



# Heavy Duty Frame Correction Systems

FRAME ALIGNMENT SYSTEMS FOR  
HEAVY DUTY TRUCKS, BUSES, TRACTORS AND TRAILERS

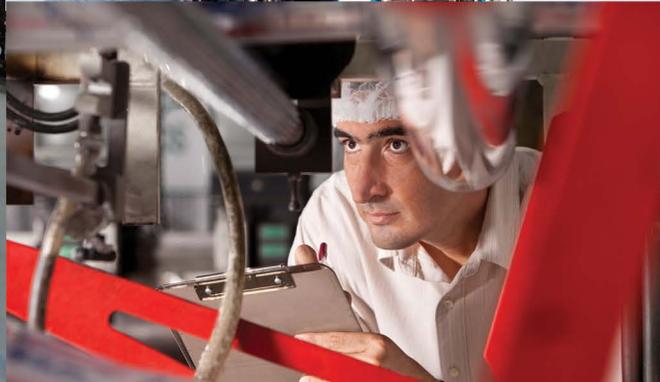


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# 90 Years Experience. Proven Results.



***Bee Line is the leading manufacturer*** of Wheel Alignment, On-truck Tire Balancing and Frame Correction Equipment for Heavy Duty Trucks and Trailers. Located in Bettendorf, Iowa USA, Bee Line designs, manufactures and sells a variety of cutting edge products while providing unparalleled training and customer service to its valuable clients around the world.

The Bee Line Truck Frame Machine and Press system is a chassis and suspension correction system for heavy duty vehicles of all types. It is widely considered to be the most accurate and efficient system on the market today, with unlimited possibilities of configuration and installation to fit your shop's needs. Bee Line leads the Truck Frame Correction industry with our vast experience in equipment manufacturing, safety, training, backup service and profit potential.

Bee Line built its exceptional reputation by producing state-of-the-art, quality equipment and innovating with every challenge. Our strategy continues to be a model for flexibility, emphasizing technological developments and problem solving to meet the ever-changing market conditions.



## Frame Correction Systems

*Patented design makes more power available for correction with less hydraulic pressure than any other machine on the market using the safest method possible.*

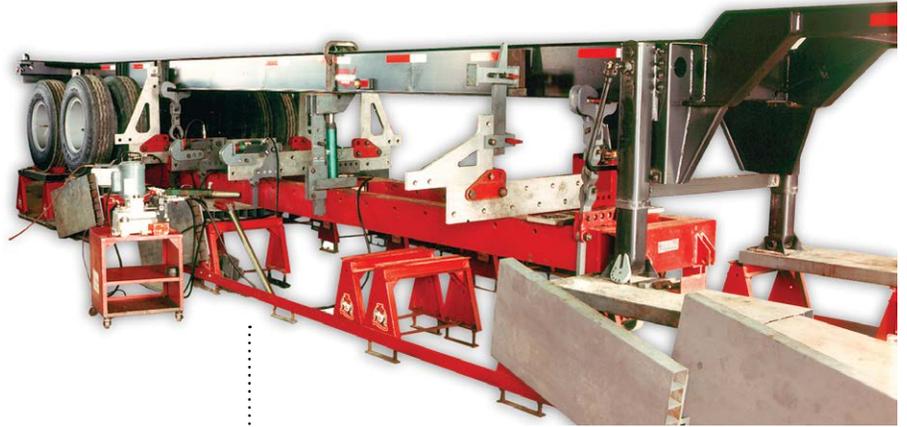
Bee Line leads the Truck Frame Correction Industry with its vast experience in equipment manufacturing, safety, training, customer service and profit potential. Bee Line machines are designed to fit and adapt to shop owners' needs and space and are the most versatile and efficient frame equipment available on the market today.

The Bee Line frame straightening system allows the operator full control over every part of the truck frame straightening operation. No compromises are made when positioning tool hook-ups as the Bee Line machine allows the operator the opportunity to place tools into tight spaces exactly where they are needed to properly reverse the damage.

### EXPERT TRAINING



- Bee Line factory representatives will review and make expert recommendations at the time you consider a purchase to ensure the equipment you buy fits your shop and your volume of business.
- Bee Line assistance after your machine purchase, including supervision and help with installation and start-up.
- Training for the operators in your shop.
- Access to Bee Line's hands-on training opportunities at our fully equipped training center located near Bee Line's manufacturing facility in Bettendorf, Iowa.
- Bee Line technical service from the factory and field representatives to keep you up to date on the newest development in chassis and suspension correction.



### ADVANTAGES

#### Minimal Disassembly of Damaged Vehicles

Side holders can be positioned where the desired correction is needed, whether inside the rails, outside the frame rails, behind fuel tanks, under cabs, above cabs, behind wheels or any other hard to reach areas that other machines just can't reach.

#### Square Contact with Frame

Correction tools are designed to squarely contact a truck or trailer frame. There is no angle contact which could cause the chassis to raise or lower while being corrected. All holding fixtures and moving fixtures contact chassis squarely and are adjustable so chassis correction starts immediately, with no lost motion, when pressure is applied. These unique features make it possible for the vehicle's wheels to stay put when correction is made. There is no danger of pushing the vehicle off the machine runways.

#### No Bulky Towers, Safer Method

Whether correcting side sway, sag, twist or diamond, the frame press and tools are adjusted so all slack is removed before hydraulic corrections start. Bee Line tools are designed so that the pressure is applied to the damage at the precise position needed to remove the bends or twists, and does it without weakening the frame with heat. All tie downs and corrections are made with exclusive tooling and NOT with chains. This allows the operator to restore the vehicle to its original specifications, to deliver appearance and performance equal to the day it came off the production line.

#### Versatile and Interchangeable

Our Frame Presses come in a variety of sizes and models — including floor, pit and portable — and with multiple tools to diagnose and correct conditions such as side sway, sag, twist and diamond. You build the system to work for your shop.

# Exclusive Features of Bee Line Frame Machines

## Gauge from Outside of Vehicle

Bee Line's self-centering frame gauges extend the centerline sight rods to the outside of the vehicle for easier viewing. The gauges accurately indicate side sway, twist, sag, and diamond.

## Proven Method

The tool hook-ups produce direct pressure in exactly the right location of the damaged frame.

## Safe and Easy Set-up

Efficient and adaptable tooling selection that straightens any size frame and provides the operator with the safest hook-ups.

## Easy Access, Minimal Disassembly

45" removable runway sections allow easy access to the work areas with minimal disassembly of damaged vehicles.

## Easily Position Damaged Vehicles

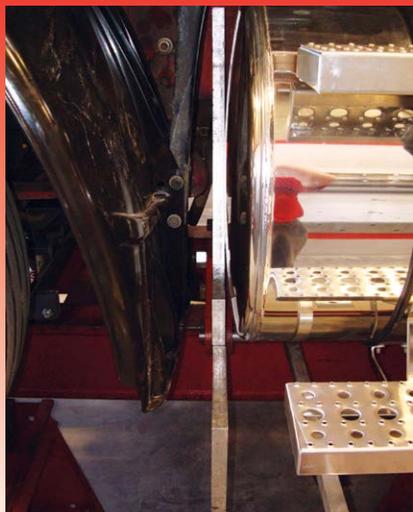
Sturdy drive-on ramps and runways are strong enough to support 32,000 lbs. per vehicle axle, making it easy to position damaged vehicles directly on the Frame Press.

## Raises and Lowers Right to the Chassis

Unique center frame press design raises and lowers the tool supporting press anywhere from 19" to 42", 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 rams located on each end of the frame press.

## FRAME PRESS

Side holders can be positioned where the desired correction is needed, including behind fuel tanks, or any other hard to reach areas.



The frame press rolls smoothly on four heavy bearing wheels, making it possible to position the press under the chassis to be corrected and aligned, rather than positioning a damaged truck or trailer to fit the machine.

## FRAME CORRECTION SYSTEMS

# Drive-On Truck Frame Press

*Bee Line Truck Frame Machines are designed to fit any installation requirements. Start small in existing space and add on as your business grows.*

The Bee Line Frame Machine 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 your employees.

It is built tough and versatile to handle all makes of heavy trucks and equipment on the road today. Corrections can be made safely and easily with less disassembly than other systems for greater productivity.



## ADVANTAGES

### Versatility

#### Available in 3 lengths:

- 28 foot – Accommodates tractors only
- 36 foot – Accommodates tractors, most trailers and buses
- 40 foot – Accommodates all tractors, trailers and buses

The Bee Line truck frame equipment has unlimited possibilities of installation and can be installed in many configurations. With many variations of floor plans and equipment, each shop owner can select the floor plan of their choice for their particular frame and alignment layout.

### Custom Configurations

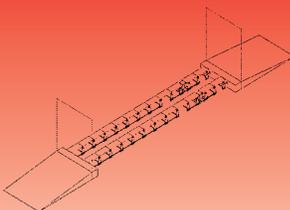
- Above ground models
- Pit models
- Drive-thru options
- “L” configurations with wheel alignment and many more.

The Bee Line drive-thru frame machine allows you to use just one stall for both alignment and frame straightening at the same time, so you can actually add two new services to save time and help you increase your profits.

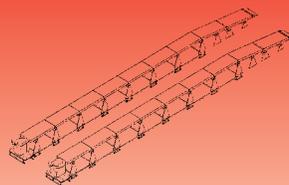
Plus, if you already have a Bee Line alignment machine, Bee Line frame straightening equipment can be integrated with existing equipment. You will add new profits, move jobs through quicker and send them out straighter with the Bee Line chassis and total suspension correction system.

## CONFIGURATION OPTIONS

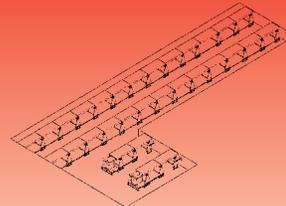
Modular construction options to be used in conjunction with the Bee Line Truck Frame Machine.



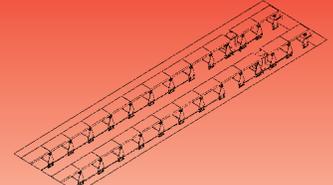
AA 12D4 - 12-Section drive thru frame and wheel alignment machine with exterior concrete approaches.



AA 7D2 WITH AR 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.

## FRAME CORRECTION SYSTEMS

### Portable Frame Press

#### Flexibility

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 eliminate the strain and stress of constantly bending over to work on machines that 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. Available in two lengths: 28' or 36'.



### Lightweight Aluminum Runways

Bee Line's portable aluminum runways are ideal for use with our 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 also can be made by utilizing the Bee Line Power Tower.



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



Bee Line Aluminum Runways complement the Portable Frame Press. Stackability ensures vehicle support while making corrections. Sections snap-lock together and can be easily transported with the 402620 cart.

