X1™ HD

TECHNICAL MANUAL


X1
HD

X1™ HD

48v DC ON-TRUCK LATHE

TECHNICAL MANUAL

P · *800.543.6618*
F · *603.298.8404*
info@procutusa.com
www.procutusa.com

PRO-CUT
BRAKE SOLUTIONS

CONTENTS

U.S. REP SEARCH
SCAN

NOTE:** When service or replacement parts are required, please contact your local Pro-Cut Representative through the zip search QR or through our website: **www.procutusa.com

OUR MISSION

Pro-Cut International is dedicated to providing our customers with the most advanced, precise, and profitable tools for brake repair. We have worked with, learned from and solved problems for people at all levels of the brake repair business - from the largest manufacturers and national service chains to one-bay, one-man operations. It is a business our entire staff lives, eats, and breathes. We welcome you to our table and look forward to working with you to improve your brake service business.

CONGRATULATIONS!

You have just purchased what we feel is the finest on-truck brake lathe in the world. Your Pro-Cut X1 is a high quality, precision engineered product designed to give you years of trouble free service. To familiarize yourself with all its features, please take the time to read this owner's manual carefully and store this manual in a safe place for future reference.

Our job is not done until you feel your technician team is trained properly and received all the information needed to operate the X1 efficiently, accurately, and above all, SAFELY.

Your warranty will begin once you sign off that you are satisfied with the training.

For Records and Information:

*DATE TRAINED*_____ *PRO-CUT REP NAME* _____

*SERIAL No.*_____ *REP. CONTACT No.*_____

FOUND ON TOP OF LATHE

Limited Warranty

This warranty extends to the original owner of the equipment. Pro-Cut International warranties this equipment against defects in materials or workmanship as follows.

Labor

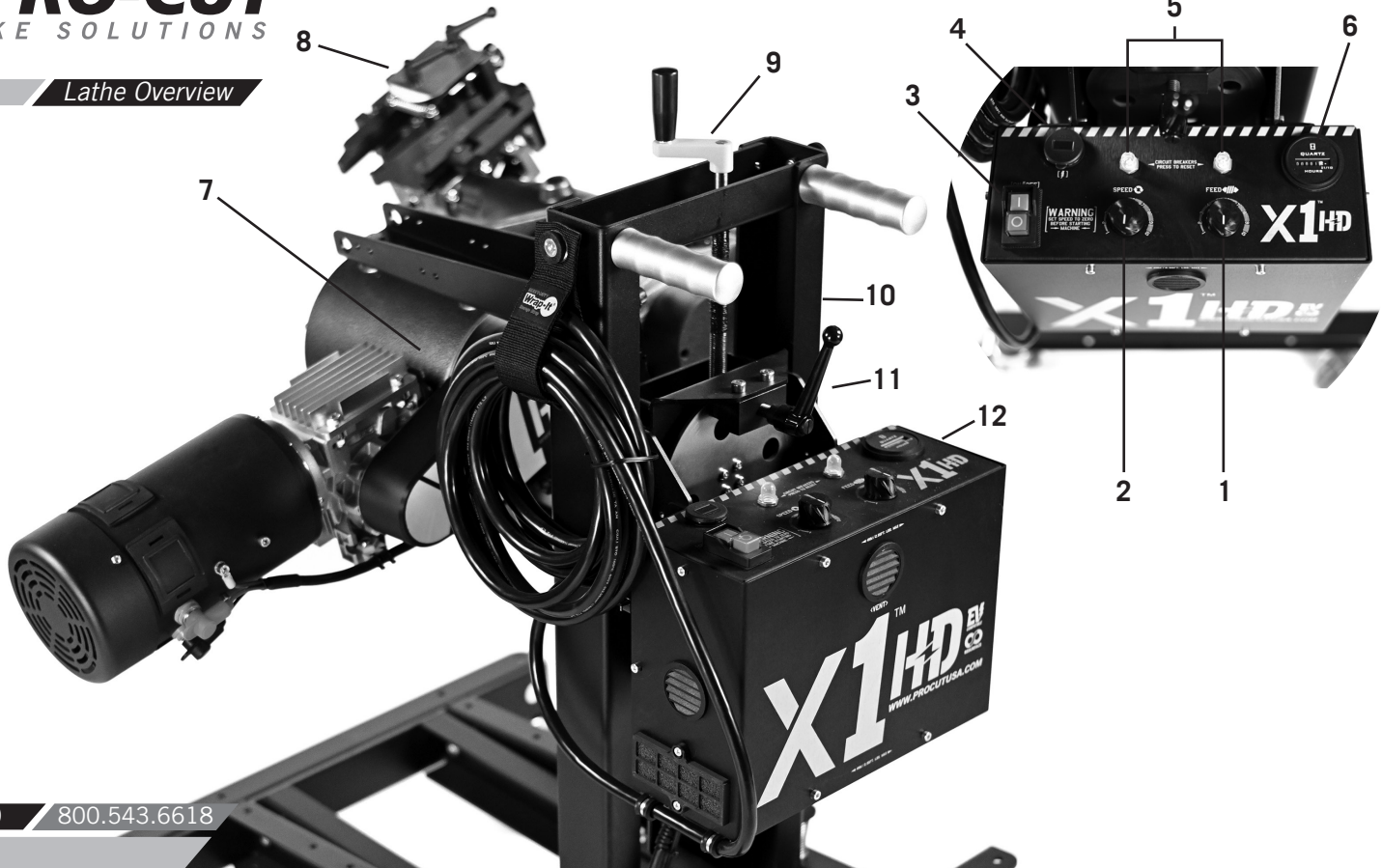
For the period of two (2) years from the original date of purchase, if we determine that the equipment is defective subject to the limitations of this warranty, we will replace it at no charge for labor. Pro-Cut International warrants any such work done against defects in materials or workmanship for the remaining portion of the original warranty period.

Parts

For the period of two (2) years from the original date of purchase, we will supply, at no charge, new or rebuilt replacement parts in exchange for parts we determine are defective subject to the limitations of this warranty. Pro-Cut International warranties any such replacement parts against defects in materials or workmanship for the remaining portion of the original warranty period.

What Your Warranty Does Not Cover

This warranty does not apply to damage due directly to misuse, abuse, negligence or lack of maintenance.


8
9
7
10
11
12
4
5
6
3
2
1
WARNING
SPEED
FEED
X1HD
WWW.PROCUTUSA.COM

COMPONENTS

1. *Variable Feed Speed Control*
2. *Variable Spindle Speed Control*
3. *Main Power ON/OFF Switch*
4. *Voltometer & USB Charging Port*
5. *Spindle/Feed Moter Circuit Breakers*
6. *Analog Hour Meter*
7. *Lathe Body*
8. *Cutting Head*
9. *Vertical Adjustment Crank Handle*
10. *Feed Clutch (Obscured)*
11. *Disc Lock Lever*
12. *DC Power Supply*

SPECIFICATIONS

- *Maximum Rotor Thickness: 2.00” / 50.8mm*
- *Minimum Rotor Thickness: 0.20” / 5.08mm*
- *Maximum Rotor Diameter: 18.00” / 457mm*
- *Maximum Rotor Diameter w/50-032 feed screw: 18.50” / 470mm*
- *Maximum Friction Face: 4.10” / 104mm*
- *Spindle Speed: 0-90 rpm*
- *Carriage Speed: Variable*
- *Motor HP: 2 hp peak*
- *Shipping Weight: 350 lbs / 157.76kg*
- *Electrical Supply: 90-264VAC 50/60Hz 1ph*

STANDARD ACCESSORIES INCLUDED WITH THE X1 BENCH LATHE

50-660

50-3800

37-1900

50-778

37-3502

50-744

37-740

50-376

50-773

37-3501

50-960

50-961

50-962

50-986

50-987

1x 50-660 Tool Kit
1x 50-3800 Owners Manual
2x 37-034 Caliper S-Hooks
1x 50-778 Cutting Tips
1x 50-744 Large Chip Deflector
1x 37-740 T-8 Flag Wrench
1x 50-376 Way Oil
1x 50-754 Chip Deflector
1x 37-1900 Safety Glasses
1x 37-3502 Width Caliper
1x 37-3501 LED Lamp
5x 50-960
10x 50-961
5x 50-963
5x 50-986
5x 50-987

***IMAGES NOT TO SCALE**

ACCEPTANCE FROM TRANSPORTATION CARRIER

Carefully inspect all items received in this shipment. If there is damage or evidence of mishandling in transit, determine the extent of damage and notify the transit company as well as Pro-Cut or your local Pro-Cut rep immediately. Although we are not responsible for damage incurred in transit, we will assist in the preparation and filing of claims.

SAFETY INFORMATION

This manual has been prepared for the operator and those responsible for the maintenance of the brake lathe. Its purpose, aside from proper maintenance and operations, is to promote safety through the use of accepted practice. READ AND UNDERSTAND THE SAFETY AND OPERATING INSTRUCTIONS COMPLETELY BEFORE OPERATING THE MACHINE.

In order to obtain maximum life expectancy and efficiency from your brake lathe; follow the operating instructions and maintenance manual carefully. The specifications put forth in this manual were in effect at the time of publication. However, owing to Pro-Cut's policy of continuous improvement, changes to the specifications may be made at any time without obligation on the part of Pro-Cut International, LLC.

