Chapter 5

U.S. Export Facilities and Ocean Transportation

U.S. grains are exported from every coast in the country, as well as from the St. Lawrence Seaway in Canada. Each of the five export ranges that handle feed grains exports has a unique relationship with one or more interior producing regions. This relationship is characterized by the principal mode of transportation used to bring those feed grains into an export position.

Long before the first European explorer reached the majestic sweep of the Mississippi River, Native Americans were using it for travel and trade. The Mississippi River has evolved since then into a transportation gateway to the interior of the United States.

A fleet of over 10,000 barges, towed by as many as 2,000 towboats, ply the river with many different kinds of cargo. There are nearly 6,000 miles of navigable river in the Mississippi River Basin serving the Mississippi, Missouri, Ohio, Illinois, Arkansas, Tennessee, White, Cumberland, Alabama and Minnesota Rivers.

Through this system, river transportation reaches into every Corn Belt state, providing easy access to 80 percent of U.S. corn production, more than 33 percent of sorghum production and up to 15 percent of barley production. Hundreds of river terminals receive feed grains by truck or rail and transfer it into barges, each carrying approximately 1,500 tons, which are collected into tows of six or more barges and moved downriver to New Orleans or another river port.

Barge transportation is traded actively between suppliers and users, quoted in percentage of tariff, and a cost schedule established with prices for each river shipping point.
Although price varies over time with supply and demand variables, the average cost of transportation has been remarkably stable from the mid-1980s to the present.

Once in port, fast, modern, export terminals transfer feed grains from these barges into storage or waiting ocean vessels. There are a dozen such terminals along the lower Mississippi from Baton Rouge, La. to the Southwest Pass. Several of them can load more than 50,000 MT in a single day, drastically reducing the time a vessel spends in port and, consequently, the cost of moving cargo for the importer.

And, most importantly, this capacity is rarely taxed by demand. U.S. exporters have vastly overbuilt handling capacity over the years. This ensures the importer fast, efficient service at a fraction of the cost it would take to handle grain anywhere else in the world.

Some grain does move to the Center Gulf by rail. Trains of up to 120 cars, or 10,000 MT, carry feed grains to these same export facilities when economics warrant. However, rail movement must compete with cheap barge transportation to move grain from the same geographic regions that these barges serve. Rail rates are generally much higher and not only contingent upon the value a railroad places on its service in moving the loaded railcars to export, but also on the value of the cars themselves which are leased on a long or short term basis.

Although there are over 35,000 covered hopper cars in the United States capable of carrying feed grains for export, many of them are tied up in domestic hauls or in areas that do not have to compete with the barge market for export share. Nonetheless, in a given year, 10 percent of the grain delivered to Center Gulf ports arrives by rail.

There are several ports that handle feed grains along the Texas coast. Although they are principally wheat facilities designed to receive the trains of hard winter wheat that originate in Kansas, Oklahoma, Nebraska and Texas, they do service for feed grains, principally sorghum, grown in these states as well.

This grain arrives mostly by rail, except for truck deliveries that originate in coastal areas of Texas where sorghum and corn are both produced. Rail in multi-car units moves along the BNSF, Missouri Pacific, Southern Pacific and Union Pacific railroads to facilities in Brownsville, Corpus Christi, Galveston, Houston and Beaumont in Texas. Occasionally, in times of extreme transportation squeezes at
the Center Gulf because of river problems or concentrated demand, corn will move from Nebraska and Iowa to Texas, but this is quite unusual.

Many of these facilities are, except for their reliance on rail delivery, as fast and efficient as their Center Gulf counterparts. They are also extremely fast in loading vessels and keeping waiting time to a minimum.

The U.S. Atlantic Coast

Much like the Texas Gulf, elevation capacity on the U.S. Atlantic Coast has been contracting - elevators in Philadelphia and Norfolk have been shut down or destroyed. Still the Atlantic Coast has the capacity to elevate more than 18 MMT of grain. Facilities in Baltimore, Md.; Norfolk, Va.; Charleston, S.C.; and Savannah, Ga. can receive grain by rail and truck for export.

