1 FREIGHT INDUSTRY OVERVIEW
2 FREIGHT CLASS
4 FASTCLASS FACTS
4 FREIGHT OF ALL KINDS (FAK)
4 TOTAL SHIPMENT WEIGHT
5 AIR FREIGHT OVERVIEW
6 COMMON TRANSPORTATION ACRONYMS
Freight Industry Overview

What is LTL Shipping?

LTL (Less Than Truckload) shipping is the most common mode of shipping products using a truck. An LTL carrier will pick up several small shipments from customers that do not require the entire trailer to be used in getting the product to their customers. In essence, they are renting space in the back of a trailer. Once the carrier has made all of their pick ups for that day, they will bring the freight back to their terminal. It is also likely a terminal will also receive freight from other terminals that were picked up on the previous day. That freight, along with the current day’s pick ups, will be sorted and reloaded on other trucks based on their final destination. When a terminal receives freight from other terminals, this terminal is referred to as a break bulk point. From a profitability standpoint, it is very important to an LTL carrier that they have as many trucks full of product moving from location to location. The main purpose of a break bulk point is to ensure that the carrier is able to properly plan out their network of trucks moving a certain amount of freight.

Once the freight has arrived at the destination terminal, the carrier will deliver the product to the consignee. When an LTL carrier delivers the product, they will require the receiver to sign a Proof Of Delivery (POD) certificate to document when the product was received, who received the product, as well as to document that all of the product was delivered in good condition. If the shipment is received damaged and/or short the amount is documented on the BOL. It is very important the receiver documents these issues to allow the carrier and CarrierRate.com to process a claim.

When a shipment is set to be moved with a carrier, it is important to inform the carrier of all services that will be required to pick up and deliver the shipment. A carrier’s base rate service will only include the freight being loaded by the shipper when the carrier backs up to their dock, moving the freight through their network and then delivering it to the consignee’s dock and the consignee unloading the product. If a carrier is needed to provide any service above and beyond that description, additional fees, known as accessorial, will be added to the base rate. Example accessorial services include lift gate pick up and delivery, non-commercial pick up and delivery, arrival notification, fuel surcharge, inside pick up and delivery.

The fees a carrier charges a customer are based on a percentage discount off a tariff. The term tariff refers to the fees and rules applied by a carrier for its services. Many carriers will create their own tariffs year by year. They will update these annually to allow them to insert any pricing increases or decreases for each lane combination their network will service. Typically carriers will increase their overall pricing by about 7% each year and will announce these new tariffs around June of each year. Carriers will assign a tariff to a customer based on the volume and type of freight a customer ships. Discounts generally average between 48% and 72% off a base tariff rate. Low discounts are assigned to low volume shippers. Higher volume customers, such as CarrierRate.com, will be able to negotiate higher discounts based on tariffs created in previous years. CarrierRate.com’s discounts generally range between 60% and 72% off of tariffs created in the late 1990’s. Remember a 65% discount off a 1999 tariff will generate lower costs than a 70% discount off a 2004 discount due to the average yearly rate increases of 7%.

Calculating a freight cost based on a 70% discount.

Base Tariff freight rate $1000
70% discount ($1000 X .70) $700
Customer’s base rate cost $300

There are 6 key things that are required for CarrierRate.com to accurately generate a quote for a customer.

1. Origin zip code
2. Destination zip code
3. Package type and number of packages
4. The products freight class
5. Total weight of the shipment
6. Date of pick up

All of these items listed above are important in generating an accurate quote for a customer, but there are 2 items that will be emphasized throughout your training: the product’s freight class and the product’s total weight.
Freight Class

Each product being moved by an LTL carrier has a freight class assigned. A single governing body known as the National Motor Freight Traffic Association (NMFTA) determines a product’s freight class. All carriers acknowledge the product’s classification that is assigned by this group. The NMFTA will analyze a product’s typical size, value, density and difficulty of transporting that particular type of product. Once they have analyzed the product, they will assign that product a freight class. The freight class will range from 50 to 500. The lower the freight class, the cheaper the cost will be to move that item. Typically items at lower classes will be items that are very dense, easy to transport and will typically have a low per pound value. The higher the freight class, the cost to move the item will be more expensive. Items listed at higher classes will be more bulky, difficult to transport with lower weights and are also more valuable.