IMPORTANT UL SAFETY INSTRUCTIONS

When using your garage equipment, basic safety precautions should always be followed, including the following:

1. *Read all instructions.*

2. *Care must be taken as burns can occur from touching hot parts.*

3. *Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged - until it has been examined by a qualified service person.*

4. *Do not let a cord hang over the edge of the table, bench, or counter or come in contact with hot manifolds or moving fan blades.*

5. *If an extension cord is necessary, a cord with a current rating equal to or more than that of the equipment should be used. Cords rated for less current than the equipment may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.*

6. *Always unplug equipment from electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.*

7. *Let equipment cool completely before putting away. Loop cord loosely around equipment when storing.*

IMPORTANT UL SAFETY INSTRUCTIONS (continued)

8. *To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline).*

9. *Adequate ventilation should be provided when working on operating internal combustion engines.*

10. *Keep hair, loose clothing, fingers, and all parts of body away from moving parts.*

11. *To reduce the risk of electric shock, do not use on wet surfaces or expose to rain.*

12. *Use only as described in this manual. Use only manufacturer's recommended attachments.*

13. *ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact resistant lenses, they are not safety glasses.*

14. *To reduce the risk of injury, close supervision is necessary when this product will be used around children. (Pertains to cabinets only.)*

15. *To reduce the risk of injury, never overload the drawers or shelves. Refer to loading instructions.*

16. *To reduce the risk of electric shock or fire, never overload receptacles. Refer to markings for the proper load on receptacles.*

SAVE THESE INSTRUCTIONS

SAFETY INSTRUCTIONS

1. ***Read, understand and follow the safety and operating instructions found in this manual.*** *Know the limitation and hazards associated with operating the machine.*

2. **SPECIAL PRECAUTIONS:** *The Pro-Cut X1 brake lathe was designed to machine the portions of the brake disc that come in contact with the friction material. When used according to the instructions herein, this lathe will perform satisfactorily within the work piece size range designed for this model. During the machining operation, the work piece rotates. Be especially cautious of rotating spokes and mounted accessories. During machining, material removal may cause a sharp edge to be generated, where a chamfer or radius previously existed. Use care in handling machined parts.*

3. **GROUNDING THE MACHINE:** *In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. The lathe is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a match outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify the plug provided. If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician. If repair or replacement of the electric cord or plug is necessary, do not connect the to a live outlet until repairs are performed. Check with a qualified electrician or service personal if the grounding instructions are not completely understood, or if in doubt as to whether the lathe is properly grounded.*

4. **EXPLOSION RISK:** *This machine generates internal sparks. Do not use at less than 18" [0.46m] above grade level, and never use below grade level. Work area should be well ventilated and free of explosive fumes.*

SAFETY INSTRUCTIONS (continued)

5. **USE PROPER EXTENSION CORD:** *Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the lathe's plug. Repair or replace damaged or worn cord immediately. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one that is 15' or less and 14ga or heavier (i.e. 12ga).*

6. **EYE SAFETY:** *Wear an approved safety face shield, goggles, or safety glasses. (Ordinary eyeglasses are not safety glasses and do not provide the degree of protection necessary.)*

7. **RESPIRATORY SAFETY:** *If the operation or area is dusty a face or dust mask should be used.*

8. **PERSONAL PROTECTION:** *Before operating the machine, remove tie, rings,watches and other jewelry, and roll up sleeves above the elbow. Remove all outer loose clothing and confine long hair. Protective type footwear must be worn. Hearing protectors must be used where noise exceeds the level of exposure allowed in Section 1910.95 of the OSHA Regulations. DO NOT WEAR GLOVES.*

9. **DO NOT USE LATHE IN DANGEROUS ENVIRONMENT:** *Don't use the lathe in damp or wet locations, or expose the lathe to rain. Keep the work area well lighted.*

10. **DO NOT OVERREACH:** *Maintain a balanced stance and keep your body under control at all times.*

11. **HAND SAFETY:** *Keep hands away from moving parts when the machine is under power. Never clear chips or debris when the machine is under power and never use your hands to clear the chips. Never use compressed air to clean machine; use only a soft bristle brush or vacuum cleaner.*

12. **MACHINING PREPARATION***: Tighten all appropriate locks before operating the lathe. Be sure work piece is secured. Remove adjusting keys and wrenches. Be sure to check to see that all adjusting wrenches are removed from the lathe before turning the machine on.*

13. **CHECK DAMAGED PARTS:** *Before further use of the lathe, a guard or other part that is damaged should be carefully checked to determine if it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, & any other conditions that may affect the lathe's operation. A guard or other part that is damaged should be properly repaired or replaced.*

14. **MAINTAIN TOOLS WITH CARE:** *Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.*

15. **NEVER STAND ON LATHE:** *Serious injury could occur if the lathe is tipped or if the cutting tool is unintentionally contacted.*

SAFETY INSTRUCTIONS

16. **MACHINE CAPACITY:** *Do not attempt to use the machine for other than bus or truck discs, or for operations for which the machine was not intended.*

17. **CARELESS ACTS:** *Give the work you are doing your undivided attention!*

18. ***Disconnect Electrical Power before performing any service, maintenance, or changing of accessories or adapters.***

19. **JOB COMPLETION:** *If the operator leaves the machine area for any reason,the machine should be turned off, and the spindle brought to a complete stop before the operator departs. In addition if the operation is complete, the operator should clean the machine and work area. NEVER CLEAN THE MACHINE WITH THE POWER ON.*

20. **REPLACEMENT PARTS:** *Use only Pro-Cut replacement parts and accessories, risk of injury may result in accessories other than those recommended are used.*

21. **MISUSE:** *Do not use the machine for other than its intended use. If used for other purposes, Pro-Cut International, LLC, disclaims any expressed or implied warranty, and holds itself harmless for any injury or loss that may result.*

X1 MULTI-SPEED BRAKE LATHE TECH TIPS

The X1 Multi-Speed Lathe has a variable feed rate and a variable spindle speed.

Choose spindle and feed speed based on the size of the work piece, slower for larger diameter brake rotors/discs.

No guarantee can be made for inserts not purchased from Pro-Cut, as insert corner radius, relief angle, material composition and edge preparation can have a strong effect on cutting quality, insert lift, and tendency of the work piece to vibrate. Always use Genuine Pro-Cut 50-778 inserts for best results.

The maximum recommended depth of cut is 0.015" / 0.38mm per insert.

VEHICLE PREPARATION

Before lifting the vehicle, the front wheels should be straight and the parking brake should be off, with the transmission in neutral, and the traction control turned off.

Use crank handle to fine adjust height of lathe once height of vehicle is set.

1. *Raise the vehicle according to the lift manufacturer's instructions. Raise until the wheel hub is about belt level.*
2. *Check wheel bearings for damage or excessive play. If this or any other wheel service is required, it should be performed before match-machining the rotors as loose or damaged bearings will keep the lathe from doing the most accurate job possible.*
3. *Remove the wheels. Remove the brake calipers and suspend them out of the way of moving parts such as half shafts and CV joints. Be sure to remove all wheels that may turn when the lathe is turned on.*
4. *Use a suitable wheel hub cleaning tool to remove rust or debris. Clean all material from the adapter mounting area.*
5. *Use a micrometer to measure rotor thickness and determine how much material may be removed from the rotor by comparing to brake spec. Visually inspect for deep rust or grooves. The disc should be checked for taper and high spots with the micrometer and to determine the amount of material that needs to be removed to make the disc flat again. More than one pass may be required.*

NOTE: *Remember the working range for the X1 HD is between 20" and 36", so set your hub height to match when lifting vehicle.*

It is important to start on the proper side. The Pro-Cut mounts directly to the hub of the vehicle. With the lathe right-side up (FIG:1) the cutting head is to the right of the hub as you face the vehicle wheel well. When machining a rotor, the cutting head is most often positioned where the caliper rides. On a vehicle where the calipers ride in front of the hub, always start on the passenger side. If the caliper rides to the rear of the hub, begin on the driver's side.

When you flip the lathe to machine the opposite side of the vehicle (FIG:2), no inboard / outboard cutting head adjustments are required since they were made in the upright position.

NOTE

The Pro-Cut X1 machines both front and rear rotors. The lathe's set-up steps do not change at all in the rear of the vehicle.

***NOTE: Always rotate the motor over, to avoid cord wrapping/tangling.**

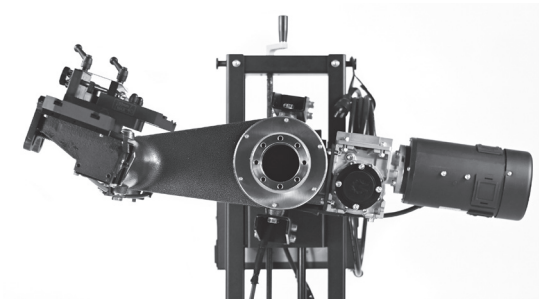


FIG:1 *Lathe in upright position. Note that adjustments to cutting head are made in this position.*

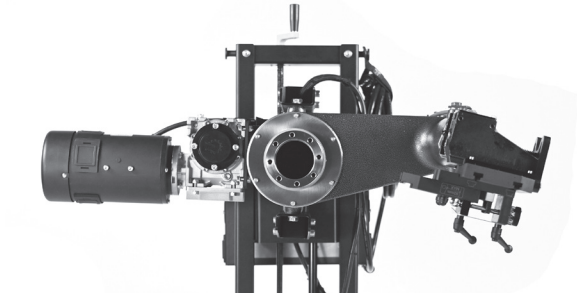


FIG:2 *Lathe in upside-down position. You will need to flip the lathe over into this position to machine one side of the vehicle if there is a dust shield, or other interference behind the rotor.*

LATHE PREPARATION — CHECK CUTTING TIPS

Before mounting the lathe, check the cutting tips and make sure they are ready for use. The cutting tips are one of the most critical components of the machine. It is vital that they are Pro-Cut brand tips in good condition and properly mounted. Each cutting tip has three corners which may be used. The correctly installed tip is wider on the top and has a groove, or dots, facing up.

You should get at least 10 cuts per corner. However, tip life is affected by variables such as rust or ridges. In order to determine when to rotate tips, monitor rotor finish. If the rotor finish begins to look inconsistent, or feels rough to the touch, tips should be rotated. Tips that are chipped or cracked should never be used.

Be sure that the tip pocket is clean before positioning the tip. Any foreign material pinched under the tip will cause problems.

CHECK CUTTING TIPS *(Continued)*

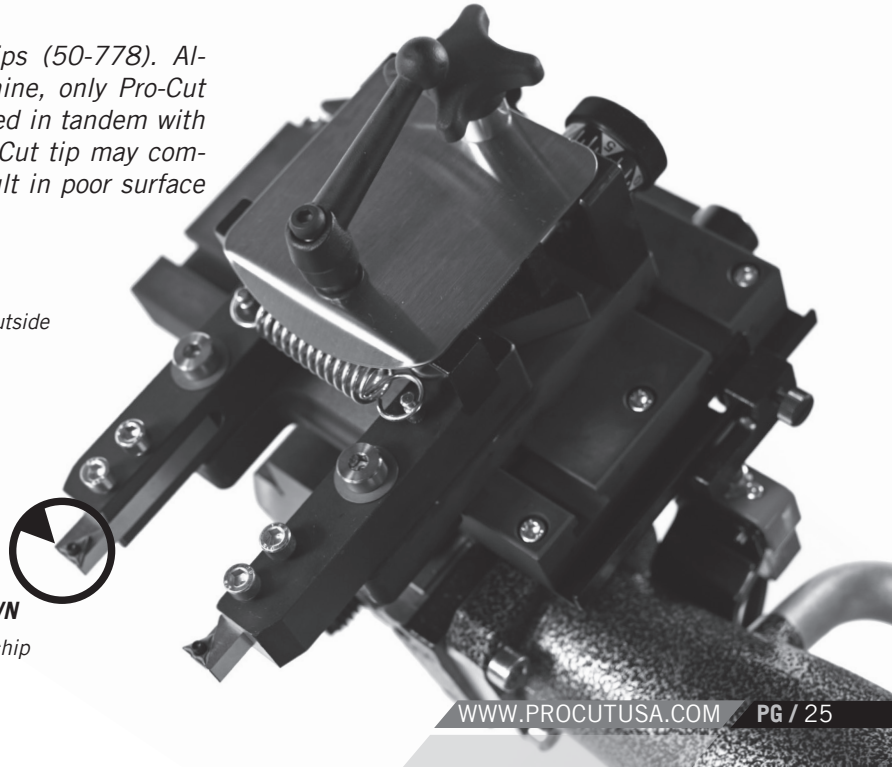
NOTE: *Use only Pro-Cut Cutting Tips (50-778). Although other tips may fit the machine, only Pro-Cut tips have been specifically engineered in tandem with the Pro-Cut lathe. Using a non-Pro-Cut tip may compromise lathe performance and result in poor surface finish.*

SETTING TOOL ARM LENGTH

Measure the face of the disc from inside to outside

PERFORMANCE PLUS CUTTING HEAD SHOWN

When the tip is mounted correctly, the chip breaker and dots face up.



