



OPERATOR'S MANUAL



3-IN-1 COMBINATION SHEAR, BRAKE, ROLL

MODEL: SBR-5216

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STANDARD TERMS AND CONDITIONS OF SALE

1 INTERPRETATION

- 1.1 In these Conditions the following words have the following meanings:
- | Word | Meaning |
|---------------------|--|
| "Buyer" | the person(s), firm or company from whom an order to supply Goods is received by the Company; |
| "Buyer Materials" | any documents or other materials and any data or other information provided by the Buyer relating to the Goods; |
| "Company" | Baileigh Industrial Limited, a company incorporated in England and Wales (Company Number 05672861) whose registered office is at Unit D Swift Point, Swift Valley Industrial Estate, Rugby, West Midland, CV21 2QH |
| "Company Materials" | any documents or other materials, and any data or other information provided by the Company relating to the Goods; |
| "Conditions" | the standard terms and conditions of sale as set out in this document; |
| "Contract" | any contract between the Company and the Buyer for the sale and purchase of the Goods; |
| "Delivery Point" | the place where delivery of the Goods is to take place under Condition 4.1; |
| "Goods" | any goods agreed in the Contract to be supplied to the Buyer by the Company (including any part or parts of them). |
- 1.2 In these Conditions references to any statute or statutory provision shall, unless the context otherwise requires, be construed as a reference to that statute or statutory provision as from time to time amended, consolidated, modified, extended, re-enacted or replaced.
- 1.3 In these Conditions references to the masculine include the feminine and the neuter and to the singular include the plural and vice versa as the context admits or requires.
- 1.4 In these Conditions headings will not affect the construction of these Conditions.

2 APPLICATION OF TERMS

- 2.1 Subject to any variation under Condition 2.3 the Contract will be on these Conditions to the exclusion of all other terms and conditions (including any terms or conditions which the Buyer purports to apply under any purchase order, confirmation of order, specification or other document).
- 2.2 No terms or conditions endorsed upon, delivered with or contained in the Buyer's purchase order, confirmation of order, specification or other document will form part of the Contract simply as a result of such document being referred to in the Contract.
- 2.3 These Conditions apply to all the Company's sales of Goods and any variation to these Conditions and any representations about the Goods shall have no effect unless expressly agreed in writing and signed the designated agent/employee of the Company.
- 2.4 The Buyer must ensure that the terms of its order and any applicable specification are complete and accurate.
- 2.5 Any quotation given by the Company is an offer which is valid for a period of 30 days only, provided that the Company has not previously withdrawn it. The offer is accepted by the Buyer and a contract is formed when the Company receives a purchase order for the Goods, provided that such purchase order does not purport to contract on terms other than these Conditions.
- 2.6 If the Buyer requires an order confirmation providing the date of shipment this should be clearly stated in the Buyer's purchase order.

3 DESCRIPTION

- 3.1 The description of the Goods shall be as set out in the Company's quotation.
- 3.2 All drawings, descriptive matter, specifications and advertising issued by the Company on any packaging of the Goods or elsewhere and any descriptions or illustrations contained in the Company's catalogues or brochures are issued or published for the sole purpose of giving an approximate idea of the Goods described in them. They will not form part of this Contract and no warranty is given that the Goods will comply with or perform in accordance with any such description.

4 DELIVERY

- 4.1 Any dates specified by the Company for delivery of the Goods are intended to be an estimate and time for delivery shall not be made of the essence by notice. If no dates are so specified, delivery will be within a reasonable time.
- 4.2 Subject to the other provisions of these Conditions the Company will not be liable for any loss (including loss of profit), costs, damages, charges or expenses caused directly or indirectly by any delay in the delivery of the Goods (even if caused by the Company's negligence), nor will any delay entitle the Buyer to terminate or rescind the Contract unless such delay exceeds 180 days.
- 4.3 If for any reason the Buyer will not accept delivery of any of the Goods when they are ready for delivery, or the Company is unable to deliver the Goods on time because the Buyer has not provided appropriate instructions, documents, licenses or authorizations:
- 4.3.1 risk in the Goods will pass to the Buyer (including for loss or damage caused by the Company's negligence);
 - 4.3.2 the Goods will be deemed to have been delivered; and
 - 4.3.3 the Company may store the Goods until delivery whereupon the Buyer will be liable for all related costs and expenses (including without limitation storage and insurance).
- 4.4 The Buyer will provide at its expense at the Delivery Point adequate and appropriate equipment and manual labour for loading the Goods.



