

**HOUGHTON**

**FOR YEARS YOU HAVE BEEN HEARING  
OUR DELIVERIES ARE CLEANER.**

**NOW: READ ABOUT US IN  
“MODERN BULK TRANSPORTER”**

**HOUGHTON CHEMICAL CORPORATION**

# Houghton Chemical Corp Presents Clean, Polished Image with Sparkling Tractors

By Mark Nutter

WHEN a customer checks a load for contaminants in parts-per-billion levels, the tractors and trailers that deliver the product should be top-notch and they should look immaculate.

That's why Houghton Chemical Corporation in Boston, Massachusetts, specifies its Kenworth, Peterbilt, and Ford tractors to present a clean, polished image.

"Some customers relate the cleanliness of the outside of a tractor and trailer to the cleanliness of the inside," says Proctor Houghton, chairman of Houghton Chemical Corporation. "If you run a meticulous company, the cleanliness of the outside of the trailer will suggest the same cleanliness on the inside even though there is no direct relationship."

Houghton Chemical's bright blue conventional tractors dressed up with polished aluminum wheels make a positive, striking impression when pulling a stainless steel tank trailer into a customer's yard to make a delivery. The chemical shipper has seven Kenworth T800 conventional tractors, two Peterbilt conventionals, one Ford tractor, and 16 MC306 and MC307 tank trailers that transport chemicals.

## Chemical Shipper

Houghton Chemical blends and delivers antifreeze and heat-transfer fluids used in building heating systems, and is a distributor for several chemical manufacturers. It delivers airplane wing deicer to Boston's Logan International Airport and other regional airports in New England. Other products the company delivers such as pharmaceutical and photographic chemicals require exceptionally clean product-handling equipment to remain at levels of the highest purity.

"If the load is being delivered to a customer with a high-service requirement, the product is transported in a Houghton Chemical tanker," says



Bruce Houghton, president of Houghton Chemical. "Customers know that quality and cleanliness are better with Houghton equipment."

Houghton's fleet operates primarily in eastern Pennsylvania, New Jersey, New York, the New England states, and eastern Canada. Several outside carriers help transport products to customers in other parts of the country.

"Houghton Chemical sells its products throughout the United States," Bruce Houghton says. "One of our intents is to farm out some loads to common carriers during good times so that we can retain company drivers when business is slower."

Houghton Chemical selects common carriers based on the carrier's

service, performance, and safety record, which carrier has the most competitive rate for the traffic lane, and acceptance of the carrier by Houghton customers. The chemical shipper has its own fleet to help it meet customer requirements.

## Tractor Requirements

The tractors Houghton Chemical purchases must be top quality and heavy-duty. Houghton specifies its tractors keeping in mind each task the power units must perform, whether it is pumping a load of heat-transfer fluid into a heating system atop a six-story apartment building or pulling a full tank trailer up a steep grade on a New Hampshire highway.



Houghton Chemical Corporation in Boston MA wants its tractors to present a clean, polished image. Houghton Chemical blends and delivers antifreeze and heat-transfer fluids used in building heating systems and is a chemical distributor for several major chemical manufacturers.

Below, Bruce Houghton is president of Houghton Chemical; Mark Houghton is vice-president; and Proctor Houghton is chairman.

“Houghton Chemical doesn’t buy cheaper components to save money,” says Proctor Houghton. “In some ways this is a more expensive way to run a truck fleet. Houghton Chemical specifies the best components that meet its requirements.

“We don’t make tractor innovations, but we can make specifications that are effective and achieve the best performance from our tractors and trailers.”

Houghton Chemical’s 1993 Kenworth T800 conventional tractors have Cummins L10 330-hp electronic engines, Eaton Fuller RTX-12710B 10-speed transmissions, and Eaton 40,000-lb tandem-drive axles with a 4.11 ratio.





Houghton Chemical has seven bright blue Kenworth T800 tractors dressed up with polished aluminum wheels that make a positive, striking impression when pulling into a customer's yard to make a delivery. The tractors have Cummins engines, Fuller 10-speed transmissions, and Eaton 40,000-lb tandem-drive axles.