In just 3 steps, any tech can perform top-quality brake work.

If the three steps are followed properly on each brake job, the Pro-Cut X1 will operate accurately and efficiently. Scan the QR Codes for quick training videos detailing the steps of the 3C's!

C1 / CONNECT: Connect the adapter to the lathe and the adapter to the hub.

WARNING

DO NOT USE IMPACT GUNS TO ATTACH THESE ADAPTERS! *Twenty to thirty ft.-lbs. applied by hand is plenty to secure the adapter to the lathe. Excess torque applied with an impact wrench may damage the adapters.* ***Warranty does not cover this misuse.***

Once you've selected the correct size adapter, *mount the adapter to the flange of the lathe, attaching it with 8 provided bolts. Tighten bolts with a ratchet with extension or a torque wrench in a star pattern. Do not use high torque impact guns to mount adapters. Nuts should be tightened to 30 ft. lbs. Excess torque may damage the adapter.*

Some trucks require the use of spacers (50-960 or 50-961) which are provided in the lathe package. If the adapter doesn't fit flush and square, use the spacers. If necessary you may stack them to an even height on every other stud.

C1 / CONNECT *(continued)*

Mount the Lathe with Adapter to the Vehicle's Hub

Crank the clutch clockwise until the cutting head clears the outer edge of the brake disc so that the tips will not strike the rotor as you mount the lathe.

Next, roll the machine into place and match up the adapter to the hub. Note that the trolley moves up and down to accommodate different heights, and the trolley camber springs allow for lift assist while you position the adapter to attached 50-963 and nut.

NOTE: It is very important that the machine be mounted smoothly on the vehicle without prying or forcing. Take the time to align the machine properly in order to avoid damage. Use either the vehicle's lug nuts or the 50-987 lug nuts provided. However be certain to use a nut or washer with a conical profile to center the adapter on the suds. Determine if you need to use spacing between the adapter and the hub to clear any interference so the adapter will fit square and flat. You can use the 50-960 or up to 2 of the 50-961 spacers on every other stud. To attach the adapter, use a 50-963 tapered spacer to center the adapter on the hub, and secure with a nut from the kit. Tighten nuts in a star pattern to a minimum of 30 lb ft each.

Step 2: Mount the adapter to the lathe with the 8 included bolts

Position the Cutting Head for Machining

Loosen the trolley lock lever so that the machine is free to rotate. Rotate the machine so that the cutting head is in a position where there is clearance to make the cut. Be sure to check the back side of the rotor for obstacles. Make sure there will be clearance for the chip deflector as well. **Lock the trolley lever so the machine will not rotate when the motor is started.** *Loosen rear lock on cutting head and slide laterally until tool arms are evenly spaced on either side of the rotor/disc, but not over the disc. Lock the rear lock lever. The feed will shut-off automatically when the cutting head travels to it's outside limiting switch.*

C2 / COMPENSATE - CHECK SET-UP

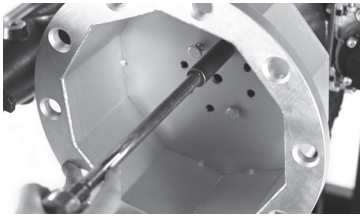
Once the adapter is securely mounted to the hub of the vehicle, and the correct angle of approach is determined for the tool arms, turn the spindle to low speed and then ramp up to full speed if everything is spinning true. Should you find excessive movement, or lateral run-out in the rotating assembly, stop the machine and double check:

1. *Adapter to hub connection has 4 (for 8 lug) or 5 (for lug) nuts and or washers with correct seat taper, secured evenly, on every other stud.*

2. *Connection between adapter and hub surface must be clean of debris. Use abrasive tools as needed.*

C2 / COMPENSATE - CHECK SET-UP *(Continued)*

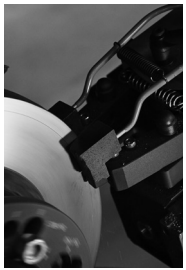
3. *8 bolts that secure the connection between the adapter and the lathe are evenly tightened in a star pattern.*



This difficulty could be due to looseness of fittings, irregular run-out, damage to wheel bearings or other components, or other factors relating to set-up. The best procedure is to loosen the machine from the adapter, check adapter and vehicle setup, rotate the adapter locator pin 180 degrees, and attach the machine again. Make sure that the machine is adequately supported by the trolley.

C3 / CUT: MAKE THE CUT

With the motor running, loosen the forward lock lever on the cutting head to allow cutting depth adjustment.



STEP 4.
Cutting a Rotor.

Turn cut-depth knobs counter-clockwise until the tips can clear both sides of the rotor. Crank the cutting head in to 1/4"[6.35mm] from the outer edge of the braking surface of the rotor.

Start with the inside (behind the rotor) tool arm. Turn the depth knob clockwise (tighten) until the tool tip makes full 360 degree contact (complete circle) on the rotor surface. You can listen for the contact. Next move the outside tool arm in until it also does the same.

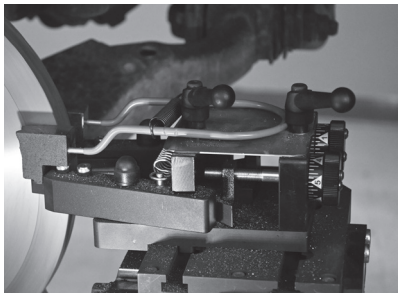
If there is a large ridge on the outer edge of the rotor, you may remove that by tightening the tool arm lock lever, depressing the feed clutch and allowing the lathe to cut off the ridge. Now back off the tool arms 5 clicks (counterclockwise) each, and wind the cutting head back in now to 1/8th of an inch from the inside starting point of the cut, or as close as you can get and still be on good rotor surface on both sides at the inside of the disc. Be careful not to crank the cutting arms into the "hat" of the rotor. ***Damage caused by advancing the cutting arm into the hat of the rotor is not covered by warranty.***

When you are at the inside edge of the pad contact surface, you may adjust for depth by turning the depth knobs clockwise the 5 clicks you previously backed off, which should be the original scratch point from the test scratch on the outer edge. If the cutting tips are not touching the rotor then you must turn the knob(s) clockwise until they do - this is your start point to add the depth of cut. Each click of the knob represents cutting tip movement of 0.001" (0.025mm). Cut at least 0.0054" / 0.10mm (or four clicks) on each side with each pass for average size rotors. The maximum depth is 0.015" / 0.38mm per side, per pass.

C3 / CUT *(Continued)*

Now that you have adjusted for depth, tighten the forward lock lever (over the tool arms). This lever must be tight to minimize vibration. ***For safety, it is advised at this time that you turn the motor off. Place the chip deflector around the rotor and over the cutting tips.*** *Grooves in the chip deflector will fit snugly over the cutting tip screw heads when installed correctly.*

Pictured above is the 50-773, which has double thick blocks and a profile that works best .



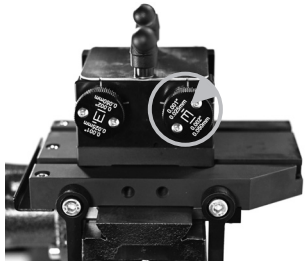
50-773 Deflector Installed

C3 / CUT *(CONTINUED)*

Once cut depth is set, tool arms are locked down, chip deflector is secure, you may turn the motor back on. Press the feed engagement knob to engage the automatic feed. Provided that you previously set the shut-off cam correctly, the lathe will shut off when the cut is complete. The cut will take 5-10 minutes depending on the size of the rotor, and the feed speed selected.

NOTE: SECURING THE CUTTING HEAD

Vibration is the root cause of most surface finish problems. Be sure the cutting head is securely locked in place. Tight connections here reduce the chance of vibration.



Turn the dials clockwise to advance the cutting tip depth. Each click of the dial indicates .001".

The chip deflectors ride over the cutting arms as shown above.

Move the cutting head by turning the clutch knob shown above, clockwise for away from the rotor, counter-clockwise for towards the rotor.

When you are finished cutting, loosen the cutting arm lock lever, and turn the dials counter clockwise so they will clear the larger thickness of the second rotor. Loosen nuts attaching adapter to vehicle and remove lathe. Be careful not to bump either the rotor or the wheel with the cutting head as you dismount the lathe. Take special care not to bump the cutting tips against the rotor.

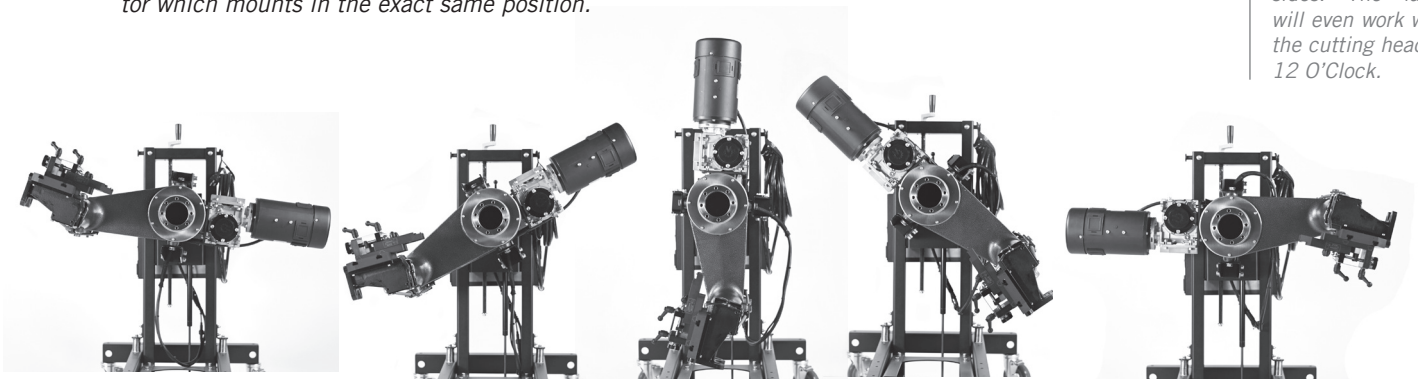
ROTATING THE LATHE IF NECESSARY

1. *Loosen the trolley disc lock lever and rotate the machine into the upside-down position.*

2. *The procedure for cutting in the upside-down position is the same, though fewer steps are needed as the lateral position of the cutting head relative to the rotor is already set. The lathe mounts in the same manner. Often, the shut-off switch will still be depressed from the previous cut, so the machine will not turn on until you advance the cutting head slightly. The cutting arms will also still be advanced in from the last cut, so be sure to loosen the forward lock lever and spread the tool arms before feeding the head towards the center of the rotor. The entire cutting process is also the same, right down to the chip deflector which mounts in the exact same position.*

NOTE

Many trucks and buses can be cut in the right side up position on both sides. The lathe will even work with the cutting head at 12 O'Clock.



