

This Old Truck Has New Curb Appeal



Today's world generally favors the young and the beautiful as well as the newest and most technologically advanced. Bill Stewart of Blue Star Gas (Garberville, Calif.) appreciates not only what's new, but also what's old—especially his 1966 bobtail.

Designed and built by Jarco Inc. (Salem, Ill.), the International Loadstar 1600 with a propane-powered engine was the first new bobtail Stewart ordered after he began running his father's business. Stewart credits Casey Jarvis, founder of Jarco, for the truck's longevity and reliable operation despite the million-plus miles it has been driven on rural, badly-paved, and often unpaved roads of Northern California.

"Casey had been with Superior Tank and knew engineering," said Stewart. He understood center of gravity, the engine, transmission, differential position of the tank, turning

radius, etc. The design was optimal. The 2353-gal. tank was great for back roads. Casey understood it best; he understood every engineering aspect."

Jarco was founded in 1959 by Jarvis, a well-known innovator in the propane transport business, after leaving Superior Tank. He expanded the company's operations to Salem in 1967. One of his bigger customers was Petrolane, one of the largest marketers at the time. Since its founding, Jarco has built more than 4500 units for companies in the U.S. and has exported trucks to customers in about 20 different countries.

Petrolane's preference for Jarco trucks was one of the reasons Stewart asked Jarvis about building him a truck that could handle the rough, curvy, steep road conditions in his part of the state. "Casey designed the tank truck for optimum weight distribution between the front and rear axles and specified to Superior the tank dimensions," explained Stewart. "The

Refurbishing a Classic...Before and After





Paul Stewart (right) introduced his son, Bill (center), to the propane business the same way many other family run marketers did and still do—scraping and painting tanks and digging ditches—as did Bill with his son Jeff (left).

wheelbase was relatively short, [resulting in] a tight turning radius. It was one of the first trucks with a flanged pump to increase the delivery rates and maximum use of welded piping to reduce the number of screwed fittings subject to leaks, particularly in rough service. The whole undercarriage was painted with a high-grade primer so over the past 40 years we have never had a corrosion problem.”

Extreme Makeover

“Old No. 44,” as Stewart and his drivers call the truck, had approximately 1.3 million miles on it and was still in light service when Stewart told Nancy Coop, president of Jarco and daughter of Casey Jarvis, about it. She mentioned the truck’s remarkable life to shop foreman Calvin Yardley, who suggested that they work together to restore the truck and take it to conventions. Bill loved the idea and after checking with his son Jeff, the makeover plans were put in

place. When Jarco’s transport truck arrived to pick up No. 44 in October 2006, it was actually out in the field.

More than one employee, as well as Jeff Stewart, asked why not just put her out to pasture? He had been humoring his father’s wish not to put No. 44 out to pasture for several years. However, since his father was so excited about the project, he felt it was more important to keep his father happy. Despite its dependability over the years, Jeff Stewart saw the project as a way to get rid of the old truck and he had only one condition before proceeding—Jarco had to build a new bobtail for Blue Star Gas and exhibit the two side by side at conventions.

As the work got underway, Bill Stewart confided that he harbored more than a few misgivings about his decision, especially after he saw the photos of the truck’s chassis as its makeover began. He didn’t realize how much deterioration had set in. Even with all of the prep and priming down, there was plenty of corrosion on the frame.

The extreme makeover of the truck was a team effort organized by Jarco and included Frontier International Trucks (Tulsa), International Truck and Engine Corp. (Fort Wayne, Ind.), Goodyear Tire and Rubber Co. (Akron, Ohio), Han-nay Reels (Westerlo, N.Y.), Dust & Sun Auto Supply (Salem, Ill.), PPG Industries (Pittsburgh), and Betts Industries (Warren, Pa.).

The original truck had a 1965 American Bridge Div. 2353 W.G. ASME tank on an International Loadstar 1600 chassis with a 345 high-compression V8 engine, and an Impco Model E converter and CA425 carburetor matched to the engine. The transmission was a five-speed manual with a two-speed rear axle. It had air brakes with manual slack adjusters. It was one of the first Jarco trucks that came with

Blending Old, New Ways Keeps Blue Star Gas Rolling

Blue Star Gas’ No. 44 truck isn’t the only member of the company with a lot of miles on it. Bill Stewart has seen just as many changes as the truck has miles. His father, Paul, bought the company from Dwight Knapp in 1945, while continuing to run his stock brokerage business in San Francisco.

At the time, Knapp not only delivered propane to customers, but he also had a small town gas system in Garberville, four hours north of San Francisco. Knapp was the owner of a restaurant in 1938 and was using propane when he decided to install an underground pipeline system to supply his buildings with gas. He began connecting neighbors to the system and, as the city grew, so did his pipeline. Garberville’s town gas system is the state’s oldest operating propane utility.

