

# **Logistics Glossary**

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### *Shipper/consignor*

An individual or firm that sends freight. A freight *originator*.

### *Consignee*

An individual or firm to whom freight is shipped. A freight receiver.

### *Carrier*

A firm that provides transportation services, typically owning and operating transportation equipment. Examples include: trucking company, railroad, airline, steamship line, parcel/express company.

### *Freight bill-of-lading (freight bill)*

A document providing a binding contract between a shipper and a carrier for the transportation of freight, specifying the obligations of both parties. Serves as a receipt of freight by the carrier for the shipper. Usually designates the consignee, and the FOB point.

## *FOB (free-on-board) point*

Point at which ownership of freight changes hands from shipper to consignee. FOB-origin indicates that consignee owns the goods in transit; FOB-destination indicates that shipper owns goods in transit. Owner of goods in transit is liable for loss and damage to freight, and thus should provide insurance.

## *Freight FOB terms-of-sale*

Indicates (1) Who arranges for transport and carrier, (2) Who pays for transport, (3) Where/when does title (ownership) of goods transfer from seller to buyer (FOB point). Freight charges: collect, prepaid, prepaid and charged back. Collect: Buyer pays the freight charges. Prepaid: seller pays. Prepaid and charged back: seller prepays (bears), bills buyer for the charges.

Examples:

1. FOB-origin, freight collect: consignee pays freight charges and owns goods in transit.
2. FOB-destination, freight prepaid: shipper pays freight charges and owns goods in transit.
3. FOB-destination, freight prepaid and charged back: shipper owns goods in transit, pays for freight but bills consignee for the charges.

## *Loss and damage*

Loss or damage of freight shipments while in transit or in a carrier-operated warehouse.

Terms for the handling of claims are usually stipulated in the freight bill.

Shippers/consignees usually take out insurance against L&D with premiums a function of the value of goods shipped, and the likelihood of L&D.

## *Private carrier*

Owned and operated by a shipper. Usually refers to private trucking fleets. Components include: vehicle fleet, drivers, maintenance equipment. Often more expensive than contracting out, but not always. Can serve special needs: fast, high-ontime-reliability delivery; special equipment; special handling; availability. Examples: Safeway (grocery), Office Depot (office products).

## *Common carrier*

A for-hire carrier providing transportation services to the general public. Obligations: to serve, to deliver, to charge reasonable rates, to avoid discrimination. Previously regulated in the United States; most are now deregulated. Examples: Parcel/express carriers (United Parcel Service (UPS), FedEx), LTL trucking (Yellow, Consolidated Freightways, Roadway), TL trucking (Hunt, Schneider), Rail carrier (Norfolk Southern), Air carriers (Delta, Flying Tigers), Ocean carrier (SeaLand, American President Lines (APL) ).

## *Freight forwarder*

An agency that receives freight from a shipper and then arranges for transportation with one or more carriers for transport to the consignee. Often used for international shipping. Will usually consolidate freight from many shippers to obtain low, large-volume transportation rates from carriers (through a contract ). Often owns some pickup and delivery equipment; uses to transport freight to/from consolidation facilities. Also provide other shipping services: packaging, temporary freight storage, customs clearing.

## *Transportation broker*

An agency that obtains negotiated large-volume transportation rates from carriers, and resells this capacity to shippers. Unlike freight forwarders, will not handle freight and owns no pickup/delivery equipment or storage facilities.

## *NVOCC*

Nonvessel-operating common carrier. Owns no vessels (ships), but provides ocean shipping freight-forwarding services. Provides consolidated, negotiated-rate services for ocean and inland water carriers. Often will affiliate with freight forwarders to provide pickup/delivery, other services.

## *Shippers association*

Not-for-profit association of shippers using collective bargaining and freight consolidation

to obtain lower, high-volume transportation rates; similar to freight forwarding w/o profit motive. Avoids premium charges paid to forwarders. Only non-competitive shippers may associate, due to monopoly restrictions.

## *Integrators*

Companies that provide door-to-door domestic and international air freight service. Own and operate aircraft, as well as ground delivery fleets of trucks. In contrast, freight-hauling airlines (e.g., Delta, Lufthansa) typically do not provide door-to-door service. Example: UPS, FedEx, BAX Global, Emery Worldwide.

