

CCSOLUTIONS SUMMIT



AL BARNER, CTP SENIOR VICE PRESIDENT, STRATEGIC FLEET SOLUTIONS FLEET ADVANTAGE



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PARADIGM SHIFT IN LIFECYCLE

From: FUNCTIONAL OBSOLESCENCE

How Many Years Can I Run This Truck?

To: ECONOMIC OBSOLESCENCE

How Many Years Should I Run This Truck?

AGE

TRUCK

USING DATA DRIVEN DECISIONS BASED ON ACTUAL COST DATA



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GOVERNMENT MANDATES - EPA

TIMELINE FOR EPA EMISSIONS STANDARDS THAT IMPACT EQUIPMENT LIFECYLE COST

- 1970 Congress Passes Clean Air Act
- 2004 Implementation of Exhaust Gas Recirculation (EGR)
- 2008 EPA enforces more stringent standards to dramatically reduce emissions of diesel PM and NOx. EPA Mandates resulted in higher OEC, lower MPG, and reliability issues
- 2010 EPA's first national Greenhouse Gas (GHG) Emissions Standards under the Clean Air Act
- 2015 The EPA and NHTSA propose model years 2018 to 2027 Greenhouse Gas Emissions Phase 2 and fuel economy standards for medium and heavy-duty vehicles
- 2015 EPA Mandates resulted in higher OEC, shorter economic Lifecyle and significantly better MPG



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GHG PHASE 2 MANDATE STANDARDS PROJECTED MPG BY MODEL YEAR





Text your questions to 862-781-0001

MAINTENANCE & REPAIR COSTS PER MILE (100,000 MPY)

INCREASINGLY COMPLEX COMPONENTS AND EMISSIONS TECHNOLOGY ARE ACCOMPANIED BY A STEEPER M&R CURVE



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VARIABLE VS. FIXED COSTS



1 TRUCK - 7 YR LIFECYCLE

[\$125,000 Cost at 3.5% For 7 Year/700,000 Miles]



TOTAL SAVINGS 7 YEARS \$44,503





During sessions, text your questions directly to the moderator.

TEXT YOUR QUESTIONS TO 862-781-0001

DATA DRIVEN DECISIONS BASED ON ACTUAL COST DATA





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DATA DRIVEN DECISIONS BASED ON ACTUAL COST DATA

- TOOLS USED TO MANAGE EQUIPMENT LIFECYLE
 - OBC/ELD
 - Shop Management Systems
 - Routing Software
 - Safety equipment and etc.
- OPPORTUNITY AND THE FUTURE OF TECHNOLOGY
 - Aggregate data from multiple technologies that don't currently communicate into one useful system to monitor, manage, and execute lifecycle strategies





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MAIN COMPONENTS OF OPERATING COSTS

- Maintenance and Repair: As vehicles age, maintenance and repair costs increase and warranties expire
- Market Intelligence: Actionable insights are obtained by monitoring new equipment cost, current used truck values and tax treatment
- Fuel: Fuel comprises 61% of the fleet operating costs. Class 8 fuel economy is improving at a rate of 2-3% annually
- Amortization, Interest and Tax Implications



VARIABLE COSTS – less control, higher volatility, difficult to budget FIXED COSTS – more control, no volatility, easy to budget



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SAFETY THE NEXT FRONTIER IN LIFECYCLE MANAGMENT



Electronic Stability Control (ESC)



Collision Avoidance & Lane Departure Warning (LDW)



Front and Rear Disc Brakes

(1) OEMS NOW REQUIRE THE END-USER / PURCHASER TO OPT-OUT IF THEY ARE DECLINING THE SAFETY FEATURES



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LIFECYCLE STRATEGY

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ASSET

HOW TO DEVELOP A LIFECYCLE STRAGEY TO IMPROVE BOTTOM LINE REVENUE

- ENGAGE CROSS-FUNCTIONAL SUPPORT WITHIN THE ORGANIZATION
 - Operations, IT, Finance, Safety
- Generate comprehensive fleet study
- Use analytical tools and data to gathered miles to provide insights into fleet performance and variable and fixed ownership costs
- Identify opportunities to improve productivity and reduce cost
- Build a roadmap for customized fleet modernization plan
- Determine per-unit P&Ls





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LOWEST COST OF OWNERSHIP THE METRICS TO MONITOR FOR THE LOWEST COST OF OWNERSHIP







TODAY'S DIRECT & INDIRECT FLEET CHALLENGES



FINANCE DEPRECATION VS. MARKET VALUE

IMPORTANCE OF CROSS-FUNCTIONAL CORPORATE CALABORATION

Equipment	Т	A Day cab						
OEC	\$	115,000						
Depreciation Term		7						
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Starting Book Value	\$	115,000	\$ 98,571	\$ 82,143	\$ 65,714	\$ 49,286	\$ 32,857	\$ 16,429
Accumulated Depreciation		16,429	32,857	49,286	65,714	82,143	98,571	115,000
Ending Book Value	\$	98,571	\$ 82,143	\$ 65,714	\$ 49,286	\$ 32,857	\$ 16,429	\$ 0
Annual Depreciation		16,429	16,429	16,429	16,429	16,429	16,429	16,429

OUTCOME OF A CROSS-FUNCTIONAL LIFECYLE STRATEGY

FUEL ECONOMY OVERVIEW DRIVING MPG BY MODEL YEAR - DAYCABS

COMPARATIVE COST ANALYSIS 2014 VS 2020 MY

Tire cost represents new tires on the steer axle and recapped tires on the drive axle

