# The Down and Dirty Guide to LTL Shipping

## 3 Step Action Plan for Improving Service and Saving Money

# Introduction: The Down & Dirty Guide to LTL Shipping

This guide was written for Less-Than-Truckload (LTL) shippers who want to dramatically improve their on time performance, and billing accuracy while reducing cost and damaged shipments.

For those of you interested in complexity, jargon or theoretical approaches, you came to the wrong place.

The methods written about here are simple, proven and can be implemented with a minimum amount of time and little or no investment.

The essentials of LTL transformation can be summarized in three simple steps.

1. **Measure the four key LTL freight metrics: cost, on-time performance, freight damage and billing accuracy**

2. **Analyze the four key freight metrics every week, ideally with your team**

3. **Identify and implement actions that will improve the freight metrics**

The next 3 sections of this guide will fill in the details behind each step.

# Section 1: Measure the Four Key LTL Freight Metrics

In LTL shipping, the four most important attributes are: **cost**, **on time performance**, **billing accuracy** and **damage free shipments**.

## Cost

The ultimate metric for measuring cost performance is cost per pound. The metric is easy to create, completely transparent, and will give you great insights into your freight spending.

To create the cost per pound metric, take the cost of the shipment and divide it by the shipment weight (pounds). Example: $507.34 divided by 1440 lbs. equals $0.35 cost per pound.

Cost per pound for LTL shipments will vary depending on the freight class, carriers, and pick-up and delivery points. Cost per pound will vary between $0.10 and $0.75 with most shippers falling in the $0.22 - $0.42 range. Lower cost per pound is obviously better because it means the shipments were less expensive.

The cost per pound metric can be used to compare individual shipments, carriers, and even weekly invoices.

## On Time Performance

All LTL carriers provide an estimated transit time for shipments, however those transit times are not guaranteed. Most carriers will have on time performance of 90% or better, but understanding exactly how a carrier performs on your lanes will help your company make better choices.

The metric is easy; simply divide the number of on time shipments by the total number of shipments. Example: 40 on time shipments divided by 43 total shipments equals 93% on-time performance.

## Billing Accuracy

Incorrect freight bills drive the accountants crazy! In addition to the hours of reconciling bad bills, the added cost has to be accounted for somehow. Sometimes it has to be passed on to clients, who were already billed for freight or the added cost has to be absorbed by the company.

Some companies pay outside auditors to identify and recover billing errors. Auditors usually get paid for each bill audited and some even get a percentage of the recovered savings, so they have a vested interest in more incorrect bills.

A freight bill should match the quoted price, unless the shipper provided an incorrect weight, freight class or NMFC number. Most shippers can begin saving money immediately by doing those three things correctly. The carrier and or the logistics companies involved can help the shipping group identify the correct NMFC and freight class.

To calculate the billing accuracy, divide the number of correct bills by the total number of bills. Example: 61 correct bills divided by 64 total bills equals 95% billing accuracy.

**Damage Free Shipments**

Cost, on time performance and billing accuracy don't mean much if the carrier damages the freight. Freight damage must be measured.

Be sure to measure all damage not just freight claims filed. Damaged packaging, small scratches, and loose pieces are all upsetting to the receiver and the end customer so they should be documented and measured, even if there isn't a freight claim filed.

Freight damage should always be far less than 1% of total shipments. If freight damage is over 1%, there is something seriously wrong with the packaging, loading / unloading process or the carrier.

To calculate the number of damage free shipments, divide the number of damage free shipments by the total number of shipments. Example: 112 damage free shipments divided by 113 total shipments equals 99.1% damage free shipments.

**The LTL Scorecard: Pulling it All Together**

Now that the metrics have been created, the next step is to measure each carrier on the four metrics: cost, on-time performance, billing accuracy and damage free shipments.

The best way to review and analyze the data is to consolidate it all on an LTL Scorecard (see Figure 1).

It is very important to compare the metrics to past performance and identify trends, both good and bad. In addition to measuring the weekly shipments, shippers should also track the year to date metrics for the purpose of comparison.

# Figure 1 – LTL Scorecard

## Weekly LTL Scorecard – March 15, 2012

| Carrier | Total Shipments | On-Time Performance | Billing Accuracy | Damage Free Shipments | Cost Per Pound |
|---|---|---|---|---|---|
| UPS | 33 | 97% | 100% | 100% | $0.133 |
| Pitt Ohio | 20 | 95% | 100% | 100% | $0.183 |
| Watkins | 6 | 100% | 83% | 100% | $0.529 |
| Old Dominion | 6 | 83% | 100% | 100% | $0.797 |
| New England | 3 | 100% | 100% | 100% | $0.348 |
| FedEx | 3 | 100% | 100% | 100% | $0.428 |
| AAA Cooper | 3 | 100% | 100% | 100% | $0.137 |
| R&L | 1 | 100% | 0% | 100% | $0.426 |
| Central | 1 | 100% | 100% | 100% | $0.098 |
| SAIA | 1 | 100% | 100% | 100% | $0.687 |
| TOTALS | 77 | 96.1% | 97.4% | 100.0% | $0.196 |