## *3PL*

A third-party, or contract, logistics company. A firm to which logistics services are outsourced. Typically handles many of the following tasks: purchasing, inventory management/warehousing, transportation management, order management. Example: Schneider Logistics, Ryder Logistics, UPS Logistics.

## *Interline shipment*

Shipment moving from origin to destination via two or more carriers. Occurs frequently in rail transportation: for example, each rail container moving from Atlanta to Los Angeles is moved interline, using for example CSX and Union Pacific with an interline junction in New Orleans.

## *Door-to-door*

Transportation service arrangement in which freight is moved from origin (shipper) through to ultimate destination (consignee) for a given rate. Trucking companies typically offer door-to-door service. Railroads do not, unless the shipper and consignee both have rail *sidings*. Brokers, forwarders, NVOCCs etc. often package together door-to-door service through contracts with multiple carriers.

## *Consolidation*

Bringing together many small shipments, often from different shippers, into large shipment quantities, in order to take advantage of *economies of scale* in transportation costs. *In-vehicle* consolidation is when a vehicle makes pickups from many customers and consolidates freight inside the vehicle. *Out-of-vehicle* consolidation occurs at a terminal facility; shipments to a single customer/region are consolidated before shipment.

## *Terminal*

Transportation facility with one or more of the following roles:

1. System access: terminals are points at which freight enters and leaves the transportation system.
2. Freight consolidation/distribution
3. Mode transfer: freight may change from one mode to another, for example, rail to truck.
4. Vehicle transfer: within a single mode, freight may transfer from one vehicle to another.
5. Storage and warehousing
6. Fleet maintenance

## *Hub-and-spoke*

A transportation system design in which large hub terminals are used for freight consolidation. Medium-volume services serve the spoke-to-hub collection and hub-to-spoke distribution tasks. Large-volume services are operated in the hub-to-hub markets. In most systems, all outbound/inbound freight for a spoke uses the same hub, and thus larger shipment sizes are realized. Many transportation systems oriented in this way. Examples: Delta airlines, FedEx, LTL, and now ocean shipping. Not TL, however.

## *Cross-dock*

Transportation terminal in which received items transferred directly from inbound to the outbound shipping dock, with storage only occurring temporarily during unloading and loading. No long-term storage is provided. Usually used only for vehicle transfers. Often owned and operated by large shippers. Examples: Home Depot, food service companies, hub passenger airports.

## *TL/FTL (truckload, full truckload)*

A trucking industry term; a truckload shipment is when the shipper contracts an entire truck for direct point-to-point service. Truckload shipments are priced per mile within designated lanes, regardless of the size of the shipment provided it fits (weight, cube) within the vehicle. Less expensive per unit weight shipped than LTL. A truckload carrier is a trucking company specializing in point-to-point truckload shipments. Examples include: J.B. Hunt, Schneider.

## *LTL (less-than-truckload)*

A trucking industry term; a less-than-truckload (LTL) shipment is when a shipper contracts for the transportation of freight that will not require an entire truck. LTL shipments are priced according to the weight of the freight, its commodity class (which generally determines its cube/weight ratio), and mileage within designated lanes. An LTL carrier specializes in LTL shipments, and therefore typically operates a complex hub-and-spoke network with consolidation/deconsolidation points; LTL carriers carry multiple shipments for different customers in single trucks. Examples include: Yellow Freight, Consolidated Freightways, Roadway Express.

## *Freight size*

Freight is most often measured by its **weight**, and transportation vehicles of varying sizes typically have weight capacities that cannot be exceeded due to engineering or regulatory reasons. Freight may also be measured by **cube**, which generally refers to the volume of the freight. A vehicle is said to cube-out if it does not exceed its weight capacity, but its volume is completely full.

## *FCL (full container-load)*

An ocean-shipping and intermodal industry term; a full container-load shipment is when a shipper contracts for the transportation of an entire container. The vast majority of intermodal and ocean freight is contracted in this manner. Historically, FCL also stands for full carload which is the primary business of all modern railroads, and is the railroad equivalent of TL trucking.