"The Cummins engine and Fuller transmission provide a good compromise between good fuel mileage and performance drivers can live with," says Mike Rizzari, Houghton Chemical fleet maintenance manager. "The Cummins engine pulls well on hills, and drivers like the engine."

#### Cummins Engines

Management at Houghton Chemical is also pleased with the Cummins L10 engine. Whenever a question or problem arises with an engine, Cummins responds promptly with an answer.

"Cummins has been very easy to work with and answers a lot of questions on the telephone," Rizzari says. "Cummins goes out of its way to make things right."

The Cummins engine, Fuller transmission, and 4.11 drive-axle ratio are producing mileage in the 7-mpg range for most of the tractors, says Mark

Houghton, vice-president of purchasing. The 7-mpg figure applies to most of Houghton's fleet, since the company tries to specify the same components on all its tractors. Another component found on all of Houghton's tractors is a Spicer 15.5-inch organic clutch. The company says the organic clutch engages more smoothly than a ceramic clutch.

#### Organic Clutch

"Houghton Chemical uses its tractor engines to pump off a lot of product," Rizzari says. "When it engages, the organic clutch doesn't grab the PTO as quickly, reducing the risk of damage to the PTO and pump."

Roper pumps are installed on all Houghton Chemical tractors for product handling. At the suggestion of its drivers, pressure-control bypass valves were installed on the pumps, making it easier to deliver specialized products requiring variable pressure.

"Roper builds a simple pump that

does a fantastic job," says Mark Houghton. "The pumps are easy to repair, and that saves us a lot of downtime. The entire pump can be rebuilt within an hour."

The pumps are powered by Chelsea PTOs. Other powertrain components include a Delco 100-amp alternator, Delco 12-volt starter, Jacobs engine brake, Holset 13.2-cfm air compressor, Horton fan hub, and a Thermoblend FM fuel heater.

"Houghton specified the Thermoblend FM fuel heater because of its simplicity," Rizzari says. "The heater channels excess fuel, heated by passing through the fuel pump, back to the fuel tank."

Simplicity is one reason for specifying a component, and another reason is a component's history of reliability, says Mark Houghton. A good example is Horton fan hubs.

"We're more familiar with the Horton fan hub and we like the way it

operates," Houghton says. "When a temperature sensor determines the radiator coolant is too hot, the fan clutch is engaged with air pressure from the braking system."

#### Upgraded Specifications

Other tractor components include TRW TAS65 power steering, Chicago Rawhide oil seals, 64-inch front leafsprings with Horton roller bushings, a Kenworth Airglide 44,000-lb tandem-axle air suspension, a Holland fifthwheel, Alcoa polished aluminum wheels, Bridgestone radial tires, and Eaton S-cam brakes. Haldex and Euclid automatic slack adjusters are specified since they are easier for drivers to maintain. To keep brakelines dry and moisture free, Houghton uses Bendix AD-9 heated air dryers on its newest tractors.

For driver comfort and convenience, the new Kenworth tractors are equipped with 42-inch sleepers, nylon carpeting, heated Moto mirrors, a Kysor digital alarm clock, Kenworth air-cushion driver seats, and antenna leads for citizens' band radios.

"Sleepers are usually available in three models," Houghton says. "We specify the upgraded sleeper with better stereo speakers and radio controls. The extra comfort level means a lot. If our drivers sleep better, I sleep better."

Besides comfort, reliability, and simplicity, Houghton Chemical specifies its tractors for the environment in which the vehicles operate. Many of the chemical shipper's deliveries are in urban areas of New England, where



Products are delivered to Houghton Chemical's 450,000-gallon bulk plant next to its offices in Boston by rail tankcar and tank trailers. The bulk plant has six railcar spots, which are heavily used.

there isn't a lot of room for a tractor to maneuver a tank trailer.

#### Set-Back Axle

Houghton Chemical specifies an Eaton 12,000-lb set-back front axle to provide better weight distribution, and to help the tractors maneuver at the numerous urban stops where space is limited.