The export facilities in Norfolk compete with both the Center Gulf and Great Lakes ranges for corn origination out of the states of Illinois, Indiana, Michigan and Ohio.

When importers from Europe or North Africa are active corn buyers, the Atlantic Coast has an advantage over the Gulf because of its physical proximity to these destinations. For the most part, high rail transportation costs consume this freight advantage the Atlantic Coast has over the Gulf. Furthermore, each of the elevators that handle feed grains on the Atlantic has some kind of draft or vessel size restriction.

The Pacific Northwest export range facilities have a freight advantage over the other ranges to destinations in the Pacific Ocean. This advantage works the same way as the advantage the Atlantic Coast has to destinations in that ocean. The much shorter distance from the Pacific Northwest to Asian destinations allows importers to pay a substantially higher price for feed grains delivered from that coast.

Again, like the Atlantic, the Pacific Coast range must compete with the Mississippi River system to originate feed grains for export. Even though the Pacific Coast has a large, consistent ocean freight advantage, it is still a long way from feed grains production areas. The reach of the Pacific Northwest (PNW) does not begin to cover the bulk of feed grains production. The ocean freight advantage can only cover a limited amount of ground in competing with the interior river system.
The Great Lakes comprise a unique inland waterway. Access to the Lakes' ports is through the St. Lawrence Seaway which consists of a lock system connecting Lake Superior and Lake Huron at Sault St. Marie and lakes Erie and Ontario (bypassing Niagara Falls) via the Welland Canal. The fresh water draft in the Welland of 7.9 meters (26 feet) restricts many vessels from entering the lakes and most of those that do from leaving fully laden.

A separate class of vessels has been built, since the completion of the Seaway, with the specific intention of plying the waters of the Great Lakes. Naturally, they have shallow drafts and narrow beams that just allow them to pass through the lock system. They are called Lakers and can carry about 25,000 MT of heavy grain. Grain loaded in these specialty vessels at lake ports is then discharged at export facilities in the St. Lawrence River.

Importers can charter a vessel to go into the seaway and load grain at a lake port, buy a portion of their cargo in the lakes (usually two-thirds) and load the balance at a St. Lawrence facility (the final third) or lift the entire cargo from a St. Lawrence facility. Differences in Laker freight, ocean freight, vessel size and port discharge capacity will determine which is most economical. One significant difference from the other ranges is that the buyer must decide whether the grain will be purchased on certificates issued at the interior lake port, or based on a new inspection (and/or new weighing) as it is transshipped. Although inspectors for the United States Department of Agriculture’s (USDA) Federal Grain Inspection Service (FGIS) (see Chapter 4) are located in Canada, ordinarily a new inspection at the time of transshipment is not undertaken (and not unless specifically requested by the buyer). If a new inspection is not performed, the shipment is traded based on the original grade issued at the first load port; this is commonly known as “Western Inspection.” This is, for the most part, a matter of indifference, but a buyer should be aware that a Western Inspection will be used unless a Seaboard Inspection at the time of transshipment is specified.

The price of lakes' freight, like barge and rail freight in the United States, trades freely over time and determines how competitive execution will be. Several the lakes’ ports also double as points for delivery against the Chicago Board of Trade corn contract.

The Lakes are closed for the winter, generally from mid-December to early April, because of ice.
The U.S. feed grains buyer is faced with an array of decisions that must be made before that grain arrives at its destination and can be consumed as feed or processed into new products. First, the buyer must decide which feed grain best suits the buyer's needs. Next is the question of how to get it to the importer's country. In nearly every case this will be by bulk shipment in an ocean going vessel.

Such questions may arise as: when and how important is the timing of the grain's arrival; how large a vessel is required; does it need to be geared or not; where will it take on fuel; who will insure the vessel and its cargo; and so forth. The buyer chooses how involved the buyer wants to be in these details by how the buyer purchases the grain.

The ultimate goal of any buyer is to bring goods to the intended destination at the lowest possible cost. Since there are two principal components to that landed cost - the value of the grain and the value of the transportation (ocean freight) required to get it there - a buyer would know the value of each before the buyer actually goes into the market to purchase grain.