### *LCL (less-than-container-load)*

An ocean-shipping and intermodal industry term; LTL equivalent in container shipping. Container freight stations at ports serve as consolidation and deconsolidation terminals. Historically, LCL also stands for less-than-carload. Before the prominence of interstate trucking, railroads offered less-than-carload (LCL) service but this business has largely disappeared.

### *Dead-head*

A portion of a transportation trip in which no freight is conveyed; an empty move. Transportation equipment is often dead-headed because of imbalances in supply and demand. For example, many more containers are shipped from Asia to North America than in reverse; empty containers are therefore dead-headed back to Asia.

### *Backhaul*

A freight movement in a direction (or lane) of secondary importance or light demand. Backhauls are preferable to deadheads by transportation companies, since revenue is generated. In order to entice shippers to move goods in backhaul markets, carriers may offer lower rates.

## *Intermodal*

Transportation that uses a specialized container that can be transferred from the vehicle of one mode to the vehicle of another; a single freight bill is used for the shipment. Example: Ocean shipping containers which can be hauled by trucks on chassis, railcars, ocean vessels, and barges. Also: UPS line-haul vans (these vans can be stacked onto railcars for long distance moves).

### *Containers, chassis, and vans (trailers)*

Standard trucking companies use vans (or trailers) to move standard dry goods. These trailers consist of a storage box that is permanently attached to a set of wheels (the set of wheels is often known as a truck). Intermodal ocean containers are moved on the road by attaching them to a separate piece of equipment, a chassis, which is essentially a set of wheels on a lightweight frame.

### *Container*

A single, rigid, sealed, reusable metal box in which merchandise is shipped by vessel, truck, or rail. Container types include standard, high cube, hardtop, open top, flat, platform, ventilated, insulated, refrigerated, or bulk. Usually 8 ft x 8 ft in width and height, 20 to 55 ft long. Specialized containers also exist for air transportation modes, but are much smaller and cannot be directly transferred to truck or rail.

## *Reefer*

A refrigerated container. For long storage in transit (or in ports) must be plugged into a ship's power system (or port's). Temporary power units can be attached that last for 18-36 hours.

## *COFC*

Container-on-flatcar. A term used in intermodal transportation in which containers are stacked onto rail flatcars for rail transportation. No truck chassis is used, and double-stack cars are possible, thus more containers can be carried by a shorter, lighter train.

## *TOFC/piggyback*

Trailer-on-flatcar. A term used in intermodal transportation in which truck trailers or container/chassis combinations are placed directly onto rail flatcars for the rail portion of the trip. TOFC trains are generally heavier and longer per unit ton shipped, but have the advantage that unloaded trailers can be moved out of the intermodal terminal without worrying about finding a chassis; thus, the equipment management issues are simpler.

## *Drayage*

Local trucking, typically describing truck movement of containers and trailers to and from rail intermodal yards and to and from port facilities.

### *Pickup and delivery (cartage)*

Local hauling of freight. Often the trucking service used for transferring freight from the shipper to a terminal, or from a terminal to a consignee.

### *Switching*

Switching is a railroad term denoting the local movement of freight rail cars. Rail cars are switched from the private siding of a shipper to the terminal, or switched from the terminal to the private siding of the consignee. (Note: a siding is a section of rail line that runs from a railroad's line into an industrial facility. If an industry using rail shipping does not have a siding, they will likely use (1) intermodal containers, or (2) use a cartage service to transfer goods to/from a rail terminal.)

### *Longhaul*

Sometimes, linehaul. Terminal-to-terminal freight movements in transportation. Such long distance moves are distinguished from local freight movements.

### *Detention/demurrage*

Penalty charges assessed by a carrier to a shipper or consignee for holding transportation equipment, i.e. trailers, containers, railcars, longer than a stipulated time for loading or unloading.

### *Diversion/reconsignment*

Diversion is a tactic used by shippers to change the destination (consignee) of freight while the goods are in transit. The shipper will notify the carrier prior to the arrival of freight at the destination of the new consignee, and the carrier will adjust the freight routing accordingly. Reconsignment is a similar concept, except that the shipper notifies the carrier of the new consignee after the freight arrives at the destination, but (obviously) before delivery/unpacking. Carriers impose extra charges for these services typically, but they provide flexibility to the shipper.