Bill Stewart spent many days digging ditches for pipelines, scraping tanks, painting tanks, and making deliveries outside of school hours. He officially joined the company in 1954 at about the time his father changed the name to Blue Star Gas. Shortly after that, they acquired a second propane system and retailer in nearby Crescent City. Several more acquisitions followed, and the Stewarts started a wholesale trucking and supply firm, called Star Tank Lines. Bill’s wife, Marlyn, also worked at the company for a while.

Currently, Blue Star Gas has four offices along California’s fabled Highway 101. In the late 1980s, it expanded its retail operations into Southern Oregon. Its first railroad supply terminal was built in Southern Oregon in Grants Pass in 1990 to provide better supply flexibility, and a second was built in 2000 in Redding, Calif.

The family’s third generation, Jeff, joined in 1996 shortly after finishing his MBA. He not only grew up working for his dad and doing many of the “chores”—scraping and painting tanks—other children of propane marketers did, but also spent time working for another marketer while in high school. Graduate school reconfirmed his appreciation for the business his father and grandfather had built as well as inspired him to see the business as a great example of how to run a company that can utilize new technology and exploit opportunities that improve efficiencies.

It’s still up in the air whether Jeff’s two young daughters will be lucky enough to scrape and paint tanks, but they spend time at the office “helping out” their mother, Maddy, who works there part time.



Blue Star Gas' brand new truck is an International 4300 chassis with 6-speed manual transmission and a DT466 in-line 6 cylinder diesel engine with 245 hp and 620 lb/ft of torque. An LCR-2 electronic register is tied into PDA and GPS systems.

a RegO FloMatic 3-in, flange-mount pumper, an automatic internal valve designed and manufactured by RegO. Bill Stewart estimates that it averaged 50 gpm “day in and day out for 40 years.” The low-maintenance pumper had the right gear ratio between the power take-off (PTO) and the pump. Also originally on the truck was a Neptune 1-1/2 in. meter with a 433 mechanical printer register, Corken T722 pump, Hannay steel hose reel, and Betts bulb-type lights. The cab had only the driver’s seat (no seat belts); anyone riding along had to sit on a milk crate.

No. 44 was part of a group of “Jarco exclusives,” said Ms. Coop. These exclusives consisted of an integrated design that allowed up to 170 gallons more payload, recessed 4-in, float gauge, flanged fill connections, air-operated PTO, air brake safety system, magnesium chock blocks (weighing only 5 lb each), conical fill strainer, and plastic meter ticket cover. According to Bill Soulon, Jarco’s plant manager, the truck was built to different specifications than a standard bobtail, partly due to design requirements agreed to by Bill Stewart and Casey Jarvis. The meter was located on the driver’s side of the tank instead of the conventional rear deck location. It was also built to be loaded from the side, and the hose reel was set 90° from normal.

A number of safety updates and other work had been added over the years—radio remote shutdown, Veeder-Root register, air dryer, Super Swivel. Epson printer with hand-held system, two-way radio, and back-up lights. The front hood had been replaced as well. The engine was eventually replaced with an International 392 after hundreds of thousands of miles on unpaved and potholed roads by long-time driver Cliff Banfield. Bill Stewart believes the truck got about 5 mpg depending on the grade of the road it was on. East of Garberville, he noted, there is a road with a 13% grade with a five-mile climb to the summit.

Between the Stewarts, they figure the truck averaged more than 30,000 miles per year, but they’re not sure because the odometer had stopped working. They are sure that it put on more than a million miles traversing Northern California and Southern Oregon making deliveries. They also estimate that about half of its mileage was done on unpaved roads. Among the trips No. 44 was sent on was to supply a contractor repaving the Golden Gate Bridge a few years back.

The Swan Unveiled

Not that the old truck needed a style makeover, but the project could be described as the “Tech Guy for the Truck Guy” because of the group effort to restore it to its original glory. Jarco brought No. 44 to Salem for assessment and for the tank to be cut down. The chassis was hauled to Frontier International Trucks in Tulsa for its “trip to the spa and plastic surgeon,” which included: completely disassembling and blasting the cab with ultra-small media; replacing the cab floor and metal dash panel; removing and rewiring the electrical system; straightening the frame; epoxy priming the cab and metal components; refinishing the cab interior to its original appearance; replacing glass and rubber moldings; and replacing the added hood with an original “butterfly” hood. A donor truck was used to source original parts that were needed, according to Frontier’s president and owner Lynn Owens, who took a personal interest in the project. His service manager Keith Mitchell personally babied the truck through the work.

Frontier, which was brought into the project by Jim Ham of International trucks, also performed a compression test before the engine was removed from the chassis. Remarkably, the engine was in very good condition, with only a few minor oil leaks. Frontier had only a few things to fix, such as replacing the intake manifold gaskets, valve cover gaskets, oil pan, alternator, and air compressor, transmission and differential lubricants, and the radiator and coolant hoses.

In February, the truck was delivered back to Salem, where the Jarco crew got to work. They removed alterations made on the tank unit and body, as well as the deck, fenders and meter platform, over the years. The tank was sandblasted, primed, and repainted the original colors. The tank was reinstalled on the chassis and a new deck, fenders, and fender supports were mounted. The internal valve, pump, and meter were checked over and new lights, reflectors, and wiring—all as close as possible to the original equipment—were put on. Through a local customer, Calvin Yardley found a set of original Jarco chock blocks, which were repainted bright yellow.