The tank trailers are designed for shorthaul deliveries with up to six compartments for multiple-product loads. Many of Houghton Chemical's customers have small storage tanks which require frequent deliveries. "They order multiple products that are delivered in one trailer load," says Bruce Houghton. "Our tank trailers give us flexibility when making deliveries. We can configure loads according to customer needs."

Most Houghton Chemical trans-

ports are multicompartiment Fruehauf MC307 double conical tank trailers with capacities up to 8,300 gallons. Insulated trailer barrels have an intransit heating panel equipped with valves that can channel heat to specific compartments. The 12-gauge barrels are wrapped with six inches of compressed fiberglass covered by a 22-gauge bright-annealed stainless steel jacket.

Trailers have Fruehauf steel disc wheels, an Engler hubodometer, Michelin and Bridgestone steel-belted radial tires, and Pro-Par axles, hubs, and brake drums.

#### Betts Valves

For product handling, Houghton tank trailers have Girard fusible caps, Girard pressure-relief vents, Betts manhole covers with Teflon-asbestos gaskets, Betts three-inch discharge



Most Houghton Chemical transports are multicompartiment Fruehauf MC307 double conical tank trailers with capacities up to 8,300 gallons. The trailers are equipped with intransit heat.



The chemical shipper has two Peterbilt conventional tractors with Cummins L10 330-hp engines, Fuller 10-speed transmissions, and Eaton 40,000-lb tandem-drive axles.

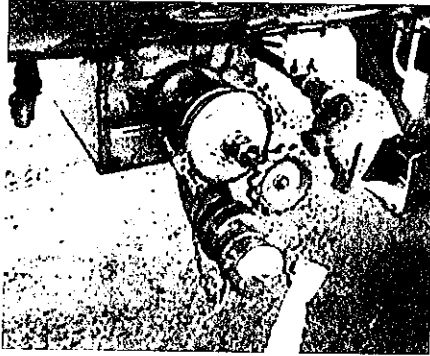
## Houghton Chemical Corp . . .

valves, and Betts four-inch internal hydraulic valves with Kalrez gaskets. Houghton uses stainless steel components and Teflon and Kalrez gaskets to prevent product contamination.

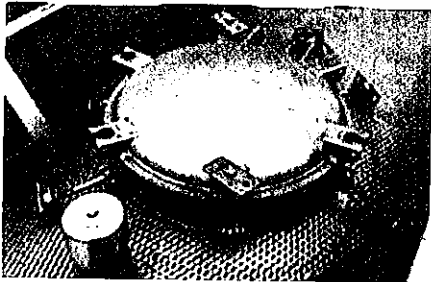
"In our tank trailers, everything a product comes in contact with is chemical resistant," says Proctor Houghton. "If there's a tiny percentage of contaminants in a tank trailer, our customers will find it."

To ensure that its products remain pure while in storage, Houghton Chemical's 450,000-gallon bulk plant next to its offices in Boston has 27 storage tanks with separate plumb-

Houghton Chemical MC306 and MC307 tank trailers have Betts three-inch discharge valves and Betts four-inch internal hydraulic valves with Kalrez gaskets.



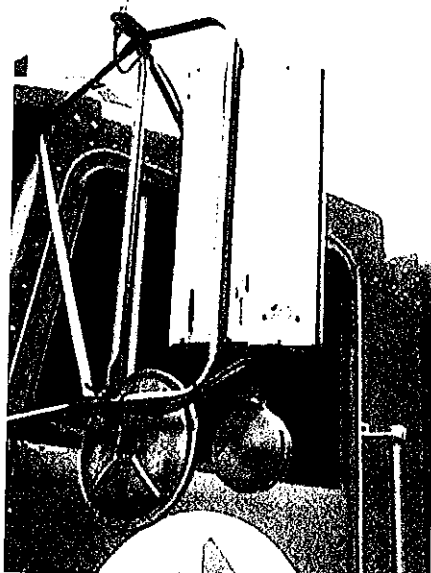
Betts manhole covers with Teflon-asbestos gaskets and Girard pressure-relief vents are specified on Houghton Chemical tank trailers.



Houghton Chemical tractors have Roper product pumps powered by Chelsea PTOs.