### *Transit privileges/stopoff charges*

Carriers may allow cargo to be stopped in transit from initial origin to final destination to be unloaded, stored, and/or processed before reloading and final shipment. Extra charges are imposed for these transit privileges. Stopoff charges are levied for when shippers request that a shipment may be partially loaded at several locations and/or partially unloaded at several locations en route.

### *Postponement*

A deliberate delay in committing inventory to shipment by a shipper. Usually, shippers utilize postponement in order to consolidate freight into larger shipments that have a lower unit transportation cost.

### *Bulk cargo*

Cargo that is stowed loose on transportation vehicles, in a tank or hold without specific packaging, and handled by pump, scoop, conveyor, or shovel. Examples: grain, coal, petroleum, chemicals.

### *Break-bulk cargo*

Cargo in-between bulk and containerized, that must be handled piece-by-piece by terminal workers (stevedores). Often stored in bags or boxes and stacked onto pallets. Smaller lift equipment (forklifts, small cranes) used than for containerized cargo, but more labor intensive.

### *Pallet/skid*

A small platform, 40x48 inches usually, on which goods are placed for handling within a warehouse or a transportation vehicle such as a ship. Good for grouping break-bulk cargo for handling.

### *Dunnage*

Wood and packaging materials used to keep cargo in place inside a container or transportation vehicle.

## *SKU*

Stock-keeping unit. A line-item of inventory, that is a different type or size of good.

## *Hundredweight/CWT*

100 pounds. A common shipping weight unit.

## *Freight weight measures*

Short ton (American) 2000 lbs. Long ton (English) 2240 lbs. Metric ton (1000 kg.) 2204.6 lbs.

## *Deadweight*

The number of long tons that a vessel can transport of cargo, supplies and fuel. It is the difference between the number of tons of water a vessel displaces “light” (empty) and the number of tons it displaces when submerged to the “load line”.

## *TEU*

Twenty-foot equivalent unit. Method of measuring vessel load or capacity, in units of containers that are twenty feet long. A 40' long container measures 2 TEUs. Example: the maximum capacity for carrying 40' containers for a 3000 TEU vessel is 1500 containers; it actually might be less. Why?

## *FEU*

Forty-foot equivalent unit. Method of measuring vessel load or capacity, in units of forty-foot long containers.

## *Slot*

A place for a container onboard a container ship; typically, one TEU fits in a slot.

## *Liner shipping*

Liners are vessels sailing between specified ports on a regular schedule; schedule is published and available to the public. Most large container shipping companies operate liner services.

## *Tramp shipping*

An ocean carrier company operating vessels not on regular runs or schedules. They call at any port where cargo may be available. Sometimes used for bulk cargo shipping.

### *Ocean conference*

Cartel of vessel operators operating between specific trade areas. Set cargo rates for liners between ports.

### *Alliance*

Group of airlines or ocean carriers who coordinate and cross list schedules, and sell capacity on each other's flights/voyages.

### *Container leasing/railcar leasing*

Some companies specialize in the business of owning transportation equipment (containers or railcars), and renting them out to shippers or carriers. These companies often face significant equipment management problems.

### *Lo-lo*

"Lift-on, lift-off" Conventional container or cargo ships, in which quay cranes are used to load and unload containers or generalized cargo.

### *Ro-ro*

"Roll On/Roll Off" A method of ocean cargo service using a vessel with ramps which allows wheeled vehicles to be loaded and discharged without cranes.

## *Hi-lo*

Container yard jargon for a forklift truck used for heavy lifting of containers.

## *Straddle carrier*

Mobile truck equipment with the capacity for lifting a container within its own framework, and transporting containers around yards. Containers stacked in rows one across. Pros: Versatility, mobility, cost, labor. Cons: Maintenance, damage.

## *Transtainer/RTG*

Rail or rubber-tired gantry crane. Large yard (ship or rail) container crane. Lifts from a stack of containers 5,6,7 wide, and deposits onto truck chassis or rail flatcar. Pros: Land utilization, maintenance. Cons: investment.

## *Quay crane/portainer crane*

A quay is the dock. The portainer cranes are the large cranes used to lift containers from truck chassis (or rail flatcar, or from the quay) and load onto a ship.