

Best Practice Report
June 2010

We received (25) responses to a Best Practice questionnaire sent out the week of May 26th. The following is a recap of the answers we received. Not every participant answered every question. While we usually include most actual responses to Best Practice surveys because there might be some good "tidbits" within them, we sometimes do leave out responses like "not in my fleet", "no experience", "not applicable" and similar type answers. *Original question appears in italics.*

1. If you have tested/used SCR engine technology, does it provide MPG increases as promised?

Only (2) respondents have tested/used SCR engine technology but both reported that the engine technology has increased mpg for their OTR operations: One increased from 5.0 to 5.5 mpg and the other reported a 5% "net savings".

2. Are you making any equipment spec changes to attract and retain good drivers?

(5) respondents (all OTR) indicated that they have made some changes as follows:

- Automatic transmissions
- Electric APU's installed @ factory, trailer tire inflation systems.
- Improved seats/leg room
- Premium interiors
- Roomier sleeper

A few did not answer this question at all but 68% of the total respondents to the study indicated that they have made NO changes to "attract and retain good drivers"

3. What is your cost per mile profile for your fleets? What measures are included and do you have standards to meet?

We included this question in the study because we were asked to by one of our regular participants however as usual when the question is posed, we don't get a lot of specifics because as one respondent answered: "Can't go there...not enough room or time, everyone records this differently, my CPM would be meaningless to others." I have reported answers we did receive that seemed possibly useful.

- No standards, all maintenance related costs divided into mile run.
- 2.38/mile includes tank wash costs.
- We've never captured cost per mile detail; we are purchasing a GPS solution to do so.
- 6.5 5 min. engine shut down.
- Standard maintenance items, plus accident costs, fixed overhead, etc.
- \$0.155 all maintenance, accident repair, cars, forklifts, construction equipment, every piece of equipment we own repairs & maintenance costs get thrown into one giant cost, divide miles traveled by our trucks and that's it. Fuel, wages, building costs not included.
- \$1.15 CPM-fuel and lubricants, tires, parts and maintenance, shop expense, equipment cost and interest. No standards
- Accounting department tracks CPM by all vehicle factors (labor, fuel, equipment costs, administration). Maintenance tracks all maintenance activities by VMRS component designations (including tires but not fuel or overhead costs?).
- Varies due to different size, capacity of equipment.
- In my cost per mile, my profile is Maintenance, and anything that is done to the equipment other than accident damages goes into the cost. Yes I have standards to meet.
- Total all things put in..14 cents per mile. Tractors trailers, tires, oil....everything but fuel.

4. *What is your fleet doing to increase revenue?*

- Speed limited and no idle.
- Stop doing some special items for customers
- Lighter equipment to haul more product Join the Coalition for Transportation Productivity
- Decreasing dead-heads/improving customer relations.
- I am not in a revenue producing environment. We support our utility with a safe and reliable fleet
- Focus on delivery miles.
- Reduce operating costs by various means.
- Taking a wider variety of shipping lanes in the past.
- Raising rates.
- Utilization, raise prices.
- Slowly raise rates. Haul more freight.
- Recruiting more drivers.
- We are finally in a position to raise rates. There are simply not many places to left to make cuts.
- Be efficient as possible and you will attract clients who look for efficient fleets.
- Driver habit awareness, mechanical inspection repair review input.
- A very serious sales effort! We decided that we are not hauling freight for practice anymore.
- Add sleepers, find backhauls.
- Working towards better utilization by partnering with our customers, and looking for any possible area to cut cost.
- Raising rates at a record pace.
- On the maintenance end just trying to do it better and not over again.... Trying to get the most out of all things on the truck.
- Working on fewer road breakdowns.
- Rate increased, increased freight with partners, increased dedicated.

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5. What corrosion issues are you facing? How are you addressing them?