## FRAME CORRECTION SYSTEMS

# Superior Correction Method

*Bee Line frame machines let you return the vehicle to original without major disassembly of the vehicle.*

Bee Line frame machines are built with high strength materials and utilize powerful Bee Line hydraulic rams for accomplishing all frame corrections. This hydraulic power is coupled with tools moving on rollers. Bee Line's unique design makes it possible for an operator to correct all conditions with ease — whether it be a diamond, twist, side sway or sag.

Side sway correction is made with positive locked holders and a correction crossbeam unit traveling on rollers with no friction in tooling, therefore, much less hydraulic power is needed. Bee Line equipment handles all frame damage to heavy duty trucks and trailers.

These conditions may occur on tractors, trailers, vans, buses and vehicles with bodies surrounding frames. These damages occur in any combination with each other resulting in even more complex straightening operations. With Bee Line equipment, the repairs are simplified and often corrected simultaneously, which lets the operator do the job quickly and more accurately.

Bee Line has developed superior tools and methods to make corrections to all makes and models of heavy duty vehicles. Having manufactured frame correction systems for more than 90 years, Bee Line provides expert results using proven methods.



## 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 accurately indicate side sway, twist, sag, and diamond conditions.



## TOOL GROUP 49 - TRUCK GAUGES

**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 and help diagnose the condition.

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 tool. See page 22 for a complete listing.

# Innovative Bee Line Equipment Ensures Speed, Accuracy and Profitability

The Bee Line frame straightening system allows the operator full control over every part of the truck frame straightening operation. The Bee Line machine gives the operator the ability to position tools into tight places – exactly where the desired correction is needed - whether inside the rails, outside of the frame rails, behind fuel tanks, under cabs, above cabs, behind wheels or any other hard to get to areas.



**Set Up in Tight Areas** – Extra clearance can be added to lightweight aluminum knees to make room for direct holds on the frame rail in tight areas.



**Concentrated Pressure** – The shorter the steel bar, the harder it is to bend, as shorter lengths give less bending leverage than longer lengths. By applying 30 Tons of hydraulic pressure to a concentrated area, our flange press safely removes buckles in the flange area - the backbone of the frame.



**Alleviate Extra Labor** - The Rear Axle Bypass setup is critical in making pushes to pinpointed areas above or around the axle without removing the axle.



**Avoid Using Chains** – Hold downs are easily and safely made by using links and pins. Slack is removed by lowering the frame press and then applying pressure.



**Hand Flange** – A hand flange tool makes corrections to imperfections in flanges. An extendable handle provides leverage for the correction.



**Diagnose Diamond Condition** – A diamond sight gauge attaches to the front or rear frame gauge to diagnose a diamond condition.

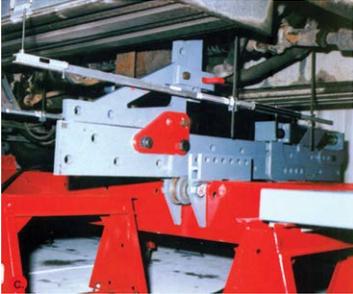
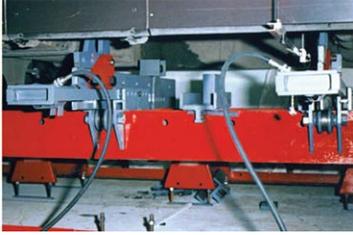
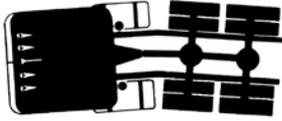


**Centerline Gauges** – Our self-centering frame gauges extend the centerline to the outside of the chassis for easy diagnosis of misalignment conditions.



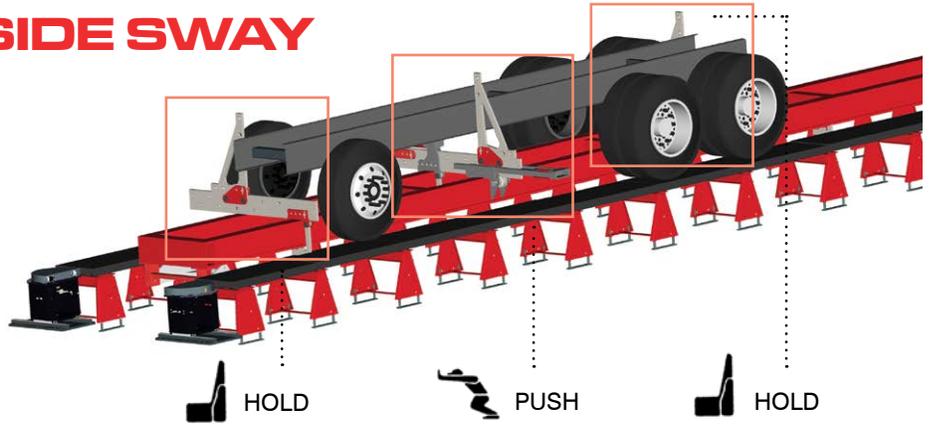
**Web Press** – Our web press provides a targeted correction to remove buckles or other damage of the web area on the frame rail using 30 ton of hydraulic pressure versus uncontrolled heat induction.

## Side Sway

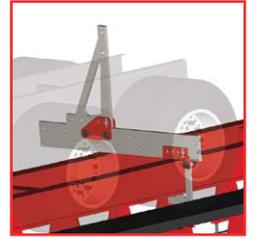


## THE FOUR BASIC COLLISION CONDITIONS

### SIDE SWAY

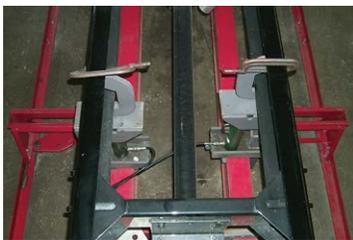


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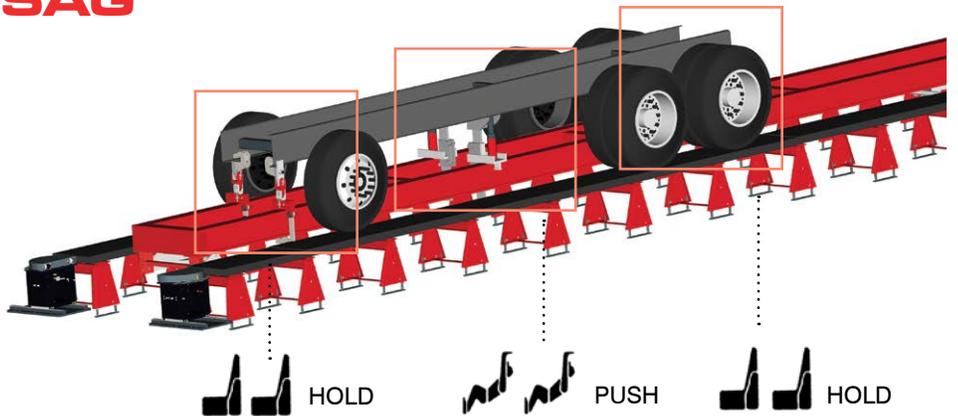


Side-sway is best described as a lateral bend in the truck chassis. This bend causes a misalignment of the centerline of the chassis, with varying degrees of flange damage, depending upon the severity of the collision.

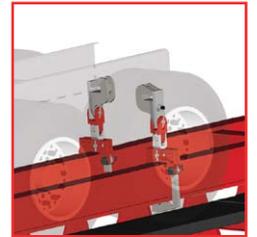
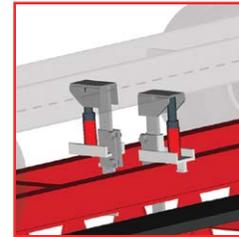
## Sag



### SAG



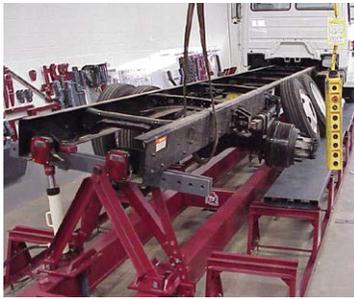
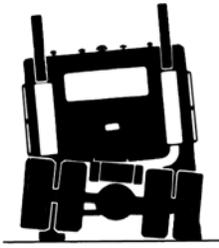
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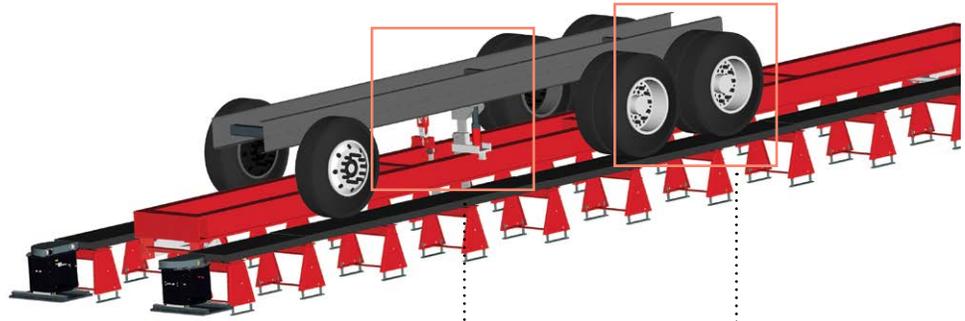
Sag is the bending of the chassis out of its true horizontal position. It can cause extensive flange damage.

On both of these points, side-sway and sagging, we mentioned flange damage. The reason we stress this point is that the load carrying or downward strength of a frame is in the frame rails, and the backbone of the frame rail is the flanges. They are the most important part of the frame rail and must be straight and repositioned to their normal position without heat and with a minimum amount of hammering in order to keep the original strength of the frame.

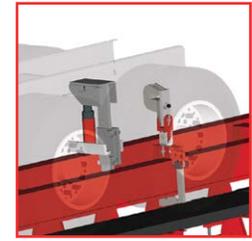
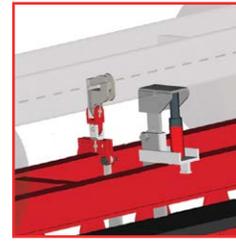
### Twist



## TWIST



# 3

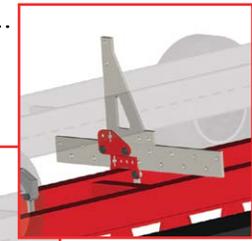
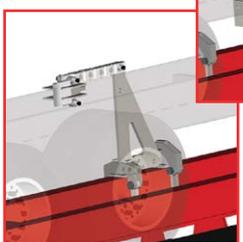
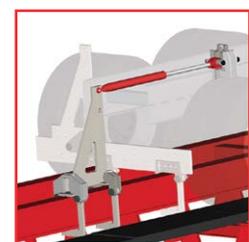
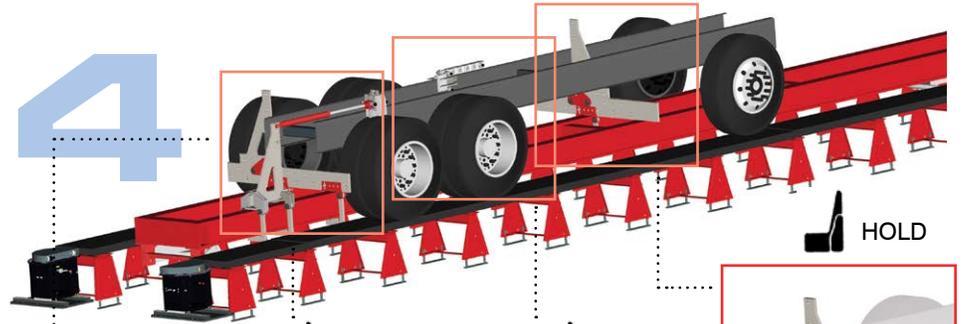


The vehicle's front end rolls to one side and the rear rolls to the opposite side. The twist is held into the chassis by the cross members. To make the correction, you must look at the strongest cross members in the chassis and where they are located since they will be the ones holding the twist into the chassis. Most vehicles will have the heaviest cross members from the cab to the back of the frame. Therefore, this is the part of the frame that you will do the correcting in.