After loosening the trolley handle, always rotate the lathe by the motor to avoid cord wrapping / tangling to machine the opposite side of the vehicle.

POST MACHINING BEST PRACTICES

Before removing the adapter, measure and record the thickness to ensure that it is above "machine to" specification. You may compare to factory specifications in the Pro-Cut Brake Spec Guide provided, or other reliable certified source. When you have finished your measurements, be sure to clear the hub, caliper bracket, and speed sensors of any brake chips, dust or debris. ***Optional:*** *With the motor running, finish sanding with a 150 grit sandpaper on a sanding block on each side of the rotor for 1 minute will serve to improve the surface roughness average. Excellent surface finishes provide the least amount of initial brake noise and the best customer satisfaction.*

Cleaning the rotor surface after machining to remove all dust and debris is very important in the overall quality of the brake job. Pro-Cut recommends using liberal amounts of warm water with a mild detergent and drying thoroughly with clean towels to be certain all loose material is removed.

VEHICLE REASSEMBLY

Be sure to torque all lug nuts to manufacturer's specification with a torque wrench or other calibrated tool.

MAINTENANCE

The Pro-Cut lathe is simple and rugged. With just a few maintenance tips you can ensure a long and profitable life for your machine.

Check cutting tip edges. *(Pro Tip: Your phone's 'magnifier' utility is great for this!) If there are chips or dings, turn or replace the tip. Be sure they are right-side up so that the groove and dots are visible. Each tip has three cutting points. When worn out, replace them using a T-8 wrench as the one provided with the tool kit. Although the tips must be securely tightened, do not over-tighten them either. When changing tool tips, always clean the cutting tip pocket and threaded hole before reinstalling rotated or new cutting tip.*

Clean the slide plate and tool holder plate, taking special care that there are not chips or dirt wedged in the dovetails or under the tool arms. Check the electrical connections and cord for cuts in the insulation or for wear.

Lubricate the dovetail ways with Pro-Cut 50-376 way oil under heavy use, or as needed.

Check the slide plate for lateral play. Lateral play often causes ridges and machining grooves when a rotor is resurfaced. To check for lateral play, grab the slide plate assembly and try to wiggle it side to side.

For details on how to adjust the slide plate, see page 41, or contact:

· Pro-Cut Service Dept at 800-543-6618, option 2

· Contact your local rep.

NOTE

The Pro-Cut X1 should provide a smooth surface finish on every cut, free of chatter, tone, or roughness. If your machine leaves a substandard, "chattery" or rough finish, you need to find the problem. The following pages are the common sources of poor surface finish and ways to remedy the problem.

Brake performance is dependent upon rotor surface finish as well as minimizing lateral run-out. The Pro-Cut lathe is designed to give you a superior surface finish on any rotor as long as proper maintenance is followed.

Minimizing vibration during machining is the key to high-quality surface finish. It is critical that all contact points between the rotor and the lathe are secure – specifically, the connections between lathe and adapter; the slide plate and the lathe; the cutting head and the plate; and the tips and the tool holders. Looseness in any of these areas will compromise lathe performance and surface finish.

CHECK CUTTING TIPS

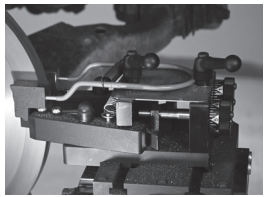
The cutting tips must be right-side up. Dots or ridges face up. The cutting tips should not have chips or dings in the surface of the points. Do not take cuts of less than 5 thousandths of an inch / 0.13mm unless necessary for non-vented, drilled, or rear of dual wheel trucks. Cuts of 5 to 10 thousandths / 0.13-0.25mm per side will provide the best surface finish and the longest tip life for for vented rotors.

MAKE SURE THE CUTTING HEAD IS TIGHT

On each brake job, the technician must center the cutting head. Once the head is centered, it is vital that the technician tighten the cutting head lateral lock lever securely. Failure to do this may result in chatter.

USE THE CHIP DEFLECTOR

The chip deflector included with the lathe is a critical component. The pressure of its pads provides dampening that reduces the chance of vibration while cutting. The chip deflector should be used on every cut to ensure proper finish. New chip deflectors can be purchased directly from Pro-Cut.



*The chip deflector reduces vibration and should be used on **EVERY** cut.*

MACHINING MODE FROM HOME SCREEN

SPINDLE SPEEDS:

· Speeds 1-4 are for set-up only.
· Speeds 5-10 are for active machining.
· For light cuts use up to 10. Turn down speed for heavier cuts or discs larger than 16" (406mm).

FEED SPEEDS:

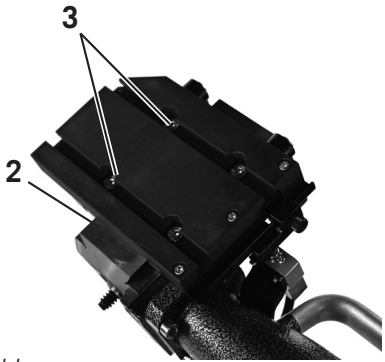
· Feed speed is not active until spindle speed is at 5 or higher.
· 1 will provide the slowest, finest surface finish.
· 10 will provide the fastest, roughest finish.

VOLTMETER AND CHARGING PORT:

· Voltmeter reads current DC voltage and can be read with cap open or closed
· USB and USB C charge ports for magnetic light or other chargeable devices.

Slide Plate Resistance Adjustment

1. *Remove the Cutting Head from the Slide Plate.*
2. *Center the Slide Plate on the Gear Box between the screws that are through the dove tail plate.*
3. *Locate and loosen the 2 wedge locating screws on the slide plate.*
4. *Be sure that the runners of the slide plate are clean and free of debris.*
5. *Grasping the slide plate on the side opposite of the slide rail, wiggle it back and forth at the same time push on the side where the rail is located.*
6. *Tighten the 2 wedge locating screws.*
7. *Test the resistance of the slide plate by turning the clutch knob. There should not be any sideward movement or looseness in the slide plate but it should travel smoothly along the ways.*
8. *Lube the 60° ways with Pro-Cut 50-376 way oil.*



Detail of the 50-1690 Slide Plate

3 COMMON TRUCK ADAPTERS

50-3955

1-Ton Dual Wheel Truck Adapter

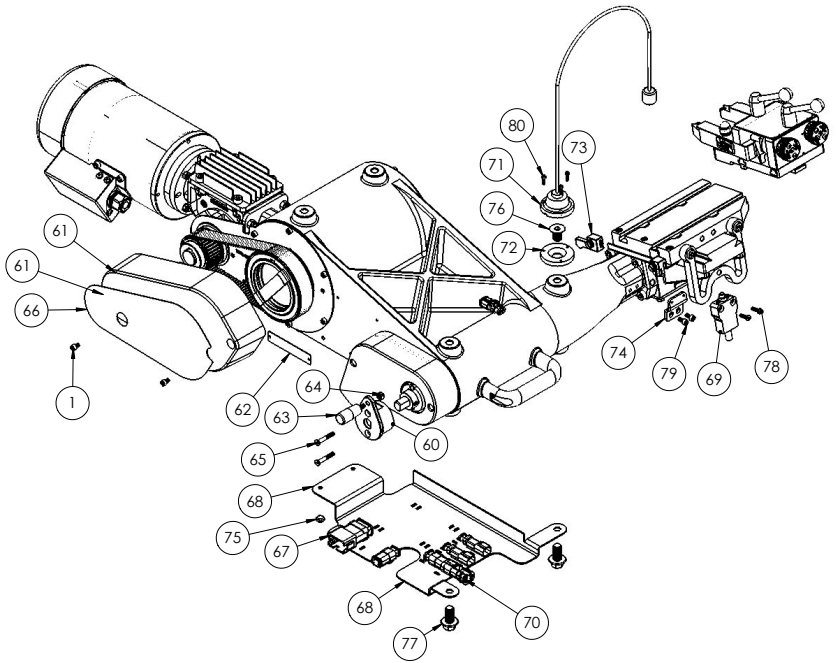
50-3999

Rear Adapter 10 X 11.25” and 8 x 275mm

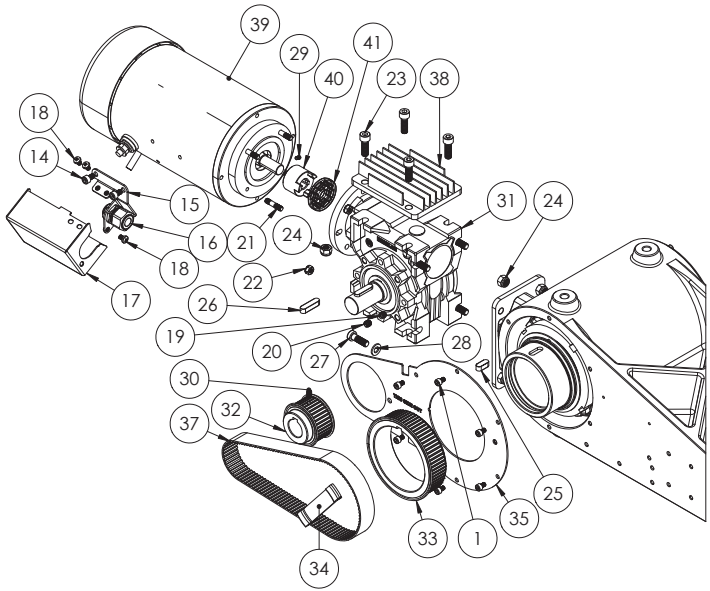
50-3989

HD Adapter with 10x335 Pattern

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	35-3003	EN ISO 4762 M5 x 8 Stainless Steel	22
60	50-3034	Clutch Crank Body	1
61	50-3019	Drive Belt Cover	1
62	50-3853	Serial Number Plate - X1	1
63	37-3033	Plastic Tapered Handle with Revolving Grip M6	1
64	36-020	Prevailing torque type hexagon nut ISO 7040 - M6	1
66	50-3850	Belt Cover Label - X1	1
67	50-3212	Lathe Body Harness	1
68	50-3221	Harness Mount Plate	1
69	50-3215	EOT Microswitch & Harness	1
70	50-3214	Rotary Encoder Cable Harness	1
71	50-3216	LED Gooseneck & Harness	1
72	50-3222	LED Gooseneck Mount	1
73	50-1864	Extended Belt Lathe Shutoff Cam	1
74	50-3224	X1 Switch Mount Plate	1
75	37-3036	Rubber Foot for 1/4 Inch Hole	2
77	35-3013	Hexagon Flange Bolt DIN 6921 - M12 x 25 Steel Bright Zinc	2
78	35-281	ISO 7045 - M4 x 16 - Z — 16S	2
79	35-811	DIN 912 M5 x 10 Steel Bright Zinc	2
80	37-4031	ISO 4762 M3 x 12 - Steel Bright Zinc	3