A buyer has three choices when deciding how to buy the intended feed grain. Each choice has important implications for the division of responsibilities between buyer and seller.

**Free on Board (FOB):** The grain is delivered "end spout." As the grain is literally poured into the vessel’s holds, the seller's responsibility ends. As contractually agreed, the seller will produce the quantity of grain, as weighed by the Federal Grain Inspection Service, during a specific period in a specific port or ports. The seller may even be willing to agree to a specific elevator berth if the buyer desires it. The seller is obligated to produce a grade certificate, again attested to by the Federal Grain Inspection Service, which satisfies the contract with the buyer. This can mean grain must be discharged for the seller's account if it does not meet tolerance; however, this is very rare. The seller's obligations generally end there. The buyer must present a suitable conveyance within the contracted shipment period. In the case of a shipment moving by sea, this entails the chartering of an ocean going vessel. If an importer buys grain FOB, the importer must present the vessel and handle the logistical details in bringing the loaded cargo to destination. This will include appointing agents to oversee loading and documentation, monitoring the vessel's progress as it sails and settling claims with the vessel loader in addition to chartering the vessel.
**Cost and Freight (CNF):** The seller contractually agrees to deliver the grain to the destination of the buyer's choice, providing both commodity and transportation. The buyer obligates to provide discharge facilities, usually specifying, and guaranteeing, the port conditions (draft, available berth and so forth) at destination. Title passes upon the issuance of bills of lading even if the buyer has not actually paid for the grain, though in most cases the seller will use those bills of lading, along with the rest of the vessel's documentation, to collect payment due under the contract. Effectively this means the importer "owns" the grain on board the vessel even though it is still weeks from its destination and the buyer has bought it delivered. Consequently, the buyer should insure the value of that cargo against loss. Technically, though, the seller, as vessel charterer, still controls the vessel's movements though the buyer may already hold the bills of lading, which controls the disposition of the cargo.

Sound confusing? It is. Even today, several centuries into the practice of maritime law, disputes still arise over the infrequent case where a buyer and seller order vessel and cargo to move at cross purposes.

**Cost, Insurance, Freight (CIF):** This is similar to buying grain CNF except that the seller is responsible for insuring the value of the cargo. In practice, grain sold CIF is usually done so under deferred payment or credit terms where the seller is extending that credit and retains title to the grain prior to discharge. Occasionally, an exporter will load a cargo unsure of which sale it will fill or perhaps load a cargo without a sale, hoping to find a buyer once the grain is afloat. On these occasions, the seller will be self-insuring the cargo value and deliver it CIF at the appropriate time.

Responsibilities of buyer and seller are very similar to those under terms of a CNF contract. The title question is just as confusing, though it generally passes to the buyer with the transfer of the bills of lading.

Every importer should consult a lawyer well versed in U.S. and maritime law, as well as local statutes, before contractually agreeing to buy feed grains under any terms.
There are two ways to charter, or contract to "hire," a vessel: by time charter or by voyage charter.

**Time Charter:** In a time charter the vessel owner contracts to turn over the ship, complete with its crew, to the disposition of the charterer in return for a daily fee. Contractually the two parties agree to many details - the most important being the daily rate, the period of hire, where the vessel is delivered by the owner to the charterer and where it is to be returned by the charterer back to the owner. Upon receiving the vessel, the charterer becomes the de facto owner, responsible for giving the ship orders, providing fuel and livelihood and paying any fees associated with the vessel's employment, including port and canal fees, local taxes, wharfage and dockage charges.

**Voyage Charter:** A voyage charter is an agreement between owner and charterer to carry cargo between two or more points at an agreed upon price that is subject to certain covenants, all-inclusive. The two negotiate the vessel's arrival time at load port, the amount of cargo the vessel is to carry, the draft available to the vessel at load port and the rate at which the charterer will load the vessel and then discharge it upon arrival at destination, among other details.

In theory, the offer by an owner of a voyage charter should equate to what a charterer would pay if hiring the vessel on a time charter basis and executing the cargo. Otherwise, charterers will find a suitable vessel to time charter and handle the details and reduce their costs of transportation. In practice, though, the time charter represents a significant transfer of risk from the vessel owner to charterer, as opposed to the voyage charter.

