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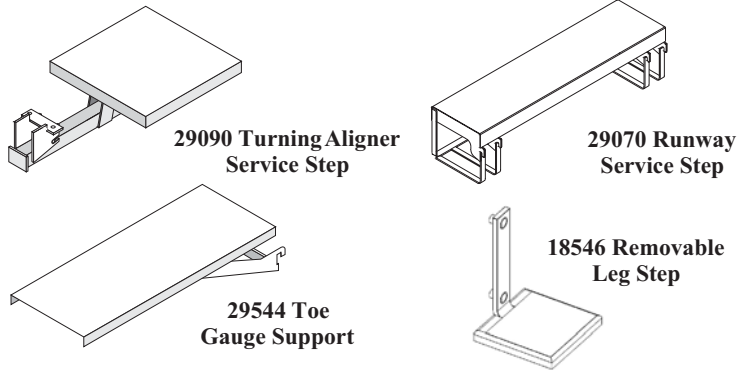


HEAVY DUTY TRUCK ALIGNMENT



Alignment Equipment Designed To Do The Job Properly On Trucks Of All Sizes

The Bee Line Alignment Machine accommodates vehicles with tread widths from 45" to 100" on our standard model, handling all makes of small cars through trucks up to 16 tons per vehicle axle. This alignment machine is available as a pit model or an above ground unit. A drive through model can be constructed which allows alignment from either direction.

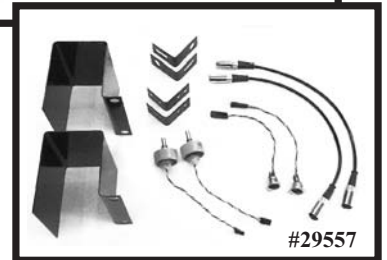
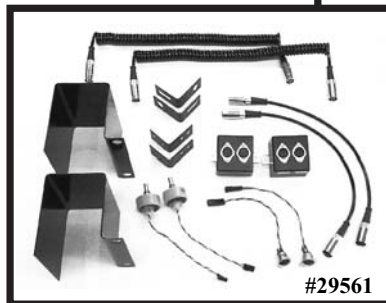


29540 - Kingpin Turning Aligner

No other company in the industry offers turning aligners for caster and KPI (SAI) readings that when rotated or turned, create the same natural turning radius and arc that was originally designed into the vehicles front end. Only this method gives you the most consistent, accurate readings of steering geometry available. Order **29541** and receive a pair of Aligners including floor mounting kits.

29557 - Standard electronic conversion kit that produces electronic readings when assembled on the King Pin Turning Aligners.

29561 - Deluxe kit also includes 2 coiled cords, 2 DIN adapter cables and 2 convenient interface boxes that feature two cord ports. This conversion connects the alignment head and the turning aligner to your computer simultaneously and eliminates the inconvenience of plugging in each component separately.



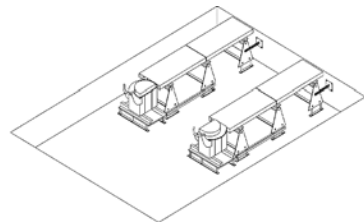
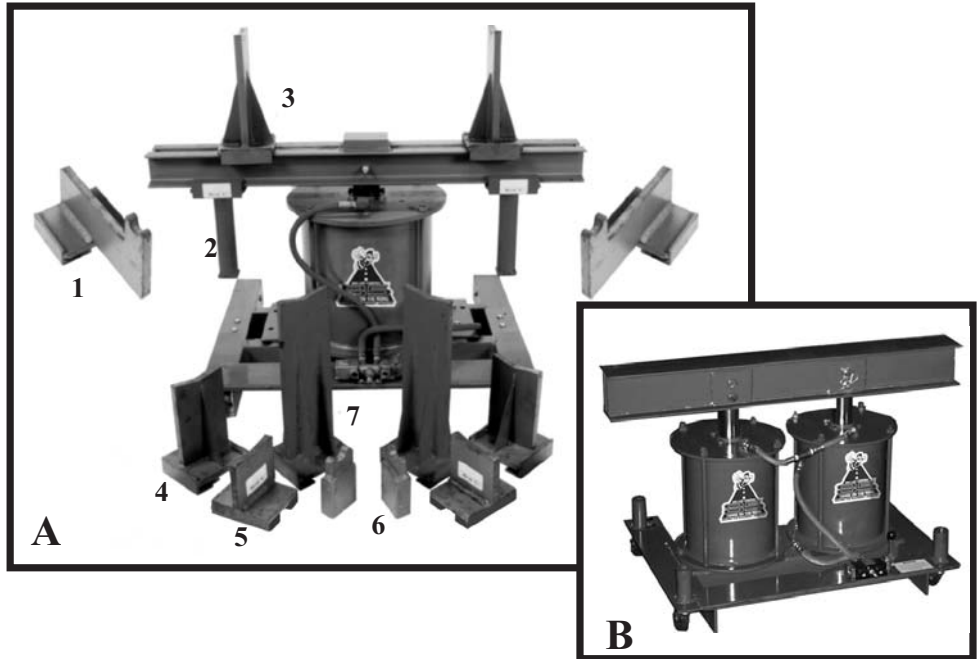


The Air Jack Makes Lifting Vehicles Safe And Easy

Bee Line's Heavy-Duty Air Lift Jacks provide safe and easy lifting on all Advanced Aligner Runways. The single air lift jacks (figure A) have a capacity of 2800 lbs. (1270.06 kg) for each 25 lbs. (11.34 kg) of line pressure at the valve, while the dual air lift jacks (figure B) have a capacity of 3500 lbs. (1590.91 kg) for each 25 lbs. (11.34 kg). Both models can be ordered in two sizes. **885.12** and **885.12D**(dual) are 24" models and **878.12** and **878.12D**(dual) are 30" models. Different base widths are also available.

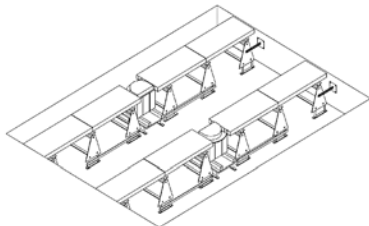
Each Bee Line Air Jack comes complete with **#1225B** 6 5/8" Axle Support (#1), **#804.1** Safety Stands (#2) and **#800.1** 10" Axle Support (#3).

Optional accessories include; **#800.175** 7 1/2" Axle Support (#4), **#1230** 4" Axle Support (#5), **#1225 EXT** 3" Extension Assembly (#6) and **#814.1** 14 1/4" Extra Long Axle Support (#7).

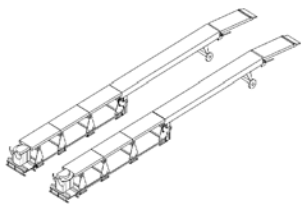


AA 2D2 - 2-Section pit machine (24" deep x 15' wide minimum x 17' 2" long minimum) (60.96 cm deep x 457.2 cm wide minimum x 523.24 cm long minimum)

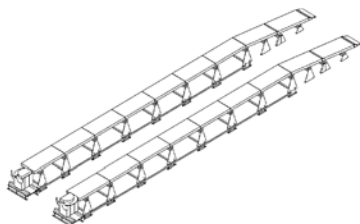
Add 45" (114.3 cm) for each additional section.



AA 4D4 - 4-Section drive thru wheel alignment (24" deep x 15' wide minimum x 17' 2" long) (60.96 cm deep x 457.2 cm wide minimum x 523.24 cm long)



AA3D2SSE - 3 Section Advanced Aligner Runway with Space Saver Approach Ramps (24" high x 36' 2" long) (60.96 cm high x 1102.36cm long) or (30" high x 38' 0" long) (76.2 cm high x 1158.24cm long)



AA 7D2 WITH AR 330C - 7-Section above ground wheel alignment machine with double approaches (43' 6" long x 24" high) (1325.88 cm long x 60.96 cm high)

Alignment Equipment Designed To Best Fit Your Facilities And Your Production Requirements

Sturdy Add-A-Unit Design

Engineered to assure safety and flexibility through a wide range of vehicles. Bee Line's add-a-unit design safeguards your investment against obsolescence and is expandable to meet all of your needs.

Removable Runways

Boxed construction for heavy duty vehicles, the 45 inch (114.3 cm) section runways are removable for easy access to the vehicle.

Available in 24 inch (60.96 cm) or 30 inch (76.2 cm) Pit or Double Approach. Also available in Space Saver Approach Ramp.

Load capacity 16 tons (14.51 M ton) per vehicle axle.

Removable 19 inch x 45 inch (48.26 cm x 114.3 cm) runway sections. (25 inch x 45 inch optional)

Adjustable tread width 45 inch to 100 inch (114.3 cm to 254 cm).

AR330C - 24 inch double approach 15' 9" long (480.06 cm) or **AR330D** - 30 inch double approach 19' 3" long (586.74 cm).



AA SPACE SAVER TRUCK ALIGNMENT

If floor space is at a premium in your shop, as it is in most, then the Bee Line **Space Saver Approach Ramp** is what you have been looking for. Bee Line has designed the Space Saver Ramp to be installed in a smaller area than a standard ramp alignment system by reducing the total number of machine sections required. The design of the Space Saver Approach Ramp allows a major portion of the ramp to be raised hydraulically to an operating level equal to the height of the Advanced Aligner Runway, placing the vehicle at a convenient work height. If you lease your facility, then the Bee Line Space Saver Approach Ramp is a must for you. Since a pit system is fixed and immobile, and the Bee Line system can be moved from facility to facility, you do not need to worry about losing money from the investment in the pit installation being left behind if you relocate.

In addition to being able to move your assets to a different facility, the Bee Line Space Saver Approach Ramp also eliminates the problems associated with pit drainage, pit leakage, and soil contamination, making EPA compliance much easier. The Bee Line Space Saver Approach Ramp System is another example of how Bee Line continues to set the standard for wheel and frame alignment in the heavy-duty trucking industry.

Bee Line Space Saver Approach Ramp Advantages:

The Space Saver Alignment System is located totally above ground adding more great benefits. A typical Space Saver installation would be a **AA3D2SSE** which is a 3 section Advanced Aligner runway with Space Saver approach ramps.

- Easier to maintain and clean.
- No air circulation requirements.
- No water problems associated with pits.
- No exhaust fan requirements.
- No building permits, digging or EPA considerations.
- Lessen insurance and injury worries.
- Machine can be moved easily from facility to facility.
- Space savings compared to standard double approach.



Bee Line Space Saver Approach Ramp Specifications:

- Length of Approach Ramp: 23 feet 4 inches
- Lifting Length: 15 feet
- Ramp Height: 24 inches or 30 inches
- Lifting Capacity: 12 tons, hydraulically powered
- AR350 model is used with 24 inch high Runway Sections. Incline angle: 4.5 Degrees
- AR350.30 model is used with 30 inch high Runway Sections. Incline angle: 5.7 Degrees



BEE LINE

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LASER ACCURATE PRECISION BEE LINE LC 7000 SERIES

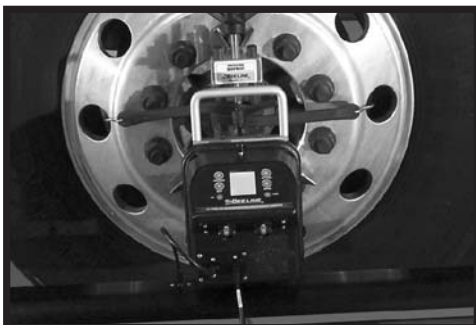
New design improves efficiency.

The Bee Line LC7000 Series laser guided computer alignment gauging system is the new benchmark for the heavy duty truck alignment industry. Every aspect of this system builds on 85 years of alignment expertise and has been refined to make alignments easier, faster and more accurate than ever. Several innovative features make this the best heavy duty truck alignment system ever from Bee Line and by far the best system on the market today.

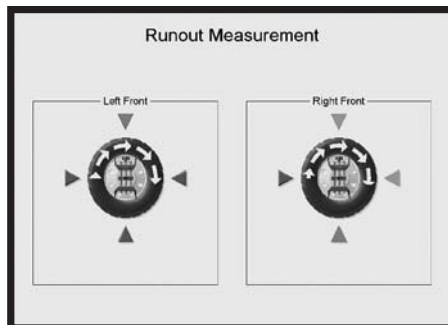
The new LC7000 cabinet charges the rugged alignment heads in a vertical position that reduces the chance for damage and saves shop space. Additional exterior storage racks safely hold wheel mounts when they are not in use.

WindSpeed 7000 Alignment Software has the capability to assist beginners with pop up reminders, extensive help screens and help videos; while more experienced technicians have the option to customize their workflow to fit their skill level.

Our alignment heads feature color LCD screens that give the technician the option to perform alignments right at the wheel. Each screen in our WindSpeed 7000 Software is displayed on the head and prompts the technician through an alignment just as if he were looking at the monitor. This advantage dramatically reduces the time to gauge the alignment of a vehicle.



New interactive alignment heads are now a "workstation" for the technician.



Whenever a step is illustrated on the computer monitor...



...the same step is displayed with live readings on the head!

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BEE LINE

ON THE FLOOR ALIGNMENT BEE LINE LC 7000 SERIES



Complete Alignment checks with no dedicated Alignment bay!

The Bee Line On The Floor Alignment configuration is a popular setup for trucking fleets and shops that perform routine alignment checks but do not have a dedicated alignment bay.

All the same great gauging features of the LC7000 Series Computer Alignment System are available with our On The Floor System. This gives your shop the ability to accurately diagnose any misalignment condition and even correct the rear tracking and set the toe in any bay of your shop. If more extensive misalignment conditions are detected or if parts need to be replaced, the truck can be sent out to a facility with a complete Bee Line Alignment system for these corrections. Our On The Floor Alignment configuration is a fast, easy and less expensive way to make sure your trucks are performing at optimum efficiency.



7600 Floor Jack

Outstanding design and performance make our 7600 the ultimate Air/ Hydraulic floor jack on the market for your alignment shop. The 7600 can lift vehicles from any two separate points of contact along its 33 inch beam. This feature alone produces a far greater degree of safety than the conventional single point floor jack. An operator has the option to utilize different sized axle supports that slide to any position on the beam and guarantee the desired lift needed whether the truck is on the floor, on portable turn plates or on portable runways. Converting the jack into a single point floor jack for operations such as wheel balancing can be done by simply sliding one of the short axle supports to the center of the beam.



BEE LINE

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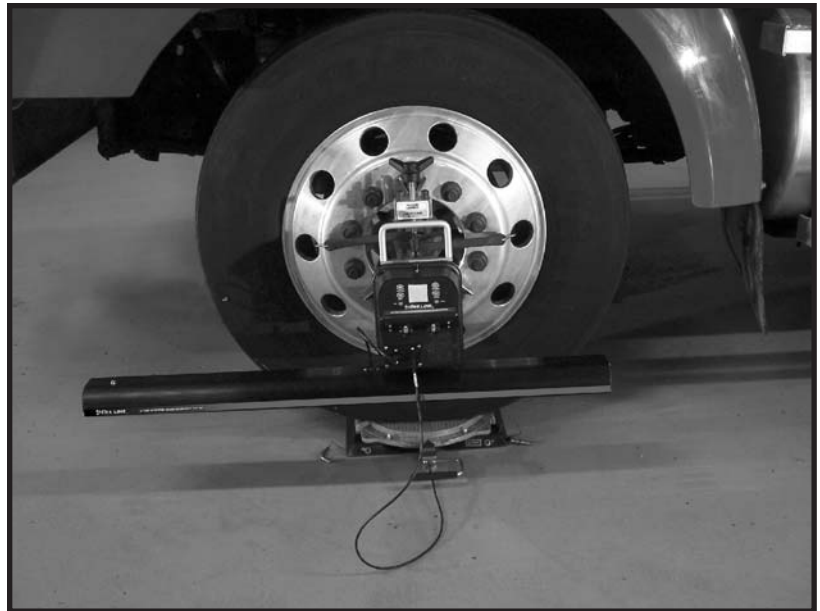
MOBILE WHEEL ALIGNMENT BEE LINE LC 7000 SERIES

Take alignments to the vehicle with our totally portable computer alignment gauging system. This system is ideal for gauging truck wheel alignment on location, inside or out. Use your laptop computer loaded with our WindSpeed software to gauge runout, camber, caster, toe, KPI and steering stops.

If you never have an open bay for alignment it may be necessary to do mobile alignments wherever your trucks may be parked. This mobile alignment system comes in a handy carrying case that allows one technician to gauge trucks on any reasonably flat surface with our wireless laser accurate computer alignment gauging system. It comes complete with everything you need to find misalignment conditions without the need for an alignment bay.

Mobile Alignment Features & Benefits

- Diagnose alignment conditions and transport the vehicles to your shop if they need replacement parts or major adjustments.
- Save man hours by eliminating most transports.
- Gauge more vehicles per day.
- Save alignments on your laptop and print alignment results.
- Power unit will supply power to the wheel units for More than eight hours. A/C power is not necessary.
- Adjust toe and tracking at your terminal when used in Conjunction with the Bee Line Rear Axle Aligner.

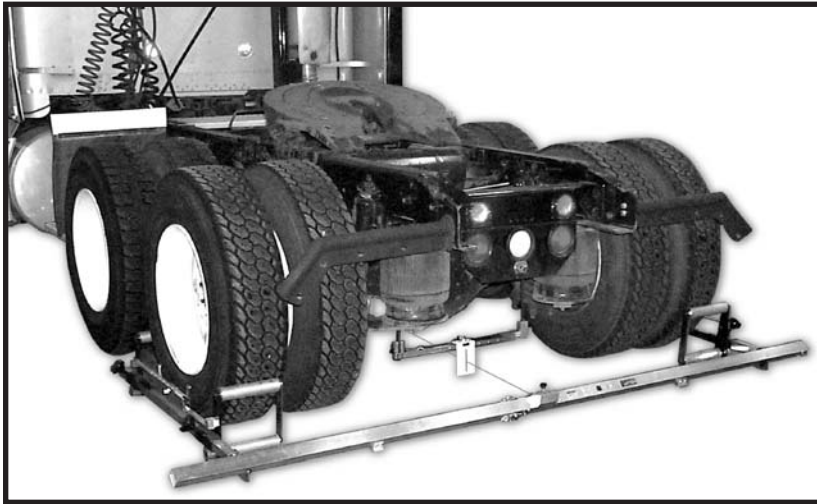


(Above) Alignment readings can be taken anywhere inside or out with our wireless alignment heads and FPT8000 Floorplates.