While No. 44 was getting her makeover, Soulon’s son, Jason, was overseeing Blue Star Gas’ newest state-of-the-art truck, No. 188. The 2007 International 4300 chassis with a



With nearly 50 years of experience, Jarco Inc.'s history parallels that of many family-run marketers. Casey Jarvis founded the company in the 1950s after working for a tank manufacturing firm in Los Angeles. A member of NPGA's Technical and Standards Committee and its board of directors, he was the first to introduce the single-barrel propane transport throughout the country. He also represented NPGA in meetings with the Department of Transportation for many years. His daughter, Nancy Coop, who Bill Stewart remembers as a young girl when he would meet with Casey, took over the company in 2005.

3000-gal. Arrow tank integrates the safety systems of the tank unit into the chassis through International's DiamondLogic system. Sensors on the tank unit are tied into the International Electrical System Controller, allowing the DiamondLogic system to monitor the tank and to prevent pull-aways and other unsafe conditions.

Another feature is that the PTO will not engage if the chock blocks are still in the holder, forcing the driver to put the chocks down in order to make a delivery. Additionally, if the driver forgets to set the parking brake, the electric horn will sound when he opens the driver's door, and when the PTO is engaged, the hazard lights come on automatically. Finally, the driver can initiate a pre-trip inspection from the cab and the truck will cycle all of the lamps while he's walking around the truck inspecting for their proper operation.

The tank unit is equipped with a lightweight Jarco aluminum body. It also has a RegO FloMatic liquid internal valve,

Blackmer 3-in. pump, and Liquid Controls MA7 meter with LCR-2 electronic register. The electronic register system incorporates a preset feature and is tied into PDA and GPS systems in the cab, all of which are integrated through the Fuel Web server. The in-cab PDA prints customer account information, taxes, pricing, and net due on delivery.

It also features several new conveniences such as air conditioning with integral heater and defroster, electronic gauge cluster with visual warning lights and audible alarms, three-point seatbelts (and a passenger seat with seat belts), anti-lock brakes with automatic slack adjusters, AM/FM/cassette with satellite capability, and air-ride suspension.

Fresh from its makeover, No. 44 and the new truck were delivered to the National Propane Gas Association's South-eastern Convention & International Expo in mid-April for their debut. Both attracted a lot of attention from admirers, who appreciated not only No. 44's history and durability but also the craftsmanship that could produce the workhorse.

Commenting on the transformation, Ms. Coop told *BPN* that "the opportunity to show the 40-year evolution of a bobtail seemed so worthwhile—to see how simple the bobtails were back then and to compare that to the advances in technology, convenience, and safety today".

Before No. 44 was ordered by Bill Stewart back in 1966, he and his dad, Paul, drove a Chevrolet truck with a 700-gal. tank that he thinks was put together in their barn sometime after World War II. No. 44 has been a testament to how well the truck was designed and built, as well as the quality equipment that was chosen four decades ago. Seeing it undergo its makeover brought tears to his eyes, he said. "It looks as beautiful as the day I picked it up from Jarco. For my money, it is the best truck of the over 200 that I have owned... The old gal got awfully tired the last few years, but when there were challenges in mid-winter, we could always count on her to rise to the occasion and make a delivery run." —Ann Rey

Shining Some Light on Truck Lamps

Truck lights have been around for so long, there are few who even consider how much they've changed over the decades. Betts Industries Inc. (Warren, Pa.), a long-time supplier of vehicle lighting products, has seen technology change substantially over the last half century alone, said Mike Madigan, sales manager, lamp division.

The company started out as an iron foundry producing oilfield equipment in 1901 and moved into other related oil and truck industry product manufacturing. With its history of producing a variety of lighting products for trucks, Betts was the supplier Jarco could turn to for its Blue Star Gas truck renovation project. Needing a new lighting system that not

only complements the truck's era but also met current standards, Betts was able to provide the necessary equipment, including bulbs.

Early lighting systems, Madigan explained, if designed correctly were great systems. Individual wires had to be threaded through copper tubing that was attached to the vehicle's body. While labor intensive, a well-laid-out design could last just about forever. The lights were housed predominantly in cast metal housings and were not shock-mounted.

By the early 1970s, the vehicle lighting industry started to produce jacketed cable and some lights in plastic bodies. Technology continued to improve through the 1980s, when plastic light bodies

became the standard, as did shock-mounting them, both of which helped protect the bulb and prolong its life. Just about all cable came from the factory precovered and ready for installation, making vehicles much easier to wire.

Energy efficiency and durability research eventually led to the replacement of bulbs with light-emitting diodes (LEDs), which have no filament, are made of plastic, and produce more light more efficiently. The candlepower, how a light is rated, of an LED is richer and quicker to light up, said Madigan. Lights look brighter, especially red lights, which combined with a red cover produces a stronger color that is easier to see.