What Issues?	Addressing them?
Wiring harnesses and connectors.	Spraying trucks with rust control products.
Suspension systems, brake shoes and fuel tank straps.	Galvanized trailer suspensions.
Rust/road salt.	Regular washing/coating wires with anti-corrosion material.
We are located at the Jersey shore for the most part and have horrible rusting issues on our steal truck bodies.	We have spec'd Reading Truck Aluminum Bodies for 6 of our Crew Trucks and if they can remain rust free we will use this body exclusively. We are also looking at composite bodies.
Cross members	Started a refurb program on the trailers.
Stainless steel tank corrosion.	Specifying 316L Stainless and purchase "passivation" equipment.
Mainly rear trailer frames and upper cab air fairing brackets.	Changing spec of new equipment and repairing refinishing what we are stuck with.
	Frequent washing, coated brake shoes.
Significant metal structure, electrical	Spec galvanized, coatings, less and protected connections.
Nothing new from years ago. Some trailers get put out of service from grid and bottom rail corrosion, but this is nothing new.	Grid corrosion is hard to prevent. Not really addressing grid and bottom rail corrosion, except for repair trailer or take out service.
Cracked brake linings due to rust buildup between the pad and the shoe, trailer frames rusting prematurely.	Washing does not seem to help much. Needs to start at the factory with better corrosion protection.
Not much road device issues but we do haul some mild corrosive product (garbage and boiler ash) that attacks trailer aluminum side panels at the interface with steel frame.	When panels are replaced or removed we paint the steel frame with an insulating material (we use pickup truck bed liner paint) to separate the two different metals and break the electrical corrosion. So far this works well.
Rust, chemical.	Aggressive cleaning and resealing and replacement of parts form this type failure.
Not much	More frequent washing
None due to our shorter trade cycle.	
Still the same ones. With the onslaught of 2010 lights has become a big issue. Trying to keep them working and not having a problem on the road giving reason to be stopped.	Trying to wash and clean more often but can be hard to do since it has picked up a little bit... Drivers don't want to waste time washing their trucks.
Salt spray and how that salt permeates everything.	More frequent washing
Trailer 5th wheel plates, suspension hangers, brake drums.	Replacing parts, not much else.

6. What is the percentage of ABS repairs? (Question was asked with this notation: Since fleets are getting "older" these electrical type repairs are becoming more common!)

For those that gave an actual percentage (15 respondents) the average percent was 11.2% with a median of 10%. A few answers were not given in a percentage:

- I don't know what percentage; it's a common repair as far as I'm concerned. Just part of the equipment. Nothing that stands out though.
- Not enough to be on my radar
- Small

7. How are you adjusting (or considering) your maintenance programs for CSA2010?

We received many answers with specific changes that are being made or considered. A few respondents indicated that they were not making any changes.

- Working on drivers doing better pre trip and post trip reporting, more thorough so that they do better on roadside inspection.
- Added more detail to service checks and email service reminders.
- Making guidelines available to techs/ improved training.
- Driver pre trip increase service lanes in our shops.
- Stricter repair response on non safety driver vehicle write ups. (License lights, clearance lights, door holdbacks, etc..)
- Training mechanics and changing PM procedures for brakes, tires, and lights.
- Tire change std, fuel island checks, yd. chks
- Making mechanics aware.
- If you have a good maintenance program there are few if any adjustments to be made. It all starts with the driver doing proper pre and post trip inspections.
- We are tightening our inspection requirements for vehicles. For example, formerly we would let a marginal marker lamp run some more because it wasn't an out-of-service item, now we will probably change it. We are reviewing all items that generate minor defects in inspections. We are also reconfiguring driver responsibilities for reporting minor defects from pre=trip inspections, etc.
- None, we feel we are ready and always have been..
- We do very good inspections already, but so much hinges on the drivers pre and post trip inspections, and we are focusing on that as well as in-house training.
- As above electrical problem. Or anything gives the inspector a reason to pull you over. We are removing any lamp other than what is required so we can keep lights- out problem to a minimum.
- Retrofitting bigger brakes on the same units.

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8. What are your current oil change intervals?

Based on the information we received as noted in the table below – the AVERAGE interval for engine changes is 29,736 miles and the AVERAGE oil change interval for driveline is 512,776 miles. All responses listed below (with type fleet included).

Fleet Type	Engine		Driveline	
	Interval	Oil Type	Interval	Oil Type
TL/LTL	45,000 Kms	Ptero Canada 15W40 CJ4	350,000 Kms	Synthetic
TL - Bulk Commodies	500 HRS	RIMULA AND SYNTHETIC	250,000 MILES	SYNTHETIC
Utility	3,000 miles	Havoline 10-w40		
Private - Petroleum	15,000	Mobile	250,000	Synthetic
TL	20,000	Standard	250,000	Syn.
Metro Utility	90 to 120 days	15-40	50,000 miles	85-105 Synthetic
TL	40,000	CJ 4		
TL - Bulk Commodies	18,000	CJ4 plus	500,000	Full synthetic.
City Gov	3,000	CJ4	60,000	Semi-synthetic
Oil company	15,000	Rotella.		
TL	75,000	Schaeffler Supreme 9000 5W40	450,000	Shell, Spirax
TL - Tankers	40,000	CE	40,000	
TL	50,000	CJ4	Life	Synthetic
TL & LTL	20-25,000	Citgo 600	20-25,000	Citgo overdrive grease, Citgo synthetic.
TL - Tankers	30,000	Clear base.	5,000,000	Synthetic
TL	30,000	Mineral based.	500,000	Synthetic
TL	25,000	CJ-4 (Non-synthetic)	250,000	Semi-synthetic or full synthetic.
Stevedoring	10,000/250 hrs	15w40	80,000/1000 hrs	Varies
TL	70,000	Mobile Elite	750,000	Emgard syn.
LTL	25,000	CJ4	500,000	Synthetic
TL	Depends on engine type.	Kendall		
TL	35,000	Shell Rimula	35,000	OEM recommended
TL	30,000	15-40 Delo	15,000	Chev.
County Gov	Annual	Semi syn.	5 years.	Full syn.
TL	40,000	15/40		