### Diamond



## DIAMOND



A diamond in the frame is when one frame rail is moved slightly ahead of the other. This is held in by the cross members. Most vehicles today, when they are in a collision, will generally not have a diamond condition due to the construction of the chassis. A diamond condition will result if they are hit directly in the front or back on either of the frame rails or have been towed by one of the rails.

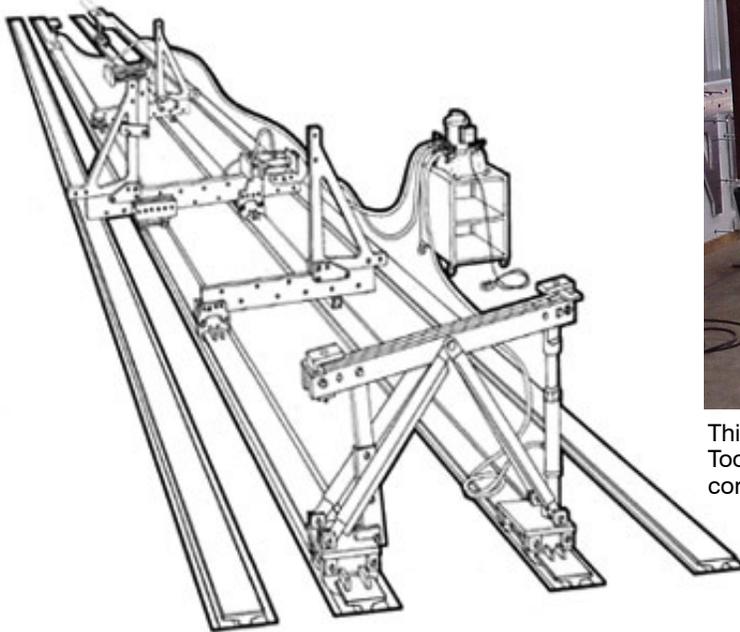
## Additional Capability

## I-Beam Frame System - Trailers

*Designed for trailer frame repair and occasional truck frame repair. The use of in-floor beams allows easy positioning of the damaged vehicle for corrections.*

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.



This twisted trailer is being corrected with Trailer Twisting Tools. Floor "I" Beam setup works primarily with trailer corrections.

### I-BEAM FRAME SYSTEM TOOLING OPTIONS

**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.

(See pages 23-30 for more information)

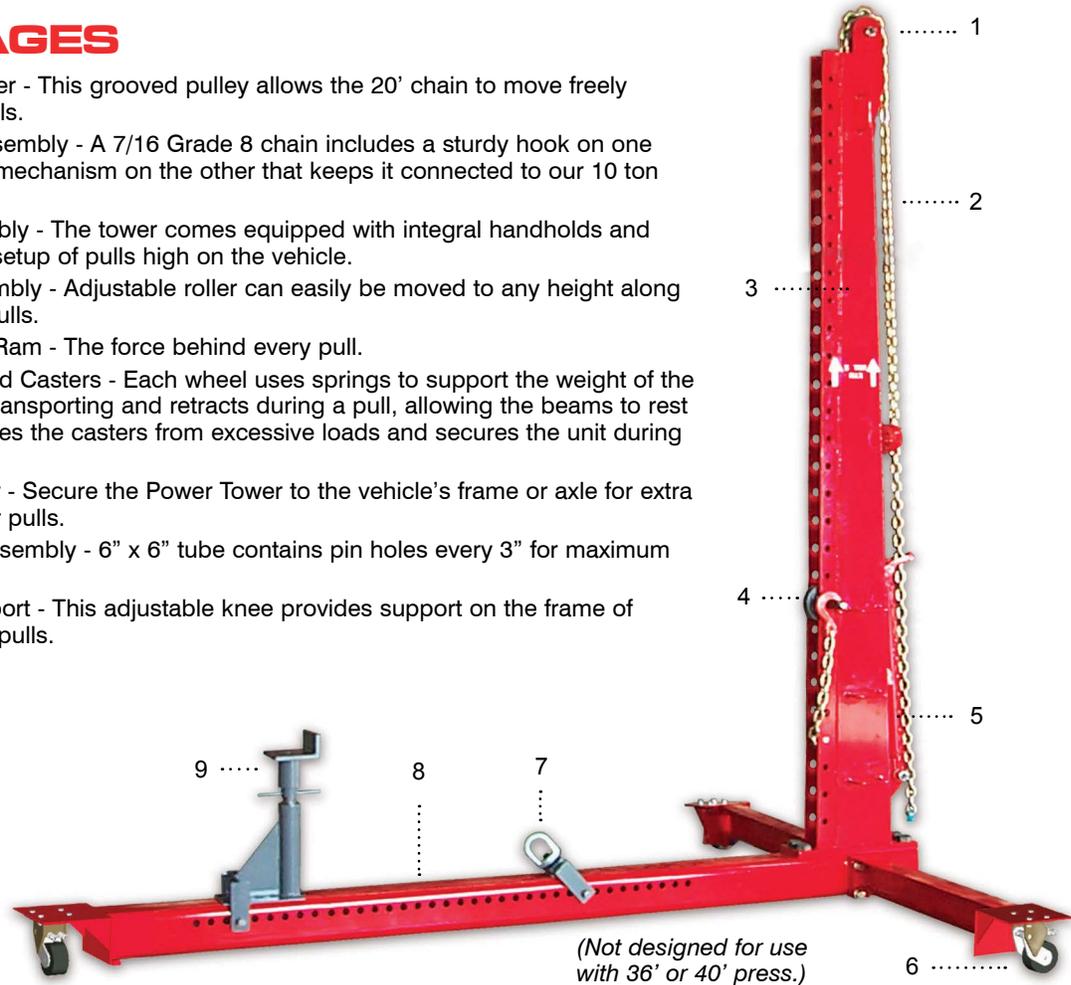
## Additional Capability

# Bee Line Power Tower - Cab Corrections

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 10-ton pulls up to seven feet above the floor, and 5-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.

## ADVANTAGES

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 that allow the 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 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 vehicle's 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.



## Make Pulls from Any Angle

Make pulls from a variety of directions with the Power Tower's unique design. The interchangeable Axle Knee and Frame Knee ensure 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.



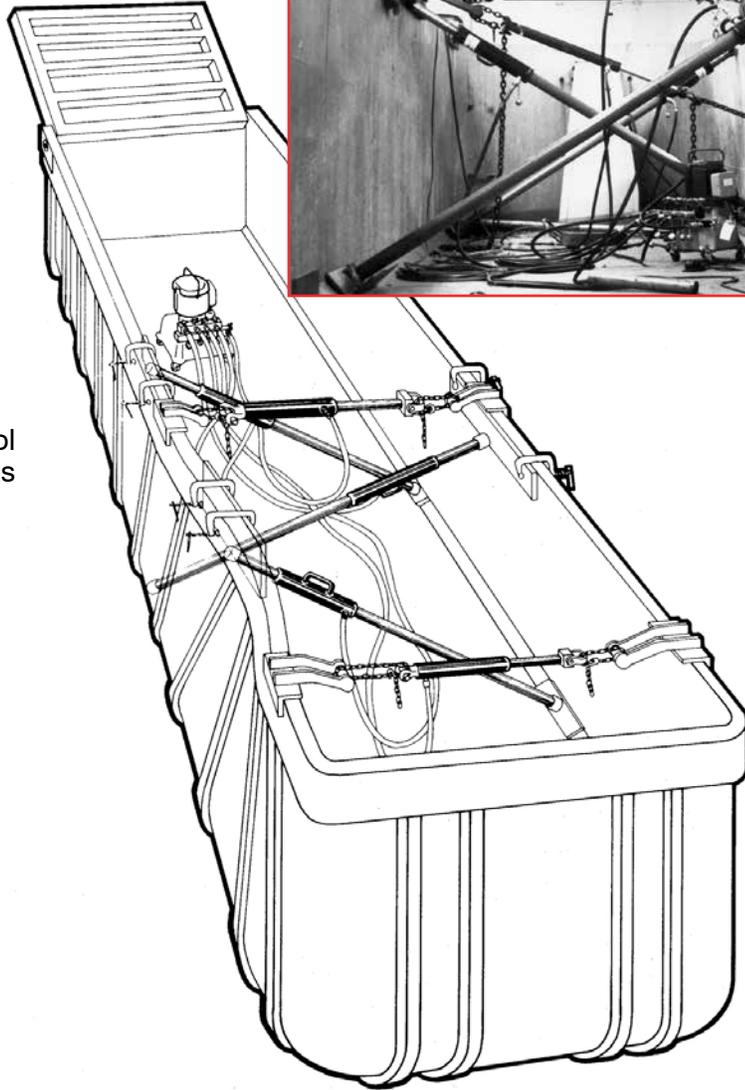
## Additional Capability

## Dump Body Tools

## New Opportunities In-House

### TR Tool Groups for Cage, Frame & Dump Body Repair

The Bee Line Dump Body Tool Set offers the frame shop the opportunity to keep work in-house rather than send 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.



## DUMP BODY TOOLING OPTIONS

**TR200** - Complete Dump Body Correction Tools, comes complete with both pumps and rams.

**TR300** - Additional Dump Body Tools to add to Tool Group 40B.

**TR100.200** - Lock Dump Body to I-Beam to correct sag

See Pages 23-30 for a complete breakdown of all TR tool groups.

# Pumps & Rams

# Bee Line Ram Accessories

**Get Power Where You Need It...**



Pumps come with 875 PSI gauge.

### 900 Series Electric Hydraulic Pump

The 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.

- 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 valve

### 899 Stand for 900 Series Pumps (Optional)



### 875 PSI Gauge (Standard)

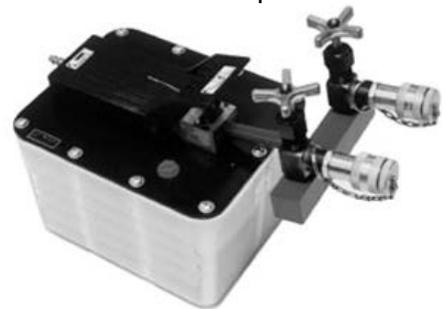
The PSI Gauge allows you to know how much pressure you are applying continuously. This gauge plugs directly into the coupler on the pump. With the PSI Gauge you will never need to guess again if your pump is working correctly.