(Left) Like any precision instrument, the transport of the alignment system can be harder on the equipment than the actual use. This carrying case reduces the risk of damage and reduces set up time at the job sight

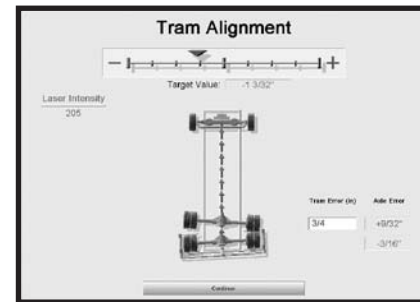
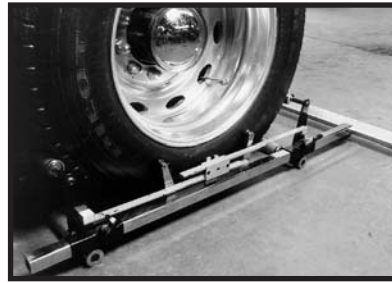
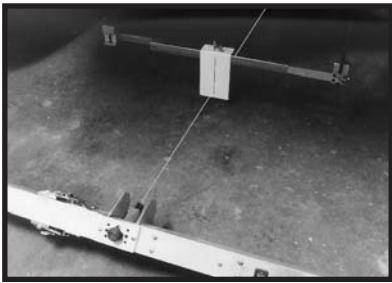


BEE LINE 21000 REAR AXLE ALIGNMENT

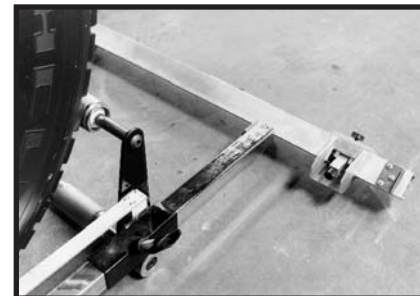


With the Portable Rear Axle Aligner you can take rear axle alignment to your customers shops, terminals or wherever they might be located. Constructed out of lightweight and durable aluminum, it transports easily.

Bee Line has also made it more operator friendly. Each Portable Rear Axle aligner comes with the laser assembly built into the rear beam, this reduces the risk of damage to your equipment during transportation to and from different locations. Another advantage is that access to AC power is not required to operate the system, making it easier to complete quick and accurate alignments. The Portable Rear Axle Aligner is battery operated. The battery, which is concealed inside the beam will power the laser for up to 20 hours before re-charging.



When used with an EPM850 Electronic Target, live readings are displayed in WindSpeed 7000.



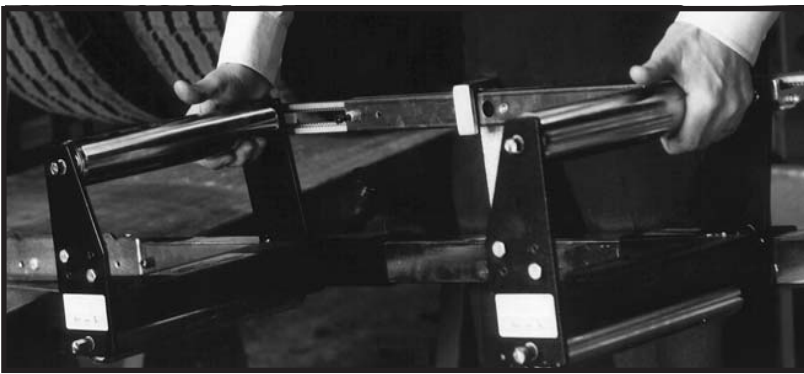
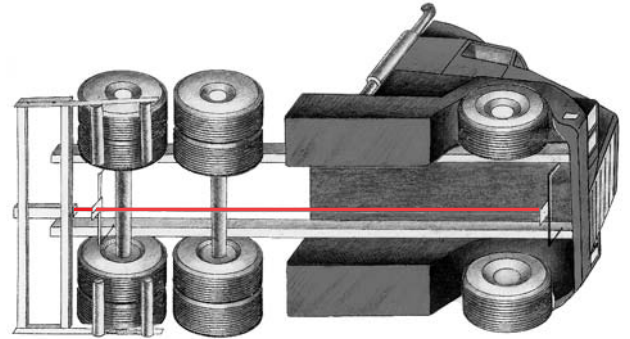
Even novice technicians will be able to set up the Portable Rear Axle Aligner and take all of the necessary measurements in just a few minutes.

The 21000 can be ordered with an optional side shooting feature. This configuration is ideal for lower profile vehicles.



Thousands of Bee Line Rear Axle Aligners are in the field proving the Bee Line System works... Here are some reasons why.

Bee Line develops alignment systems based on the center line of the vehicle. In order for a vehicle to achieve proper tracking the wheels must travel parallel to the center line. There are many situations which cause problems when setting alignment and the Bee Line Rear Axle Aligner was developed to eliminate misalignment.



The proven Bee Line self centering wheel cradles assure the correct position of the laser when seated on the cradles in relation to the axle. Wheel cradles eliminate the need for run-out and raising the vehicle off of the floor, allowing the operator to gauge the suspension alignment in its operational position.



A 18410E Electronic Tram Gauge

Optional Rear Axle Aligner Accessories

A. 18410E Electronic Telescoping Tram Gauge - This tram gauge can be used where precise tram readings are a must. The readings are displayed on the digital LED screen.

B. EPM850 - Wireless Laser photo cell receiver allows computer entry of Rear Axle Alignment data when used with the computer alignment system.

C. 21130 Portable Rear Axle Aligner Cart This mobile cart safely stores every piece of the 21000 Rear Axle Aligner including the laser recharging unit and two optional FPT 8000 Floor Plates. The compact design allows shops to spare valuable space while keeping their equipment away from any danger of being damaged.

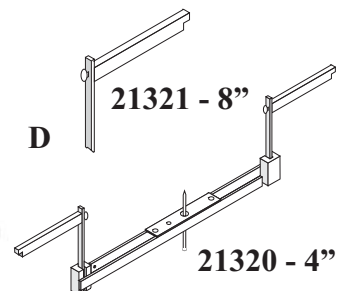
D. Web Feelers - The web feelers allow accurate gauging of the rails even when a uniform flange is not available.



B



C



D



MECHANICAL GAUGES

Caster Camber Gauges With 2-Dial Run-Out Eliminator

The Bee Line 18305 and 19305 gauges come complete with these great features:

Bee Line Micrometer Dial which has proven itself time and again in the industry as the most accurate and easy to read mechanical Caster-Camber gauge.

Complete horizontal and vertical run-out compensation with exclusive two dial system eliminates any guesswork.

The cam system locks easily and securely to bead, fellow or any other part of the rim or wheel.

The reversible advancer will mount securely to the inside or the outside of the rim.

Quality construction of lightweight durable materials insure a long dependable life.

19305 for trucks and heavy duty vehicles (right) - Comes complete with necessary foot extensions to fit truck wheels through 24". #18330 passenger car bars are available to quickly convert the 19305 gauge for use on cars, light trucks and sport utility vehicles. 19048 Center Mount Gauges are available for mounting gauges to the center of the rim. See page 11 for details.

18305 for cars, light trucks and sport utility vehicles (not shown) - Fits wheels anywhere from 12" through 18". These gauges are designed to fit most recessed or partially enclosed wheels such as those commonly found on mobile homes. #19330 Truck bars and #19345 and #19350 Truck foot extensions are available to quickly convert the gauge for use on trucks.

2100 & 2300 Toe-In Gauges - Model 2100 for cars extends to a full 74" (187.96 cm) width and has adjustable legs which will extend up to 10 1/2" (26.67 cm) high. Model 2300 for trucks extends to a 96" (243.84 cm) width with adjustable legs which extend up to 17 1/2" (44.45 cm) high. A 2300GM is also available for floor gauging.

1790 Tire Scribe - The 1790 Tire Scribe Gauge is spring loaded for easy scribing on out-of-round tires and tires with flat spots. It also can be used for checking wheel run-out.



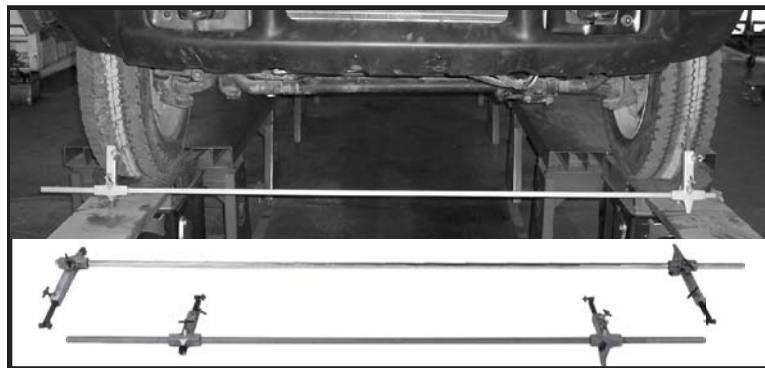
18149 Foot Adapter



18392 Deluxe Wheel Foot Adapters



1790 Tire Scribe



2100 & 2300 Toe-In Gauges



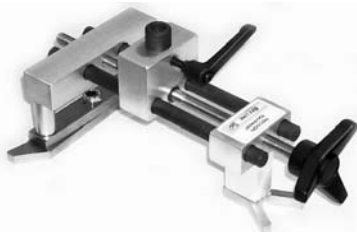
ASSORTED BEE LINE ALIGNMENT ACCESSORIES



**BLC 250 & LC 4102
Self Centering Wheel Mounts**



**19048 Center Mount
Wheel Mount**



**LC 4195B Center Mount
Wheel Mount**



29070 Runway Service Step



29600 Runway Lift Assembly

BLC 250 & LC 4102 Self Centering Wheel Mounts - The BLC 250, for automobiles and the LC 4102, for heavy trucks provide you with the self centering capability on your wheel mounts. Self centering maintains the computer head balance to prevent the wheel and head from turning when lowering the vehicle. Turning the wheel during lowering adds extra steps to the alignment, has the potential to damage the head and unfavorably affects the accuracy of the alignment. The BLC 250 will fit wheels with a rim diameter from 12" to 18" and the LC 4102 will fit wheels with a rim diameter from 17" to 24.5".

19048 Center Mount Wheel Mount - The Bee Line center wheel mount is designed for use on truck wheels. The wheel mount holds the standard Bee Line 19305 Caster Camber Gauge or the 19503 Uniflex Gauge. The 19048 wheel mount clamps securely to the inside of the rim. Also available in a 19048B stud mounting configuration

LC 4195B Center Mount Wheel Mount - Designed for use on truck wheels, the Bee Line LC 4195B holds standard Bee Line computer heads. The LC4195B wheel mount clamps securely to the lugs on the truck wheel. It holds securely during and after run-out which facilitates a fast and accurate alignment.

29070 Runway Service Step - This handy step is designed to make it easier to climb into a truck when it is parked on our Alignment Runways. This popular add-on attaches to any section of your AA Machine in 2 seconds and is extremely sturdy.

29600 Runway Lift Assembly - This must have tool uses 4 caster wheels that allow for easy movement in any direction and does not require the use of electric, air or hydraulics power. When the wheels are not engaged the lift does not affect the stability or load capacity of the runway section



ASSORTED BEE LINE ALIGNMENT ACCESSORIES

FP 7860 Rear Slip Plates - For a free sideways motion when making rear measurements and adjustments. Built with a triple row of steel roller bearings for a long life. These plates also have a convenient handle for easy positioning. The size of the Rear Slip Plates is 14" wide x 13 1/2" long.



FP 7860 Rear Slip Plates

FPT 8000 Portable Turning Aligner - The portable turning aligner can be used on the floor or machine for Cars, Light Trucks, SUV's and Heavy Duty Trucks. Heavy duty hardened steel bearings allow smooth movement. Convenient handle for easy positioning. The size of the Portable Turning Aligner is 15 1/2" Wide x 17" Long x 2 1/8" High. The aluminum topped turning aligner weighs only 32 pounds per plate and is rated to accept 10,000 pounds of weight.



**FPT 8000E Portable
Turning Aligner**

FPT 8000E Electronic Turning Aligner - The FPT 8000E differs from the FPT 8000 in that it can interface directly with the computer heads producing electronic measurements of the turn angles.

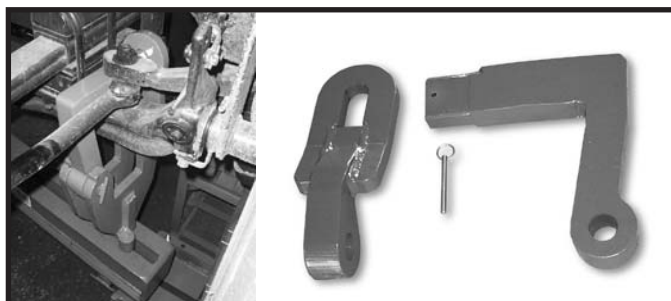


FPT 7850 Turning Aligner

FPT 7850 Turning Aligner - This turning aligner is the tried and proven workhorse in portable wheel alignment plates. The FPT 7850 Turning Aligner plates are 16" Wide x 16" Long x 1 3/4" High and weigh 64 lbs. Each.

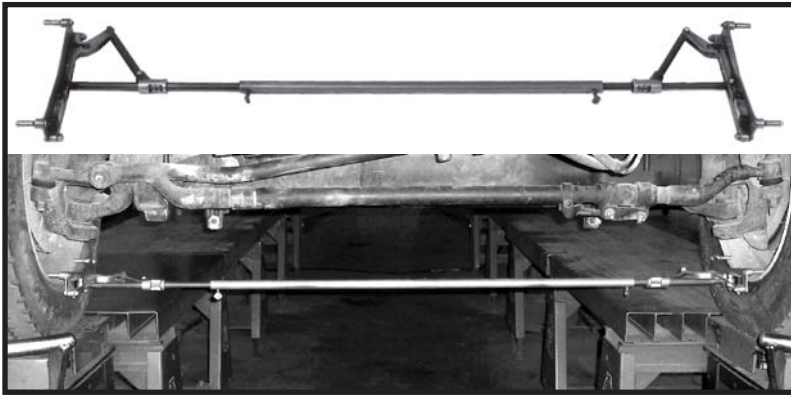
404075 Confined Area Clevis - This clevis is an essential heavy duty axle clevis that expands the functionality of our proven 406 Axle Tools. The new 404075 Confined Area Clevis is designed to slip around the axle on the outside of the spring seat on most trucks with 16,000 pounds or greater axles. The universal design eliminates the removal of the tie rod and in most cases the drag link when making a positive camber corrections.

404075 Confined Area Clevis





ASSORTED BEE LINE ALIGNMENT ACCESSORIES



1825B Wheel - Centering Gauge

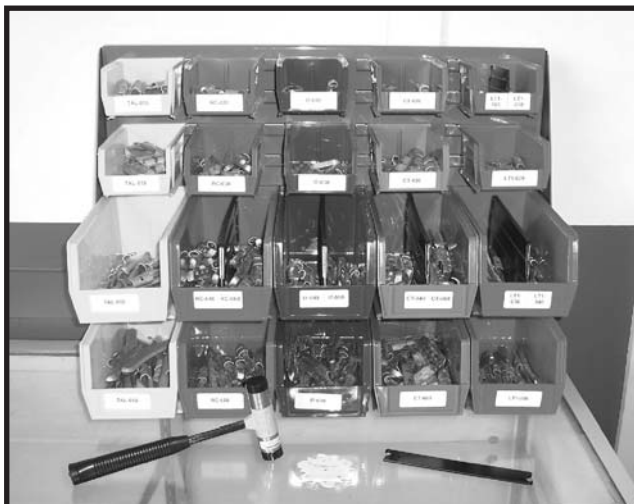
1825B Wheel Centering Gauge - The Bee Line 1825B gauge mounts easily between the front wheels of the vehicle and is held securely in position by spring tension. The gauge has readings on both ends which enable the operator to check and adjust individual wheels as well as combined toe. The 1825B can also be used for checking four wheel toe alignment. 1841 checking fixture is available for easy calibration. The 1825 CTA model is also available for use with transit bus models equipped with independent suspension.



100AL -100 Ton Aluminum Ram

100AL -100 Ton Aluminum Ram - Our 100AL is a breakthrough in 100 ton axle correction rams. Bee Line's Aluminum 100 Ton Ram weighs just 39 pounds, making it 61 pounds lighter than our Steel 100 Ton ram, and still just as rugged. Made from high tech aluminum the rams generate a full 100 tons of force at 10000 psi

WWKIT1 Wheel Weight Kit



WWKIT1 Wheel Weight Kit - This assortment is a comprehensive heavy duty truck assortment. It contains the coated "TAL" weight series for Alcoa and Accuride aluminum wheels and the "RC", "CT", "I7", and "LT1" series for tubeless and tube-type steel wheels. The WWKIT1, when used with a unique truck weight application guide, permits the installer to service the heavy duty market. Included with the assortment is a strong freestanding bench rack that provides convenient storage for 25 different sizes of wheel weights in individual bin compartments.