For driver convenience, tractors have heated and motorized side mirrors made by Moto Mirror. The right mirror is remote controlled.

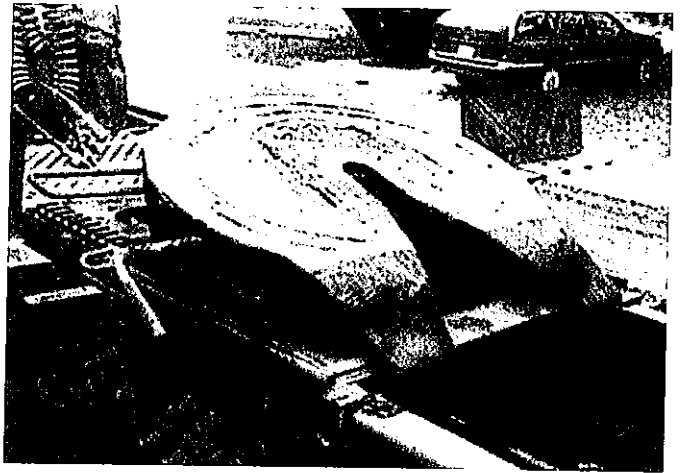


ing for each tank and seven product meters. Product-handling procedures at the bulk plant, employees, delivery methods, and equipment make it possible to provide products that meet stringent customer requirements for purity.

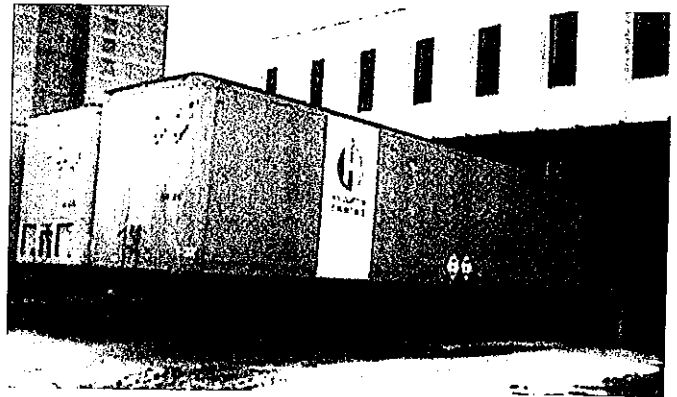
Houghton Chemical's tractor and trailer specifications have helped it build a quality delivery fleet for high-purity products. The company's tractors and trailers have also helped to enhance its corporate image.

"Houghton Chemical has developed a delivery system for high-purity products that has helped our growth," Houghton says. □

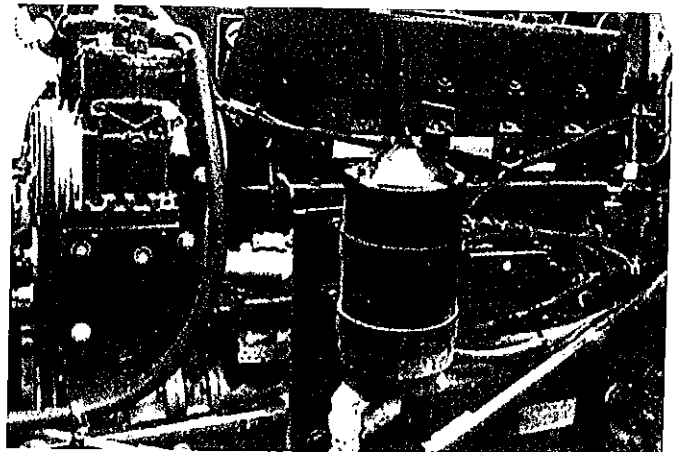
Reprinted from Modern Bulk Transporter



Holland fifthwheels with anti-theft locking mechanisms are used on Houghton Chemical tractors.



At its Boston offices and production plant, Houghton Chemical blends and distributes various packaged products such as Pahnol antifreeze and windshield washer fluid.



Cummins L10 330-hp electronic engines power Houghton Chemical's Kenworth and Peterbilt conventional tractors. Drivers and management are pleased with the performance of the engine.