9. What do you consider to be the most significant driver distraction issues?

65% of total study respondents indicated CELL PHONES are the primary distraction. Other items mentioned by a few included traffic, all the warning devices, or "all that crap on dashboard", CB radios and boredom.

10. How much and what kind of maintenance parts do you keep in inventory?

- \$500,000
- Normal everyday stuff and a lot of special items.
- Belts, hoses and filters one for each truck.
- Oil, electric and trailer parts.
- Large inventory of high turnover parts.
- Assortment of filters, spark plugs, wires, fan belts, wiper blades, pads, rotors, brake hardware kits, tires, batteries and fluids, windshield, coolant and transmission.
- Low inventory- service and high usage parts-tires
- Fast moving items, light maintenance-brake shoes, tires
- \$100,00-stock primarily brake components, PM supplies, electrical/lighting components
- None-do not have to shop-use the dealer.
- \$200,000 30% OE 70% parts distributor/aftermarket.
- All service
- Our location is 30 miles from anywhere, 60 miles from big city. Plus we service customer's trucks, we stock a lot!!
- Light maintenance items such as lights and some engine components such as rebuilt turbos.
- We demand our vendors furnish us parts on consignment or we do not do business with them. With that said we stock all parts related to safety or anything that can prevent a truck from operating. We then do computer audits quarterly to adjust quantities up or down.
- We keep whatever maintenance stock (filters, brakes, etc) has been proven to be predictably used in PM's. We keep a small selection of "mission critical" parts that will down a truck (some of these are "good used". We keep a reasonable selection of small parts that we know we will need during a "one shift repair"(example: engine mount bushings to be changed during a clutch replacements). For non-critical items that don't prevent operation of the truck during time part is ordered we no longer keep any of those (or we stock "good used".)
- Varies, filters, oil, tires, brakes.
- \$1million, 11 shops, all kinds, inventory turns about 6x year.
- PM type parts, lights, brakes, enough to cover weekly usage, minimizing inventory.
- \$400,000.00 on average. All except major parts.
- We keep normal maintenance parts. And them any hard to get parts that we use sometimes. I know that covers a lot but certain hard to come by items that are once in a life time type things....can you hold up... the old I don't stock because I have never sold one of those....
- 1 million dollars mostly garbage truck related.

11. *Any issues good and bad with automated transmissions?*

- Been OK.
- We are switching some over to manual
- Mostly Allison transmissions and they are great.
- 60% electrical and xy shifter.
- Good-MPG increase, Negative-increase brake wear.
- If driven properly, none-otherwise xy shifters & clutches (entire fleet w/Eaton Ultra shift)
- When a vehicle doesn't start, it can't be pull started.
- A number of shifter and wiring issues. Stop purchasing.
- Numerous electrical, hardware, downtime and costs.
- Good-when they work, they work- bad, when they don't work, tow truck, spend money. We only have 8 Eaton Gen II and they work pretty good- old technology now.
- No maintenance issues- drivers like them a lot.
- Drivers love them mechanics hate them. We have 90 of them and will not buy a truck without one. GET THE EXTENDED WARRANTY THAT COVERS ELECTRICAL ITEMS!
- Average as expected.
- Good-safety, fuel economy with a poor driver, reduced cost in brakes, clutches, and drivetrains Bad-continuing electrical issues.
- Bad, UltraShift GEN 2, rapid clutch wear, OE electrical issues.
- Allisons and Cat transmissions both are running fine have 9 Cat trans in fleet.