### 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 two gallon reservoir.



### Bee Line Ram Accessories

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	FR20.19	Long 25 Ton Ram w/HD Couplers	25	19 1/2"	13"	32 1/2"	3 1/2"	Spring	40	HW80809	ERC2510K
2	109170	Short 10 Ton Pull Ram	10	21"	11"	32"	2 1/2"	Air	31	109149	--
3	109200	20 Ton Ram	20	27"	13 1/2"	40 1/2"	3 1/4"	Air	30	109210	--
4	FR30.5	Short 30 Ton Ram w/HD Couplers	30	4 3/4"	2 1/4"	7"	4"	Hand	14	HW81067	--

## Frame Press Accessories

Bee Line products give you the total frame and alignment system to meet today's correction requirements and give you the profit edge.

### Total Frame and Alignment System

Optional equipment can be included in the system you buy or added as you need them. Bee Line Engineering has designed optional tools and related equipment to do absolutely anything you would need for performing complete chassis and total suspension corrections.



#### Part No. 1680 Side Sway Cradle Assembly

Make your frame jobs easier with the Bee Line 1680 cradle assembly, which includes the following equipment: 1662 Lower Cradle, 1682 Upper Housing Cradle and 1658 Housing Ram Adapter - 10 ton. The purpose of the cradle is to allow the front tandems to float freely during a side sway correction for increased accuracy. Note: 10 ton ram (FR10) is optional.



#### Part No. 403076L Cross Roller Pull Assembly

Modify your frame press with the 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 is required for pushes.

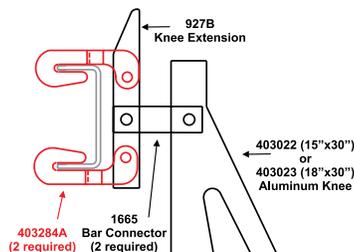


#### Part No. 10 and 20 Ton C Clamps

**PN109050** 10 Ton C Clamps

**PN403450** 20 Ton C Clamps

Make corrections to every buckle and kink on the frame's flanges and web. Requires a FR10 RAM or FR20 RAM respectively. C Clamps correct the radius of a frame. Interchangeable C Clamp tooling heads allow it to correct the smallest imperfection.



#### Part No. 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.

## Frame Press Accessories



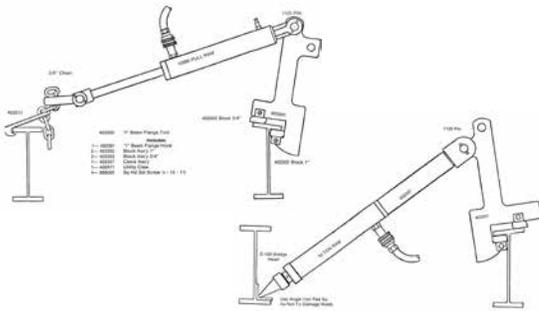
### Part No. 403112 Trailer Twisting Tool Assembly

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 using a long 20 ton push ram. The ram is safely locked into position both at the top and bottom. A twist in a long tractor frame can also be corrected using these tools. The entire assembly can be ordered for in-floor systems - PN 403112F.



### Part No. 927B Extended Knee

Used to extend the height of a knee to gain better leverage in a pull. Can be used on a truck frame or trailer.



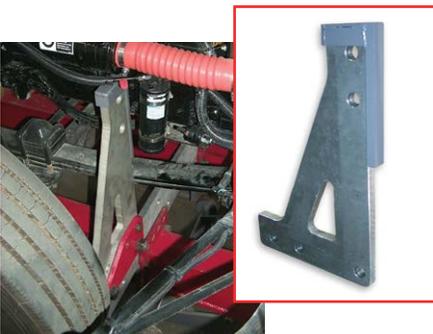
### Part No. 403300 "I" Beam Flange Tool

"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).



### Part No. 1420 Flange Finishing Tool

The 1420 Flange Finisher utilizes the force of the 10 ton ram to easily finish beams up to 1/2" thick.



### Part No. 403034 Aluminum Knee Protector

An aluminum knee topped with a knee protector ensures flush contact with the frame rail.

# Bee Line Tools Deliver the Performance You Demand

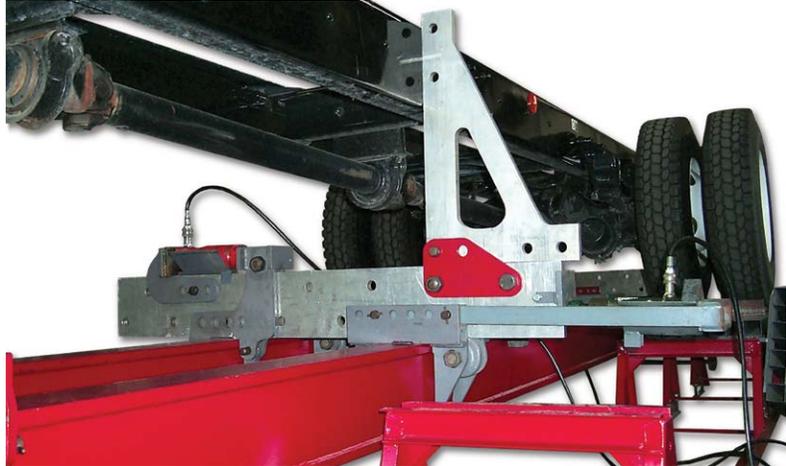


*Bee Line frame machines and tools let your operator apply pushes, pulls and holds where necessary for making safe and accurate corrections. Bee Line tools are designed to be safe and simple to use. All hook-ups are solidly mounted to the frame press against the frame of the vehicle when pushing or holding. Special tools simply hook on or clamp onto the frame when pulling or holding. Additional tools can be included in the system you purchase or added as you need them – ultimately giving you everything you will need for making complete chassis and total suspension corrections.*



# Aluminum Tooling

*With more than 90 years of experience in the alignment and frame correction industry, Bee Line knows how to do the job right. Straightening truck frames is demanding work. Long-lasting, hard-working Bee Line tools deliver the performance you demand.*



## ADVANTAGES

### As Strong as Steel, but Half the Weight

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

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 Bee Line to help.

## 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	3 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.

## Tool Groups

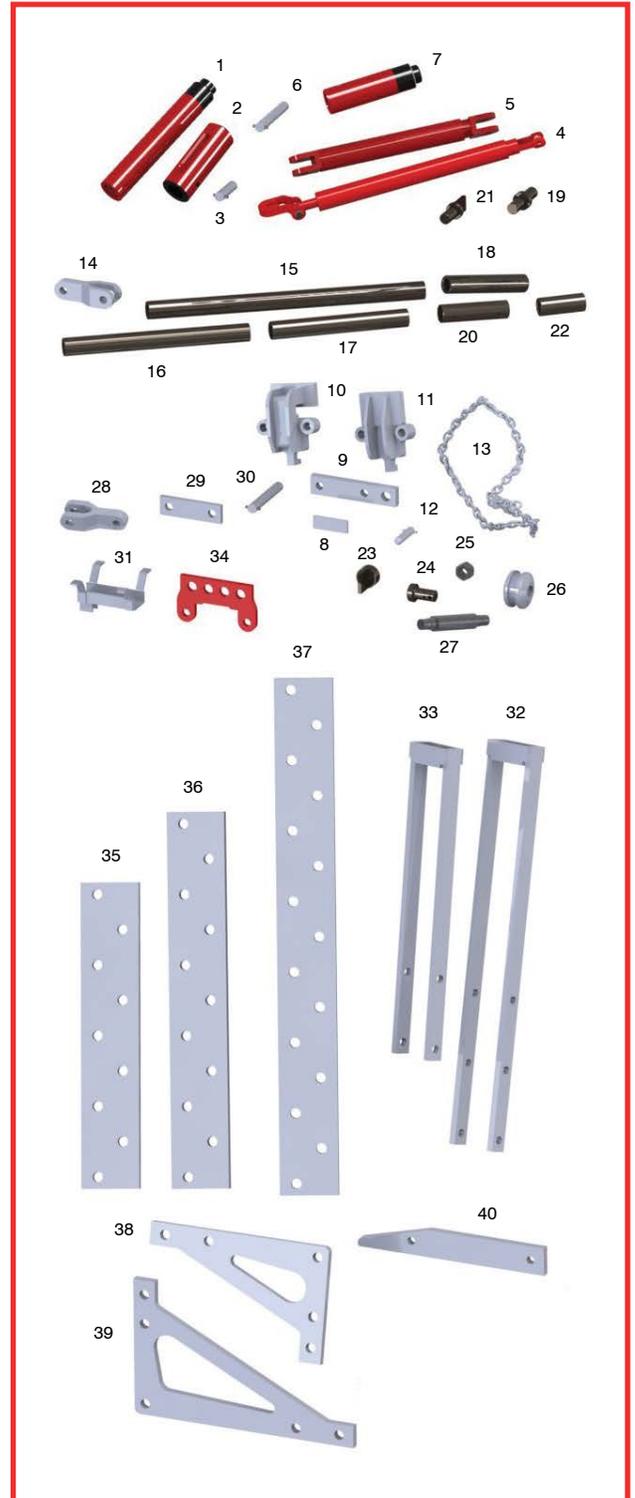
Number	40B	40BL	Description	Qty
1	FR20.19		20 TON RAM 19-1/2IN HT	2
2	FR30.5		30 TON RAM 2 7/16 IN STROKE	2
3	HP395		1-1/4IN DIA X 4-1/2IN PIN	12
4	109170		10 TON SHORT PULL RAM - 21IN	1
5	109200		20 TON PULL RAM 27IN	1
6	1111		1IN DIA X 6-1/4IN PIN	2
7	FR20		25 TON RAM W/ CAP	2
8	991		RASP DIAMOND CLAMP	4
9	1097		CONNECTOR BAR	2
10	1011		INNER DIAMOND CLAMP	2
11	1010		OUTER DIAMOND CLAMP	2
12	1122		1IN DIA X 4-1/4IN PIN ASSEMBLY	24
13	1153		3/8 CHAIN X 84IN W/HOOK	1
14	1607		EXTENSION CABLE - 6IN	6
15	403236		36IN 20 TON EXTENSION	1
16	403224		24IN 20 TON EXTENSION	1
17	403218		18IN 20 TON EXTENSION	1
18	403212		12IN 20 TON EXTENSION	1
19	403210		TUBE CONNECTOR ASSEMBLY	3
20	403209		9IN 20 TON EXTENSION	1
21	403208		TUBE SPADE ASSEMBLY	1
22	403206		6IN 20 TON EXTENSION	1
23	403205		RAM SPADE	1
24	403204		RAM CONNECTOR ASSEMBLY	2
25	640007		1-1/4-12 HEX NUT	8
26	403085		ROLLER CROSS	4
27	403084		SHAFT CROSS ROLLER	4
28	1660		SHORT EXTENSION CABLE	2
29	1665		BAR, DIAMOND CONNECTOR	4
30	403003		PIN, LONG 1-1/4 X 8-1/2	8
31	403009		HOLDER - 20 TON RAM	2
32	403010A		YOKE, LONG CROSS PULL	1
33	403015A		YOKE, SHORT CROSS PULL	1
34	403017		HOLD DOWN, STATIONARY	8
35	403018	403018AL	39IN CROSS BAR STEEL	2
36	403019	403019AL	48IN CROSS BAR STEEL	2
37	403020	403020AL	66IN CROSS BAR STEEL	3
38	403022	403022AL	KNEE 14-3/4IN X 24IN	4
39	403023	403023AL	KNEE 18IN X 30IN	4
40	403024		BAR KNEE EXTENSION	2

Nuts & bolts, not shown.