The risks the charterer assumes with a time charter that can be avoided with a voyage charter include:

- Time lost to weather
- Vessel time spent at loading
- Vessel time spent at discharge
- Fuel costs
- Cargo loss, potentially cargo damage
- Legal risks as owner

Since the vessel is on a daily hire, any delays result in an increase in cost for the charterer.

If the charterer can control some of these risks better than the ship
owner, the time charter is a reasonable option. If load or discharge
conditions are complicated (multiple load or multiple discharge
berths and/or ports, for instance), the control of the vessel and the
associated costs would enable the charterer to freight the cargo for
less than if chartered on a voyage basis where he would have to
secure options from the ship owner to accommodate the different
variables.

There is no secret to identifying the difference between a time and
voyage charter; the difference is in the risks. When the charterer can
calculate those risks better than the owner, it will be evident in the
difference in landed freight costs, and the choice for a time charter
will be clear. It is important that the charterer have a detailed
understanding of how to operate a vessel, including purchasing
bunkers, appointing agents and handling port charges, before the
charterer undertakes such a task.

There is nothing that says an importer has to charter one vessel or
one voyage at a time. When that buyer has a predictable import
program and feels ocean freight is undervalued, the buyer can book
multiple voyage charters or a long-term time charter for a period in
which the buyer can execute several voyages. Even if the charterer
does not use the time period vessel against the charterer's needs, the
charterer has secured price protection against an increase in ocean
freight levels.

Multiple voyage charters satisfy the same purpose but liquidity is
much more limited. A time chartered vessel can be sent to any
number of destinations for any kind of bulk cargo. The voyage
charter, by its nature, is very specific and more difficult to relet.

If the importer has no strong opinion about price direction or the
size of the program that makes the importer’s own needs a threat to
liquidity, there is no rule against doing nothing about the importer's
future freight needs.

THE TIME CHARTER

Like much about the maritime trade, the standard time charter form
or contract is old (1943), but it is used as a foundation by most
participants. Nearly every ship owner and charterer has terms that
they like to include in their negotiations. Many of these are included
in a common rider that each party customizes to the party's view.
Below are some of the major points in the time charter contract:

---

**Standard Charter Parties**

---

*U.S. Grains Council – Importer Manual, Chapter 5* 69
1. Description of the parties involved: the owner, the charterer and the name of the vessel. A detailed vessel description is usually attached to the rider but charters can be negotiated that allow for a generic vessel type, a specific vessel "to be nominated" or TBN.

2. Establishment of the amount of time the named vessel is under time charter.

3. Designation of the delivery point or range.

4. Stoppage of the time count if the vessel arrives at the initial load port and is not ready for loading.

5. Specifications that the owner will pay for all provisions, wages, insurance and regular maintenance.

6. Specifications that the charterer will pay all fuel costs and customary port charges.

7. Establishment of an amount, in dollars-per-day, that the charterer must pay the owner for the use of the ship, the payment schedule and the method exchange.

8. Establishment of return conditions, including where the owner regains control of the vessel after the time charter expires and with what notice it shall be done.

9. Specifications of the time frame in which the vessel has to be delivered from the owners to the charterer, for example, not before April 1 and not after April 20. If the vessel is not handed over on or before April 20, it is the charterer's option to cancel the time charter.

THE STANDARD VOYAGE FREIGHT CONTRACT

The standard form for a freight contract, or voyage charter, is called the Baltimore Berth Grain Charter Party or BFC. It too is an old contract form, initially written in 1913, but it is the basis of most grain charters from the United States. However, the BFC does not cover many of the details in today's more complicated charter parties. As can be seen from the sample in Appendix I, some language in the BFC has been eliminated or changed and a rider is attached with additional terms. The rider and the BFC form make up the complete charter party. Most of the recommended terms of the charter party are self-explanatory.