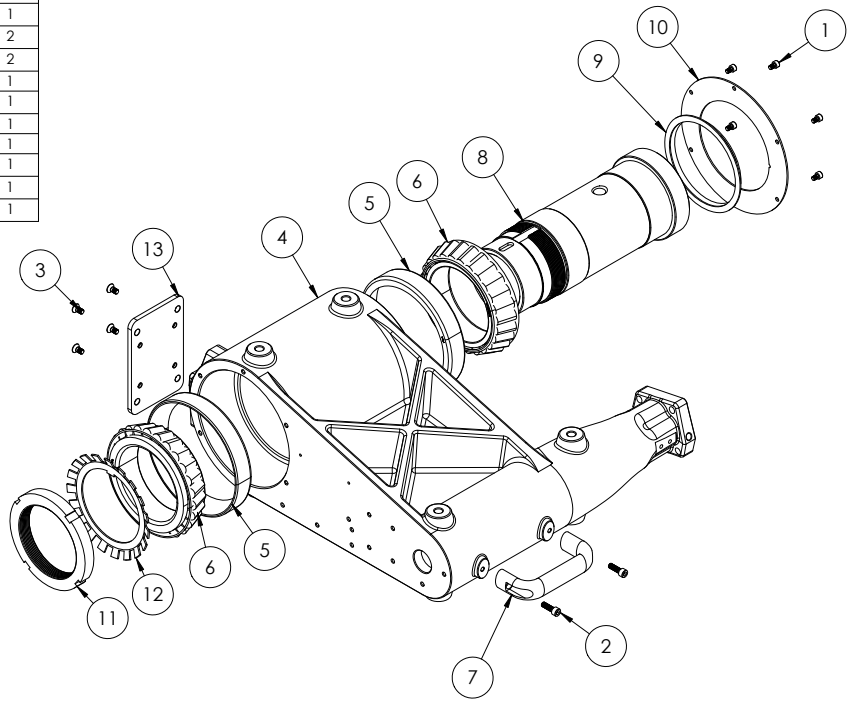


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
14	35-291	DIN 912 M6 x 10 Stainless Steel	2
15	50-3037	Motor Cord Bracket	1
16	37-706	M20 Cord Gland	1
17	50-3038	Motor Terminal Cover Box	1
18	35-926	ISO 7045 - M5 x 8 Steel, Bright Zinc	3
19	35-3012	ISO 4026 - M8 x 6 - Steel Bright Zinc	1
20	37-3405	Easy-to-Install Thread-Locking Insert	1
21	35-4057	Stud, M6x20, GB898, type A, 8.8 grade, Zinc plating	4
22	36-4017	Lock Nut with tooth M6	4
23	35-236	ISO 4762 M8 x 25 Steel, Bright Zinc	4
24	36-002	ISO 7040-M8 Steel Nylon Lock Nut	8
25	37-3100	Parallel key A8 x 7 x 20 DIN 6885 Steel	1
26	37-426	Parallel key A8 x 7 x 32 DIN 6885 Steel	1
27	35-3402	LHSHCS DIN 6912 M8x25 Steel Bright Zinc	4
28	37-003	Washer DIN 125 - A 8.4	4
29	35-427	DIN 916 - M4 x 8-Steel, Bright Zinc	1
30	35-3002	ISO 4029 - M6 x 10 Steel, Bright Zinc	1
31	37-3210	Diequa 37-2210 10:1 Worm Gearbox - Reverse Output	1
32	50-1847	Cog 5mm Powergrip GT3 36T 8x7 Key & M6 Set	1
33	50-3017	Cog 5mm Powergrip GT3 72T 8x7 Key M6 Set	1
34	50-3018	Spindle Cap (Driven Cog Retainer)	1
35	50-3015	X1 Backing Plate	1
36	50-3013	X1 Rear Seal	1
37	37-3005	Belt PG2 5mm 610 Length	1
38	50-2209	Heat Sink for Varvel Gearbox 37-2200	1
39	50-2390	Motor 48V 1hp 1800rpm 4-brush Ceramic	1
40	50-2260	Coupling Body for Varvel Gearbox	1
41	50-2263	Coupling Spider for Varvel Gearbox	1

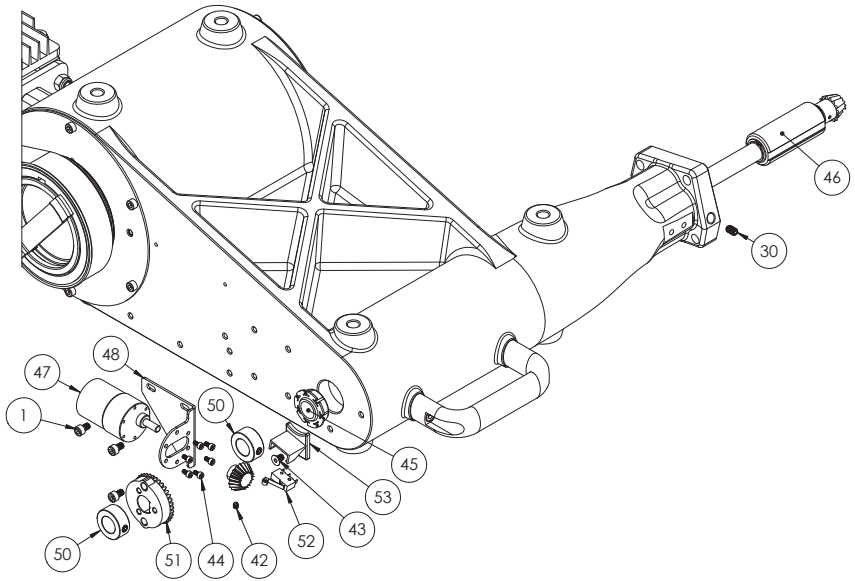


PRO-CUT
BRAKE SOLUTIONS

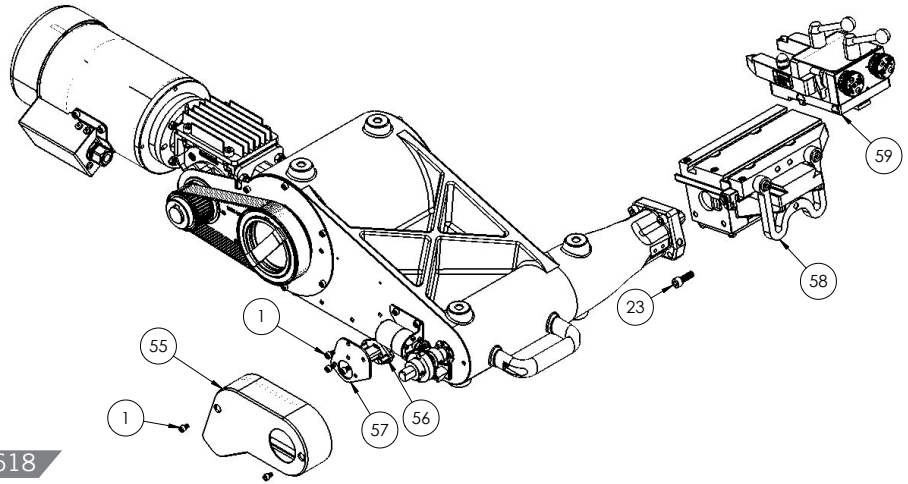
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	35-3003	EN ISO 4762 M5 x 8 Stainless Steel	6
2	37-717	ISO 4762 M6 x 20 Steel, Bright Zinc	2
3	35-3008	DIN 7991 FHCSSHS M6x12 Stainless	4
4	50-3005	Truck Lathe Body	1
5	37-3001-Cup	Tapre Roller Bearing Cup	2
6	37-3001-Cone	Taper Roller Bearing Cone	2
7	37-813	JW Winco Handle 26W116B80T	1
8	50-3006	Truck Lathe Spindle	1
9	50-3011	X1 Front Seal	1
10	50-3012	X1 Front Dust Shield	1
11	37-3003	Carbon Steel Bearing Retaining Nut	1
12	37-3002	Spring Lock Washer	1
13	50-3014	Gearbox Adapter Plate	1



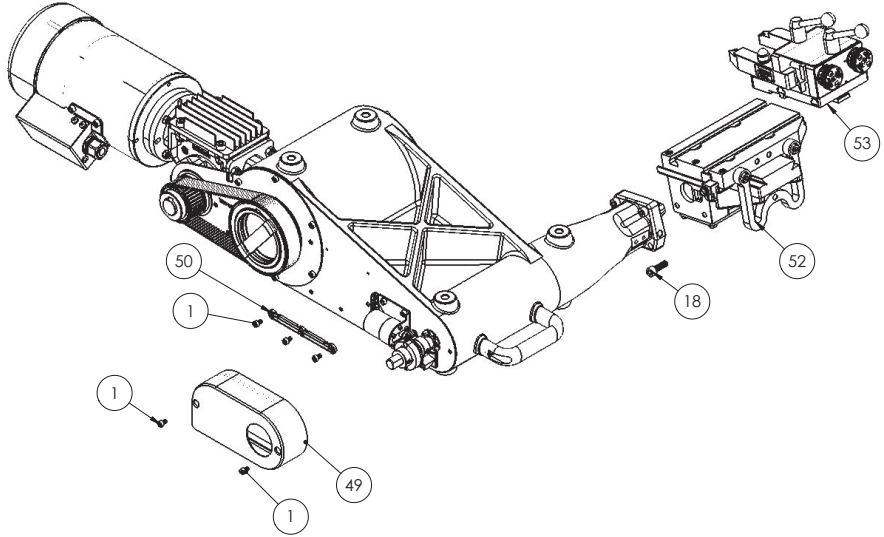
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	35-3003	EN ISO 4762 M5 x 8 Stainless Steel	15
42	35-3001	Hexagon Socket Set Screw DIN 916 - M4 x 5 Steel Bright Zinc	1
43	35-3010	CSFHSS DIN 7991 M5x8 Stainless	1
44	35-3006	SHCS ISO 4762 M3 x 6 Stainless	6
45	37-2201	Plain Bearing, Spherical 16mm	1
46	50-3040	Feed Shaft Assembly X1	1
47	37-3030	Feed Motor 20RPM	1
48	50-3031	Feed Motor Bracket	1
49	50-3032	Driver Pinion	1
50	37-3031	Shaft Collar 16mm	2
51	50-3033	Driven Gear	1
52	37-3032	Feed Clutch Position Switch	1
53	50-3035	Feed Clutch Microswitch Bracket	1