↓ **Ongoing comparison between weekly and year to date metrics** ↑

## YTD LTL Scorecard – March 15, 2012

| Carrier | Total Shipments | On-Time Performance | Billing Accuracy | Damage Free Shipments | Cost Per Pound |
|---|---|---|---|---|---|
| UPS | 320 | 97% | 95% | 100% | $0.141 |
| Pitt Ohio | 210 | 99% | 98% | 100% | $0.190 |
| Watkins | 56 | 95% | 96% | 100% | $0.531 |
| Old Dominion | 54 | 94% | 91% | 100% | $0.797 |
| New England | 30 | 97% | 90% | 100% | $0.351 |
| FedEx | 30 | 83% | 87% | 100% | $0.428 |
| AAA Cooper | 30 | 97% | 90% | 100% | $0.134 |
| R&L | 15 | 80% | 80% | 100% | $0.436 |
| Central | 12 | 83% | 92% | 100% | $0.097 |
| SAIA | 13 | 77% | 69% | 100% | $0.686 |
| TOTALS | 770 | 95.7% | 94.3% | 99.7% | $0.214 |

# Section 2: Analyze the Four Key Freight Metrics

The LTL Scorecard and associated metrics should be updated and distributed to team members every week.

The team should meet to review and analyze the LTL Scorecard.  Hopefully, there is already a team in place to review the scorecard, but if not a team should be formed with representatives from logistics, operations and accounting.

The power of the scorecard is that the areas of opportunity are very noticeable and practically jump off the page at the users.

In the example above, the following observations and or opportunities for improvement would be highlighted and discussed.

> ***Total Shipments:***  *There were 77 total shipments with the majority moved by UPS and Pitt Ohio.  Is that more or fewer shipments than usual? Based on the metrics, should other carriers receive more shipments?*
>
> ***On-Time Performance:***  *The total on-time performance for all carriers was 96.1% which is better than the YTD metric of 95.7.  What caused the improvement?  What caused the late shipments by UPS, Pitt Ohio and Old Dominion?  What changes should be made to improve the on-time percentage?*
>
> ***Billing Accuracy:***  *The total billing accuracy percentage for all carriers was 97.4%, which is better than the YTD metric of 94.3%.  What factors affected the percentage?  What caused the billing problem with R&L and Watkins?  How much extra did it cost the company?  What changes should be made to eliminate the billing errors?*
>
> ***Damage Free Shipments:***  *There were no damaged shipments reported this week.  Congrats to the team!  What actions helped prevent freight damage?*
>
> ***Cost Per Pound:***  *The overall cost per pound was $0.196.  Which carriers were above and which were below $0.196? Were the higher cost shipments caused by shipping locations?  Were the higher cost shipments caused by freight class differences?  Would adjustments to the carrier mix lower the overall cost per pound?*

As you can see from the example above, the LTL Scorecard metrics highlight lots of opportunities and areas for further analysis.

Updating the LTL Scorecard is important, but the real benefit, is the actions taken to improve the metrics.

# Section 3: Identify and Implement Actions That Will Improve the Freight Metrics

In this section, there is a description of seven actions that will improve the freight metrics, which will improve the shipping function and ultimately boost the bottom line.

Each of the actions impacts at least one of the metrics.  The actions are: **1.)** Improve Packaging, **2.)** Make carrier changes, **3.)** Use longer transit times, **4.)** Reduce freight classifications, **5.)** Select the right shipping mode, **6.)** Use transportation management software, **7.)** Hire a 3<sup>rd</sup> party logistics company

## 1.  Improve Packaging

Proper packaging will minimize freight damage and fit the goods into the minimum space necessary.  Using less space on the truck will reduce the freight classification, which in turn will reduce shipping costs.  Improved packaging can also reduce freight damage.  Additionally, good packaging is easy to load, unload and has good label visibility.   **Questions to consider:**  When was the last time, you looked at your packaging?  Is damaged freight an ongoing problem?  Do your shipments have a high freight class?

## 2.  Reduce Freight Classification

Freight class is set by the National Motor Freight Transportation Association, and generally determined by freight density (the denser, the better).  Improved packaging (see above) will sometimes lower your freight class which will lower your freight costs.  Another way to lower your cost is to investigate whether your freight could ship under a lower classification.  There are lots of nuances to the freight classifications so do some research and or ask your carrier representative for help.    **Questions to consider:** Does your shipping team understand the correct freight classes for your freight?  Does your company ever have freight reclassified by the carrier?  Does your shipping team understand the connection between freight density and freight class?