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CHESS VS. CHECKERS THE 4-YEAR LIFECYCLE IS THE RIGHT APPROACH

• After year 4 of operation, variable costs per mile increase dramatically

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- Significant cost and operating benefits are attained by fleet managers that maintain a 4-year 400,000 mile lifecycle
- Excess variable Cost Per Mile in Yrs. 5-8 is equivalent to \$1,100 of fixed cost per month

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	
Miles Per Year	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	
Fuel CPM ⁽¹⁾	\$0.429	\$0.429	\$0.429	\$0.442	\$0.442	\$0.455	\$0.455	\$0.455	
M&R CPM ⁽²⁾	\$0.018	\$0.030	\$0.041	\$0.080	\$0.118	\$0.121	\$0.174	\$0.207	
Total CPM	\$0.447	\$0.459	\$0.470	\$0.522	\$0.560	\$0.576	\$0.629	\$0.662	
Average CPM									
Years 1-4				\$0.475					
Years 5 - 8			_					\$0.607	
Excess CPM Yea	rs 5 - 8						Γ	\$0.132	
Mileage in Years	s 5- 8							400,000	
Excess CPM Per	Month Over 4	48 Months						\$1,103	
Assumes \$3.00 p	er gallon								
Maintenance & re	epair cost exc	ludes common	practice of co	apitalizing ma	jor repairs an	d depreciatin	g same	INCREASED CPM IS EQUIVALEN	т то ~\$1
								INCREASE IN FIXED COSTS PER	MONTH!
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PERFORM FLEET STUDY

- Conduct a Fleet Study to identify lifecycle cost reductions by extracting the fuel and mileage data directly from the tractor's OBC
- Include depreciation and finance, maintenance and repair and used trucks values and the data will be aggregated by: year, make, model, manufacturer, type, and location

THE OBJECTIVE IS TO IMPROVE FLEET EFFICIENCY AND IMPROVE BOTTOM LINE REVENUE

- Identify dormant equity
- Lower total fleet costs by improving fuel economy and reducing maintenance and repair spend
- Eliminate spare trucks
- Provide a financial Pro-Forma for each vehicle

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PERFORM FLEET STUDY

Findings of the fleet study should include

- Identification of a money savings strategy for implementation incorporating:
 - Utilization and Fuel Economy Overview
 - Fuel Economy Overview and Comparison
 - Performance Overview
- Lifecycle Cost Analysis
- M&R Cost Analysis
- Comparative Cost Analysis to determine the optimal month to replace vehicles
- Lease vs. Ownership Analysis

SUPPORTING DATA

LEASE VS. PURCHASE ANALYSIS

LEASE VS PURCHASE ANALYSIS

PURCHASE								
Year	Depreciation	Tax Benefit	Resale	NPV @ 5.0%				
Purchase				-\$120,000				
1	\$120,000	\$25,200		\$24,000				
Resale		-\$3,024	\$14,400	\$8,489				
	Total After Ta	x NPV Cost of Co	ash Purchase	-\$87,511				

		LEASE		
Year	Lease Payments ⁽¹⁾	Tax Benefit	Net After Tax	NPV @ 5.0%
1	-\$19,146	\$4,021	-\$15,126	-\$14,405
2	-\$19,146	\$4,021	-\$15,126	-\$13,719
3	-\$19,146	\$4,021	-\$15,126	-\$13,066
4	-\$19,146	\$4,021	-\$15,126	-\$12,444
5	-\$19,146	\$4,021	-\$15,126	-\$11,851
6	-\$19,146	\$4,021	-\$15,126	-\$11,287
7				

Total After Tax NPV Cost of Lease: -\$76,773

After Tax Advantage to Lease: \$10,739

Breakeven Resale to Equal Lease: \$32,616

Breakeven Resale to Equal Lease (as % of Cost): 27%

	ASSU	IMPTION	IS	
	Compo	····· •		
	Equipn	Sleepers		
	Ma	2020		
	Expensing	Yes		
▼ State	Equipment	\$120,000		
XX	Sales Tax ⁽¹⁾	\$0		
	Resale Value	\$14,400		
	Та	21%		
🗌 Enab	le WACC	5.00%		
	Lease Ter	6		
	Monthly Lease Ro	1.330%		
	Monthly Lease	\$1,596		

ORIGINAL EQUIPMENT COST NORTH AMERICA CLASS 8 TRACTORS: BUILD RATE

Source: ACT Research. OEC prices represent next model year

SWAP RATES SWAP RATES CONTINUE TO HOVER NEAR 10-YEAR LOWS

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RESIDUAL VALUES

AVG COST OVER 15 YEARS: \$99,400

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RESIDUAL VALUES

AVG COST OVER 15 YEARS: \$110,900

FINAL THOUGHTS

FINAL THOUGHTS

- Data has proven depending on functional obsolescence to be ineffective, costly, and detrimental toward the bottom line, leading to an uncompetitive position within the industry
- Data analytics serving as catalyst for change for a shift in the mindset as it relates to acquisition strategy
- Shorter asset lifecycles are proving more cost-effective toward an organization's bottom line
- Tax reform and accounting standards have placed greater emphasis on lease versus buy decision
- Financing options and services for equipment acquisitions will be more innovative and customer driven
- Regardless of whether companies buy or lease, they will enjoy lower tax rates which should help expand their business and have an overall positive impact on the economy

FINAL THOUGHTS

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QUESTIONS?

ABOUT THE SPEAKER

AL BARNER, CTP SENIOR VICE PRESIDENT, STRATEGIC FLEET SOLUTIONS FLEET ADVANTAGE

Al Barner is a Certified Transportation Professional (CTP) and possesses 25 years of industry experience.

He is responsible for providing tailored lifecycle asset management and financing solutions for Class 8 tractors and trailers.

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