It is very important that the correct class information be entered into the CarrierRate.com rating page to allow customers to receive accurate quotes. A carrier has the right to inspect any item being shipped on their trucks. If a product’s description does not match the class that is shown on the BOL, the carrier does have the right to adjust the billing and bill the shipment at a higher freight class. If a carrier adjusts the class and bills CarrierRate.com at a higher rate, those additional charges will be passed along to our customer. Some carriers will also bill additional inspection fees to the shipment, which will also be passed along to the customer. The system will give accurate pricing based on the information entered. If the shipment’s class is different than the class that is entered, the amount billed to our customer will not match the amount they were quoted and can cause issues in collecting the freight charges from our customer.

Product Examples & Their Freight Class

Each product listed below shipped at 500 lbs details an explanation as to why each product would have a higher freight class than the other.

- 500 lbs. of bricks – Class 50

As you know, bricks are very dense items, do not have a high per pound value and, if packaged properly, are very easy to transport. This is the ideal type of freight a carrier likes to ship. They can stack product on top of the bricks allowing them to utilize the full amount of the trailer and make more revenue. If the product is lost, the replacement cost is very low. Also, 500 lbs. of bricks will not take up a lot of room in the back of that carrier’s trailer. With all of those things considered, the carrier would much rather move this type of freight and that is why the NMFTA has given this product a lower freight class.

- 500 lbs. of computer towers – Class 100

Similar to the shipment of bricks mentioned above, a shipment of computer towers can also be considered a dense item, but unlike the bricks, computer towers are much more costly to replace in the event of the product being lost or damaged. Also, a carrier may not be likely to stack items on the top of the pallet of computer towers due to a fear of damaging the product. By not being able to stack items on top of the product and the value of the product, even though the total space taken up by 500 lbs. of the computer towers would not be much, the NMFTA will class this type of product at a higher class than our shipment of bricks to help the carrier recover the potential lost revenue when moving this type of product.

- 500 lbs. of ping-pong balls – Class 500

Unlike the products mentioned above, 500 lbs. of ping-pong balls are not considered a dense item. 500 lbs. of ping-pong balls is going to take up much more room in the back of a truck than 500 lbs. of computer towers or bricks. Even though ping-pong balls will not have a high replacement value, the potential for damage when moving this type of fragile product is much higher than the shipment of bricks and computer towers. A carrier also will not likely be able to stack items on top of the pallets of ping-pong balls and by not being able to stack items on top of the product, the NMFTA will class this type of product at a higher class than our shipment of bricks to help the carrier recover the potential cost of revenue when moving this type of product.

The National Motor Freight Classification (NMFC) is the Item number or category that carriers use to identify contents being shipped. The Class of an item determines its corresponding rate. The Bill of Lading (BOL) used in conjunction with a shipment must accurately describe the contents of the shipment and what materials the contents are composed of by displaying the NMFC number. An incorrect item number or class may slow delivery or cause an increase in the rate of the shipment.

EXAMPLE: Bowling Balls

NMFC Item # 15930
Class 70
All commodities are separated into 18 different classifications by the National Motor Freight Transportation Association (NMFTA), ranging from class 50 to class 500.

There are 4 primary factors that determine how a commodity is classified by the NMFC:

1. Density
2. Value
3. Storability and handling considerations
4. Susceptibility to damage

The NMFC assigns the class of the freight based on the combination of these four factors that the commodity exhibits. The higher the expense or the risk of hauling the commodity, the higher the class designation. Therefore, the higher the class, the higher the corresponding per hundred weight rate. The primary factor in the determination of rates is density.

Comparing ping-pong balls and bowling balls, a pup trailer could be completely filled with a few hundred pounds of ping-pong balls (a class 500 item), while the same trailer could be filled with over 20,000 pounds of bowling balls (class 70). In fact, numerous NMFC numbered items are further divided into sub-classes, based on the density of the commodity. Plastics are a good example. There are numerous sub-classes in FactClass.