HEAVY DUTY TRUCK AXLE & HOUSING CORRECTION TOOLS

Exclusive Bee Line 405 & 406 Floating Beam Systems

To correct camber and caster on the big "Over The Road" rigs, Bee Line developed the "Floating Beam System" to make the procedure safe and easy. Specific tools have been designed to be used safely with the beam and when used with the Bee Line AA Alignment Machine, one worker can correct heavy duty truck axles right on the vehicle. For a complete parts listing see page 30.

Every Bee Line Floating Beam System comes complete with a handy "Beam Lift" shown below.. The beam lift raises and lowers the floating beam effortlessly into position saving you and your employees from any unnecessary heavy lifting.



Included with every Floating Beam System is this handy "Beam Lift" #15150.



19020 Spring Seat Gauge - Twisted axles cause trucks to shimmy and/or wander and also cause damage to the truck springs. This condition is both dangerous and costly. The Bee Line 19020 Spring Seat Gauge is designed to measure the difference or amount of twist found between spring seats. If the axle is found to be twisted, the 405 or 406 floating beam systems can easily and accurately correct the problem.

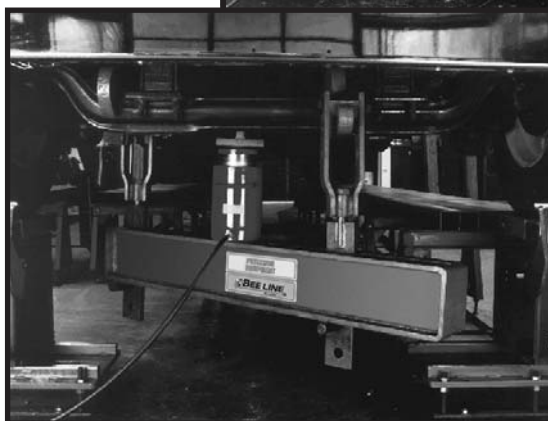


Increasing caster on right side outside of spring seats.

Equal camber decrease with the 405 B Axle Tool Group.



Increasing caster on right side inside spring seats.



Equal camber increase with the 406 Ultra Duty Axle Tool Group.

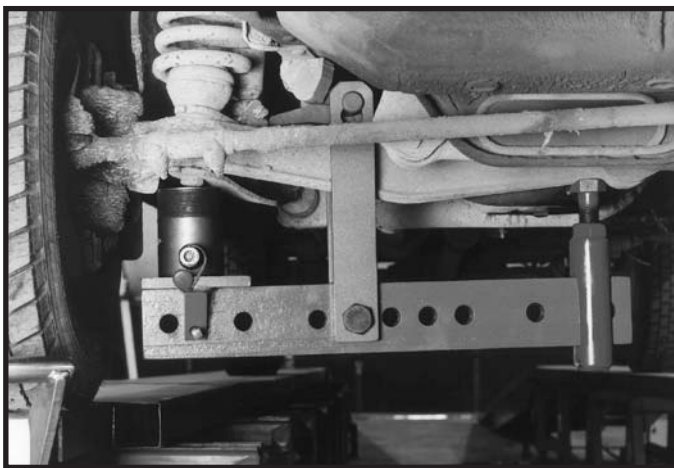
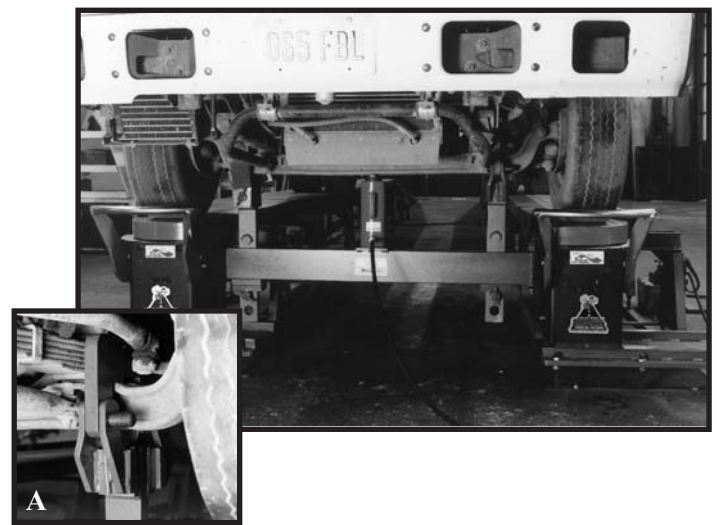




MEDIUM & LIGHT DUTY AXLE & HOUSING TOOLS

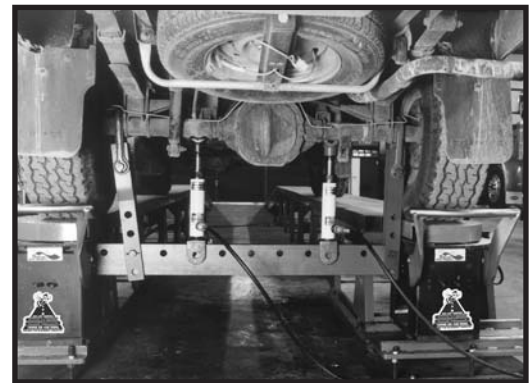
404 Tool Group

The 404 Tool Group is designed for camber correction on the growing market of medium duty trucks with 4000 to 7000 pound axles, motor homes and the Ford Super Duty with straight axles. The 404 Axle Tooling can be used with any wheel alignment machine without a fixed beam between the turn tables. An optional 404150 clevis for Isuzu & Mitsubishi trucks is available shown in box (A). #404100AL Aluminum Cross Bar is also available (not shown). For a complete parts listing for this tool group see page 29.



2700 Twin "I" Beam Tools

Add the 2700 tool group to your alignment facility and watch your profits grow. The Twin "I" Beam tools can correct camber and caster on all non-adjusting Ford twin "I" beam axles. These tools, combined with your hydraulic pump, allow you to make accurate corrections on any alignment machine. For a complete parts listing for this tool group see page 29.

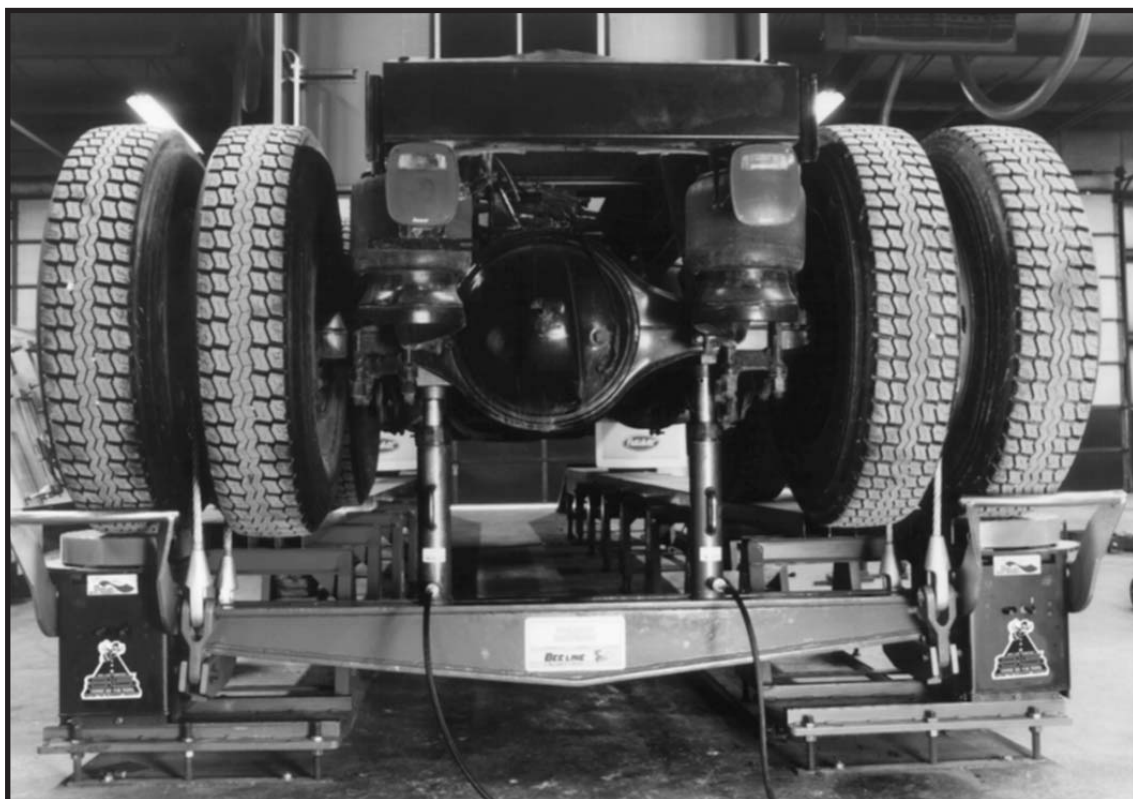


403 & 403B Light Duty Front Axle And Rear Housing Correction Tools

The 403 Tools Group allows you to offer another service that most shops turn away. These tools are designed to correct straight axles up to 5000 lbs. And rear housings on all cars, light trucks and sport utility vehicles up to 1 ton. These tools operate with two 10 ton rams or one 20 ton ram. The 403B is designed for small trailers. For a complete parts listing for this tool group see page 31.



HEAVY DUTY REAR TRUCK AXLE & HOUSING CORRECTION TOOLS

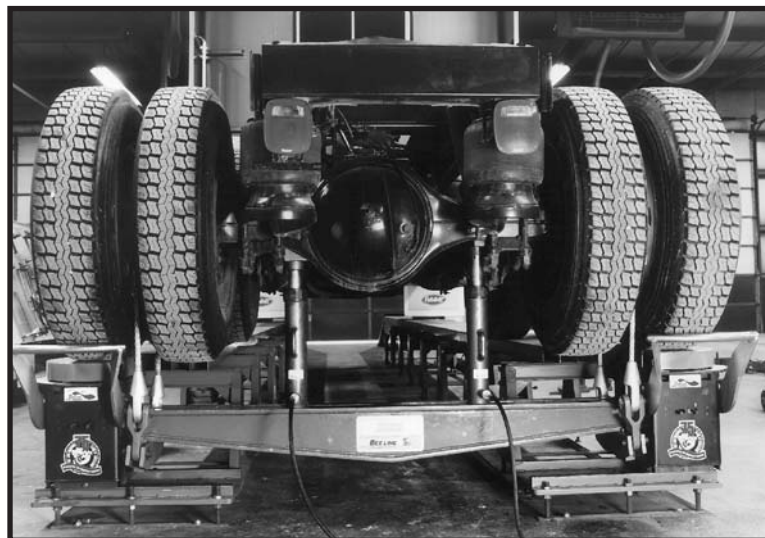


Tool Group 6 Truck, Housing & Trailer Rear Axle Tools

With the Tool Group 6 you can correct rear housings on or off the vehicle for Toe and Camber. Requires two 20 ton rams (recommended FR20.19 pictured below). For a complete parts listing for this tool group see page 30.



FR20.19 20 Ton Ram





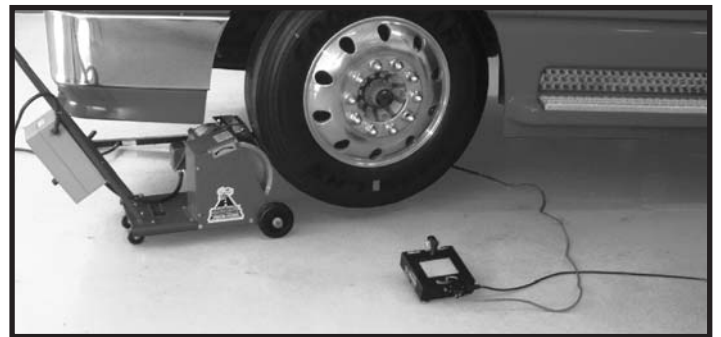
ON THE WHEEL WHEEL BALANCING SYSTEM

The Smart Balancer

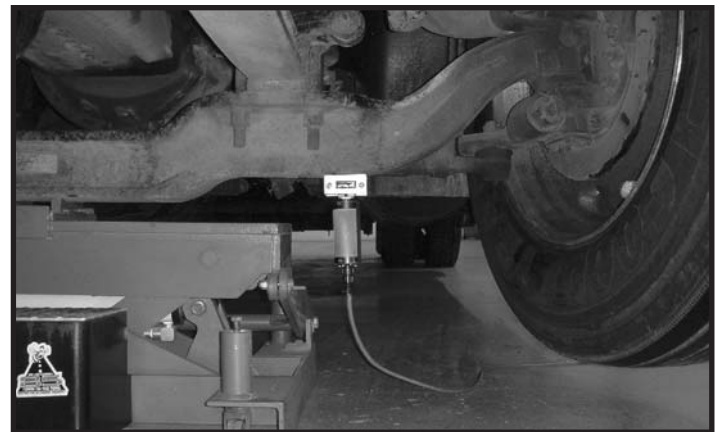
The Smart Balancer is easily the most user friendly on the wheel balancer on the market today. The Smart Balancer replaces the old strobe type balancers with a new unit that anyone could use. From initial set up through the completion of the balance, the technician is prompted by a simple touch screen pad on the Smart Balancer console.

On the wheel balancing refers to the Truck Maintenance Council's official recommended practice of truck wheel balancing. On the wheel means the wheel is never removed from the truck during the balancing procedure. By leaving the wheel on, a technician not only balances the tire, he balances the hub and the drum in relationship to the truck's suspension. Balancing the entire wheel assembly provides a far more accurate, "smart" balance. Simply put, there is no equal.

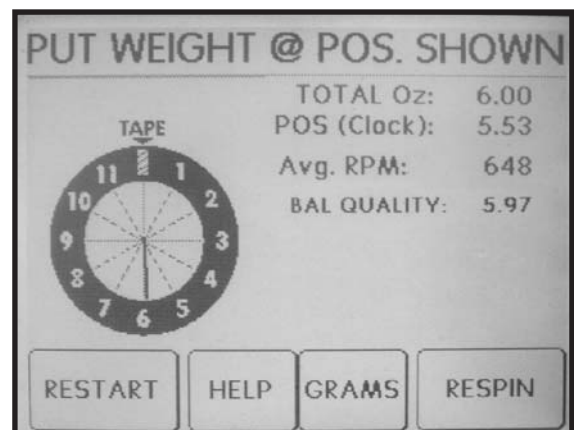
The Smart Balancer takes the guesswork out of placing weights on the tire. In a few short spins the touch screen illustrates the exact amount of weight and the exact position on the wheel the weight should be added. This process removes the chance for error and dramatically decreases the time it takes to balance each wheel. With the Smart Balancer, you make more money with a better quality balance in less time.



1. A spinner brings the wheel up to speed.



2. A sensor measures wheel vibration.



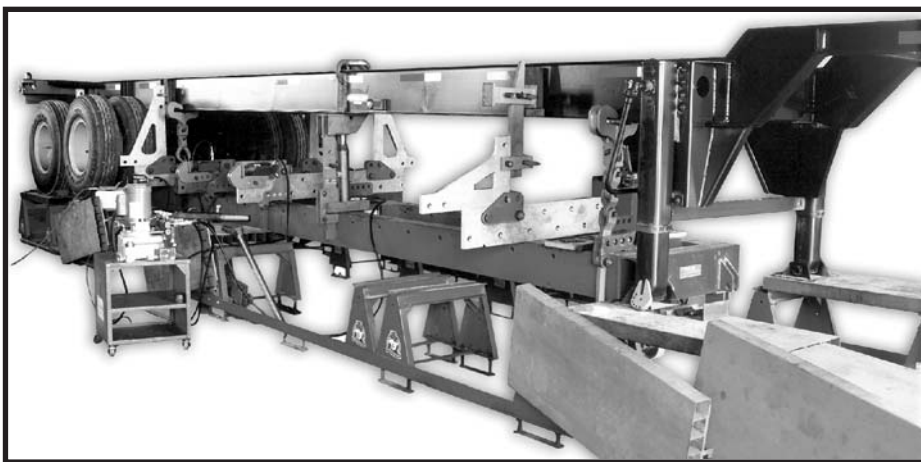
3. The touch screen indicates the position and how much weight should be placed on the wheel.



BEE LINE TRUCK FRAME MACHINES

Bee Line is Number One in truck frame straightening with more truck frame machines in the U.S. than all of our competitors combined.

If making money is as important to your company as it is to most companies, then you need the Bee Line Frame Machine. Bee Line Frame Straightening Equipment is the only complete chassis and suspension correction system for heavy duty vehicles and trailers of all types. Considered the most accurate and efficient chassis and total correction system available. Bee Line leads the Truck and trailer Frame Straightening Industry with its vast experience in equipment manufacturing, safety, training, after sales service and profit potential. Bee Line's Frame Press will help you diagnose and remove any frame problem like sags, side-sway's, twists or diamonds. For details on frame press tooling (group 40B) see pages 31-34.



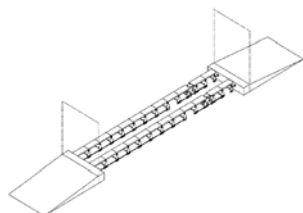
Easily remove runway sections making working area even more accessible.

Drive On Truck Frame Press

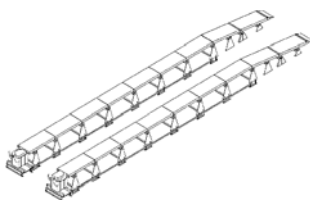
The Bee Line Frame Press was designed to be very operator friendly. By utilizing the runway system you can easily drive any vehicle onto the frame press. With the truck or trailer now at the proper elevation, excess runway sections can be removed. Working at a convenient height creates less strain on an individual, reducing the chance of injuries to you or any of your employees. Each Bee Line Frame Press comes complete with these great features:

- 1) 45 inch removable runway sections allow easy access to the work areas.
- 2) Unique center frame press design raises and lowers the tool supporting press anywhere from 19 to 42 inches bringing the frame straightening base to the chassis to be straightened without any pressure being applied to the runways. The Frame Press is raised and lowered by 20 ton telescoping ram's located on each end of the frame press.
- 3) Sturdy drive on ramps and runways are strong enough to support 32,000 pounds per vehicle axle, making it easy to position damaged vehicles directly on the frame press.
- 4) Versatile, adaptable tooling straightens any size frame. All Bee Line tools are engineered to be operator friendly allowing for easy set up and tear down.
- 5) Bee Line self centering gauges give you the most precise, accurate frame alignment readings.