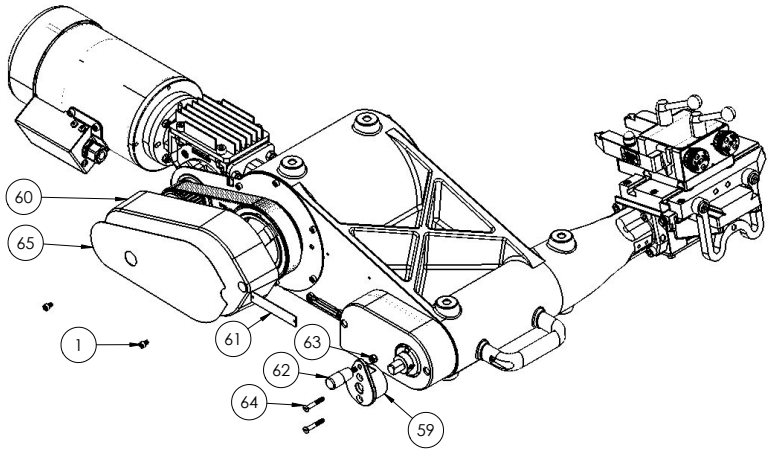
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
14	35-291	DIN 912 M6 x 10 Stainless Steel	2
15	50-3037	Motor Cord Bracket	1
16	37-706	M20 Cord Gland	1
17	50-3038	Motor Terminal Cover Box	1
18	35-926	ISO 7045 - M5 x 8 Steel, Bright Zinc	3
54	35-3011	Tapping Screw ISO 14585 ST4.8 x 13 Stainless	2
55	50-3021	Feed Cover PCI	1
56	50-3213	Feed Motor & Clutch Internal Harness	1
57	50-3036	Panel Mount Connector Bracket	1
58	50-1690	T-Slot Type	1
59	50-2485	Adjustable Arm Cutting Head w/Measuring	1

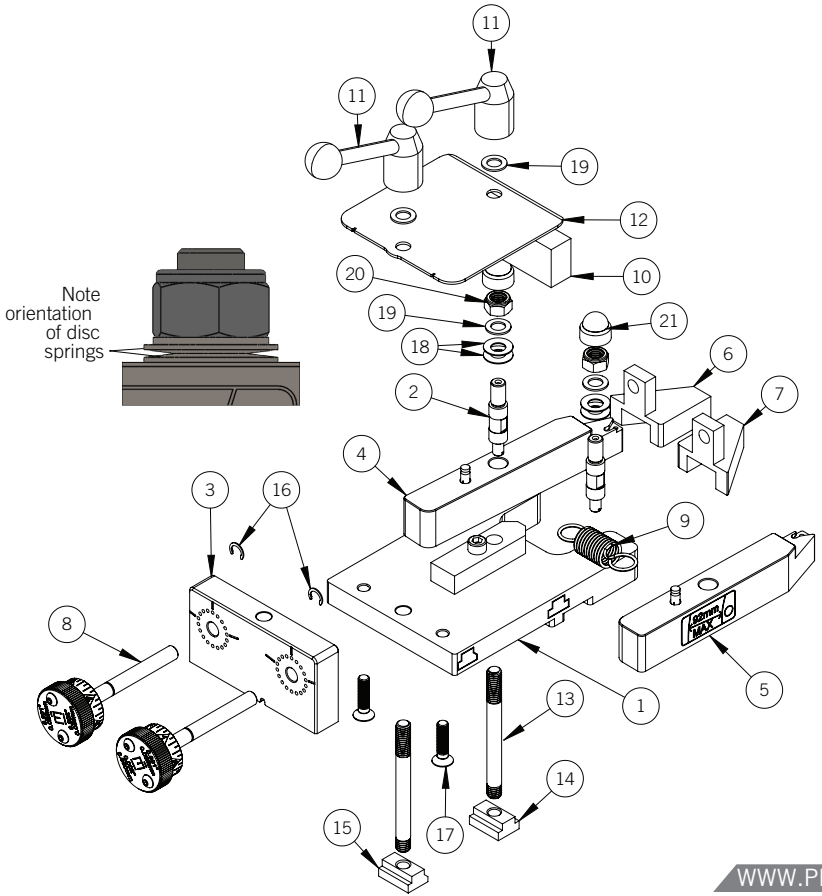


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	35-3003	EN ISO 4762 M5 x 8 Stainless Steel	20
57	35-291	DIN 912 M6 x 10 Stainless Steel	2
58	50-3037	Motor Cord Bracket	1
60	37-706	M20 Cord Gland	1
59	50-3038	Motor Terminal Cover Box	1
56	35-926	ISO 7045 - M5 x 8 Steel, Bright Zinc	3
18	35-236	ISO 4762 M8 x 25 Steel, Bright Zinc	8
50	50-3023	OTS Feed Wire Retainer	1
51	37-4052	Wago 221-412	3
52	50-1690	T-Slot Type	1
53	50-2480	Cutting Head T-Slot Adjustable	1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	35-3003	EN ISO 4762 M5 x 8 Stainless Steel	22
59	50-3034	Clutch Crank Body	1
60	50-3019	Drive Belt Cover	1
61	50-3853	Serial Number Plate - X1	1
62	37-3033	Plastic Tapered Handle with Revolving Grip M6	1
63	36-020	Prevailing torque type hexagon nut ISO 7040 - M6	1
65	50-3850	Belt Cover Label - X1	1





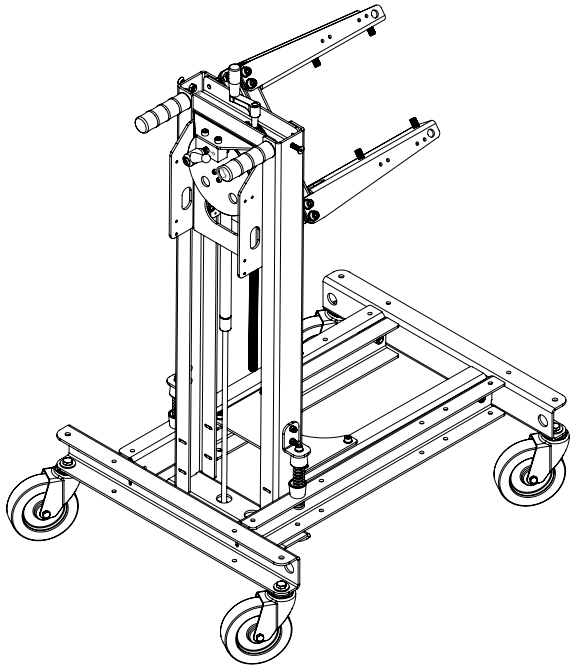
50-2480

ITEM NO.	PART NUMBER	QTY.
1	50-2331	1
2	50-2333	2
3	50-1332	1
4	50-1333	1
5	50-1334	1
6	50-1335	1
7	50-1336	1
8	50-1339	2
9	37-1335	1
10	50-252	1
11	37-1331	2
12	50-1343	1
13	35-1331	2
14	35-1335	1
15	50-2338	1
16	37-1332	2
17	35-1332	2
18	37-1308	4
19	37-114	4
20	36-002	2
21	36-010	2

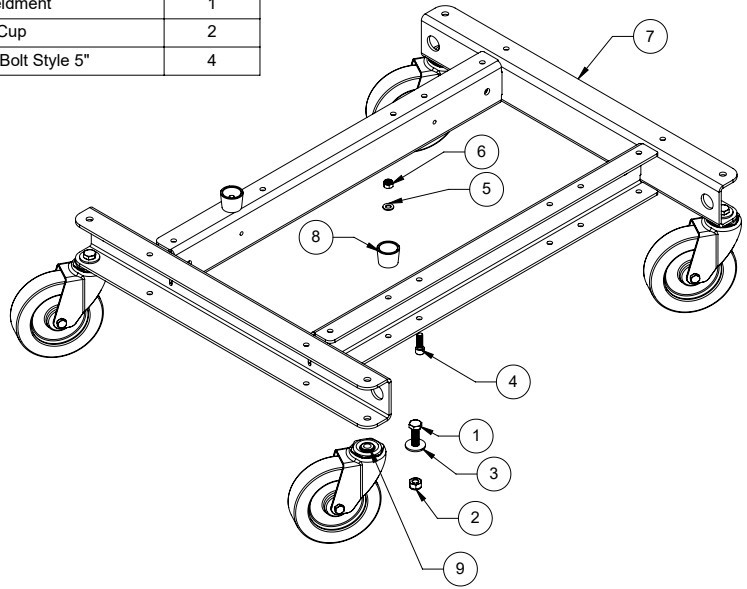
PRO-CUT™
BRAKE SOLUTIONS

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	35-304	HHCS ISO 4017 M10 x 35 Steel Bright Zinc	4
2	36-001B	Prevailing torque type hexagon nut ISO 7040 - M10	6
3	37-993	Washer DIN 9021 - 10.5	4
4	35-236	ISO 4762 M8 x 25 Steel, Bright Zinc	8
5	37-003	Washer DIN 125 - A 8.4	18
6	36-002	Prevailing torque type hexagon nut ISO 7040 - M8	5
7	50-3401	X1 Trolley Base Weldment	1
8	50-3417	Camber Spring Cup	4
9	37-038	Trolley Wheel - Through Bolt Style 5"	4
10	35-328	DIN 7991 - M6 x 20 Steel Bright Zinc	4
11	37-454	Washer DIN 125 - A 6.4 Steel Bright Zinc	4
12	36-020	Prevailing torque type hexagon nut ISO 7040 - M6	4
59	35-273	ISO 4762 M8 x 12 Steel, Bright Zinc	2
13	35-3401	DIN 6912 - M10 x 25 Steel Bright Zinc	2
60	36-002	DIN EN ISO 7040 - M8 - Steel Bright Zinc	6
61	35-3013	DIN 7991 - M8 x 40 Class 10.9 Steel Bright Zinc	2
14	50-3402	Vertical Frame Weldment	1
15	50-3403	Top Tray	1
16	50-3413	Spring Perch	2
17	50-3416	Plate Stiffener	1
18	50-1038	Handle with stud	2
19	50-3418	Omega Spacer Clip (legs)	2
20	35-235	DIN 912 M5 x 12, Steel, Bright Zinc	6
21	36-003	DIN EN ISO 7040 - M12 Steel Bright Zinc	4
22	35-3400	Shoulder Bolt ISO7379 16x26 (M12x18)	4