To find the proper NMFC Item Number and Class:

1. Use the FastClass application on your desktop. Click the Index tab on the left hand side of the open application. Ask the customer to identify the product, and input the product in the appropriate field. The product will come up on the index. Click on it and you will see and Item #, Class # and a brief description of the product.

Sub-Classes

When an item is divided into sub-classes in FastClass, the sub-class will determine the shipments freight class. The sub-class must also be included as a part of the NMFC number on the Product Info page when setting up a shipment. To determine the appropriate sub-class, take the following steps:

1. Go to the density calculator on the toolbar at the top of FastClass.
2. Ask the customer the weight, length, width and height of each package item.
3. Input the information into the density calculator.
4. Click Add and the density will automatically calculate for you.
5. Go back to the item sub-class list and choose the one that matches the density calculation.

If a sub-class is not included, the carrier may automatically raise the class of the item being shipped to the highest class. This could cost your customer significantly more than the price quoted in the first place.

Finding the Correct NMFC Number and Class:

When you are scheduling a shipment internally for a customer, find the product in FastClass and read the product description aloud to the customer. Tell the customer that the NMFC number and class is most likely correct, but adjustments may apply if they are not.

If you see a header, continue to ask more questions to narrow down the product description. ‘Heater’ for example, has several options. The best question to ask is “What is this item/product going to do?”

Include on the BOL:

- COPY and PASTE the product description from FastClass into the website Product Description field when scheduling the shipment, that way, the exact wording from FastClass gets on the BOL.
- Include the density calculation on the BOL, if there is a sub-class.

These steps will help reduce reclasses for customers due to incorrect NMFC numbers or inferior product descriptions on our BOLs.

A Customer Who Wants a Better Class

In an attempt to save money on shipping costs, a customer may insist on a lower NMFC class. Advise him/her of the consequences. If the customer still insists on the lower NMFC class, note on the account that you advised the customer of the consequences and then continue to schedule the freight. Go to the density calculator on the toolbar at the top of FastClass. Ask the customer the weight, length, width and height of each packaged item. Input the information into the density calculator.
FastClass Facts

FastClass rules are online in the Library. Open the Rules section:

- **Metal AND Wood** – your widgets must be made of both metal AND wood
- **Metal OR Wood** – your widgets must be made of all metal OR all wood
- FastClass > Library > Rules > 110 DEFINITIONS > Definitions and Explanation of Terms, Punctuation and References – these carriers teach their terminal employees these definitions.
- **KD** – Knocked Down. Requires 33 1/3% reduction from the original article’s normal shipping cubage.
- **Item 170** – Requires the shipper to show the density on the shipping BOL. If the sub-class is not included, the shipper can automatically raise the class to the highest one.
- **Item 360** – Gives carriers the authority to open up any item to check and see what it is.
- **Item 420** – You have to go to the individual carrier for a class on these articles.
- **Item 640** – Mixed shipments of article classes by weight or quantity. Use the highest class of all articles.
- **Reclass justification** – Carriers are simply trying to collect what they are due when they reclassify shipments. There is an incentive for customers to mis-class their freight. IT IS CHEAPER – those who do so, however, they should expect an adjustment.
- Classes are subject to interpretation. This is not a simple transaction like most people think. Classes should stay constant across carriers, but there are many interpretations. It is important for you to apply the MOST SPECIFIC DESCRIPTION to the commodity being shipped.
- **Improper packaging** – A carrier will not make a fuss about packaging until there is a damage claim. Then, the carrier will tell the customer the freight was not packaged correctly.
- Don’t confuse the packaging in FastClass with retail packaging. For example, “cereal in boxes” means cereal in big boxes banded to a pallet, not cereal boxes like you would see on the grocery store shelf.

- **Pallets** – wooden frame structures the freight is stacked on.
- **Skids** – runners attached directly to the bottom of the freight.