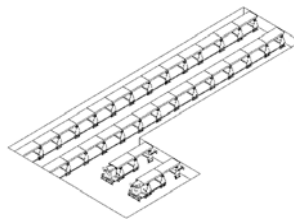
Modular construction options to be used in conjunction with the Bee Line Truck Frame Machine.



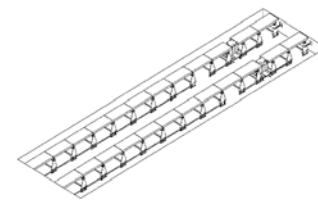
AA 12D4 - 12-Section drive thru frame and wheel alignment machine with exterior concrete approaches.



AA 7D2 WITHAR 330C - 7-Section above ground wheel alignment machine with double approaches.



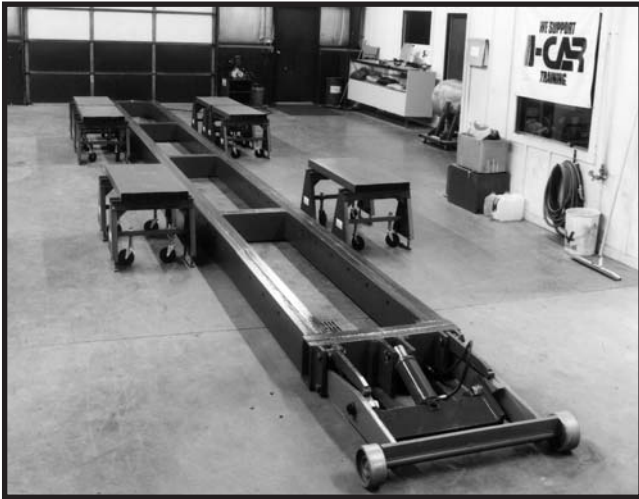
AA 2D2 WITH AR13R - "L" Pit - 13 section drive thru frame machine with 2 section AA with turning aligner heads.



AA 12D4 - 12 section AA drive thru with turning aligner heads.



BEE LINE TRUCK FRAME MACHINES



Portable Frame Press

Bee Line's portable frame press allows the truck to be lifted to a convenient work height and also allows you to bring the tools up to the job. Each Bee Line Frame Press rolls smoothly on four heavy duty bearing wheels, making it possible to free the bay up when necessary. Since the portable frame press brings the work up to you, you can now eliminate the strain and stress of constantly bending over to work on machines which need to be corrected and aligned.

When not in use, the portable frame press can be moved and stored elsewhere, making the bay free for other jobs. Since no floor rails are required, the bay is free of all obstructions.

Lightweight Aluminum Runways

Bee Line's Portable Aluminum runways are ideal for use with Bee Line's Portable Frame Press. After the press raises the vehicle, runway sections can be removed and stacked to keep the vehicle elevated while frame adjustments are being performed. Cab corrections can also be made by utilizing the Bee Line Power Tower. Add the 29540P Low Profile KPI Turning Aligners and the 7600 Floor Jack and you have a totally portable alignment bay(Fig A& B below)

402600 Portable Runway Specifications: Weight per section: 52 pounds Load Capacity: 5 tons per section Runway Sections: 20" wide x 48" long x 8" tall



Portable Aluminum Ramps allow even the lowest profile vehicles enough clearance to traverse the Bee Line Drive Over Frame Press.



A - The Bee Line 7600 Floor Jack securely lifts the vehicles front end while taking runout measurements.



B - Sections snap-lock together and can be easily transported with the 402620 cart.

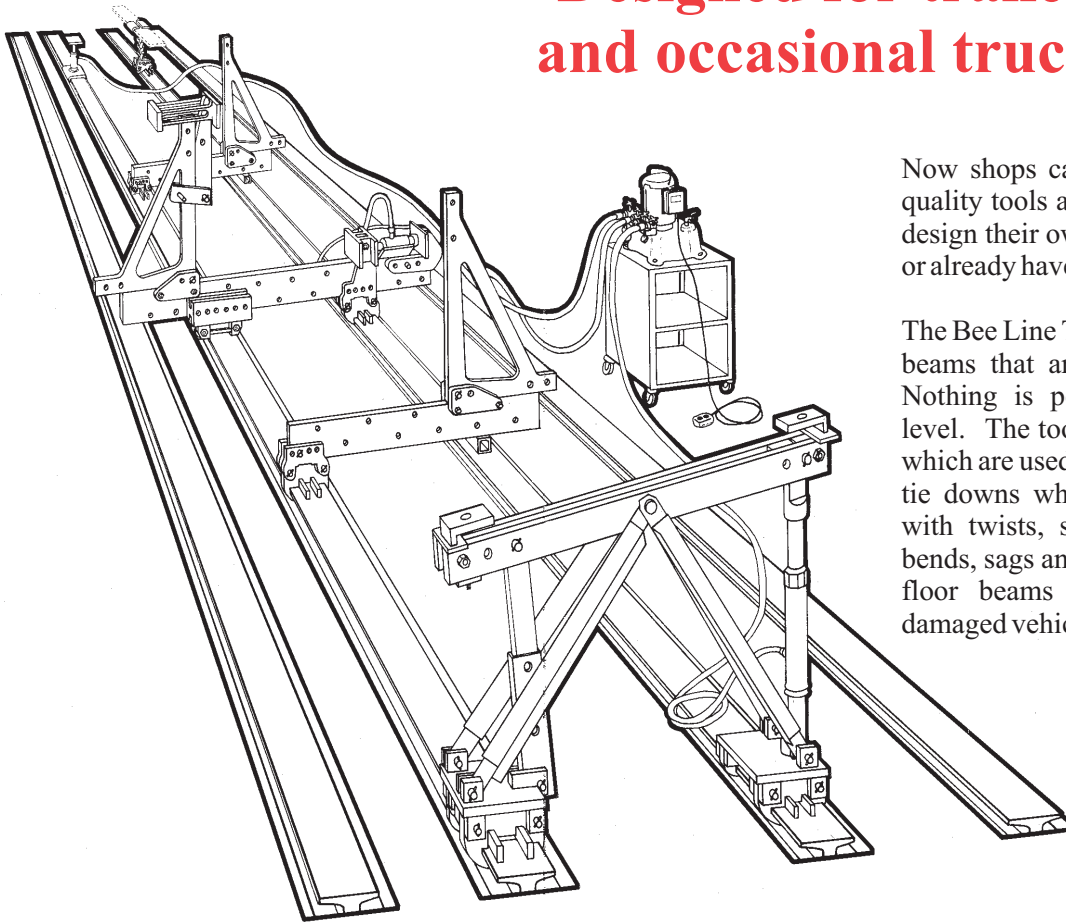


C - Sections snap-lock together and can be easily transported with the 402620 cart.



BEE LINE "I" BEAM FRAME SYSTEM

**Designed for trailer frame repair
and occasional truck frame repair.**



Now shops can enjoy the benefits of Bee Line quality tools and accessories even if they plan to design their own "I" beam type floor installation, or already have an existing installation.

The Bee Line TR110 tool set is designed to use "I" beams that are mounted securely in the floor. Nothing is permanently mounted above floor level. The tools mount directly to the "I" beams which are used as the base for all pulls, pushes and tie downs when making corrections on frames with twists, side-sway, horizontal and vertical bends, sags and diamond damage. The use of in-floor beams allows easy positioning of the damaged vehicle for corrections.

"I" Beam Frame System Tooling Options (See pages 41-45 for a parts breakdown)

TR100 - Hold down sag correction system with hydraulic rams and pump.

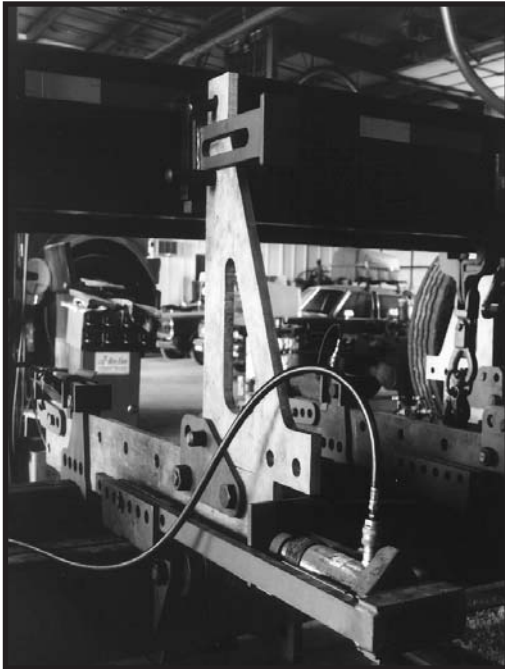
TR110 - Deluxe tool set complete system with trailer twisting tools, pumps, 49 frame gauge set, dump body tooling and complete frame correction tooling.

TR120 - For an existing installation that has hold downs, tooling, pumps and rams, as in group TR100.

TR100 200 - Hold down and sag tooling with dump body tooling.



BEE LINE FRAME PRESS ALUMINUM TOOLING



With over 85 years of experience in the Alignment and Frame Straightening Industry, Bee Line knows how to do the job right...**THE FIRST TIME!** Bee Line has a reputation for quality, hard working tools that withstand the test of time, no matter what type of working environment you are in.

Bee Line doesn't compromise when it comes to the strength and safety of its equipment. Bee Line Frame Press Aluminum Tooling is as strong as steel and much lighter, helping to avoid physical strain and saving your employees time in assembly. Whether you are working on diamonds, side-sway, sag's or twists the rugged Bee Line Aluminum Tooling performs any type of major frame correction easily without the use of any heat, thus maintaining the original strength of the frame.

The Bee Line aluminum tools are interchangeable with their steel counterparts, allowing for quick and easy replacement. Where else can you find the equipment with the strength **AND** reliability required to do the best job possible yet light enough to not overwork the frame mechanic. When it comes to quality, hard working Frame Press Equipment, trust the industry leader, Bee Line, to help you.



Aluminum Tooling Weight Comparisons

Description	Part #	Material	Weight
KNEE 14 3/4" x 24"	403022	STEEL	41 lbs.
KNEE 14 3/4" x 24"	403022AL	ALUMINUM	19 lbs.
KNEE 18" x 30"	403023	STEEL	56 lbs.
KNEE 18" x 30"	403023AL	ALUMINUM	24 lbs.
KNEE 22 3/4" x 38"	403038	STEEL	80 lbs.
KNEE 22 3/4" x 38"	403038AL	ALUMINUM	36 lbs.
CROSS BAR 39"	403018	STEEL	83 lbs.
CROSS BAR 39"	403018AL	ALUMINUM	33 lbs.
CROSS BAR 48"	403019	STEEL	102 lbs.
CROSS BAR 48"	403019AL	ALUMINUM	40 lbs.
CROSS BAR 66"	403020	STEEL	140 lbs.
CROSS BAR 66"	403020AL	ALUMINUM	57 lbs.
CROSS BAR 84"	403020A	STEEL	178 lbs.
CROSS BAR 84"	403020AAL	ALUMINUM	74 lbs.



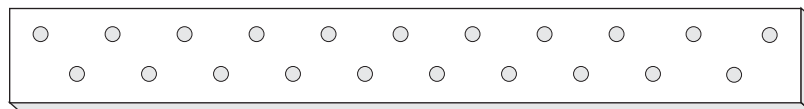
FRAME PRESS ACCESSORIES

403112 Trailer Twisting Tool Assembly - The Bee Line trailer twister utilizes the Bee Line long 20 ton push ram which is safely locked into position both at the top and at the bottom. The rear of the trailer is anchored and blocked or a vertical knee is used to assist in the removal of twist from damaged trailers. This assembly can be ordered for floor systems as 403112F.



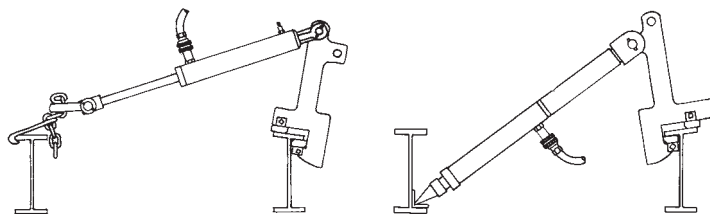
403112 Trailer Twisting Tool Assembly

403020AAL Bee Line Aluminum Cross Bar - The Bee Line 403020AAL (aluminum) or 403020A (steel) can be used on truck frame repair and is essential for trailer correction.



**403020AAL
Aluminum Cross Bar**

403300 Flange Tool - The Bee Line 403300 "I" Beam Flange Tool is ideal for shops doing "I" Beam trailers. It sets up quickly and easily in areas where other flange correction tools won't fit. It is designed for both push and pull corrections. Use with a 10 ton push ram and a 10 ton pull ram (Rams not included).



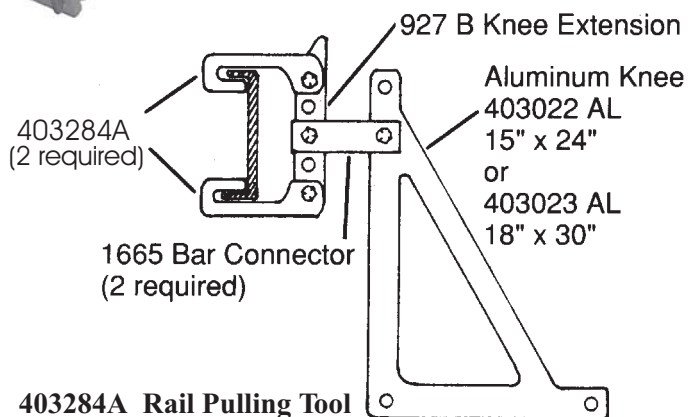
403300 Flange Tool

1420 Flange Finishing Tool - The Bee Line 1420 flange finishing tool is designed to iron out wrinkles in truck frame flanges. The Bee Line flange finishing tool can be walked down a frame flange and with a small Bee Line FR 10.5 ram applying 28 tons of force as needed to make the flange like new. This tool fills an awaited need to finish flanges during truck frame straightening.



1420 Flange Finishing Tool

403284A Rail Pulling Tool - The Bee Line Rail Pulling Tool has been designed to conveniently fit easily into tight work areas, making your job easier.



403284A Rail Pulling Tool



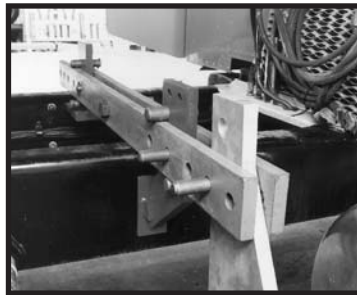
FRAME PRESS ACCESSORIES



403390 Adjustable Hand Flange Wrench

403390 Adjustable Hand Flange Wrench - The Bee Line Multi-Position Adjustable Flange Wrench is designed to allow the operator the ideal amount of leverage for straightening flanges. Standard head - 1/2" opening. Optional Heads - **403399** - 3/4" opening, **403398** - 1/4" opening, **403401** - 3/8" opening and **403400** - 5/16" opening

403360 Transmission Bypass Tools



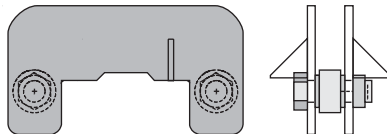
403360 Transmission Bypass Tools - These tools eliminate the need to remove transmissions and other equipment when doing frame work. Use bars from trailer twister. Requires 1 - FR20 20-Ton Ram for pushes or 1 - 109170 Short 10-Ton Ram for pulls, see page 36 for a complete listing of rams. Rams not included in #403360 set.



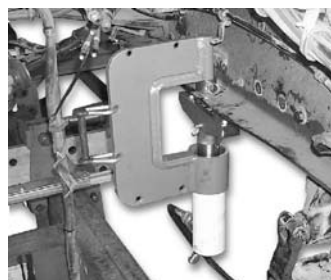
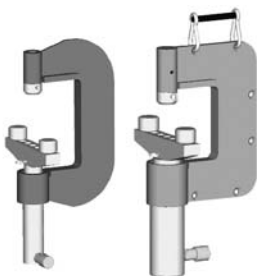
1680 Side Sway Cradle Assembly

1680 Side Sway Cradle Assembly - Make your frame jobs easier with the Bee Line 1680 Housing Cradle Assembly which includes the following Bee Line Equipment. The set includes the 1662 Lower Cradle, the 1682 Upper Housing Cradle and the 1658 Housing Ram Adapter - 10 ton. The purpose of the cradle is to allow the front tandems to float freely during frame corrections for increased accuracy. Note: 10-Ton ram (FR10) is optional.

403076L Cross Roller Pull Assembly



403076L Cross Roller Pull Assembly - Modify your frame press with the 403076L cross roller pull assembly. This assembly reduces the weight of the cross roller from 96 lbs. To 15 lbs. while also decreasing the size. It can be used directly with any Bee Line frame press tooling. **#403076** required for pushes.