Non-Negotiable Terms:

1. Name of the parties entering into the contract and the vessel ("TBN" is acceptable but a negotiable term).

2. Type of commodity. For grain it will be HSS - Heavy grains/Soybeans/Sorghum; for light grains, such as barley, it is simply barley.
3. All cargoes must be loaded under the inspection of the National Cargo Bureau (NCB) in order to ensure proper and safe loading and stowage.

4. Payment of freight is made upon presentation of the signed bills of lading, which is made immediately upon completion of loading.

5. A vessel is considered load ready when it has been entered at the local customs house and has passed the NCB and FGIS inspections. When either the charterer or the charterer's agents are notified of the vessel's readiness to load (which must be before 1600 hours on a weekday or 1200 hours on a Saturday), the vessel's laytime begins the following morning at 0700 hours (see laydays - item two under negotiable terms).

6. A charter party can be cancelled by the charterer if the vessel has not been presented as load ready by 1200 hours on the last day of the shipment period. However, the charterer has to absorb the difference in the chartered rate and the replacement value - what the charterer has to pay for a vessel to replace the original charter. This can be either a loss or a gain.

**NEGOTIABLE TERMS**

**Size of the Ship:** This generally refers to the size of the cargo and the tolerances, but the actual deadweight size of the vessel can be negotiated too. It is critical to ensure that the charter party tolerances match the grain purchase contract tolerances. If the importer charters for a larger tolerance than the charterer has on the charter's FOB grain purchase, the charterer might be liable to the vessel owner for deadfreight. The tolerance on a charter party is the owner's option.

The charterer should try to obtain a small tolerance and if a specific vessel is being considered, it is even possible to charter a specific quantity - no more and no less. This would be expressed, for example, as 25,000 MT min/max.

**Laydays:** This specifies the time period in which the vessel must be ready to load the cargo. Typically, laydays are from 6 to 20 days. Narrower laydays are better for the charterer because the charterer will have greater control over the actual shipment period of the cargo. For example, if the laydays are April 20 to 30, the vessel must be ready to load no later than April 30. The earliest that time can start counting for the charterer is April 20, even if the vessel is ready five days early.
If the vessel is not ready to load on or before April 30, the charterer may cancel the charter party. There is, however, no recourse for the charterer if the market freight level is higher than when the charter party initially was fixed.

**Commodity:** This specifies the types of products that are loadable at the freight rate in the charter party. Different commodities will take up more space per metric ton than others. For instance, the specific weight of corn is greater than barley; therefore, it stows better, taking up less space.

In some charter parties, the charterer can convert from paying a freight rate per metric ton to making a lump sum payment. The "conversion" gives the charterer the right to load commodities not covered in the charter party, such as seeds.

**Load/Discharge Ports:** This stipulates how many load ports/berths and discharge ports/berths are included in the freight rate. Since more complicated load conditions - for example, three load ports compared to one - prolong the length of time the vessel is tied up in the charter, multiple port/berth options demand premium rates.

Typically, feed grains charters require only one berth at the loading point and one or two discharge ports/berths at the destination. Options for multiple discharge ports/berths at the destination are at a negotiated premium, declarable, for example, when the vessel completes loading.

From a freight standpoint, lifting a large cargo is more economical. Since the marginal cost of operating a 65,000 ton deadweight vessel is little different in these modern days than a 20,000 ton deadweight vessel. It is necessary for the charterer to combine as much cargo as is possible, putting different products, even destined for different discharge ports (within geographic reason), on the same vessel. In most cases, the premium for multiple load or discharge ports/berths will be much less than the savings from chartering the larger vessel.

**Freight Rate:** This is expressed in dollars per metric ton, or long ton. Also defined in the freight rate is who arranges and pays for the trimming of the cargo. A few definitions follow:

- **FIOT:** Free In/Out Trimmed - the charterer pays all of the trimming expenses.
- **FIOST:** Free In/Out Spout Trimmed - the charterer pays all of the trimming expenses except when special machine or
hand trimming is required.

- Gross Load - the vessel owner pays all of the trimming costs.

The most common way to charter in the feed grains trade is FIOST, since the vast majority of vessels used are self-trimming bulk carriers and only require spout trimming. Tween-deckers and tankers require special machine trimming and consequently cost the charterer extra trimming charges.