## 3.  Select the Right Shipping Mode

Freight mode refers to the various shipping methods, which include:  full truck, LTL, small parcel, air freight, and sea freight.  Shippers often focus on getting the best price for a given mode without considering the opportunity to use a less expensive mode.  Using the wrong mode will cost your company extra money.  For some larger LTL shipments, a dedicated full truck might be a cheaper than LTL.  Conversely, some smaller LTL shipments might be shipped cheaper by a small parcel carrier. **Questions to consider:**  Do you have light LTL shipments that could ship via small parcel?  Does your company use full trucks for 6 pallets or less?  Has there ever been an analysis of the proper shipping modes at your company?

## 4. Make Carrier Changes

Carrier changes can have an enormous impact on all the four of the freight metrics. Every carrier has preferred routes where they will offer better pricing. Conversely, every carrier has areas where they do not want to go and of course they charge more for those moves. Selecting the preferred routes for carriers will also improve on time performance. If freight damage is an ongoing concern, switching carriers sometimes fixes the problem. A good carrier representative will work with clients to improve billing accuracy through clear language in the tariff contract. **Questions to consider:** Do you know the carriers with the best coverage for the areas where you ship? Do your carriers use partner carriers to deliver your shipments? If yes, those shipments cost extra money and are more likely to be damaged. Does your company regularly meet with carrier representatives to better understand their service offerings?

## 5. Switch to Longer Transit Times

Shippers often default to the fastest transit time without considering the extra costs. In general, shorter transit times are more expensive than longer transit times. **Questions to consider:** Are you paying a premium for a one day transit time for a shipment that is not time sensitive? Would you ship earlier and use a carrier with a longer transit time, if it meant a significant cost savings? Would your customer accept a later delivery time if you gave them a break on shipping costs?

## 6. Use Transportation Management Software

Transportation management software (TMS) can help shippers reduce cost, improve billing accuracy and on time performance. TMS simplifies the freight buying process for shippers. Typically, TMS will enable a shipper to compare pricing and transit times for multiple carriers. After selecting a carrier, TMS will facilitate easy tracking, reporting and payment. The best transportation management systems are web based and connect shippers directly to the LTL carriers. Having a database of all LTL shipments aids in metric development and reporting. A good TMS can be expensive, but some 3PL's offer the software for free with their services. **Questions to consider:** Do you have freight software to streamline the freight buying process? Are freight bills easily accessible online? Is shipment tracking and visibility a problem at your company? How long does it take to get quotes from 3 carriers? If it is longer than one minute, a TMS might be useful.

## 7. Hire a Third Party Logistics Provider (3PL)

A good third party logistics provider will improve cost, on-time performance, freight damage, billing accuracy and a whole lot more. The best 3PL's provide free web based software along with logistics experts that will drive continuous improvement. Depending on the shipper's needs some 3PL's take over routine freight tasks, which frees up the shipper's logistics team. Since 3PL's partner with dozens of LTL carriers, they can match a shipper with the best carriers for their situation. **Questions to consider:** Is

your shipping team experienced in carrier negotiations?  Does your company have the time or the carrier relationships necessary to get the best pricing?   Would some freight experts and TMS help the freight area run more effectively?

# Conclusion: The Down & Dirty Guide to LTL Shipping

The key to improving LTL freight shipping is a culture of continuous improvement. The first step in continuous improvement is objective metrics of the current state. Once there are objective metrics, the actions necessary for improvement become much more obvious.

Additionally, having good metrics enables the freight team members to make good informed decisions, which will ultimately benefit the company's bottom line.

# About The Author

Joe Lynch wrote the "The Down and Dirty Guide to LTL Shipping". Joe is the General Manager and COO of Rock Solid Business Solutions. He is also the founder and chief blogger at TheLogisticsofLogistics.com.

The scorecard and processes described in the guide have been used by Joe and his team to save millions of dollars for clients over the past three years. When you have a great team, good metrics and a culture of continuous improvement, anything is possible.

Mr. Lynch has over 25 years of experience with automotive OEM's and tier 1 suppliers. He has held a variety of roles in: program management, product development, engineering, manufacturing, logistics and supply chain.

Prior to joining Rock Solid, Joe spent 3 years as the head of consulting at Applied Technologies, Inc. (ATI) where he led a number of initiatives within Chrysler. Projects included: lean strategy and implementation (value stream mapping), automotive module outsourcing strategy, best practice development and knowledge management (software). Earlier in his career he launched new vehicle programs in China and Thailand.

Mr. Lynch earned a bachelor's degree in Business Administration from Cleary University and a Master's degree in Education from the University of Michigan. His master's degree concentration was Adult Instruction and Performance Technology.