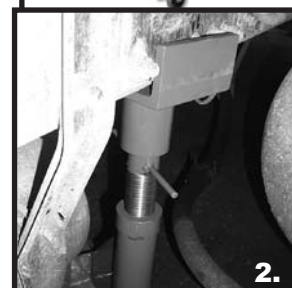
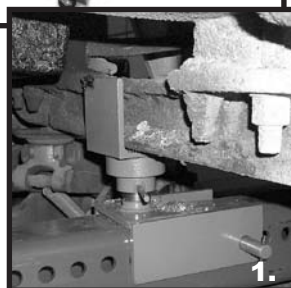
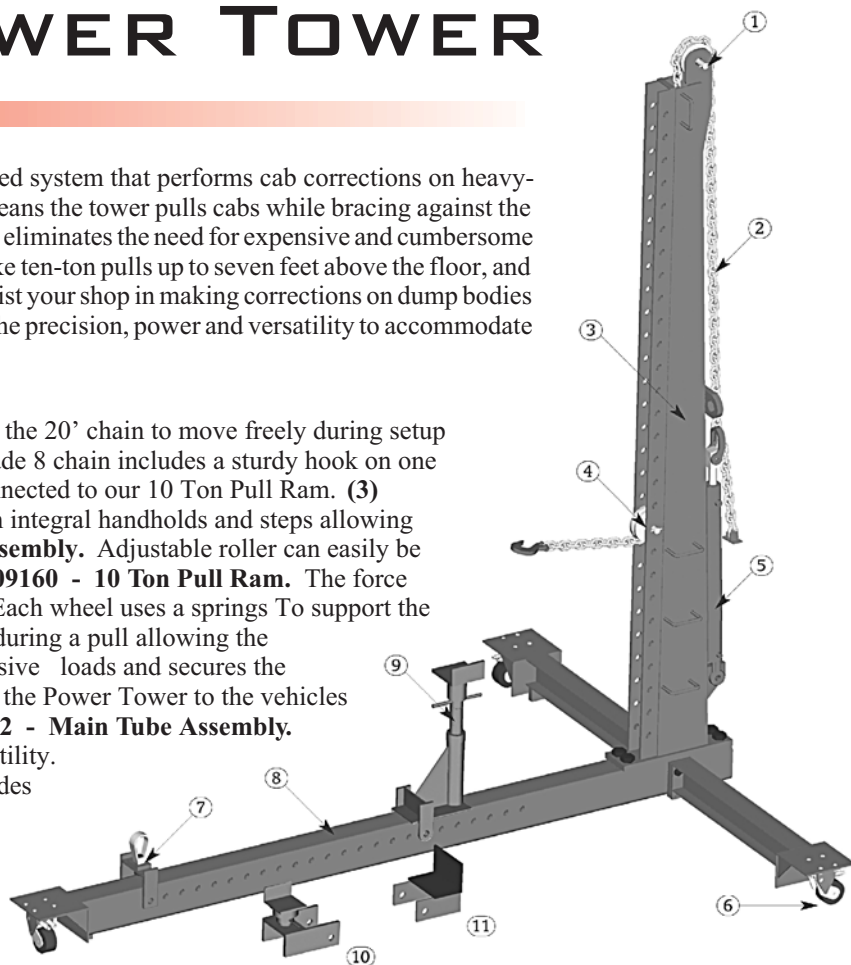
10 and 20 ton C Clamps - When making repairs on damaged truck and trailer frames, the strength of the frame is not 100% until it is returned to its original form. That means that every buckle and kink on the frame's flanges and web must be restored before the vehicle is completely safe to return to the road. Bee Line's powerful C clamps are designed to make this restoration as safe and efficient as possible.



BEE LINE POWER TOWER

The Bee Line Power Tower is a totally portable, self-contained system that performs cab corrections on heavy-duty trucks with the vehicle on the floor. "Self-contained" means the tower pulls cabs while bracing against the vehicle's frame or axle. Bracing the Power Tower to the frame eliminates the need for expensive and cumbersome floor tie downs. The extremely strong and rigid tower can make ten-ton pulls up to seven feet above the floor, and five ton pulls above seven feet. The Power Tower will also assist your shop in making corrections on dump bodies and enclosed trailers. This stand alone work horse combines the precision, power and versatility to accommodate all of your correction needs.

(1) **11051 - 5" Chain Roller.** This grooved pulley allows the 20' chain to move freely during setup and pulls. (2) **11185 - 20' Chain Assembly.** A 7/16 Grade 8 chain includes a sturdy hook on one end and a stopping mechanism on the other that keeps it connected to our 10 Ton Pull Ram. (3) **11110 - Tower Assembly.** The Tower comes equipped with integral handholds and steps allowing setup of pulls high on the vehicle. (4) **11167A - Roller Assembly.** Adjustable roller can easily be moved to any height along the Tower for exact pulls. (5) **109160 - 10 Ton Pull Ram.** The force behind every pull. (6) **11170 - Spring Loaded Casters.** Each wheel uses a springs To support the weight of the Power Tower when transporting and retracts during a pull allowing the beams to rest on the floor. This saves the casters from excessive loads and secures the unit during operation. (7) **11180 - Chain Anchor.** Secure the Power Tower to the vehicles frame or axle for extra support on off center pulls. (8) **11122 - Main Tube Assembly.** 6" x 6" tube contains pin holes every 3" for maximum versatility. (9) **11150A - Frame Support.** This adjustable knee provides support on the frame of vehicles during side pulls. (10) **11136A - Axle Support.** This adjustable knee provides support on axles of nearly any height. (11) **11190 - Low Axle Knee.** This static Knee is designed to fit under the lowest axles.

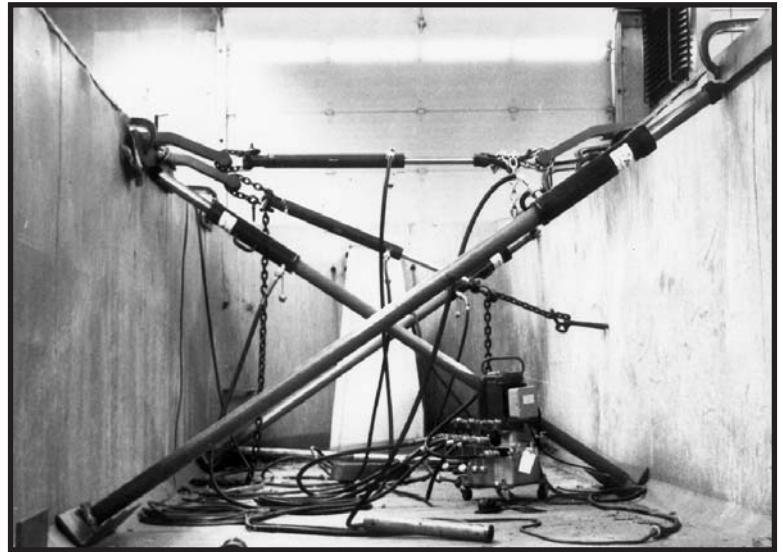
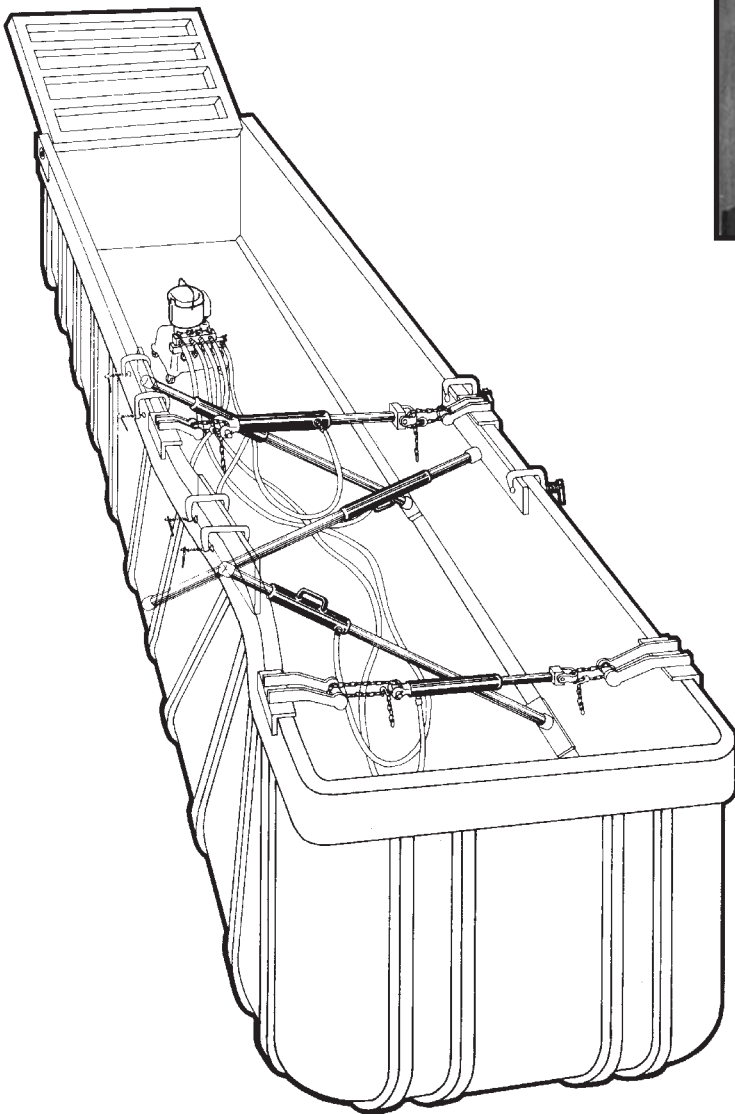


Make pulls from a variety of directions with the Power Tower's unique design. The interchangeable Axle Knee (fig. 1) and Frame Knee (fig. 2) insure a safe and sturdy foundation for every pull. A Low Axle Knee is included for drop down axles. An adjustable chain ring allows additional bracing to the vehicle frame for "off center" pulls. See the reverse side for additional parts and features of the Bee Line Power Tower.



TR TOOL GROUPS FOR CAGE, FRAME & DUMP BODY TOOLS

The Bee Line Dump Body Tool Set offers the frame shop the opportunity to keep work in-house that would normally have to be sent out to another repair shop. This tool set supplies the necessary tools to reshape damaged dump bodies, utilizing Bee Line's tested and proven rams and extensions. The operation is fast, safe and easy.



TR 200 - Complete Dump Body Correction Tools, comes complete with both pumps and rams.

TR 300 - Additional Dump Body Tools to add to Tool Group 40B.

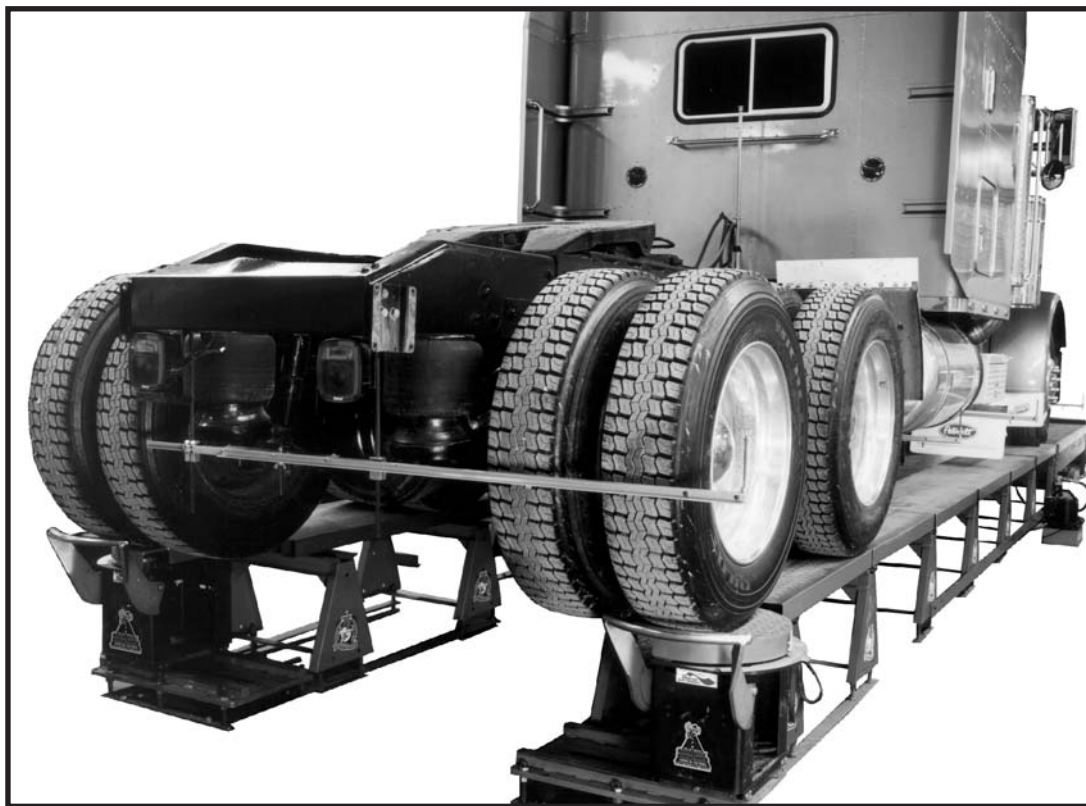
See Page 35-39 for complete tooling breakdown of all TR tooling groups.



CENTERLINE GAUGING

The Bee Line Gauging Systems are tried and proven through many years of in-shop usage. The system is trouble free and simple to use, all you do is merely hang the self centering gauges. Make your corrections until the sight rod points and the crossbars are visually all in alignment.

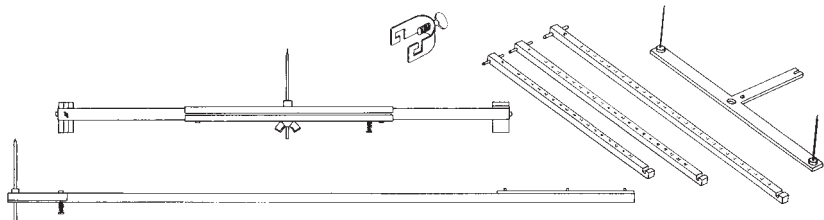
Datum Line and Centerline are clearly visible with this type of gauging system. The frame gauge extensions transfer the centerline sight rods to the outside of the vehicle for easier viewing. Adjustable vertical support rods provide easy height adjustment for datum line check. The Bee Line frame gauges will also accurately indicate side sway, twist, sags, horizontal and vertical bends.



TOOLGROUP #49

Bee Line Tool Group #49 is designed for Heavy Duty Truck Frame Gauging. These rugged, dependable gauges quickly pin-point the damage on any truck frame.

Bee Line's 21361 **Diamond Sight Gauge**, included in Tool Group 49, provides a check for diamond condition. The slightest diamond condition is clearly indicated by this unique gauging. See page 31 for a complete listing.





HYDRAULIC PUMPS AND RAMS

Get Power Where You Need It...Delicately!



900D

899 Stand for 900 Series Pumps (Optional)



875 PSI Gauge (Standard)

Know how much pressure you are applying. The Bee Line PSI Gauge allows you to know how much pressure you are applying continuously. This gauge plugs directly into the coupler on the pump. With the Bee Line PSI Gauge you will never need to guess again if your pump is working correctly.



900 Series Electric Hydraulic Pump

The Bee Line Electric Hydraulic Pumps are the finest pumps available on the market. The pumps allow operation of rams together or separately. They operate on 115V, 10,000 PSI and require 30 amp service.

The two stage system has a high volume first stage for output below 300 PSI. It automatically switches to a 10,000 PSI second stage for efficient work.

The electric pump unit is available with a solenoid control valve, or a hand held automatic release control switch valve. Listed below are the specifications on the models available from Bee Line.

- 900B** Four valve pump for frame applications
- 900E** Two valve pump for alignment applications
- 900C** Four valve pump with solenoid operated valve
- 900D** Two valve pump with solenoid operated

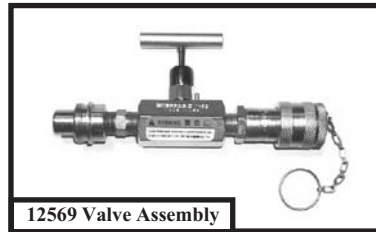
Model 7500

This pump operates on air pressure and allows operation of two hydraulic rams individually or together with maximum output of 10,000 psi. The Model 7500 is designed to be foot or hand operated and is equipped with a 2 gallon reservoir.