Hydraulic Accessories, not shown.

## 40B & 40BL Product Components & Illustrations

Steel (40B) and Aluminum (40BL) Truck & Trailer Frame Tools. Corrects all four conditions on a frame press.



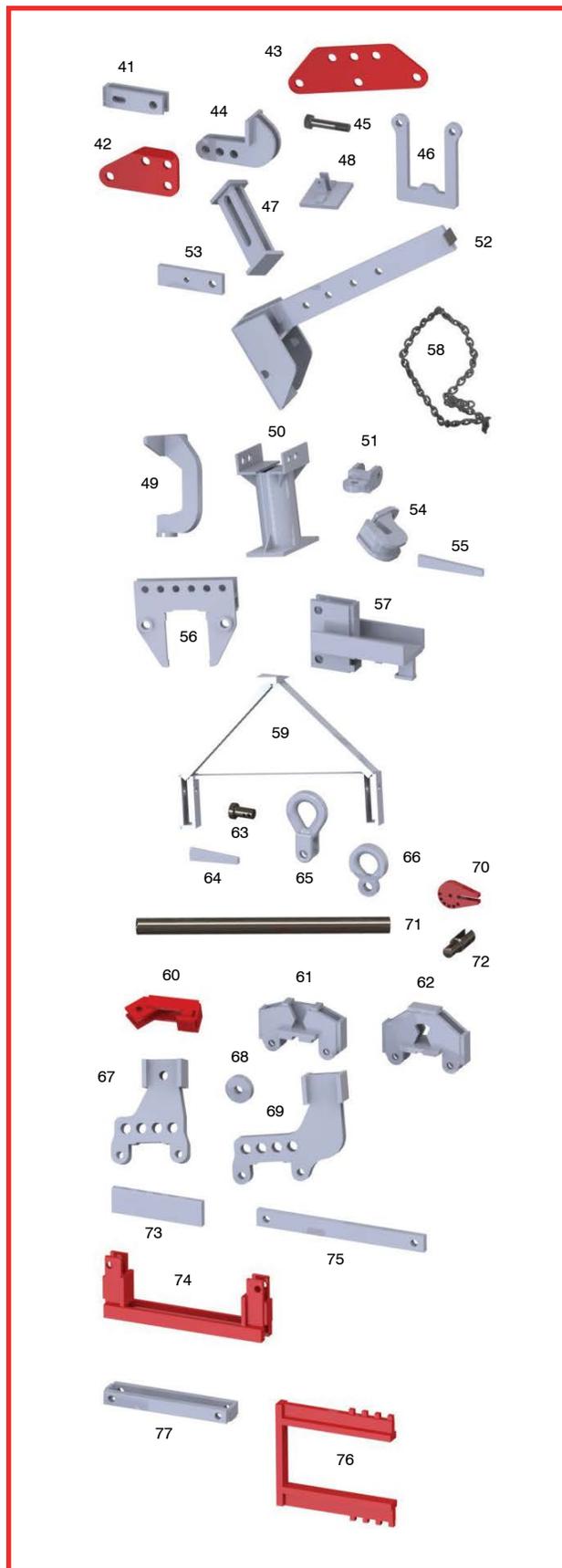
## Tool Groups

## 40B & 40BL Product Components & Illustrations (Continued)

Number	40B	40BL	Description	Qty
41	403026		CLAMP-KNEE EXTENSION	1
42	403032		PLATE, KNEE CONNECTION	6
43	403032R		REINFORCEMENT CONNECTOR	4
44	403052		JACK BASE, CROSS ROLLER	2
45	403059		1-8 X 4 A325 STRUCTURAL BOLT	12
46	403068		HOLD DOWN CLEVIS	6
47	403093		ADJUSTER, KNEE CLEARANCE	2
48	403104A		JACK BASE	2
49	403114		LIFTER LARGE FRAME	2
50	403136		EXTENSION, KNEE VERTICAL ADJ	2
51	403143		CLEVIS, FRAME HOLD DOWN	4
52	403150		KNEE VERTICAL ADJ	2
53	403161		CLAMP, PLATE	4
54	403162		FRAME HOLD DOWN	4
55	403180		WEDGE 3/4T X 1-45/64W X 10L	16
56	403077		SIDE ASSEMBLY, CROSS ROLLER	4
57	403225		VERTICAL ADJ SUPPORT	2
58	403195		5/8 IN CHAIN 7' LONG W /1 HOOK	2
59	403240		AXLE BY-PASS PUSHER	1
60	403285		FRAME RAIL TWISTING TOOL	1
61	403370		DIAMOND KNEE BASE	2
62	403380	403380AL.1	DIAMOND KNEE SWIVEL	2
63	403202		EXTENSION CAP	1
64	919A		WEDGE 3/4T X 1-15/16W X 7-1/2L	6
65	983		HOLD DOWN RING - TWO EAR	4
66	983A		CHAIN RING - SINGLE EAR	4
67	403072		HOLD DOWN, ROLLER WELDMENT	1
68	403074		ROLLER, HOLD DOWN	2
69	403086		OFF SET ROLLER HOLD DOWN	1
70	403391		FLANGE HEAD 1/2IN SLOT	1
71	403392		36IN TUBE - 10 TON EXTENSION	1
72	403394		FLANGE HOLDER	1
73	403237		FLANGE BAR	2
74	403276		FLANGE TOOL SUB-WELD	1
75	403278		BAR FLANGE TOOL	1
76	403291		WEB PRESS CLEVIS	1
77	403296		CONNECTOR WELD	1

Nuts & bolts, not shown.

Hydraulic Accessories, not shown.

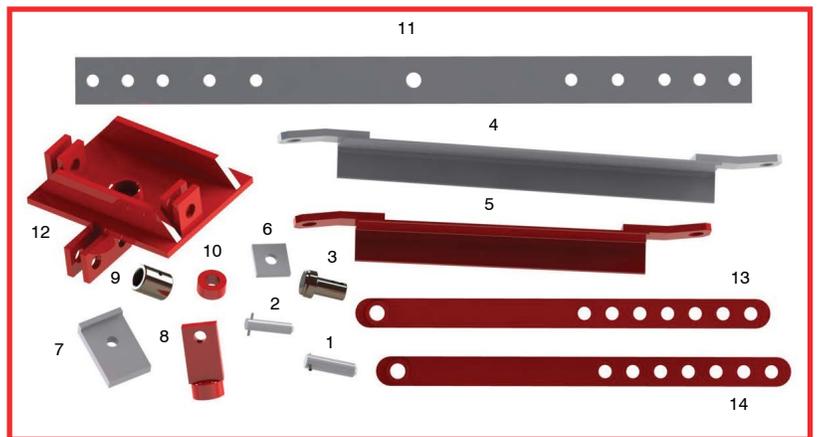


## Tool Groups

**403112 and 49 Product Components & Illustrations****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"-TRAILER	4
5	403322	ANGLE ASSEMBLY SHORT 25"-TRUCK	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

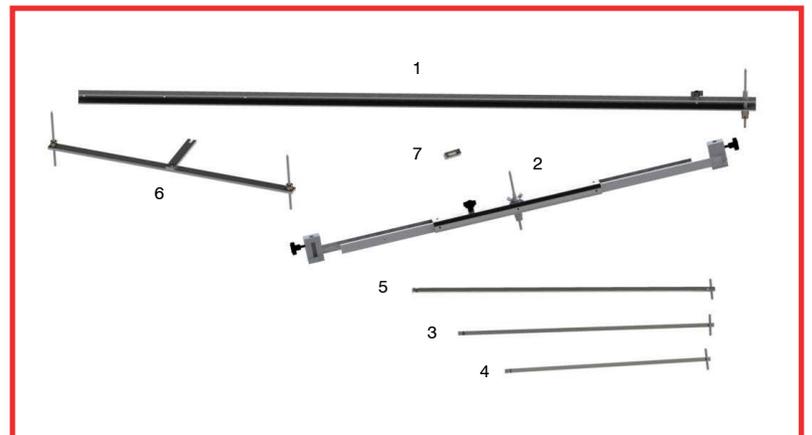
For use with drive-on and portable frame press. Trailer Twisting Tools use a long 20 ton push ram, which is safely locked into position both at the top and bottom. The rear of the trailer is anchored and blocked or a vertical knee is used to assist in the removal of twist from damaged trailers.

**Tool Group 49 - Truck Gauges**

Number	Part Number	Description	Qty.
1	21360	GAUGE EXTENSION	4
2	21350A	FRAME GAUGE	4
3	18086	SUPPORT ROD - 22IN	6
4	18028	SUPPORT ROD - 14IN	4
5	18087	SUPPORT ROD - 28IN	4
6	21361	DIAMOND SIGHT	1
7	19006	CLAMP, SUPPORT ROD	4

Quickly pin-point damage on any truck or trailer frame. The self-centering frame gauge extensions transfer the centerline sight rods to the outside of the vehicle for easier viewing. These gauges accurately indicate side sway, twist, sag, and diamond.

Nuts & bolts, not shown.  
Hydraulic Accessories, not shown.



## Tool Groups

## TR100 Product Components & Illustrations

Number	Part Number	Description	Qty
1	FR100	20 TON RAM HOLDER	4
2	FR20.19	20 TON RAM	2
3	FR20	25 TON RAM W/ CAP	4
4	403234	EXTENSION BALL	2
5	403255	EXTENSION RADIUS PLATE	2
6	403202	EXTENSION CAP	1
7	403204	RAM CONNECTOR	2
8	403205	RAM SPADE	1
9	403206	6" 20 TON EXTENSION	1
10	403208	TUBE SPADE	1
11	403209	9" 20 TON EXTENSION	1
12	403210	TUBE CONNECTOR	3
13	403212	12" 20 TON EXTENSION	1
14	403218	18" 20 TON EXTENSION	1
15	403224	24" 20 TON EXTENSION	1
16	403236	36" 20 TON EXTENSION	1
17	1122	1" DIAM X 4 1/2" PIN	30
18	403059	1-8 X 4 BOLT	32
19	620012	1-8 HX NUT ZINC	32
20	1607	6" EXTENSION CABLE	24
21	1665	BAR, DIAMOND CONNECTOR	16
22	1660	SHORT EXTENSION CABLE	12
23	403143	CLEVIS	16
24	403161	CLAMP	8
25	403162	FRAME HOLD DOWN	16
26	983	HOLD DOWN RING	8

Nuts & bolts, not shown.

