Approaching 100 years serving the wheel alignment industry, the Iowa-based Bee Line Company has grown to become the world’s leading manufacturer of computer laser wheel alignment, on-truck wheel balancing and frame correction systems for Class 7 and 8 Heavy Duty trucks and trailers. Bee Line’s success trajectory is founded on an unyielding commitment to innovation. While some companies talk about innovation, Bee Line supports their commitment with action. In recent years, this premier alignment equipment provider has completely refurbished its production plant in Bettendorf, Iowa, and updated its equipment with state-of-the-art automated machinery. These upgrades ensure Bee Line’s quality is at the highest level. All production has become CNC controlled. CNC (Computer Numerical Control) has replaced manually operated machines, guaranteeing that their flame cutters to lasers...
New Investments Mark Bee Line as World Leader in Wheel Alignment & Frame Correction

BEE LINE >>

have the highest production accuracy by being repeatable and efficient.

In keeping with the innovation at all levels of Bee Line’s operations, Steve Woodward, Vice President of Operations outlines the extent of the company’s long term capital investment. “We are building on the next 100 years of success through investing as much in our people as in our equipment, efficiencies and improvements. Employee training is paramount for everyone on the shop floor, up to members in the highest levels of our organization,” he said.

This company wide, on-going training allows sales reps and technicians the knowledge needed to continue to provide up-to-date, on-site installation, calibration and training to customers. In addition, Bee Line holds in-house, extensive instruction on a monthly basis for alignment and frame correction training for customers who range from fleets, tire and truck dealers, suspension shops, OEMs and truck stops. Alignment training is five days in duration and frame correction is four days. This lengthy period, Woodward says, is necessary to demonstrate the optimal method of alignment which includes pre-alignment tasks, such as bearing and tire pressure checks, and familiarizing technicians/operators with tooling, assessment and other functions required for a complete alignment process.

Going beyond typical industry benchmarks, Bee Line distinguishes itself as the only complete alignment system on the market today. They offer a comprehensive line of state-of-the-art equipment to meet the unique demands of today’s alignment industry. They differentiate themselves by their personal alignment philosophy. While other alignment systems on the market today align front and rear wheels with each other, Bee Line believes a vehicle frame could be out of position by a few degrees due to the wheels running parallel to each other, while not running perfectly parallel with the frame. This is known as “dog-tracking”. Conversely, Bee Line tandem and trailer axles and wheels are aligned to the centreline that runs parallel through the vehicle’s chassis. Centreline alignment, therefore, addresses the two most critical alignment settings for both front end and rear axle tire wear - toe and tracking. When toe and tracking settings are misaligned, the results are irregular tire wear, hard steering, poor drivability and premature failure of suspension parts. This centreline alignment addresses these concerns and ensures that the vehicle operates under the safest condition with least resistance. The result is maximum tire mileage and fuel efficiency.

Bee Line’s stellar reputation arises from “a complete alignment process which no one else on the market can offer,” continued Steve Woodward. Woodward is referring to the camber adjustments and axle repositioning which, when adjusted exclusively using Bee Line equipment, are returned to OEM specs. Bee Line has long been a proponent of the benefits of camber correction which, as part of total vehicle wheel alignment, maximizes tire life and fuel efficiency, two of the industry’s highest operating costs. Unlike cars and light trucks, heavy duty trucks have straight axles that do not have similar accommodations for camber adjustment. Therefore, the only way to change the camber is to hydraulically adjust the axle, a procedure exclusive to Bee Line’s alignment program. To accomplish this, Bee Line uses a Floating Beam which enables technicians to adjust axles in accordance with preferred target specifications endorsed by the Truck Maintenance Council (TMC). The Floating Beam, when mounted parallel or at an angle to the axle, and used in conjunction with the Bee Line Advanced Aligner System, corrects heavy duty truck axles right on the vehicle. Camber corrections are accomplished by using bridge hanger-type tie downs that hold the axles in place while powerful Bee Line Hydraulic Rams correct camber by pushing the axle upward. Camber adjustments have been lauded by thousands of shops and trucking fleet supporters who confirm their importance in reducing the overall operating costs of trucks.

Of particular relevance to Canadian drivers with twin steer vehicles is Bee Line’s LC7580 Computer Laser Alignment System. This revolutionary technology allows for “measurement of setback on twin-steer vehicles and ensures accurate timing to the true chassis centerline, as recommended by major tire manufacturers and industry experts,” the company says. In addition, the Gyro Communication function in all heads allows camber, caster, setback, toe, Ackerman and max steer angle measurements to be taken on both steer axles. Highly accurate measurements result in reduced tire wear, better fuel economy, safer truck operation, faster alignments, fewer comebacks, and better handling. “Setback,” it should be noted, is defined as the difference between steer axle and rear steer axle. The total setback value is the difference in distance on the right side versus left side. This Computer Aligner System, described as the LC7580, features on-board instructional videos that demonstrate to the technician the ease with which to calibrate the equipment in the shop in just minutes.

Prospective customers in search of wheel alignment and truck frame alignment, plus KPI and tracking, plus KPI and turning radius in any bay. Elevated solutions, including Advanced Aligner Runway models, Space Saver Ramps, Lifts, and Runways, are easily configured for full adaptability to any facility. The Mobile Alignment package is acclaimed for its portability, enabling service technicians to gauge truck wheel alignment at customer locations. Bee Line’s In Ground Design system, comprised of five distinct models, is ideally suited for shops with dedicated alignment bays. The elevated solutions models in this design category are also multi-functional, providing complete wheel alignment and oil changing capabilities in customer trucks.

For nearly 100 years Bee Line Company has remained intensely committed to providing world class equipment, unparalleled engineering and technical expertise and total customer service. Its unwavering commitment to significant investment in capital and human resources will ensure its continued success well into the next 100 years.

For more information, contact www.beeline-co.com.
Proper Alignment May Be the Solution?

Tracking is the second most critical alignment setting for front-end wear.

1. Drivers are complaining of fighting the wheel!
2. Fuel costs/consumption are killing us!
3. Tire wear is unacceptable!

Solutions?

Proper Alignment May Be the Solution?

Tracking is the second most critical alignment setting for front-end wear.

- Tracking is the angle of the rear axles relative to the frame CENTERLINE of the vehicle.
- For maximum tire performance & the least rolling resistance, all axles must travel 90 degrees to the centerline of the truck frame or trailer.

Introduction to Bee Line Alignment

Using the Bee Line method, all rear axles, including lateral offset axles and axles with different tire spacers or different tire sizes, are set perfectly at 90° to the centerline of the vehicle regardless of whether the vehicle is centered over the chassis. A truck that runs straighter, with less drag or resistance due to misaligned rear axles, will assure better tire performance and fuel economy. That’s why frame centerline alignment is the preferred choice of professionals.