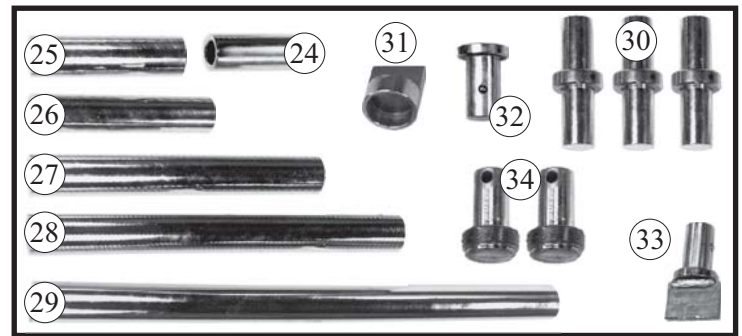
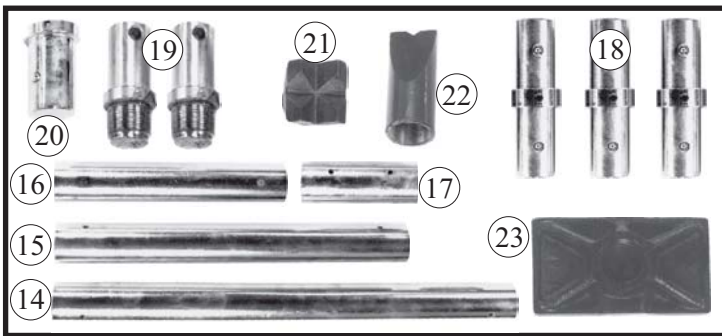


BEE LINE



Bee Line Ram Specifications (all rams rated at 10,000 psi)

Number	Model	Description	Tons Capacity	Closed Height	RAM Travel	Extended Height	RAM Diameter	RAM Retraction	Wt. (lbs.)	Repair Kit	Repair Kit Option
1	FR10	Standard 10 ton ram w/HD couplers	10	11 3/4"	6"	17 3/4"	2 1/4"	Spring	11	HW80807	RPA82093
2	FR10.5	Short 10 ton ram w/HD couplers	10	4 1/2"	2 1/2"	7"	2 1/4"	Hand	5	HW80808	
3	FR10.16	Long 10 ton ram w/HD couplers	10	15 3/4"	10"	25 3/4"	2 1/4"	Spring	15	HW80807	RPA82093
4	FR20	Standard 20 ton ram w/HD couplers	25	11 1/2"	5"	16 1/2"	3 1/2"	Spring	23	HW80809	ERC2510K
5	FR20.19	Long 20 ton ram w/HD couplers	25	19 1/2"	13"	32 1/2"	3 1/2"	Spring	40	HW80809	ERC2510K
6	FR30.5	Short 30 ton ram w/HD couplers	30	4 3/4"	2 1/4"	7"	4"	Hand	14	HW81067	
7	FR60	60 ton ram w/HD couplers	60	11"	6"	17"	5 1/2"	Spring	57	HW80812	
8	402230	20 ton telescoping ram w/HD couplers	20	10 1/2"	13"	23 1/2"	4 1/2"	Hand	43	402240	
9	100.20	100 ton ram	100	10 1/2"	4 1/2"	15"	7"	Spring	104	100.17	100.17P
	100AL	100 Ton Aluminum Ram (not shown)	100	10"	4"	14"	7"	Spring	40	100.17	
9A	130.0	130 ton ram	130	10 3/4"	4 1/8"	14 7/8"	8"	Spring	135	130.17	
10	109170	Short 10 ton pull ram	10	21"	11"	32"	2 1/2"	Air	31	109149	
11	109140	X-long 10 ton pull ram w/o valves	10	30 1/2"	21"	51 1/2"	2 1/2"	Air	40	109149	
12	109200	20 ton ram (shown above right)	20	27"	13 1/2"	40 1/2"	3 1/4"	Air	30	109210	
13	FR30	Long 30 ton ram w/HD couplers	30	10 1/2"	6"	16 1/2"	4"	Spring	3	Hw8081000	
14	402500.1	Short 20 ton ram (shown above right)	20	2 7/8"	1 1/4"	4 1/8"	-		5	BLE20T1A	



109000 10 Ton Ram Extension Kit

Number	Part Number	Description
14	109024	24" Extension Tube
15	109018	18" Extension Tube
16	109012	12" Extension Tube
17	109006	6" Extension Tube
18	109001	Tube Connectors (3)
19	109004	Ram Connectors (2)
20	109007	Tube Cap
21	A1035	Concave 90 Degree Head
22	Z129	Wedge Head
23	A1058	Flat Head

Optional - Not Shown - 1034 10 Ton Ram Base

403200 20 Ton Ram Extension Kit

Number	Part Number	Description
24	403206	6" Extension Tube
25	403209	9" Extension Tube
26	403212	12" Extension Tube
27	403218	18" Extension Tube
28	403224	24" Extension Tube
29	403236	36" Extension Tube
30	403210	Tube Connectors (3)
31	403205	Ram Spade
32	403202	Extension Cap
33	403208	Extension Spade
34	403204	Ram Connectors (2)

Optional - Not Shown - 403235 68" Extension Tube & 1037 20 Ton Ram Base

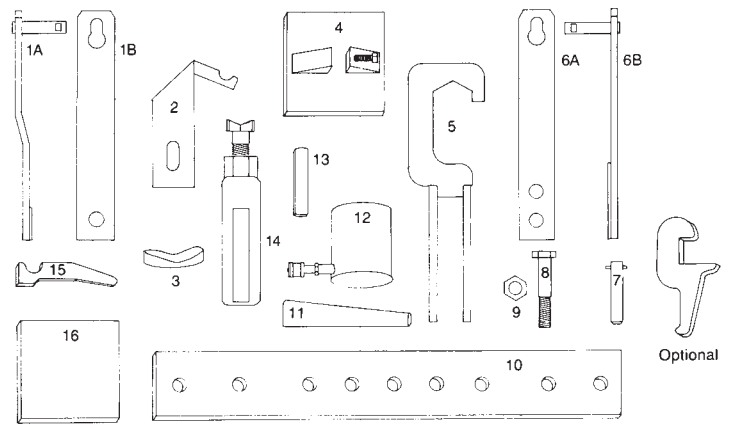


TOOL GROUPS

2700 Tool Group - Twin "I" Beam Tools

Number	Part Number	Description
1	2721	Connector assembly for wide axle inc. 2713 & 2714
1a	2713	Side with Stud
1b	2714	Side Link
2	2722	Axle Block
3	1306	Jack Head
4	403104A	Jack Base
5	2704	Hook
6	2720	Connector assembly includes 2710 & 2709
6a	2710	Side Link
6b	2709	Side with Stud
7	1122	Pin
8	403059	1" - 8 x 4" A325 Bolt (2)
9	620012	1" - 8 Nut (2)
10	2719	Beam
11	919A	Wedge
12	FR30.5	30 Ton Ram (short)
13	1512	1" x 1" Spacer Block
14	2718	Dead Head Assembly
15	2728	Axle Block
16	1588	Base Spacer Block

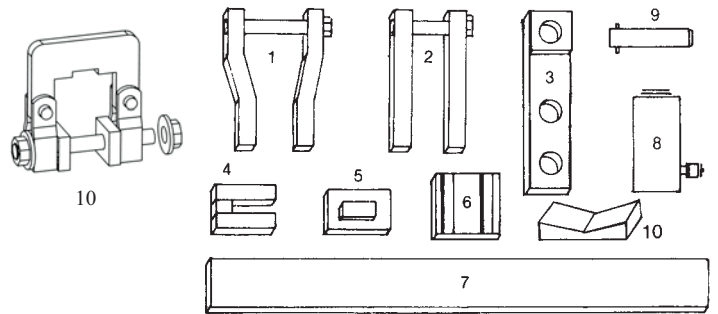
Optional - 1416 Twisting Hook (2 required)



404 Tool Group - Light Axle Tools

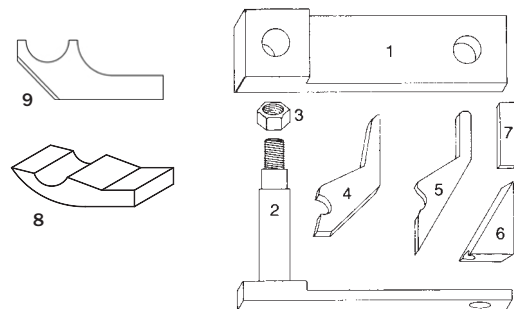
Number	Part Number	Description	404	404AL
1	404110	Spring Pad Clevis	2	2
2	404105	Narrow Clevis	2	2
3	404116	Connector	2	2
4	404120	Spacer	2	2
5	404119	Pin Adaptor Plate	2	2
6	404102	Jack Base	2	2
7	404100SP	Beam	1	
7	404100AL	Aluminum Beam		1
8	Fr30	30 Ton Ram	2	2
9	404067	Pin Assembly 1 1/2" dia. X 6"	4	4
10	404150	Import Truck Quick Clevis (Option)		

Optional - Not Shown - 2-1416 Twisting Hook for Caster Correction
Optional - 404151 Caster Correcting Yoke



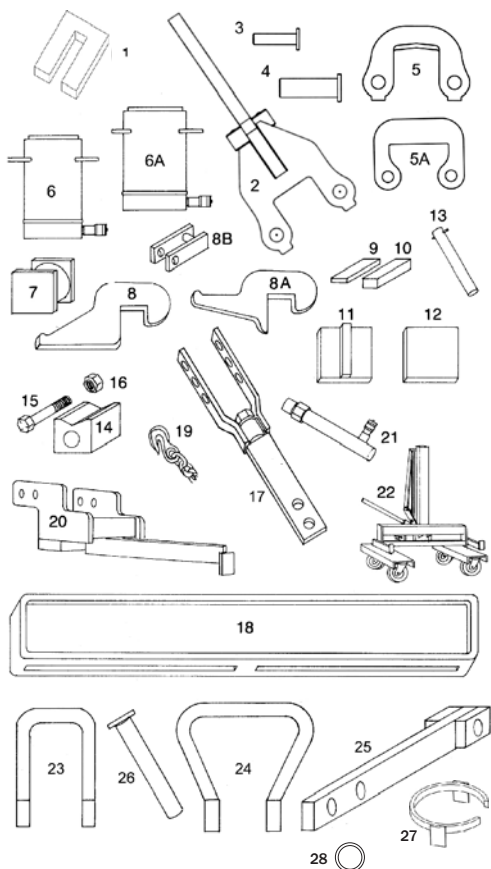
404044 Tool Group - Special Axle Tools

Number	Part Number	Description
1	404043	Clevis Side (Qty. 1)
2	404047	Clevis Side with Stud (Qty. 1)
3	640009	1 3/4 - 12 Full Nut (Qty. 1)
4	404048	Axle Block (Rockwell (Qty. 1))
5	404049	Axle Block (Mack Gear Side (Qty. 1))
6	404050	Axle Block (Mack (Qty. 1))
7	1511	1/2 x 1" Alloy Block (Qty. 1)
8	404058	Axle Block (optional)
9	404059	Low Clearance Axle Adapter



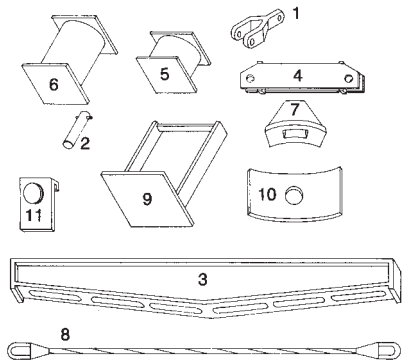


TOOL GROUPS



Tool Groups 405B & 406- Heavy Duty Axle Tools

Number	Part Number	Description	405B	405BL	406	406B	406U	406L
1	404005	Spacer	2	2	2	2		2
2	404060	Connector Ultra			2	2	2	2
3	404067	1.5" dia X 6" Clevis Pin Ultra			4	4	4	4
4	404065	2.5" dia X 8" Connector Pin Ultra			2	2	2	2
5	404063	Narrow Clevis Ultra			2	2	2	2
5A	404064	Spring Pad Clevis Ultra			2	2	2	2
6	100.20	100 Ton Rams	2		2			
	100AL	100 Ton Alum. Ram (not shown)		2				2
6A	130.0	130 Ton Rams				2		
7	1638	Jack Stands 5"	2	2	2	2		2
8	404030	Axle Hook 5" Wide x 5 1/2" Deep	1	1	1	1	1	1
8A	404052A	Twisting Hook	1	1	1	1	1	1
8B	404055	Extension	1	1	1	1	1	1
9	1510A	3/8" x 1 3/4" x 5 Blocking	4	4	4	4	4	4
10	1512A	1" x 1 3/4" x 5 Blocking	2	2	2	2	2	2
11	1585	Jack Tops	2	2	2	2	2	2
12	1588	Jack Base	1	1	1	1	1	1
13	403003	Pins	2	2	2	2	2	2
14	1589	Bushings	2	2	2	2	2	2
15	609024	1 1/4" - 7 x 6" Cap Screws	2	2	2	2	2	2
16	620013	1 1/4" - 7 Hex Nuts	2	2	2	2	2	2
17	1590	Axle Twisting Yokes	2	2	2	2	2	2
18	404000	56" Beam	1	1	1	1	1	1
19	15015	Chain 5/16"	1	1	1	1	1	1
20	15000	Spring Lift	1	1	1	1	1	1
21	FR10	10 Ton Ram	1	1	1	1	1	1
22	15150	Beam Lift	1	1	1	1	1	1
23	404010A	Clevis	2	2				
24	404011A	Spring Pad Clevis	2	2				
25	404012	Connectors	2	2				
26	404016	Pins	4	4				
27	100.3B	Transport Rings	2			2		
	130.3B	Transport Rings				2		
	100AL.3B	Transport Ring			2			2
28	403098	.688" Spacer			2	2		2

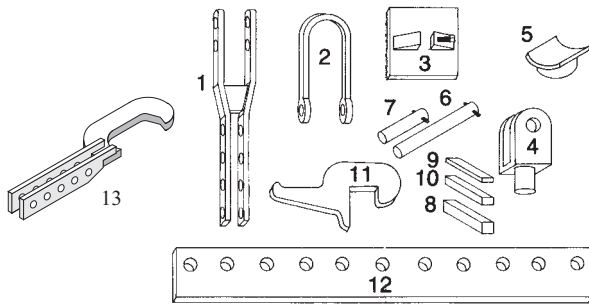


Tool Group 6 - Rear Housing Tools

Number	Part Number	Description	Qty.
1	1607	Extensions	4
2	1122	Short Pins	6
3	1650	84" Beam	1
4	1624	Cable Slings	2
5	1638	Jack Stand 5"	1
6	1639	Jack Stand 7"	1
7	1638A	Housing Cradle	1
8	1614	Cables	2
9	1630	Beam Support	2
10	1670	Housing Cradle Adaptor	1
11	1675	Ram Holder	2



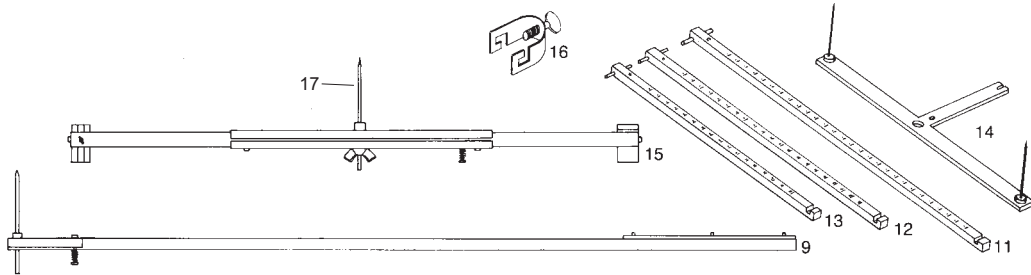
TOOL GROUPS



Tool Group 403 & 403B - Light Housing & Axle Tools

Number	Part Number	Description	403 Qty.	403B Qty.
1	404020	Connectors	2	
2	1213	Clevis	2	
3	403104A	Jack Base	2	
4	1038	Jack Holder - 10 Ton	1	2
5	1306	Jack Head	1	
6	959	Pins	1	
7	1122	Short Pins	3	2
8	1512	Alloy Blocking 1 x 1	2	
9	1510	Alloy Blocking 3/8 x 1	2	
10	1511	Alloy Blocking 1/2 x 1	2	
11	1416	Twisting Hooks	2	
12	1215	Beam	1	1
13	1300	Hook		2

49



Tool Group 49 - Truck Gauges

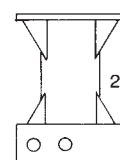
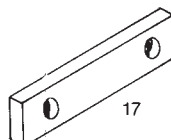
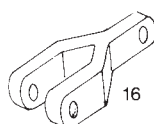
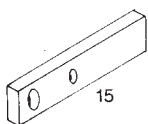
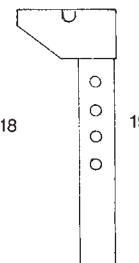
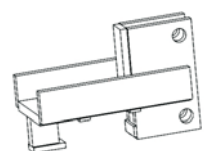
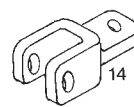
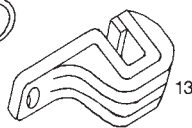
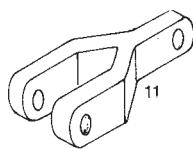
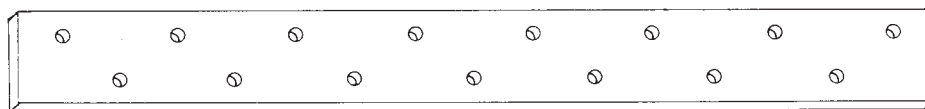
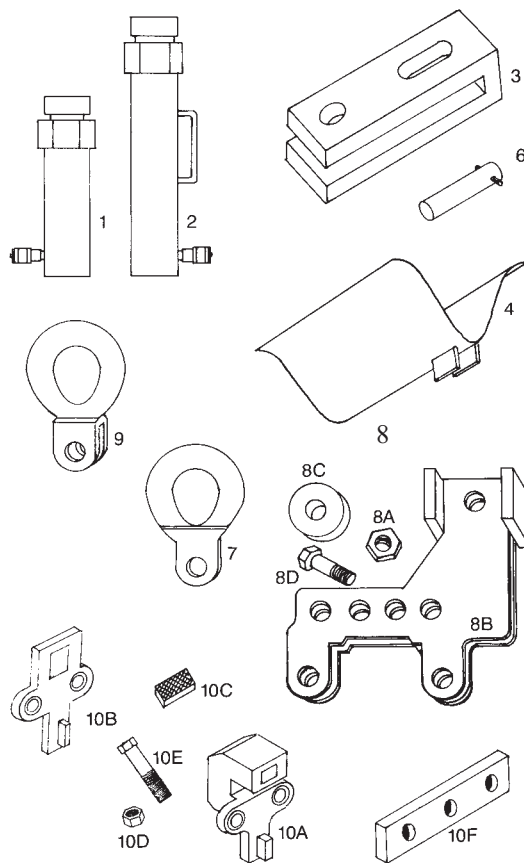
Number	Part Number	Description	Qty.
9	21360	Gauge Extension & Sight Pin	4
11	21310	Support Rod 28" (71.12 cm)	4
12	21316	Support Rod 22" (55.88 cm)	4
13	21318	Support Rod 14" (35.56 cm)	4
14	21361	Diamond Site	1
15	21350	Frame Gauge (33 1/2" - 66 1/4")	4
16	21362	Clamp Lock	4
17	21363	Sight Pin Assembly	4