Demurrage/Despatch: Demurrage is the daily penalty rate the charterer pays the owner if the vessel has not been loaded within the time allowed in the charter party. Despatch is the daily rate the owner pays the charterer on the number of days/hours the vessel is loaded faster than the time allowed. To some extent, demurrage rates reflect the daily value of a vessel and will, over time, vary with the freight market. For example, a 50,000 MT vessel with a daily value of approximately 14,000 USD should reflect a demurrage rate of about 12,000 USD to 20,000 USD per day. When the freight markets are depressed, the demurrage rate could be only 8,000 USD to 9,000 USD. The standard despatch rate is half of the demurrage rate and gives the charterer the incentive to load the vessel as quickly as possible.

RIDERS

Riders are contract extension clauses which are attached to standard contracts. They may include the following provisions:

1. Clause 1 in the Baltimore Grain Charter Party (BFC) specifies all situations in which the vessel owner is not responsible for damage to the cargo. Therefore, often times a rider will include that marine insurance is required.
2. The rider will specify who is to appoint agents at the load and discharge ports. In either case, the owner pays all agent fees.
3. The BFC Saturday clause is used in all charters originating in the United States and specifies the conditions under which Saturdays may count as laydays. Saturdays ordinarily are not considered laydays unless stated as such in a rider.
4. The "lighterage" clause specifies the maximum weight the vessel is allowed to have at its destination. If the vessel is too heavy, the owner must pay the cost of lightening the vessel. If conditions have changed at discharge so the vessel cannot unload, it is the charterer's responsibility to pay for lightening the vessel.
5. The owner must pay for any securing and strapping of the cargo. Only natural separations are allowed; charterers pay for artificial separations.
6. Overtime is paid by whoever orders it - owners or charterers, unless ordered by the port, in which case the charterer pays for it.
7. The vessel cannot be loaded or discharged in Cuba, Libya or North Korea, and cannot enter into ports in those countries before or during the charter party.
8. Any dispute between the owner and charterer is to be settled by a three-person arbitration panel. Each party appoints one commercial arbitrator. Together, the parties and the arbitrators then appoint a third arbitrator. The three make a final decision.

A charterer generally appoints an agent to execute an FOB contract. The agent's responsibilities include the following:

**Role of the Agent**

1. With local authorities:
   - customs requirements
   - immigration
   - plant protection and quarantine (PPQ)
   - hold inspection
   - pilots, tugs, lines and so forth
   - U.S.C.G. (United States Coast Guard)
   - documentation

2. With owners:
   - bunkers
   - crew business
   - repairs
   - cargo
   - invoices and documentation

3. With charterers:
   - cargo
   - documentation
   - invoices

The following charges, including agents' fees, are normally paid for by the shipowner:
- pilots
- tugs
- lines
• customs
• immigration
• plant protection and quarantine (PPQ)
• inspection
• repairs
• bunkers
• tonnage tax

An important part of the agent's work is to discuss with the master of the ship specific issues of the cargo, such as the stow plan of the vessel, load rotation (when the vessel will go into berth) and expected cargo lift. The agent will also obtain the master's permission to sign bills of lading.

Sometimes two agents will be involved - one appointed by the charterer and one appointed by the owner to protect his interests. The owner's agent will be involved with the specific issues of the vessel owner, such as repairs, crew and bunkers.

One of the agent's most important jobs is to secure the documentation necessary to permit the cargo to be loaded onto the vessel. This documentation includes:

**National Cargo Board (NCB) Loading Pass:** When the vessel arrives at port, the first vessel inspection is by the NCB which studies the master's stow plan and inspects the vessel to ensure that the vessel is structurally safe to load. The NCB also checks the stability of the cargo based on the stow plan and judges if the stowage is safe for the voyage. If all is to the satisfaction of the NCB, it issues a pass allowing the vessel to load the cargo.

**USDA Pass:** After the NCB inspection, USDA inspects the cargo spaces for cleanliness. If the space is clean to the USDA's satisfaction, it issues a pass to the vessel's agent.