ITEM NO.	PART NO.	DESCRIPTION	QTY.
23	37-3409	DIN 988-16x22x0.5	8
24	37-3508	DIN 988-35x45x0.5	1
54	35-273	DIN 912 M8 x 12 Steel Bright Zinc	4
25	50-3406	Carriage Assembly Weldment	1
26	50-3405	Arm Support Welment	1
27	50-3409	Brake Disc	1
28	50-3420	Disc Brake Caliper	1
29	50-3422	Lift Nut Housing	1
30	50-3421		2
31	50-3428	Carriage Wheel	4
32	37-3410	Adjustable Lever Steel M12 x 40 R95	1
34	37-494	Circlip DIN 471 - 12 x 1	1
33	37-119	Precision Washer DIN 988-12x18x1	2
36	37-498	Circlip DIN 471 - 10 x 1	4
58	37-025	DIN125A (ISO 7089) 5, Steel, Bright Zinc	2
37	50-3412	Height Adjustment Screw	1
38	50-3423	Height Adjustment Swivel Nut	1
39	50-3407	Crank Handle	1
40	50-3411	Upper Gas Spring Mount	2
62	37-3414	Compression Spring, 5" Long, 0.875" OD, 0.635" ID	2
42	50-3426	Omega Clip 10x30	4
63	37-3413	Gas Spring, 175 lbs. Force, 33.94" Extended Length	1
44	37-3401.2	Eyelet End Fitting for Gas Spring	2
45	37-3407	Igus EFOM-12 Spherical Bearing	1
46	37-3411	Lift Screw Crank Handle	1
56	37-108	Washer DIN 125 - A 10.5 Steel Bright Zinc	8
55	36-001B	DIN EN ISO 7040 - M10 - S	8
57	35-347	SHCS ISO 4672 M10 x 25 Steel Bright Zinc	8
51	37-004	Washer Flat DIN 125A / ISO 7089 13 Steel Bright Zinc	4
52	35-348	HHCS ISO 4017 M12 x 25 Steel Bright Zinc	4
53	50-3404	Lathe Support Truss	2

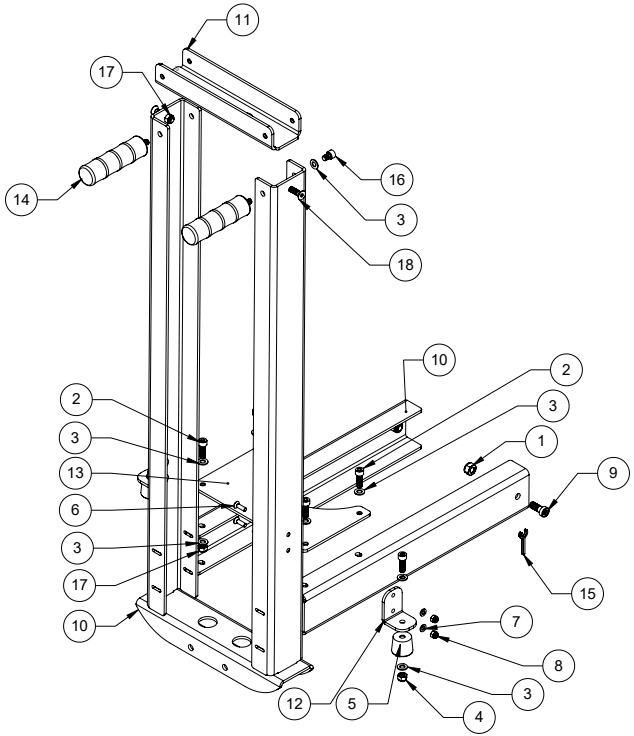


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	35-304	HHCS ISO 4017 M10 x 35 Steel Bright Zinc	4
2	36-001B	Prevailing torque type hexagon nut ISO 7040 - M10	4
3	37-993	Washer DIN 9021 - 10.5	4
4	35-236	ISO 4762 M8 x 25 Steel, Bright Zinc	2
5	37-003	Washer DIN 125 - A 8.4	4
6	36-002	Prevailing torque type hexagon nut ISO 7040 - M8	2
7	50-3401	X1 Trolley Base Weldment	1
8	50-3417	Camber Spring Cup	2
9	37-038	Trolley Wheel - Through Bolt Style 5"	4

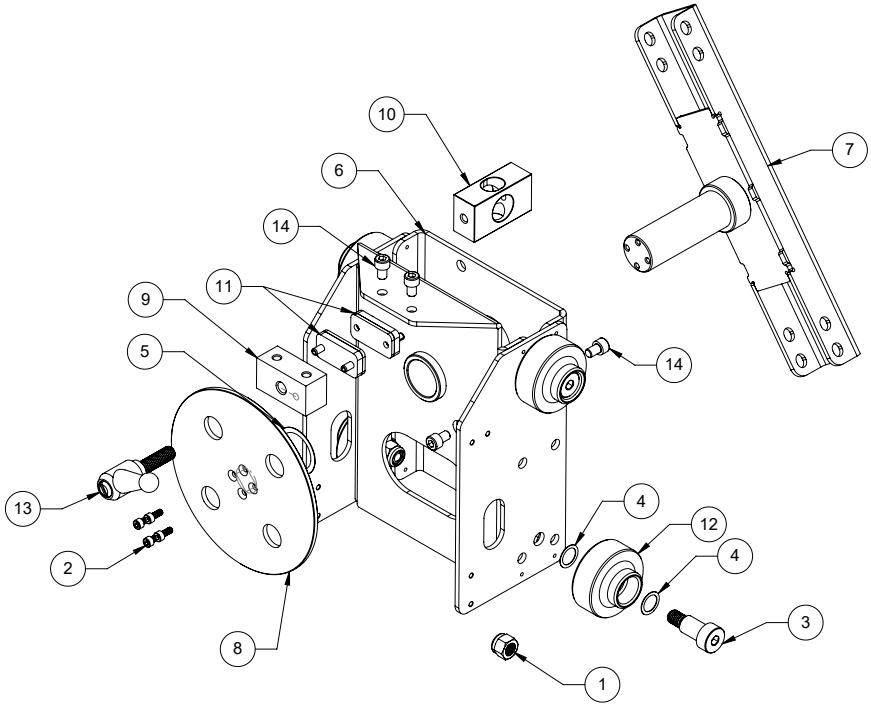


PRO-CUT
BRAKE SOLUTIONS

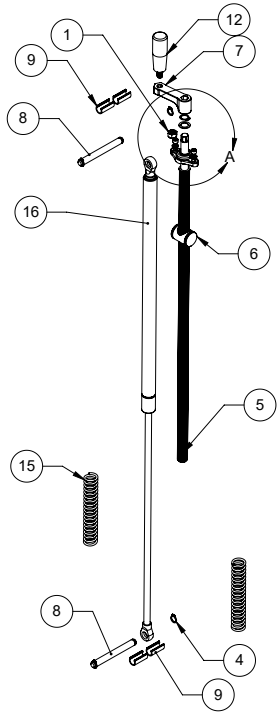
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	36-001B	Prevailing torque type hexagon nut ISO 7040 - M10	2
2	35-236	ISO 4762 M8 x 25 Steel, Bright Zinc	6
3	37-003	Washer DIN 125 - A 8.4	14
4	36-002	Prevailing torque type hexagon nut ISO 7040 - M8	2
5	50-3417	Camber Spring Cup	2
6	35-328	DIN 7991 - M6 x 20 Steel Bright Zinc	4
7	37-454	Washer DIN 125 - A 6.4 Steel Bright Zinc	4
8	36-020	Prevailing torque type hexagon nut ISO 7040 - M6	4
9	35-3401	DIN 6912 - M10 x 25 Steel Bright Zinc	2
10	50-3402	Vertical Frame Weldment	1
11	50-3403	Top Tray	1
12	50-3413	Spring Perch	2
13	50-3416	Plate Stiffener	1
14	50-1038	Handle with stud	2
15	50-3418	Omega Spacer Clip (legs)	2
16	35-273	ISO 4762 M8 x 12 Steel, Bright Zinc	2
17	36-002	DIN EN ISO 7040 - M8 - Steel Bright Zinc	6
18	35-3013	DIN 7991 - M8 x 40 Class 10.9 Steel Bright Zinc	2

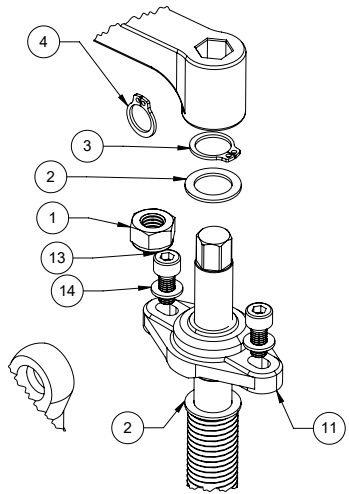


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	36-003	DIN EN ISO 7040 - M12 Steel Bright Zinc	4
2	35-235	DIN 912 M5 x 12, Steel, Bright Zinc	4
3	35-3400	Shoulder Bolt ISO7379 16x26 (M12x18)	4
4	37-3409	DIN 988-16x22x0.5	8
5	37-3508	DIN 988-35x45x0.5	1
6	50-3406	Carriage Assembly Weldment	1
7	50-3405	Arm Support Welment	1
8	50-3409	Brake Disc	1
9	50-3420	Disc Brake Caliper	1
10	50-3422	Lift Nut Housing	1
11	50-3421		2
12	50-3428	Carriage Wheel	4
13	37-3410	Adjustable Lever Steel M12 x 40 R95	1
14	35-273	DIN 912 M8 x 12 Steel Bright Zinc	4