TOOL GROUPS

Tool Group 40B - Truck Frame Tools

Number	Part Number	Description	40B	40BL
1	FR20	20 Ton Rams with HD Coupler	2	2
2	FR20.19	Long 20 Ton Ram with HD Coupler	2	2
3	403026	Knee Extension Clamp	2	2
4	403009	20 Ton Ram Holder	2	2
5	403020	66" Cross Bar	3	-
	403020AL	66" Aluminum Cross Bar	-	3
6	1122	Short Pin	22	22
7	983A	Hold Down Ring	2	2
8	403075	Offset Roller, Hold Down Assembly Includes:	1	-
	403075AL	Offset Roller, Hold Down Assembly Includes:	-	1
8A	620013	1 1/4 NC Full Hex Nut	1	1
8B	403086	Offset Roller Hold Down	1	-
	403086AL	Offset Roller Hold Down	-	1
8C	403074	Roller Hold Down	1	1
8D	403033	1 1/4 NC x 3 3/4	1	1
9	983	Hold Down Ring	2	2
10	1009	Diamond Clamp Assembly Includes:	2	2
10A	1011	Inner Clamp	2	2
10B	1010	Outer Clamp	2	2
10C	991	Long Rasp 1 3/4 x 4 3/4	4	4
10D	620012	1" NC Hex Nut	4	4
10E	607041	1 x 6 1/2 GD 5 - HX HD Bolt	4	4
10F	1097	Bar	2	2
11	1607	Extensions	6	6
12	403195	5/8" Chains Alloy	2	2
13	403162	Clamp	4	4
14	403143	Frame Clamp Hold Down	2	2
	607037	3/4 x 10 x 3" Hex Bolt (not shown)	2	2
	620010	3/4 - 10 Hex Full Nut (not shown)	2	2
15	403161	Frame Clamp Hold Down Plate	2	2
16	1660	Cable Extension	2	2
17	1665	Diamond Connector Bar	4	4
18	403225	Vertical Adjuster Support	2	2
19	403150	Vertical Adjuster Knee	2	2
20	403136	Knee Vertical Adjuster Ext.	2	2

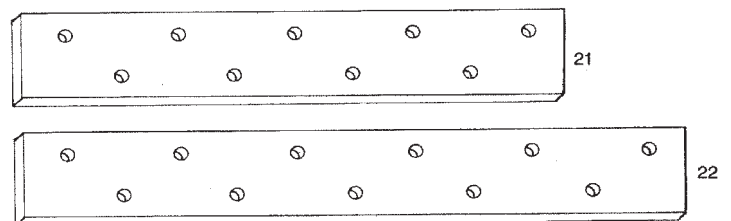
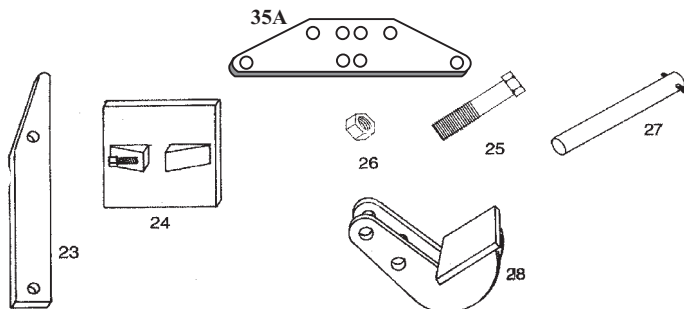
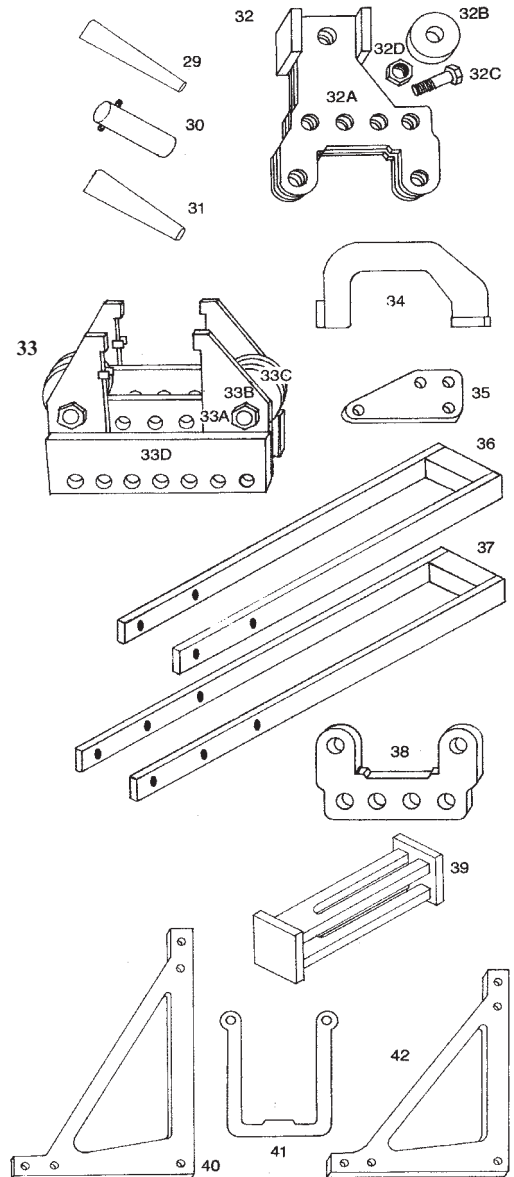




TOOL GROUPS

Tool Group 40B - Truck Frame Tools (continued)

Number	Part Number	Description	40B	40BL
21	403018	39" Cross Bar	2	-
	403018AL	39" Aluminum Cross Bar	-	2
22	403019	48" Cross Bar	2	-
	403019AL	48" Aluminum Cross Bar	-	2
23	403024	Bar, Knee Ext.	2	2
24	403104A	Jack Base	2	2
25	403059	1 - 8 x 4 Structural Bolt	12	12
26	620012	1" NC Full Hex Nut	16	16
27	403003	Long Tool Connector Pin	4	4
28	403052	Cross Roller Jack Base	2	2
29	403180	Wedge	12	12
30	HP395	Short Tool Connector Pin	12	12
31	919A	Wedge	4	4
32	403071	Hold Down Roller Assembly Includes:	1	-
	403071AL	Hold Down Roller Assembly Includes:	-	1
32A	403072	Hold Down Roller	1	-
	403072AL	Aluminum Hold Down Roller	-	1
32B	403074	Hold Down Roller	1	1
32C	403033	1-1/4 NC x 3-3/4	1	1
32D	620013	1-1/4 NC Full Hex Nut	1	1
33	403076	Cross Roller Assembly Includes:	2	2
33A	403084	Cross Roller Shaft	4	4
33B	640007	1-1/4 NF Hex Nut	8	8
33C	403085	Cross Roller	4	4
33D	403077	Cross Roller Side	4	4
	403033	1-1/4 NC x 3-3/4 Bolt (not shown)	10	10
	620013	1-1/4 NC Full Hex Nut (not shown)	10	10
34	403114	Large Frame Lifter	2	2
35	403032	Knee Connector Plate (old)	6	6
35A	403032R	Knee Connector Plate (new)	4	4
36	403015A	Short Cross Pull Yoke	1	1
37	403010A	Long Cross Pull Yoke	1	1
38	403017	Hold Down Stationary	8	8
39	403093	Knee Clearance Adjuster	2	2
40	403023	18" x 30" Knee	4	-
	403023AL	18" x 30" Aluminum Knee	-	4
41	403068	Hold Down Clevis	6	6
42	403022	14-3/4" x 24" Knee	4	-
	403022AL	14-3/4" x 24" Aluminum Knee	-	4

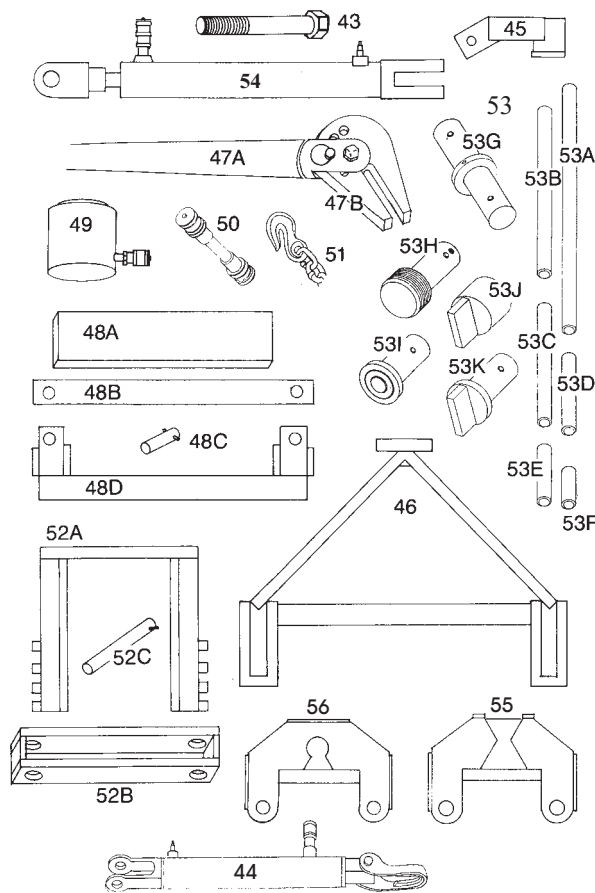




TOOL GROUPS

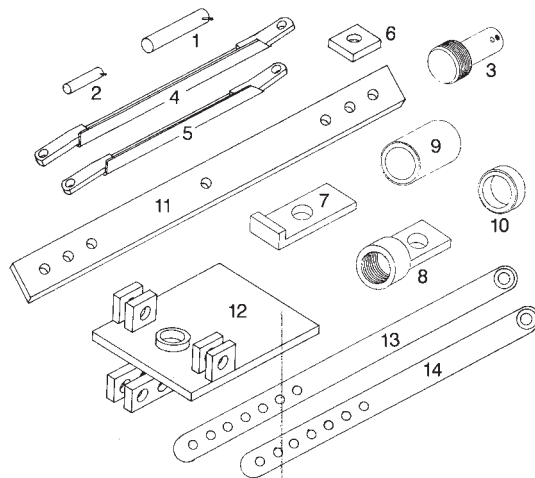
Tool Group 40B - Truck Frame Tools (continued)

Number	Part Number	Description	40B	40BL
43	607042	1 x 9 HD	2	2
44	109170	Pull Ram with HD Coupler	1	1
45	403285	Frame Rail Twisting Tool	1	1
46	403240	Axle (By Pass) Pusher	1	1
47	403390	Hand Flange Wrench Multi Includes:	1	1
47A	403392	36" Tube	1	1
47B	403396	Flange Head Assembly	1	1
48	403275	Flange Tool Assembly Includes:	1	1
48A	403237	Bars	2	2
48B	403278	Bar	1	1
48C	1122	Short Pins	2	2
48D	403276	Flange Tool Sub Assembly	1	1
49	FR30.5	Short 30 Ton Ram with HD Coupler	2	2
50	825	Hose Connector	2	2
51	1153	Chain 3/8"	1	1
52	403290	Webb Press Assembly Includes:	1	1
52A	403291	Frame	1	1
52B	403296	Connector	1	1
52C	1111	Pin	2	2
53	403200	20 Ton Ram Extension Includes:	1	1
53A	403236	36" Extension	1	1
53B	403224	24" Extension	1	1
53C	403218	18" Extension	1	1
53D	403212	12" Extension	1	1
53E	403209	9" Extension	1	1
53F	403206	6" Extension	1	1
53G	403210	Tube Connector	3	3
53H	403204	Ram Connector	2	2
53I	403202	Extension Cap	1	1
53J	403205	Ram Spade	1	1
53K	403208	Extension Spade	1	1
54	109200	20 Ton Pull Ram	1	1
55	403370	Diamond Knee Base	2	2
56	403380	Diamond Knee Swivel	2	-
403380AL		Diamond Knee Swivel for Aluminum Tooling	-	2



Tool Group 403112 - Twisting Tool Assembly

Number	Part Number	Description	Qty.
1	HP395	1-1/4 x 4-1/2 Pin	4
2	1122	Pin	1
3	403204	Ram Connector	1
4	403320	Angle Assembly Long 33"	4
5	403322	Angle Assembly Short 25"	4
6	403324	Washer Frame Assembly	3
7	403327	Frame Clamp Assembly	3
8	403328	Ram Cap Assembly	1
9	403330	Extension	1
10	403331	Spacer	1
11	403332	Cross Beam	2
12	403333	Base Plate Weldment	2
13	403336	Lock Bar Assembly Long	1
14	403338	Lock Bar Assembly Short	1

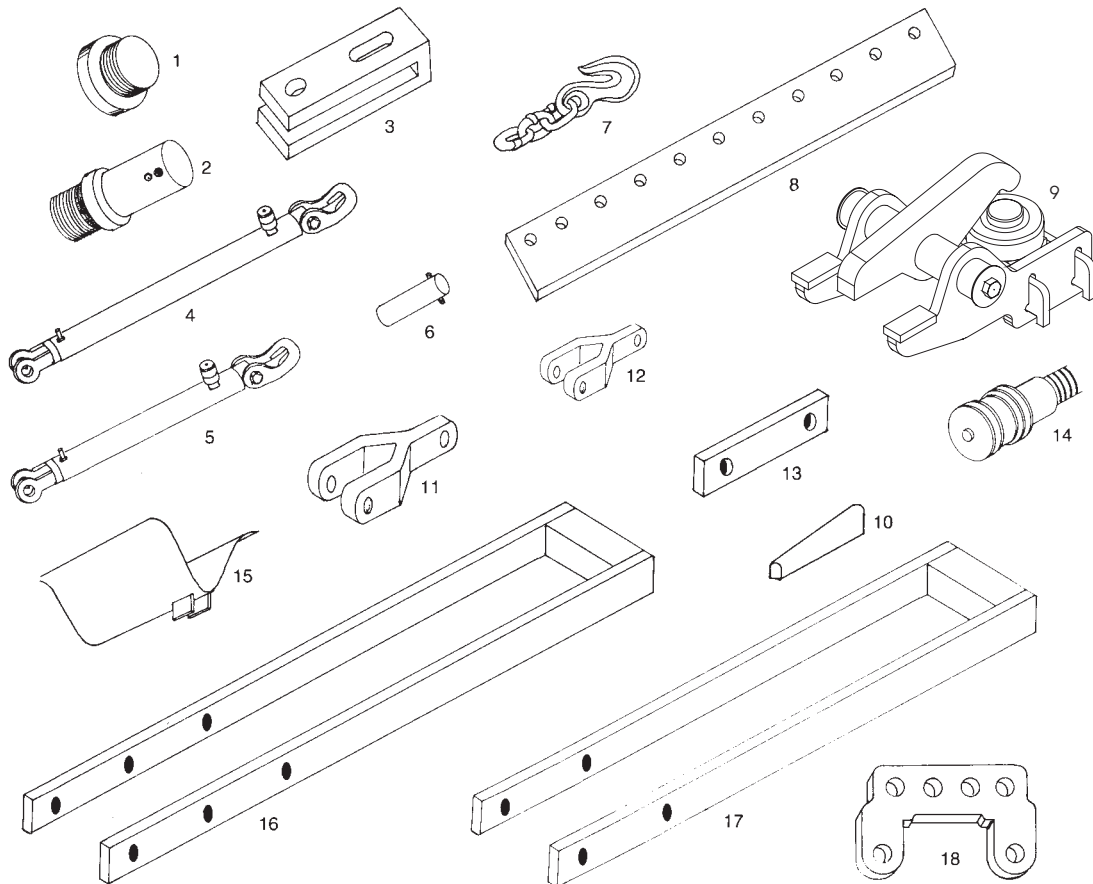




TOOL GROUPS

TR Tool Groups

Number	Part Number	Description	TR 110	TR 120	TR 100 200	TR 100	TR 200	TR 300
1	1037	Base	4					
2	109004	Ram Connector Assembly	1	1				
3	10905	Clamp Knee Extension	1	1				
4	109140	Assembly 10 Ton Pull Ram	2				2	2
5	109170	Short 10 Ton Pull Ram	1		3		1	
6	1122	Pin	30	12	30	30	3	
7	1153	3/8" Chain Assembly with Hook 84	6	1	6		6	5
8	1215	Beam	1	1				
9	1420	KA Tool			1			
10	1500	Wedge	2	2				
11	1607	6" Extension Cable	24		24	24		
12	1660	Extension Cable	12		12	12		
13	1665	Diamond Connector Bar	16		16	16		
14	3050.3	Female Half Only					2	2
15	403009	20 Ton Ram Assembly Holder	2	2				
16	403010A	Long Cross Pull Yoke	1	1				
17	403015A	Short Cross Pull Yoke	1	1				
18	403017	Stationary Hold Down	8	8				