Hydraulic Accessories, not shown.

*In-floor. Basic truck & trailer sag tool for I-Beam.*



## Tool Groups

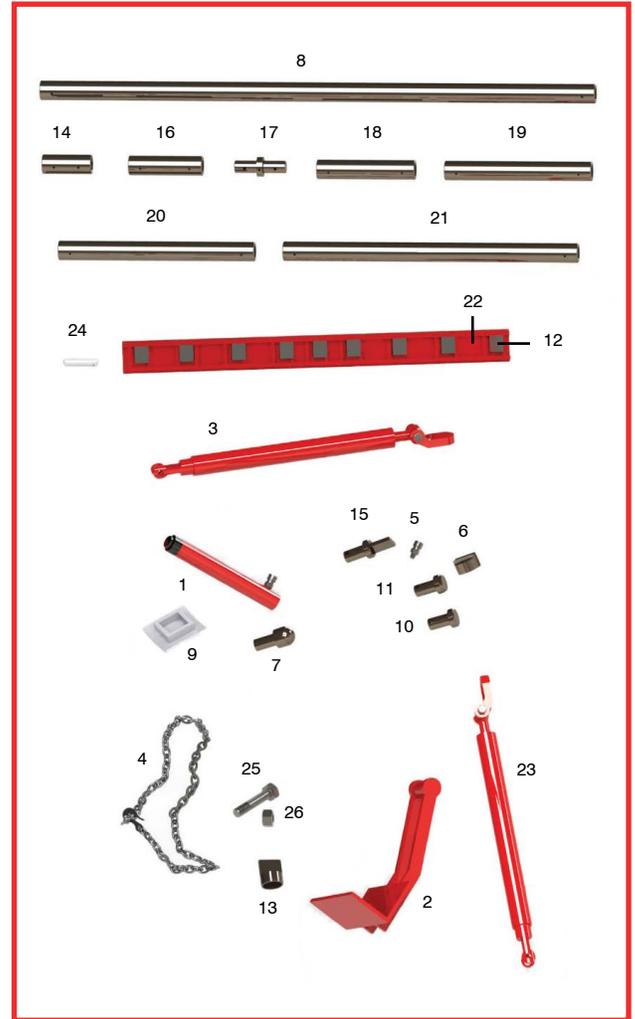
Number	TR200	Description	Qty
1	FR20.19	20 TON RAM	4
2	PF549	HOOK	6
3	109140	10 TON PULL RAM - 30 -1/2 INCH	2
4	1153	3/8 CHAIN X 84" WITH HOOK	6
5	3050.3	FEMALE HALF ONLY	2
6	403216	INVIN RAM CAP	4
7	403234	EXTENSION BALL	3
8	403235	68" 20 TON SPECIAL EXTENSION	2
9	403255	EXTENSION RADIUS PLATE	3
10	403202	EXTENSION CAP	4
11	403204	RAM CONNECTOR	8
12	997	SHORT RASPS	27
13	403205	RAM SPADE	4
14	403206	6" 20 TON EXTENSION	4
15	403208	TUBE SPADE	4
16	403209	9" 20 TON EXTENSION	4
17	403210	TUBE CONNECTOR	12
18	403212	12" 20 TON EXTENSION	4
19	403218	18" 20 TON EXTENSION	4
20	403224	24" 20 TON EXTENSION	4
21	403236	36" 20 TON EXTENSION	4
22	403259	PUSH BAR	3
23	109170	10 TON SHORT PULL RAM - 21"	1
24	1122	1" DIAM X 4 1/2" PIN	3
25	403059	1-8 X 4 BOLT	6
26	620012	1-8 HX NUT ZINC	6

Nuts & bolts, not shown.

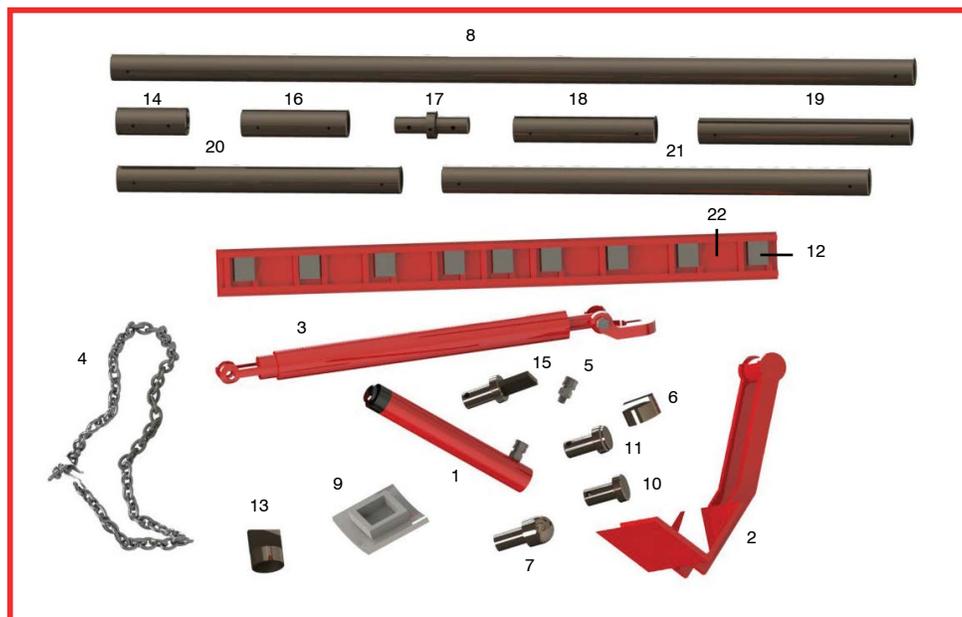
Hydraulic Accessories, not shown.

## TR200 Product Components & Illustrations

Complete Dump Body correction tool set.



## Tool Groups

TR300 Product  
Components & Illustrations

Number	Part Number	Description	Qty
1	FR20.19	20 TON RAM	2
2	PF549	HOOK	6
3	109140	10 TON PULL RAM - 30 -1/2 INCH	2
4	1153	3/8 CHAIN X 84" WITH HOOK	5
5	3050.3	FEMALE HALF ONLY	2
6	403216	INVIN RAM CAP	3
7	403234	EXTENSION BALL	3
8	403235	68" 20 TON SPECIAL EXTENSION	2
9	403255	EXTENSION RADIUS PLATE	3
10	403202	EXTENSION CAP	1
11	403204	RAM CONNECTOR	2
12	997	SHORT RASPS	27
13	403205	RAM SPADE	1
14	403206	6" 20 TON EXTENSION	1
15	403208	TUBE SPADE	1
16	403209	9" 20 TON EXTENSION	1
17	403210	TUBE CONNECTOR	3
18	403212	12" 20 TON EXTENSION	1
19	403218	18" 20 TON EXTENSION	1
20	403224	24" 20 TON EXTENSION	1
21	403236	36" 20 TON EXTENSION	1
22	403259	PUSH BAR	3

*Additional Dump Body Tools to add to 40B. More rams to do more corrections simultaneously. Extended rams for pressing out sides.*

Nuts & bolts, not shown.

Hydraulic Accessories, not shown.