12. *If you are using any type of anti-idling equipment, what type and how are they working?*

- ESPAR engine and cab heaters, some maintenance, save on fuel and services.
- Five minute shut down and APU on over the road trucks.
- OEM equipment. Idle timer. Yes, we download trip info and inform the driver of the results.
- We have installed ThermoKing on all over the road units.
- TriPac and Comfort Guard APU
- We tie excessive idling into our driver incentive program-we are down to 10% average.
- Engine parameters and APU'S. APU's are not meeting payback requirements due to maintenance expense!
- ECM shutdown timer.
- Electric, ok.
- Diesel heaters pay for themselves, APU's don't unless you get grant money or your operation requires a lot of idle time.
- We have 36 Carrier APU's. They do their job but require a lot of maintenance. So far they have costed out well.
- Engines are programmed to shut down at 5 minutes. We also post the CARB regulation that says excess idling citation fines are billed directly to the driver, not the company (a connection to pocketbook works well.)
- Optidle, ICON, APUs...all are very band-aid....waiting on an OE electric HVAC system.
- ECM Idle shutdown works well, TriPak APU - Awesome
- Testing electric APU's, so far (cool weather) work well. Have used Espar heaters for years with excellent results.
- ClimaCab-testing, Tri-Pac-high maintenance.
- Auto shut off @5 min on 2/3 equipment.
- ClimaCab-works well, some issues with component failures.

13. How are you handling diesel exhaust fluid storage?

Not many respondents are “there” yet on figuring this out because they don’t have engines that require it. However for those that are handling storage of exhaust fluid, the procedures are very similar.

- 300 gallon totes in the shop.
- Keep it in-doors in 55 gal drums.
- Kiosk with tote.
- Store an efficient amount and it is a non-issue (don't over stock.)
- When the time comes we will probably purchase totes and keep it inside to prevent freezing.

14. What is your experience with HOS electronic logs?

Generally, for those fleets that have some experience with these, there are positive comments.

- Are in a test phase now
- Early problems with software
- Excellent
- Excellent-we use XATA
- Fully implemented and it has made our company operate more efficient.
- Good-getting ready to go to the next generation of equipment.
- Great, need fine tuned.
- Just started in April - some learning to do. Drivers and dispatch must plan better to ensure they are within their hours.
- Not mandatory, but 40 drivers have volunteered (38% of capable units.)
- Tested, not very well received drivers.
- Tricky, need a lot of driver training and someone to look at what the drivers are doing.
- We are in the process of installing the new Qualcomm to test.
- We have been testing 6 units for about 6 months and the driver response has been all positive. Now all we have to do is figure out how to pay for 90 more.

15. Are you experiencing any manual regeneration issues with Cummins engines?

Only (3) respondents indicated they are having any regeneration issues, but would be hard to tell what percentage of Cummins users this is since we didn’t ask specifically what engines they have in their fleet:

- Calibration issues and forced regens.
- ProStars like to have manual sometimes. Really not much of a big issue, used to it by now.
- Very frequent, won't engage properly, and more.

16. *When freight dropped, many of the drivers that were forced out were the ones causing the worst equipment problems. What steps is your fleet taking to make sure you don't just hire back these same problem drivers?*

- Stringent screening process
- We keep detailed records of past drivers and "weed" out the problem ones.
- Better background checks but as the supply drops they will probably sneak back in.
- Current hiring standards are higher, mainly safety related.
- Driver selection process considers prior record
- Currently we cannot find decent quality drivers, so we are more than likely hiring "C-class" drivers. We have freight to move and will deal with consequences later. We went down this same road in the 1990's so when damages occur, we've been there, done that. It will level out, driver shortage that is, and we will let go of "F" drivers when "A" become available.
- We have more stringent experience requirements and questionable drivers have been approved by regional management.
- Excellent point! We are being very picky in selecting qualified drivers, even if that causes temporary empty seats. Our experience is that if they tear up equipment they are also likely to be the person who crashes or has workman comp "issues". Our number one criteria is attitude (good professional attitude almost always will go with a person who does things the way we need them done.) Finally, don't hire stupid people, they are very expensive.
- NO REHIRE POLICY
- Just try to hire the good ones to begin with....

17. *When do you think the truck industry is going to standardize the electronics of computer engine controls?*

"Never" or "not in my lifetime" were the most often given responses with "Not soon enough" also a popular response. There were few who were optimistic about the possibility. Some unique/individual answers below:

- *VERY little standardization of ANY kind in the industry now!!*
- *2011-2015*
- *We have asked for this since 1990...we keep pushing.*
- *Not until it becomes a government mandate.*
- *Hopefully before I retire, and since the economy has extended when I retired, I actually might see that.*
- *Only when they are forced to.*
- *I think OBD will prompt that direction beginning in 2010 engines.*

If you have any questions about the detail we received from respondents or any other questions about the content of this report, please send me an e-mail at chris@ckcvr.com. We will also post this report at http://www.ckcvr.com/bestpractice_archive.html

Regards,

Chris Kemmer