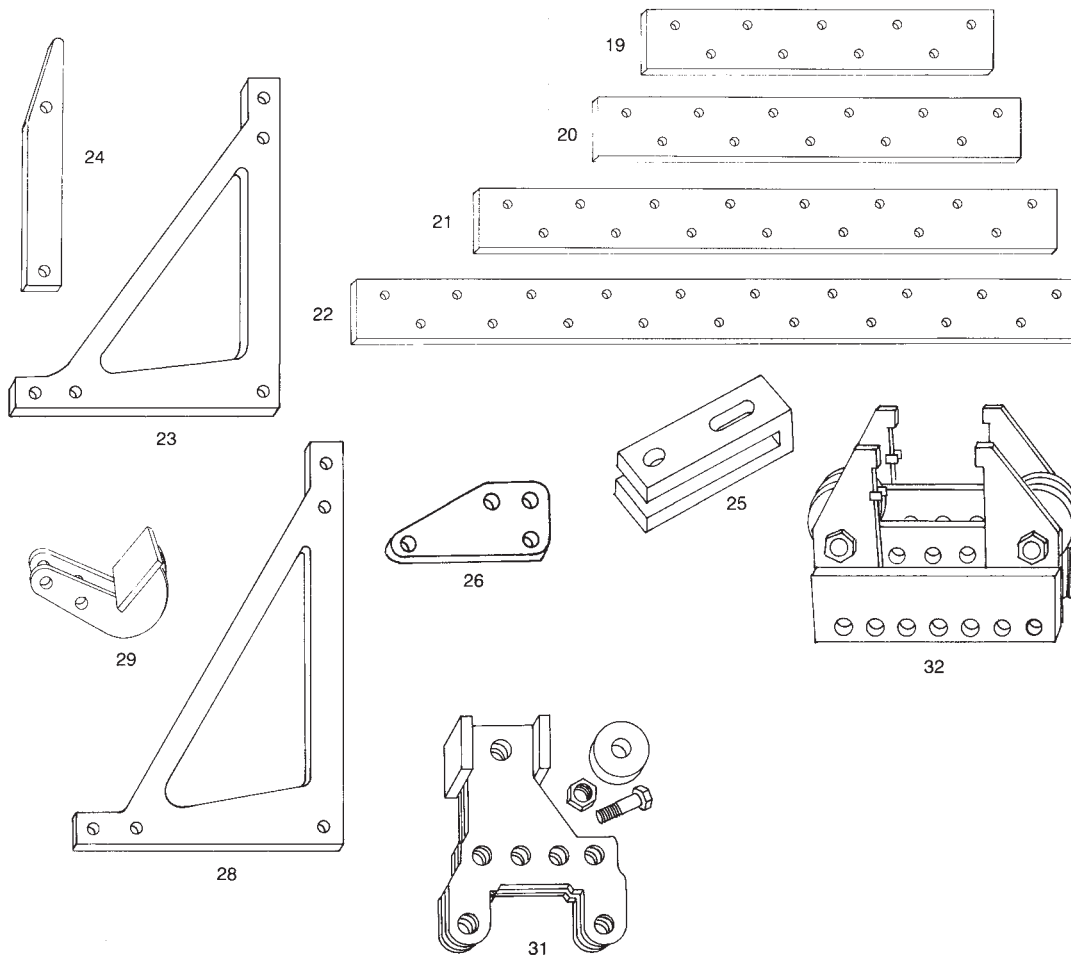




TOOL GROUPS

TR Tool Groups (continued)

Number	Part Number	Description	TR 110	TR 120	TR 100 200	TR 100	TR 200	TR 300
19	403018	39" Bar	1	1				
20	403019	48" Bar	3	3				
21	403020	66" Bar	2	2				
22	403020A	84" Bar	2	2				
23	403023	Knee	3	3				
24	403024	Knee Extension Bar	4	4				
25	403026	Knee Extension Clamp	4	4				
26	403032	Knee Connection Plate	8	8				
27	403033	1-1/4 x 3-3/4 G5 (1-5/8 TD) - (not shown)	8	8				
28	403038	Knee	4	4				
29	403052	Cross Roller Jack Base	2	2				
30	403059	18 x 4 A325 Structural Bolt - (not shown)	36	4		32	6	6
31	403071	Hold Down Roller	2	2				
32	403076F	Cross Roller Assembly "I" Beam	2	2				

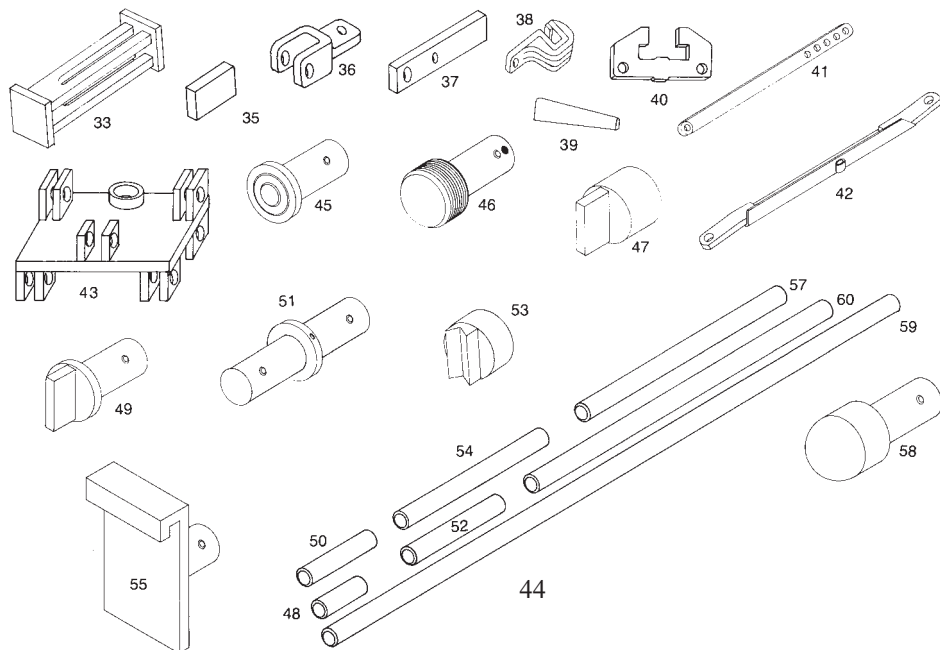




TOOL GROUPS

TR Tool Groups (continued)

Number	Part Number	Description	TR 110	TR 120	TR 100 200	TR 100	TR 200	TR 300
33	403093	Knee Clearance Adjuster	2	2				
35	403117F	Spacer Block	2	2				
36	403143	Frame Hold Down Clevis	4		16	16		
37	403161	Clamp Plate	4		8	8		
38	403162	Frame Hold Down	16		16	16		
39	403180	10" Wedge	16	16				
40	403183F	Hold Down Plate	8	8				
41	403196F	Lock Bar Assembly	1	1				
42	403197F	Angle Assembly	4	4				
43	403199F	Base Plate	2	2				
44	403200	20 Ton Ram Extension Set	3				4	1
45	403202	Extension Cap			3	1		
46	403204	Ram Connector Assembly	1	1	10	2		
47	403205	Ram Spade			1	1		
48	403206	6" Extension			1	1		
49	403208	Tube Spade Assembly			4	1		
50	403209	9" Extension			4	1		
51	403210	Tube Connector Assembly			15	3		
52	403212	12" Extension			5	1		
53	403216	"V" Ram Cap	3		4		4	3
54	403218	18" Extension			5	1		
55	403219	20 Ton Ram Extension Holder			4			
57	403224	24" Extension			5	1		
58	403234	Extension Ball Assembly			3			
59	403235	Extension Special 68"	3				3	3
60	403236	36" Extension	2		5	1	3	2

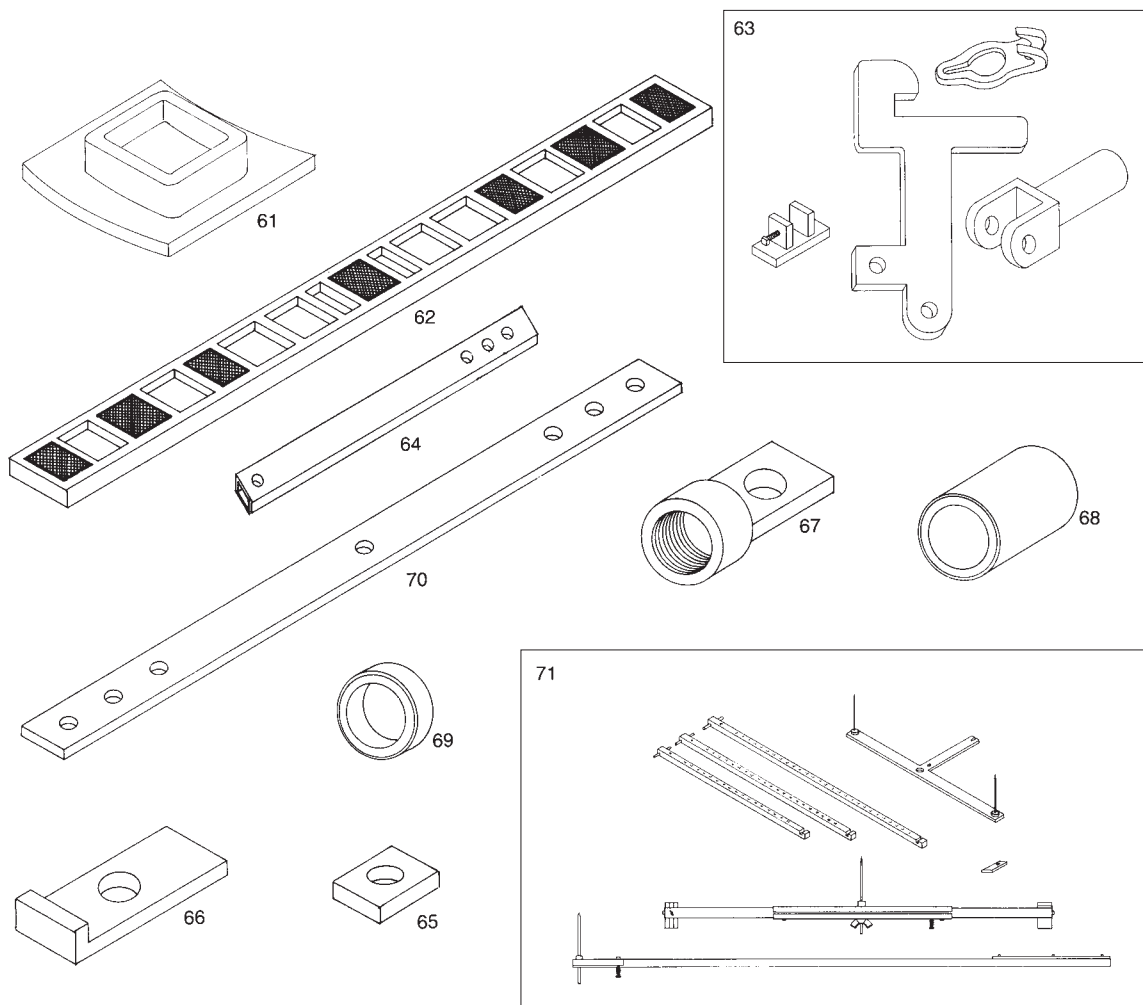




TOOL GROUPS

TR Tool Groups (continued)

Number	Part Number	Description	TR 110	TR 120	TR 100 200	TR 100	TR 200	TR 300
61	403255	Radius Plate Extension	3		3		3	3
62	403260	Push Bar Assembly	3		3		3	3
63	403300	"I" Beam Flange Tool Assembly	1	1				
64	403319F	Tube Base Plate Assembly	1	1				
65	403324	Washer Frame Assembly	3	3				
66	403327	Frame Clamp Assembly	3	3				
67	403328	Ram Cap Assembly	1	1				
68	403330	Extension	1	1				
69	403331	Spacer	1	1				
70	403332	Cross Beam	2	2				
71	49	Tool Group	1	1				

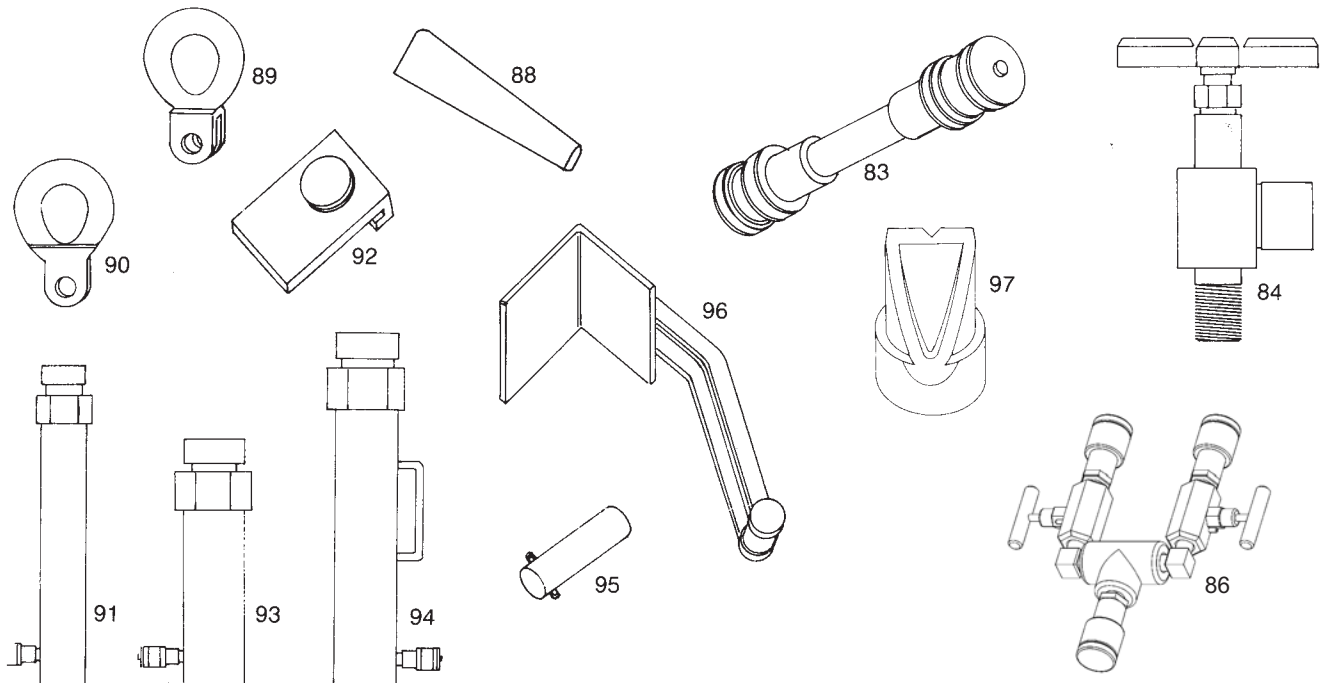




TOOL GROUPS

TR Tool Groups (continued)

Number	Part Number	Description	TR 110	TR 120	TR 100 200	TR 100	TR 200	TR 300
72	607037	3/4-10 x 3 HX HD (not shown)	8		16	16		
73	608021	114 x 3-1/2 HX HD HT TR (not shown)			32			
74	608026	18 x 7" Grade HX HD Cap Screw (not shown)	3	3				
75	608028	1-1/4 x 7 1/2" HX HD GR 8 (not shown)	1	1				
76	608030	18 x 9" Grade 8 HX HD Cap Screw (not shown)	3	3				
77	609025	18 x 5" Grade 8 HX HD Cap Screw (not shown)	2	2				
78	620010	3/4 10 HX Nut (not shown)	8		16	16		
79	620012	108 HX Nut (not shown)	41	9		32	6	6
80	620013	11/47 HX Nut (not shown)	41	9				
81	640006	114 HX NT (not shown)			32			
82	7500	Air/Hydraulic Pump Assembly (see page 36)	1					
83	825	Hose Connector Assembly	2	2	2	2		
84	828	Angle Pattern Valve			2		2	2
85	845	Hose with Couplers - 15' (not shown)	2		2		2	
86	872	2 Valve Manifold			1		1	
87	900B	4 Way Electric Pump Complete	1		1	1	1	
88	919A	Frame Tool Lock Wedge	6	6				
89	983	Hold Down Ring	6		8	8		
90	983A	Chain Ring	2					
91	FR10.16	10 Ton L Stroke Ram	1	1				
92	FR100	20 Ton Ram Holder			4	4		
93	FR20	20 Ton Ram	4		4	4		
94	FR20.19	20 Ton Ram	4		5	2	4	2
95	HP395	Short 1-1/4 Pin	16	16				
96	PF549	Universal Speed Hook	6		6		6	6
97	Z129	Wedge Head	1	1				





BEE LINE TRAINING

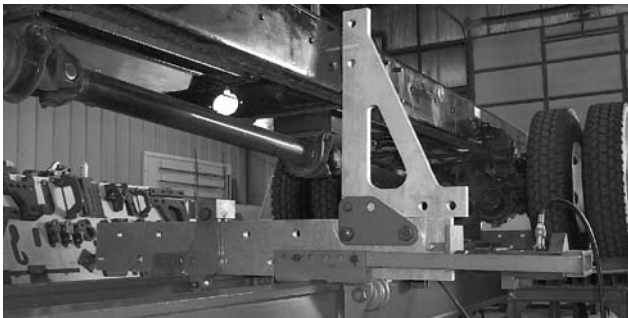
When our customers are looking at new alignment equipment, one of the biggest concerns is having the personnel in their shop to perform alignments or frame corrections with enough efficiency to make the maximum profit on their investment. Of course Bee Line wants your business to make money with our equipment. We design our systems to be as user friendly and efficient as possible. In addition, we offer in depth training courses structured to teach your technicians alignment and frame correction principles in the classroom as well as in a hands-on work environment. We offer training on site or at our Training center in Bettendorf, Iowa. Please plan for your employees to attend one of the following courses. Log on to www.beeline-co.com or call Bee Line Customer Service to register. 800-728-7828 or 563-332-4066.



WHEEL ALIGNMENT

5 DAY COURSE
8 Hours Classroom
32 Hours Hands-On Training

Students learn all steering geometry angles and their effects on tire life, handling and safety of the vehicle. They will evaluate and correct misalignment conditions, identify suspension and steering components and their condition, and balance wheels. Students will also learn to evaluate and correct collision damage effects on component positioning. The training will utilize the type of gauges that will be used every day back in the shop. Bee Line supplies a full selection of mechanical, optical and laser computer gauges.



FRAME CORRECTION

3 DAY COURSE:
4 Hours Classroom
20 Hours Hands-On Training

Students learn to diagnose, set-up and correct common frame misalignment conditions in heavy trucks and trailer including Side Sway, Twist, Sag, and Diamond with the use of the Bee Line Advanced Aligner Machine. Taken in conjunction with the Truck Wheel Alignment class, the student will learn to apply all the principles of Total Suspension Alignment.