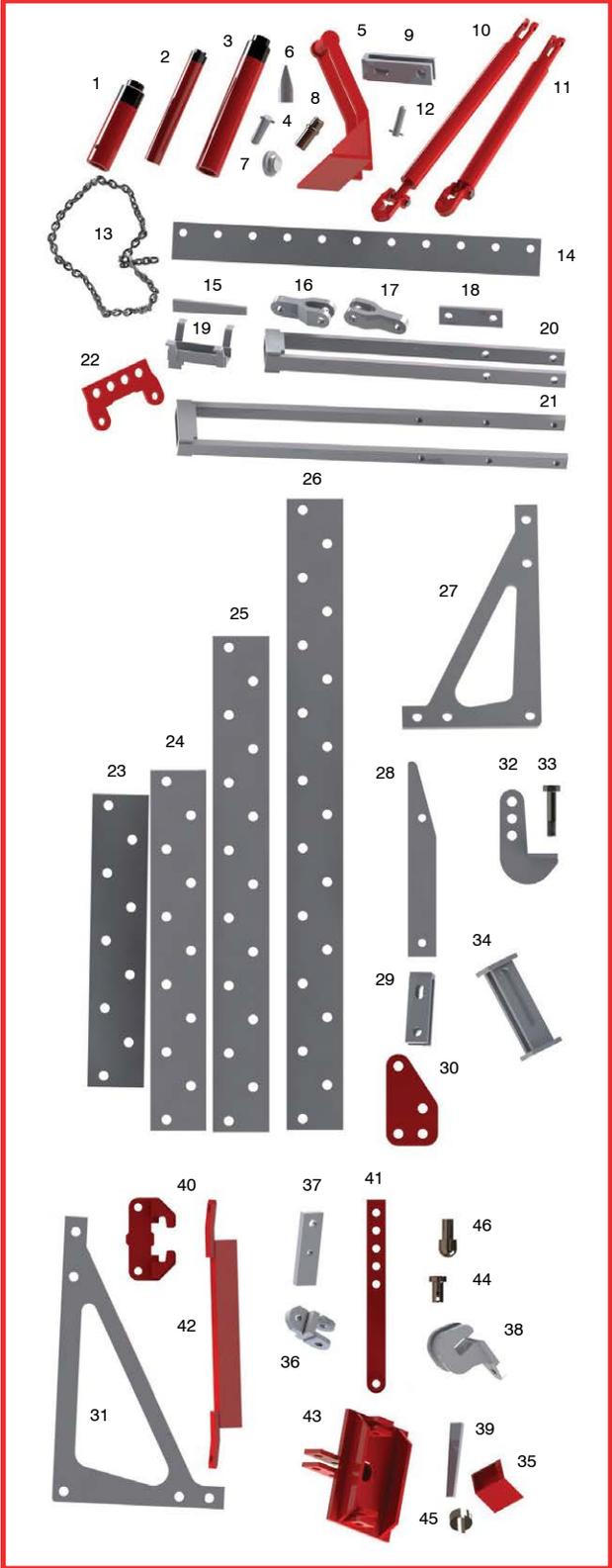
# Tool Groups

## TR110 Product Components & Illustrations

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

Number	TR110	TR110AL	Description	Qty
1	FR20		25 TON RAM W/ CAP	4
2	FR10.16		10 TON RAM 10 INCH STROKE	1
3	FR20.19		20 TON RAM 19-1/2IN HT	4
4	HP395		1-1/4IN DIA X 4-1/2IN PIN	16
5	PF549		HOOK, UNIVERSAL SPEED	6
6	Z129		WEDGE HEAD	1
7	1037		BASE FOR 20 TON RAM	4
8	109004		RAM CONNECTOR ASSEMBLY	1
9	10905		CLAMP-KNEE EXTENSION	1
10	109140		10 TON PULL RAM - 30-1/2IN	2
11	109170		10 TON SHORT PULL RAM - 21IN	1
12	1122		1IN DIA X 4-1/4IN PIN ASSEMBLY	30
13	1153		3/8 CHAIN X 84IN W/HOOK	6
14	1215		AXLE BEAM - 1 X 5 X 49	1
15	1500		WEDGE 3/4T X 3-3/16W X 12L	2
16	1607		EXTENSION CABLE - 6IN	24
17	1660		SHORT EXTENSION CABLE	12
18	1665		BAR, DIAMOND CONNECTOR	16
19	403009		HOLDER 20 TON RAM	2
20	403010A		YOKE, LONG CROSS PULL	1
21	403015A		YOKE, SHORT CROSS PULL	1
22	403017		HOLD DOWN, STATIONARY	8
23	403018	403018AL	39IN CROSS BAR STEEL	1
24	403019	403019AL	48IN CROSS BAR STEEL	3
25	403020	403020AL	66IN CROSS BAR STEEL	2
26	403020A	403020AAL	84IN CROSS BAR STEEL	2
27	403023	403023AL	KNEE - 18IN X 30IN	3
28	403024		BAR KNEE EXTENSION	4
29	403026		CLAMP - KNEE EXTENSION	4
30	403032		PLATE - KNEE CONNECTION	8
31	403038	403038AL	KNEE 22-7/8IN X 38IN	4
32	403052		JACK BASE, CROSS ROLLER	2
33	403059		1-8 X 4 A325 STRUCTURAL BOLT	36
34	403093		ADJUSTER, KNEE CLEARANCE	2
35	403117F		SPACER BLOCK	2
36	403143		CLEVIS, FRAME HOLD DOWN	8
37	403161		CLAMP, PLATE	4
38	403162		FRAME HOLD DOWN	16
39	403180		WEDGE 3/4T X 1-45/64W X 10L	16
40	403183F		HOLD DOWN PLATE	4
41	403196F		LOCK BAR	1
42	403197F		ANGLE 35-1/2IN	4
43	403199F		BASE PLATE	2
44	403204		RAM CONNECTOR ASSEMBLY	1
45	403216		INVIN RAM CAP	3
46	403234		EXTENSION BALL ASSEMBLY	3

Nuts & bolts, not shown.  
Hydraulic Accessories, not shown.



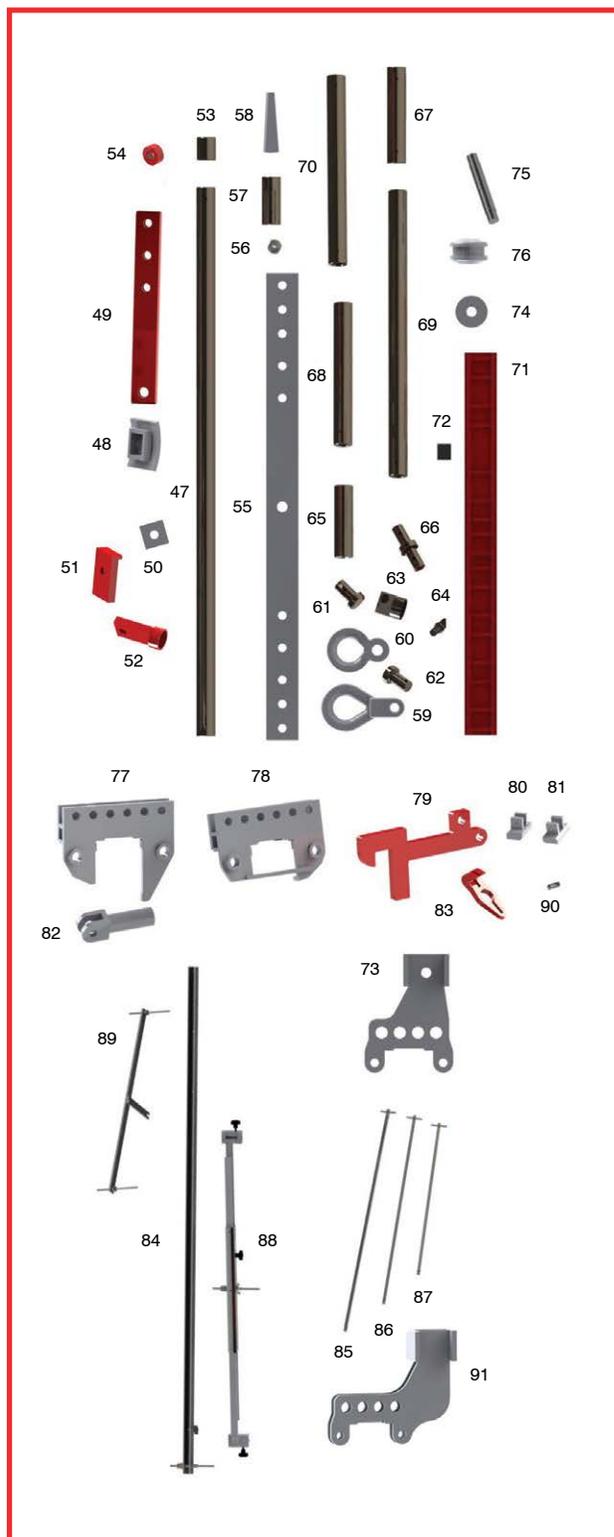
## Tool Groups

## TR110 Product Components & Illustrations (Continued)

Number	TR110	TR110AL	Description	Qty
47	403235		68IN 20 TON SPECIAL EXTENSION	2
48	403255		EXTENSION RADIUS PLATE	3
49	403319F		TUBE BASE PLATE	1
50	403324		WASHER FRAME ASSEMBLY	3
51	403327		FRAME CLAMP	3
52	403328		RAM CAP	1
53	403330		EXTENSION	1
54	403331		SPACER	1
55	403332		CROSS BEAM	2
56	620012		1-8 HX NT ZINC	41
57	403206		6IN 20 TON EXTENSION	3
58	919A		WEDGE 3/4T X 1-15/16W X 7-1/2L	6
59	983		HOLD DOWN RING TWO EAR	6
60	983A		CHAIN RING SINGLE EAR	2
61	403202		EXTENTION CAP	3
62	403204		RAM CONNECTOR ASSEMBLY	6
63	403205		RAM SPADE	3
64	403208		TUBE SPADE ASSEMBLY	3
65	403209		9IN 20 TON EXTENSION	3
66	403210		TUBE CONNECTOR ASSEMBLY	9
67	403212		12IN 20 TON EXTENSION	3
68	403218		18IN 20 TON EXTENSION	3
69	403236		36IN 20 TON EXTENSION	3
70	403224		24IN 20 TON EXTENSION	3
71	403259		PUSH BAR	3
72	997		SHORT RASPS	27
73	403072		HOLD DOWN, ROLLER WELDMENT	2
74	403074		ROLLER, HOLD DOWN	2
75	403084		SHAFT CROSS ROLLER	4
76	403085		CROSS ROLLER	4
77	403343F		LEFT CROSS ROLLER	2
78	403342F		RIGHT CROSS ROLLER	2
79	403301		I BEAM FLANGE TOOL	1
80	403302		1IN BLOCK	2
81	403303		3/4IN BLOCK	2
82	403307		CLEVIS	1
83	403311		UTILITY CLAW	1
84	21360		GAUGE EXTENSION	4
85	18087		SUPPORT ROD ASSEMBLY 28IN	4
86	18086		SUPPORT ROD ASSEMBLY 22IN	6
87	18028		SUPPORT ROD ASSEMBLY 14IN	4
88	21350A		FRAME GAUGE TOOL GROUP 49	4
89	21361		DIAMOND SIGHT ASSEMBLY	1
90	21362		CLAMP, SUPPORT ROD	4
91	-	403086AL	ALUMINUM OFFSET ROLLER, HOLD DOWN	2

Nuts & bolts, not shown.

Hydraulic Accessories, not shown.



## Tool Groups

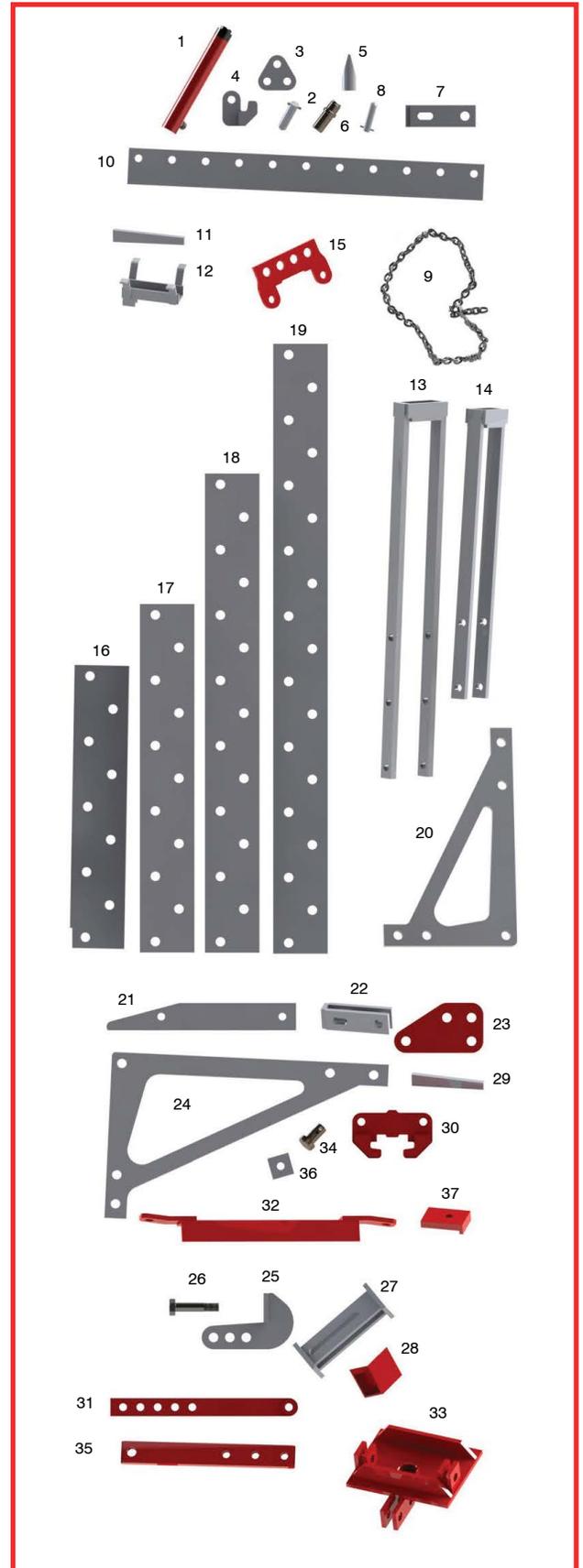
Add-on tooling for existing I-Beam, in-the-floor system. Provides extra tools (more holds & locks) for use when correcting multiple conditions at the same time. (For example – a double side sway condition)

