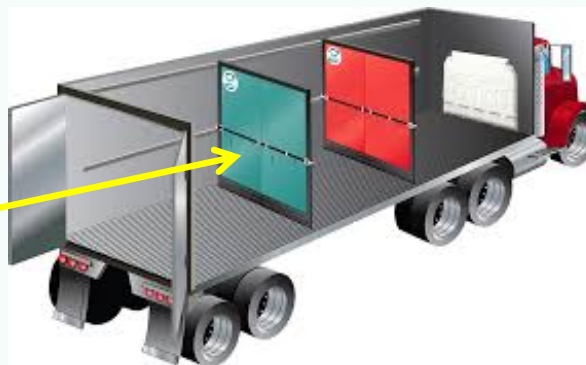
Regular, predictable routes, where pick-ups and deliveries are drop and hook between production plant-to-plant or plant-to-distribution center most of the time. Increase in popularity of organic/local produce "farm-to-table"

### "Asset-light"

A number of carriers are creating an "asset-light" infrastructure. This model allows carriers to own their large sorting/distribution hubs while leasing terminals in smaller markets. Especially when the focus is on next-day delivery, fleets can achieve critical mass by loading directly to all terminals.

### Partitions/Bulkheads

Modern semis can boast multiple cooling areas in one trailer with partitioned configurations that maintain precise temperatures depending on the load. (pictured on right)



## Tools & Resources

- Refrigeratedtransporter.com
- Todaystrucking.com
- Inboundlogistics.com
- Trucknews.com
- Jcc.com
- Truckinginfo.com
- Worktruckonline.com

## Representative Reefer Fleets

1. CRST International
2. C.R. England
3. Prime Inc.
4. Crete Carrier Corp.
5. Averitt Express
6. Knight Transportation
7. J.B. Hunt
8. Swift Transportation
9. Landstar System
10. Werner Enterprises
11. Lynden Inc.
12. Southern Refrigerated Transportation
13. Marten Transport
14. TransX
15. CanXpress
16. New England Motor Freight
17. Central Refrigerated Service
18. Midwest Coast Transport
19. Frozen Food Express Industries
20. Gordon Trucking
21. Tri-Line Carriers
22. Bison Transport
23. Interstate Distributor Co.
24. KLLM Transport Services
25. Roehl Transport

## New Tires and Retreads

	Steer/All Position	Drive	Trailer
<b>MICHELIN</b> RETIRED ENERGY TIRE	X MULTI ENERGY Z	X LINE ENERGY D	X LINE ENERGY T
	XZA2 ENERGY	X MULTI ENERGY D	X ONE LINE ENERGY T
	X LINE ENERGY Z	X ONE LINE ENERGY D	X ONE MULTI ENERGY T
		X ONE XDN2	XTA
		XDA ENERGY	XTA2+ ENERGY
	XDA5+		
	XDN2		
<b>BF Goodrich</b> ADVANTAGE TRUCK TIRE	ST244	DR444	TR 144
	ST230	DR454	
<b>UNIROYAL</b>	LS24	LD10	LT40
		RD30	
<b>MICHELIN</b> RETIRED ENERGY TIRE	XZA	X ONE LINE ENERGY D PM	X ONE LINE ENERGY T PM
	XZE	X ONE XDA-HT PM	X ONE MULTI ENERGY T PM
		X ONE XDN2 PM	XT-1 AT PM
		X LINE ENERGY D PM	XT-1 AT Siped PM
		X MULTI ENERGY D PM	XTA PM
		XDA2 19 AT PM	XTA-1 PM
		XDA2 23 AT PM	XTA-1 Siped PM
		XDA-HT PM	X ONE XTA CM
		XDC 18 PM	X ONE XTE CM
		XDC 22 PM	XT-1 AT CM
		CD-LL PM	XTA-1 CM
		XDE M/S PM	XZE SA PM
		XDHT PM	
		XDHT SIPED PM	
		XDN2 PM	
		XDS2 PM	
		XM+S4 PM	
		XDA2 23 AT CM	
		XDHT CM	
		XDN CM	
	XDS CM		
<b>Oliver</b>	HMRS	Blizzard Track	ORCO PD Trailer
	ORCO PD Rib	CD-LL	Vantage Trailer II
	ULP Rib	DF Traction	ULP Trailer
		HMT Deep XT	Maxi Rib Hi-Speed
		HMT Radial	HS Trailer
		MD II	
		ORDO PD Traction	
		Performance Drive	
		PD Drive	
		Power Tred	
		Power tred Deep	
		PRDR - Premier Drive	
		Rev Lug II	
		Super Traction Deep	
		Vantage Drive	
	Vantage Drive Max		
	XDT		
	ULP Drive		
<b>MegaMile</b>	Global	Deep Drive	Highway LP Shallow
	Highway LP	Drive Master	Trailway
		MM Traction	
		Power Trac	
		PTT	
	TA 222		
	Ultra Grip		