Freight of All Kinds (FAK)

Freight of All Kinds (FAK) is a type of agreement a carrier may give to a shipper to allow them to ship an assortment of products with different classes under the same class. If a customer ships the example of products listed above, a carrier may allow that shipper to ship their bricks, computer towers and ping-pong balls at a class 100. The shipper may lose some potential savings when shipping their bricks, but will save money when shipping their ping-pong balls. Customers with FAK agreements usually will have the billing convenience of shipping all of their products under the same class, but will not have as high a discount if they were to ship all of their products under their true class.

Total Shipment Weight

It is very important when setting up a shipment for a customer to ask for the most accurate total weight of the shipment, which would include the weight of the package as well as the weight of the product. When speaking to customers, they will often estimate the shipment’s total weight. If the customer gives you an estimated weight, the carrier will audit the freight and will adjust their billing to CarrierRate.com. If this happens and CarrierRate.com is billed at a higher rate, we will pass those adjusted charges on to the customer. Some carriers will also bill additional inspection fees to the shipment, which will also be passed along to the customer. The system will give accurate pricing based on the information entered. If the shipment weighs more than the amount that is entered, the amount billed to our customer will not match the amount they were quoted and can cause issues in collecting the freight charges from our customer.
Air Freight Overview

Air Freight Shipping vs LTL Carrier

There are several differences between shipping items with an air freight company and shipping with an LTL carrier.

1. **The main difference is the mode of transportation that is used to move product from the origin point to the final destination.** LTL carriers use a network of trucks consolidating freight along the way through their break bulk points before the product is finally delivered. Air Carriers use a group of local trucks to pick up and deliver the freight, but utilize a network of airlines (both commercial and cargo) to do the bulk of the freight movement. By comparing the basic transportation differences, you can probably also determine the next main difference in shipping with an LTL carrier vs. shipping through an air carrier is transit time.

2. **Air carriers can also offer something the LTL carriers cannot, which is next day or 2nd day services from any origin point in the U.S. to any U.S. destination point.** Due to the way LTL carriers network their equipment, it would be very difficult for an LTL carrier to provide next day or 2nd day services from shipments moving over 500 miles. Also, air carriers can provide guaranteed delivery dates for next day and 2nd day shipments. This is a very good service that fits a customer’s need to get the product to the final destination quickly and on time. This type of service does introduce us to the third main difference in shipping LTL vs. Air: **Price.**

3. **Air carriers will provide very quick transit times and can easily guarantee delivery dates.** In comparison, the cost of shipping a product via air and shipping via an LTL carrier will be very different. This type of service is not something a customer will use on a regular basis, but can be very helpful in a time of need.

4. **Another difference between LTL carriers and air carriers is how a customer’s price is calculated.** As we discussed, LTL carriers take into account the origin and destination zip codes, the product’s total weight and freight class. Air carriers calculate rates based on the origin zip code, destination zip code and the product’s total weight and dimensions. Freight class is not used in calculating air rates. Air carriers rate shipments based on a per pound rate based on the greater of either the shipment’s actual weight or the dimensional weight.

   To calculate a product’s dimensional weight, you multiply the shipment’s length, width, and height (in inches) and then divide that total by 194. You then compare that number against the shipment’s actual weight. The greater amount of the two is what you would use to calculate the total cost. Important Note: You will never be expected to calculate a customer’s rate. CarrierRate.com will do this for you.

   **Dimensional weight example:**
   A customer has a shipment that weighs 1000 lbs. and is 48” long X 58” wide X 72” high. To find out which is greater, the dimensional weight or the actual weight, you would use the below equation:
   
   $$(L)48 \times (W)58 \times (H)72 = 200,448$$
   $$200,448/194 = 1,033 \text{ dimensional (dim) weight}$$

   In this example, the product’s dimensional weight is greater than the product’s actual weight. CarrierRate.com would then use 1,033 when calculating the shipment cost. Both LTL carriers and air carriers rent container space in the vehicle they are moving the product in. If a product has a dimensional weight that is greater than the actual weight, the carrier must be able to make up for potential lost revenue.