Number	TR120	Description	Qty
1	FR10.16	10 TON RAM 10 INCH STROKE	1
2	HP395	1-1/4IN DIA X 4-1/2IN PIN	16
3	TR125	INACTIVE CENTER SECTION	2
4	TR126	INACTIVE HOOK WELD	2
5	Z129	WEDGE HEAD	1
6	109004	RAM CONNECTOR ASSEMBLY	1
7	10905	CLAMP-KNEE EXTENSION	1
8	1122	1IN DIA X 4-1/4IN PIN ASSEMBLY	12
9	1153	3/8 CHAIN X 84IN W/HOOK	1
10	1215	AXLE BEAM - 1 X 5 X 49	1
11	1500	WEDGE 3/4T X 3-3/16W X 12L	2
12	403009	HOLDER 20 TON RAM	2
13	403010A	YOKE, LONG CROSS PULL	1
14	403015A	YOKE, SHORT CROSS PULL	1
15	403017	HOLD DOWN, STATIONARY	8
16	403018	39IN CROSS BAR STEEL	1
17	403019	48IN CROSS BAR STEEL	3
18	403020	66IN CROSS BAR STEEL	2
19	403020A	84IN CROSS BAR STEEL	2
20	403023	KNEE 18IN X 30IN	3
21	403024	BAR KNEE EXTENSION	4
22	403026	CLAMP-KNEE EXTENSION	4
23	403032	PLATE, KNEE CONNECTION	8
24	403038	KNEE 22-7/8IN X 38IN	4
25	403052	JACK BASE, CROSS ROLLER	2
26	403059	1-8 X 4 A325 STRUCTURAL BOLT	4
27	403093	ADJUSTER, KNEE CLEARANCE	2
28	403117F	SPACER BLOCK WELD	2
29	403180	WEDGE 3/4T X 1-45/64W X 10L	16
30	403183F	HOLD DOWN PLATE	8
31	403196F	LOCK BAR	1
32	403197F	ANGLE 35-1/2IN	4
33	403199F	BASE PLATE	2
34	403204	RAM CONNECTOR	1
35	403319F	TUBE BASE PLATE	1
36	403324	WASHER FRAME	3
37	403327	FRAME CLAMP	3

Nuts & bolts, not shown.

Hydraulic Accessories, not shown.

## TR120 Product Components & Illustrations



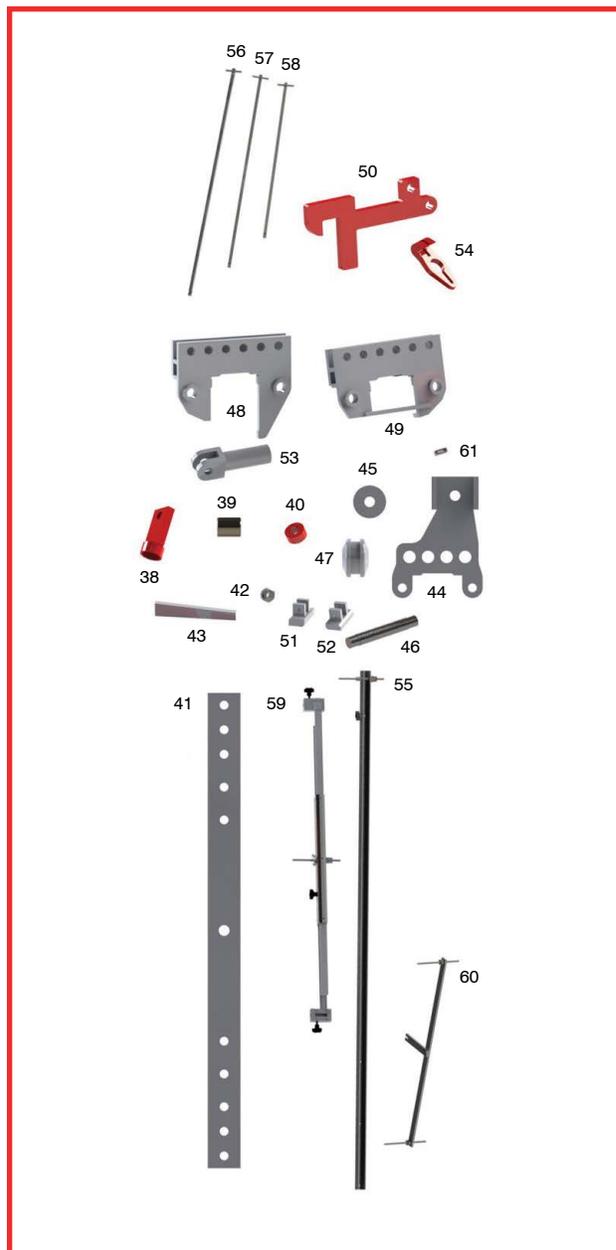
## Tool Groups

## TR120 Product Components & Illustrations (Continued)

Number	TR120	Description	Qty
38	403328	RAM CAP	1
39	403330	EXTENSION	1
40	403331	SPACER	1
41	403332	CROSS BEAM	2
42	620012	1-8 HX NT ZINC	9
43	919A	WEDGE 3/4T X 1-15/16W X 7-1/2L	6
44	403072	HOLD DOWN, ROLLER WELDMENT	2
45	403074	ROLLER, HOLD DOWN	2
46	403084	SHAFT CROSS ROLLER	4
47	403085	ROLLER CROSS	4
48	403342F	RIGHT CROSS ROLLER	2
49	403343F	LEFT CROSS ROLLER	2
50	403301	I-BEAM FLANGE TOOL	1
51	403302	1IN BLOCK	2
52	403303	3/4IN BLOCK	2
53	403307	CLEVIS	1
54	403311	UTILITY CLAW	1
55	21360	GAUGE EXTENSION	4
56	18087	SUPPORT ROD - 28IN	4
57	18086	SUPPORT ROD - 22IN	6
58	18028	SUPPORT ROD - 14IN	4
59	21350A	FRAME GAUGE - TOOL GROUP 49	4
60	21361	DIAMOND SIGHT	1
61	21362	CLAMP, SUPPORT ROD	4

Nuts & bolts, not shown.

Hydraulic Accessories, not shown.



## Tool Groups

Number	TR100.200	Description	Qty
1	FR20	25 TON RAM WITH CAP	4
2	FR100	20 TON RAM HOLDER	4
3	FR20.19	20 TON RAM - 19 1/2 INCH	5
4	PF549	HOOK	6
5	109140	10 TON SHORT PULL RAM - 21 INCH	3
6	1122	1" DIAMETER X 4 1/4" PIN	30
7	1153	3/8 CHAIN X 84" WITH HOOK	6
8	1420	KA FLANGE FINISHER	1
9	1607	EXTENSION CABLE - 6 INCH	24
10	1660	SHORT EXTENSION CABLE	12
11	1665	BAR, DIAMOND CONNECTOR	16
12	403143	CLEVIS, FRAME HOLD DOWN	16
13	403161	CLAMP, PLATE	8
14	403162	FRAME HOLD DOWN	16
15	403202	EXTENSION CAP	3
16	403204	RAM CONNECTOR	10
17	403205	RAM SPADE	1
18	403206	6" 20 TON EXTENSION	4
19	403208	TUBE SPADE	1
20	403209	9" 20 TON EXTENSION	4
21	403210	TUBE CONNECTOR	15
22	403212	12" 20 TON EXTENSION	5
23	403216	INVIN RAM CAP	4
24	403218	18" 20 TON EXTENSION	5
25	403219	20 TON RAM EXTENSION HOLDER	4
26	403224	24" 20 TON EXTENSION	5
27	403234	EXTENSION BALL	3
28	403236	30" 20 TON EXTENSION	5
29	403255	EXTENSION RADIUS PLATE	3
30	403259	PUSH BAR	3
31	983	HOLD DOWN RING	8
32	997	SHORT RASPS	27

Nuts & bolts, not shown.

Hydraulic Accessories, not shown.

## TR100.200 Product Components & Illustrations

*Hold down and Sag Dump Body Tooling for I-Beam, in-the-floor. Lock dump body to I-Beam to correct sag. (ala carte of TR100 and TR200 – can be added later)*



## Hands-on Training Opportunities

## Bee Line Training Courses

Bee Line Company offers factory or on-site training courses focused on the principles and techniques of performing computerized wheel alignment and truck frame correction. These courses have been developed to advance a technician's skills to the next level. A fully equipped training center located near Bee Line's manufacturing facility in Bettendorf, Iowa provides the ultimate learning environment. Enroll in Bee Line's training courses and take your first step toward advancement. With more than 90 years of experience in wheel alignment and frame correction, you can trust Bee Line to help you succeed.

Log on to [www.beeline-co.com](http://www.beeline-co.com) or call Bee Line Customer Service to register. 800-728-7828 or 563-332-4066.

### Bee Line Alignment Course

**5 DAY COURSE:**

**8 Hours Classroom**

**32 Hours Hands-On Training**

This training course is designed to teach the principles of alignment theory, vehicle (suspension system) inspection and equipment operation to an individual with one year or less service technician experience as well as an experienced alignment technician who wants to refresh their skills and knowledge. The course is a combination of classroom instruction and hands-on training that will provide an overview of suspension and steering systems with detailed instruction in performing proper inspection procedures.

#### Learning Objective:

The participant who completes this course will be able to:

- Describe the effects that improper wheel alignment will have on tire wear and vehicle handling.
- Recognize the factors that have the largest impact on alignment, including camber, caster, toe and tracking.
- Operate computerized alignment systems to perform measurements and make corrections.



### Bee Line Frame Correction Course

**4 DAY COURSE:**

**4 Hours Classroom**

**28 Hours Hands-On Training**

This training course is designed to teach the principles of truck frame correction. Participants will learn to diagnose, set up and correct common frame misalignment conditions in heavy duty trucks and trailers. Designed for an individual with one year or less correction technician experience as well as an experienced technician who wants to refresh their skills and knowledge. The course is a combination of classroom instruction and hands-on training. When taken in conjunction with the Bee Line Alignment course, the participant will learn to apply all the principles of Total Suspension Alignment.

#### Learning Objective:

The participant who completes this course will be able to:

- Recognize the factors that have the largest impact on frame alignment.
- Diagnose and set up misalignment corrections, including side-sway, twist, sag and diamond conditions.





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For Parts, Service, Training or Technical Questions, Visit Us Online at

**beeline-co.com** or Call Toll Free **800-728-7828**

2700 62nd Street Court • Bettendorf, Iowa 52722 • Fax 563-332-6517