**NOR (Notice of Readiness):** After the vessel has passed the NCB and USDA inspections, it will tender its NOR to the charterer's agent and the agent will then file an application for berth with the loading elevator. This has to be done by 1600 hours on weekdays or 0900 hours on Saturdays, and time will commence for the charterer the following workday at 0700 hours. The agent passes the NOR to the loading elevator.

**Final USDA Pass:** As the cargo is being loaded, USDA (or its designated state inspectors) supervises the weighing and grading and issues weight and grade certificates for the completed cargo.
**Mate's Receipt:** As soon as loading is completed, the master of the ship issues a mate's receipt and signs it. The mate's receipt is a temporary title of ownership to the cargo given to the seller. The seller surrenders it to the agent who in turn issues the bill of lading (B/L). The charterer pays the freight cost against a release of a signed B/L.

**Bills of Lading:** While the cargo is being loaded on the vessel at the port elevator, the agent will draft bills of lading. The B/L specifies the amount of goods delivered to the ship, the parties involved, load port and destination, and the date of vessel completion. The B/L date determines the shipment date. As soon as the owner's agency confirms freight payment, the agent signs the B/L and releases it to the seller who in turn surrenders the mate's receipt.

In buying CNF or CIF, the buyer avoids all of the complications of chartering vessels, arranging logistics and executing an FOB purchase. The buyer only has to specify the shipment period and discharge terms; the seller arranges the rest. It is clearly an easier but not necessarily economical way to purchase grain.

**Ship Types**

**Car Bulkers:** These are designed to transport vehicles, but they can also transport grain in a way similar to a self-trimming bulk carrier. A car bulker might bring cars from Japan to the United States, remove the cars and load U.S. grain for the return trip to Japan.

**Oil/Bulk/Ore Carriers (OBO):** These are used to transport these three commodities. A special trimming cost would be incurred if an OBO transported grain. Before chartering a vessel, one should pay special attention to the type of cargo carried previously. For example, if the vessel carried oil, it might require special cleaning procedures.

**Self-Trimming Bulk Carriers (STBC):** These are the most commonly chartered vessels in the U.S. grain trade business. They are specially suited for grain transport because their bulkheads slope at an approximate 45-degree angle to the horizontal, preventing empty spaces from developing in the wings of the hold.

The self-trimming bulk carrier is the most economical vessel to charter because the holds are easy to clean and loading does not require special trimming, which would make stevedoring expensive.
Some vessels are referred to as PANAMAX type, which simply means the vessels can transit the Panama Canal. The term is typically reserved for bulk carriers in the 50,000-70,000 MT dead weight tonnage (DWT) range.

**Tankers:** As vessels designed to transport petroleum products, chemicals or other liquids, tankers are rarely used to transport grain because their design makes loading bulk grain difficult and expensive. The charter rate of a tanker would have to be at a substantial discount to that of a STBC to allow the charterer to recoup the costs.

**Tween-deckers:** These vessels are suited for loading general cargo, not necessarily grain. They have two decks which are separated, allowing for multiple products transport. The disadvantage is that loading and discharging a tween-decker takes longer and costs more than loading an STBC that is the same size.

Vessels are built under the supervision of a classification society which approves the builders' plans, supervises the actual construction and certifies the vessels. This extensive supervision is done for safety and insurance reasons. The most active class societies are Lloyds Register, London, United Kingdom; American Bureau of Shipping, New York City, USA; Norski Veritas, Oslo, Norway; Bureau Veritas, Paris, France. The societies also inspect the vessels annually.

**SHIPPING AGENCIES AND SHIPPING BROKERS**

Shipping agencies can be located in the *Transportation Telephone Tickler*, published annually by the Journal of Commerce, Inc. For more information, contact the Journal of Commerce at (973) 848-7082, or nmurray@joc.com.

For information regarding shipbrokers, the *Shipbrokers Register* provides a list of brokers in most countries. Orders can be placed to:

**The Shipbrokers Register**

P.O. Box 2
261-22 Landskrona, Sweden
Phone: 46-418-76660
FAX: 46-418-76667
Email: info@wramfeltmaritime.se
Website: www.shipbrokers-register.org