5. **One of the other main differences between LTL and air carriers is the documentation that is given to the driver at the time of pick up.** LTL carriers require a BOL to accept the customer’s freight. Air carriers require an AIR Waybill document. Even though the documents look very different, they both contain many of the same pieces of information. An Air Waybill generated by CarrierRate.com will always list the following details:

   A. Shipper and consignee address and contact information
   B. Shipment ready date and time
   C. A detailed description of the goods being shipped
   D. The total weight of the shipment
   E. The shipment’s dimensions
   F. The shipment’s dimensional weight
   G. Service level requirements (next day, 2nd day, guaranteed, etc.)
   H. Information detailing who is paying for the freight charges
   I. Detailed listings of any additional services (accessorials) required to pick up or deliver the goods being shipped
Common Transportation Acronyms:

**Accounting Error (AE)**

This acronym will be seen when an error by accounting has been made that caused a re-bill. Such as a vendor bill being attached to wrong sales order, duplicate vendor bills entered under the same sales order, etc.

**Accessorial Charge (AC)**

This acronym will be seen when a carrier has added an unexpected accessorial charge to a shipment. This could include; notify prior to arrival, liftgate pick-up/delivery, inside delivery, residential pick-up/delivery, limited access, sort and segregate, etc.

**Bill of Lading (BOL or B/L)**

A bill of lading is a binding contract that serves three main purposes:
1. A receipt for the goods delivered to the transportation provider for shipment;
2. A definition or description of the goods; and
3. Evidence of title to the relative goods, if “negotiable”.

**Billing Error (BE)**

This acronym will be seen when there is a rating issue with an vendor bill because the carrier is not applying the correct GlobalTranz blanket tariff or customer specific tariff (CSP).

**Carrier Rate Error (CE)**

This acronym will be seen when a re-bill is because of carrier rate rated the sales order incorrectly. This is a GlobalTranz internal error and not an issue with the carrier.

**Collect on Delivery (COD)**

This acronym will be seen when a customer has stated on the bill of lading that collect on delivery is needed. This is when a certain amount of the bill for this shipment is supposed to be collected from the consignee by the driver. This will usually cause re-bill as the carrier will charge a fee to GlobalTranz for this service.

**Electronic Data Interchange (EDI)**

The electronic transmission of routine business documents, such as purchase orders, invoices and bills of lading, between computers in a standard format. The data formats, or transaction sets, are usually sent between mainframe computers. Learn more in the EDI Resource Center.

**Freight All Kinds (FAK)**

This is the common usage of carriers when referring to freight all kinds on a tariff. This will be pricing for a specific range of class. Example: Class 55 to 85, all freight will run as class 50.

**Gross Vehicle Weight (GVW)**

The combined weight of the vehicle (tractor and trailers) and its goods.

**Knocked Down (KD)**

An article taken apart, folded or telescoped so as to reduce its normal cubage when set up or assembled by at least 33 1/3% (not standing up).

**Less-Than-Truckload (LTL)**

Goods weighing less than 10,000 pounds from several shippers loaded onto one trailer. YRC is primarily an LTL carrier, using a nationwide network to efficiently move goods from origin to destination.
National Motor Freight Classification (NMFC)

Industry standard tariff published by motor carriers containing rules, descriptions and rating on all products moving in commerce; used to classify goods for the purpose of rating the freight bill. You can obtain more information about shipment classes and the NMFC at www.nmfta.org. To determine your shipment’s classification, contact your local service center.

New Business Representative (NBR)

Salesperson or agent (whether or not under the direct control of a firm) authorized to solicit business for a firm, and compensated usually through a commission or salary, or a combination of both.

Non-vessel operating common carriers (NVOCC)

A type of ocean freight forwarder. NVOCCs books space in large quantities for a reduced rate, then sell space to shippers in lesser amounts. NVOCCs consolidate smaller shipments into a container load that ships under one bill of lading.

Proof of Deliver (POD)

The delivery receipt copy of the freight bill by the receiver at the time of delivery.

Re-Weigh (RW)

This acronym will be seen when the weight on the original bill of lading and the actual weight found by the carrier different.

Re-Class (RC)

This acronym will be seen when the NMFC# or class does not match the description of the freight on the bill of lading. Also, this could be seen when a carrier does an inspection report and changes the NMFC# or class.

Reefer (REF)

A refrigerated trailer with insulated walls and a self powered refrigeration unit. Most commonly used for transporting food.