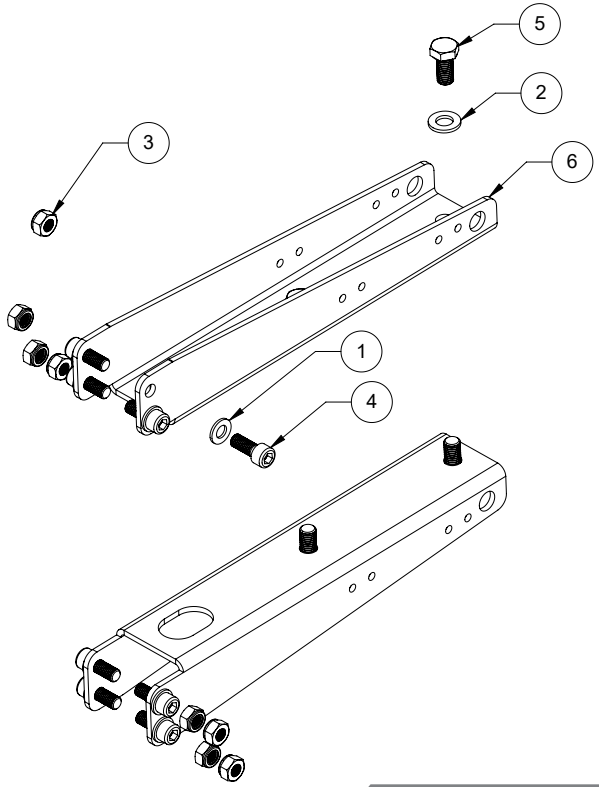
BOM Table			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	36-002	Prevailing torque type hexagon nut ISO 7040 - M8	1
2	37-119	Precision Washer DIN 988-12x18x1	2
3	37-494	Circlip DIN 471 - 12 x 1	1
4	37-498	Circlip DIN 471 - 10 x 1	4
5	50-3412	Height Adjustment Screw	1
6	50-3423	Height Adjustment Swivel Nut	1
7	50-3407	Crank Handle	1
8	50-3411	Upper Gas Spring Mount	2
9	50-3426	Omega Clip 10x30	4
10	37-3401.2	Eyelet End Fitting for Gas Spring	2
11	37-3407	Igus EFOM-12 Spherical Bearing	1
12	37-3411	Lift Screw Crank Handle	1
13	35-235	DIN 912 M5 x 12, Steel, Bright Zinc	2
14	37-025	DIN125A (ISO 7089) 5, Steel, Bright Zinc	2
15	37-3414	Compression Spring, 5" Long, 0.875" OD, 0.635" ID	2
16	37-3413	Gas Spring, 175 lbs. Force, 33.94" Extended Length	1





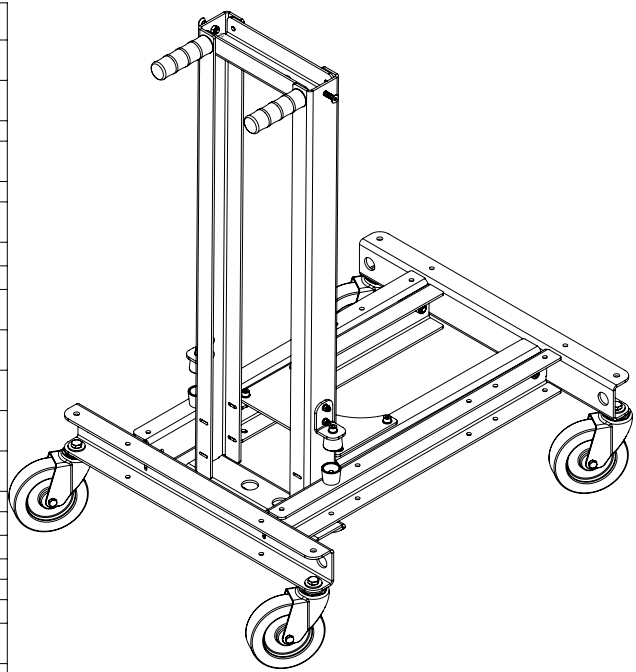
DETAIL A
SCALE 1 : 1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	37-108	Washer DIN 125 - A 10.5 Steel Bright Zinc	8
2	37-004	Washer Flat DIN 125A / ISO 7089 13 Steel Bright Zinc	4
3	36-001B	DIN EN ISO 7040 - M10 - S	8
4	35-347	SHCS ISO 4672 M10 x 25 Steel Bright Zinc	8
5	35-348	HHCS ISO 4017 M12 x 25 Steel Bright Zinc	4
6	50-3404	Lathe Support Truss	2



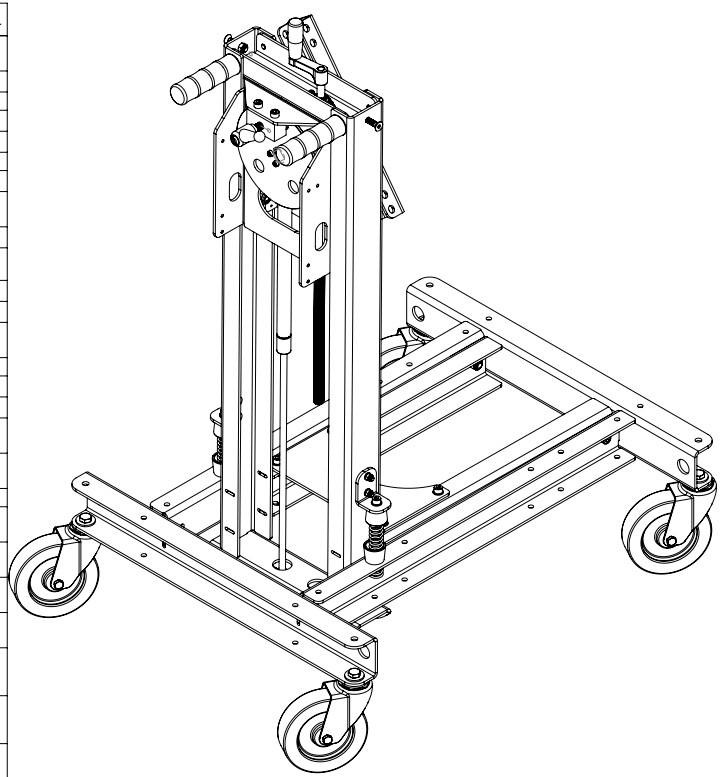
PRO-CUT™
BRAKE SOLUTIONS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	35-304	HHCS ISO 4017 M10 x 35 Steel Bright Zinc	4
2	36-001B	Prevailing torque type hexagon nut ISO 7040 - M10	6
3	37-993	Washer DIN 9021 - 10.5	4
4	35-236	ISO 4762 M8 x 25 Steel, Bright Zinc	8
5	37-003	Washer DIN 125 - A 8.4	18
6	36-002	Prevailing torque type hexagon nut ISO 7040 - M8	4
7	50-3401	X1 Trolley Base Weldment	1
8	50-3417	Camber Spring Cup	4
9	37-038	Trolley Wheel - Through Bolt Style 5"	4
10	35-328	DIN 7991 - M6 x 20 Steel Bright Zinc	4
11	37-454	Washer DIN 125 - A 6.4 Steel Bright Zinc	4
12	36-020	Prevailing torque type hexagon nut ISO 7040 - M6	4
13	35-3401	DIN 6912 - M10 x 25 Steel Bright Zinc	2
14	50-3402	Vertical Frame Weldment	1
15	50-3403	Top Tray	1
16	50-3413	Spring Perch	2
17	50-3416	Plate Stiffener	1
18	50-1038	Handle with stud	2
19	50-3418	Omega Spacer Clip (legs)	2
20	35-273	ISO 4762 M8 x 12 Steel, Bright Zinc	2
21	36-002	DIN EN ISO 7040 - M8 - Steel Bright Zinc	6
22	35-3013	DIN 7991 - M8 x 40 Class 10.9 Steel Bright Zinc	2



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	35-304	HHCS ISO 4017 M10 x 35 Steel Bright Zinc	4
2	36-001B	Prevailing torque type hexagon nut ISO 7040 - M10	6
3	37-993	Washer DIN 9021 - 10.5	4
4	35-236	ISO 4762 M8 x 25 Steel, Bright Zinc	8
5	37-003	Washer DIN 125 - A 8.4	18
6	36-002	Prevailing torque type hexagon nut ISO 7040 - M8	5
7	50-3401	X1 Trolley Base Weldment	1
8	50-3417	Camber Spring Cup	4
9	37-038	Trolley Wheel - Through Bolt Style 5"	4
10	35-328	DIN 7991 - M6 x 20 Steel Bright Zinc	4
11	37-454	Washer DIN 125 - A 6.4 Steel Bright Zinc	4
12	36-020	Prevailing torque type hexagon nut ISO 7040 - M6	4
13	35-3401	DIN 6912 - M10 x 25 Steel Bright Zinc	2
14	50-3402	Vertical Frame Weldment	1
15	50-3403	Top Tray	1
16	50-3413	Spring Perch	2
17	50-3416	Plate Stiffener	1
18	50-1038	Handle with stud	2
19	50-3418	Omega Spacer Clip (legs)	2
20	35-235	DIN 912 M5 x 12, Steel, Bright Zinc	6
21	36-003	DIN EN ISO 7040 - M12 Steel Bright Zinc	4
22	35-3400	Shoulder Bolt ISO7379 16x26 (M12x18)	4
23	37-3409	DIN 988-16x22x0.5	8
24	37-3508	DIN 988-35x45x0.5	1

ITEM NO.	PART NO.	DESCRIPTION	QTY.
25	50-3406	Carriage Assembly Weldment	1
26	50-3405	Arm Support Welment	1
27	50-3409	Brake Disc	1
28	50-3420	Disc Brake Caliper	1
29	50-3422	Lift Nut Housing	1
30	50-3421		2
31	50-3428	Carriage Wheel	4
32	37-3410	Adjustable Lever Steel M12 x 40 R95	1
33	37-494	Circlip DIN 471 - 12 x 1	1
34	37-119	Precision Washer DIN 988-12x18x1	2
35	37-498	Circlip DIN 471 - 10 x 1	4
36	50-3412	Height Adjustment Screw	1
37	50-3423	Height Adjustment Swivel Nut	1
38	50-3407	Crank Handle	1
39	50-3411	Upper Gas Spring Mount	2
40	50-3426	Omega Clip 10x30	4
41	37-3401.2	Eyelet End Fitting for Gas Spring	2
42	37-3407	Igus EFOM-12 Spherical Bearing	1
43	37-3411	Lift Screw Crank Handle	1
44	35-273	DIN 912 M8 x 12 Steel Bright Zinc	4
45	37-025	DIN125A (ISO 7089) 5, Steel, Bright Zinc	2
46	35-273	ISO 4762 M8 x 12 Steel, Bright Zinc	2
47	36-002	DIN EN ISO 7040 - M8 - Steel Bright Zinc	6
48	35-3013	DIN 7991 - M8 x 40 Class 10.9 Steel Bright Zinc	2
49	37-3414	Compression Spring, 5" Long, 0.875" OD, 0.635" ID	2
50	37-3413	Gas Spring, 175 lbs. Force, 33.94" Extended Length	1



NOTES

MAINTENANCE SCHEDULE

DATE	NOTES	DRO READINGS		
MONTH / DAY / YEAR		HOURS	TOTAL DISCS	AVG COMP

DATE	NOTES	DRO READINGS		
MONTH / DAY / YEAR		HOURS	TOTAL DISCS	AVG COMP

PRINTED WITH PRIDE IN THE U.S.A.

50-3800 / 50-3810

PRO-CUT™
BRAKE SOLUTIONS

Pro-Cut International, LLC
10 Technology Drive #4
West Lebanon, NH 03784

P. *800.543.6618 / 603.298.5200*
F. *603.298.8404*
E. *info@procutusa.com*

Global inquiries please see:
www.procutusa.com

R3/2025