5 NON-DELIVERY

- 5.1 The quantity of any consignment of Goods as recorded by the Company upon dispatch from the Company's place of business shall be conclusive evidence of the quantity received by the Buyer on delivery unless the Buyer can provide conclusive evidence proving the contrary.
- 5.2 The Company shall not be liable for any non-delivery of Goods (even if caused by the Company's negligence) unless written notice is given to the Company within [7] days of the date when the Goods would in the ordinary course of events have been received.
- 5.3 Any liability of the Company for non-delivery of the Goods shall be limited to replacing the Goods within a reasonable time or issuing a credit note at the pro rata Contract rate against any invoice raised for such Goods.

6 RISK/TITLE

- 6.1 The Goods are at the risk of the Buyer from the time of delivery.
- 6.2 Ownership of the Goods shall not pass to the Buyer until the Company has received in full (in cash or cleared funds) all sums due to it in respect of:
 - 6.2.1 the Goods; and
 - 6.2.2 all other sums which are or which become due to the Company from the Buyer on any account.
- 6.3 Until ownership of the Goods has passed to the Buyer, the Buyer must:
 - 6.3.1 hold the Goods on a fiduciary basis as the Company's bailee;
 - 6.3.2 store the Goods (at no cost to the Company) separately from all other goods of the Buyer or any third party in such a way that they remain readily identifiable as the Company's property;
 - 6.3.3 not destroy, deface or obscure any identifying mark or packaging on or relating to the Goods;
 - 6.3.4 maintain the Goods in satisfactory condition insured on the Company's behalf for their full price against all risks to the reasonable satisfaction of the Company. On request the Buyer shall produce the policy of insurance to the Company; and
 - 6.3.5 hold the proceeds of the insurance referred to in Condition 6.3.4 on trust for the Company and not mix them with any other money, nor pay the proceeds into an overdrawn bank account.
- 6.4 The Buyer may resell the Goods before ownership has passed to it solely on the following conditions:
 - 6.4.1 any sale shall be effected in the ordinary course of the Buyer's business at full market value; and
 - 6.4.2 any such sale shall be a sale of the Company's property on the Buyer's own behalf and the Buyer shall deal as principal when making such a sale.
- 6.5 The Buyer's right to possession of the Goods shall terminate immediately if:
 - 6.5.1 the Buyer has a bankruptcy order made against him or makes an arrangement or composition with his creditors, or otherwise takes the benefit of any Act for the time being in force for the relief of insolvent debtors, or (being a body corporate) convenes a meeting of creditors (whether formal or informal), or enters into liquidation (whether voluntary or compulsory) except a solvent voluntary liquidation for the purpose only of reconstruction or amalgamation, or has a receiver and/or manager, administrator or administrative receiver appointed of its undertaking or any part thereof, or a resolution is passed or a petition presented to any court for the winding up of the Buyer or for the granting of an administration order in respect of the Buyer, or any proceedings are commenced relating to the insolvency or possible insolvency of the Buyer; or
 - 6.5.2 the Buyer suffers or allows any execution, whether legal or equitable, to be levied on his/its property or obtained against him/it, or fails to observe/perform any of his/its obligations under the Contract or any other contract between the Company and the Buyer, or is unable to pay its debts within the meaning of section 123 of the Insolvency Act 1986 or the Buyer ceases to trade; or
 - 6.5.3 the Buyer encumbers or in any way charges any of the Goods.
- 6.6 The Company shall be entitled to recover payment for the Goods notwithstanding that ownership of any of the Goods has not passed from the Company.
- 6.7 The Buyer grants the Company, its agents and employees an irrevocable license at any time to enter any premises where the Goods are or may be stored in order to inspect them, or, where the Buyer's right to possession has terminated, to recover them.

7 PRICE

- 7.1 The price for the Goods shall be the price set out in the Company's estimate/quotation. All estimates/quotes are good for 30 days from the date on the top of the estimate/quote.
- 7.2 The price for the Goods shall be exclusive of any value added tax and all costs or charges in relation to loading, unloading, carriage and insurance all of which amounts the Buyer will pay in addition when it is due to pay for the Goods.

8 PAYMENT

- 8.1 Payment of the price for the Goods is due and payable before shipment of the goods occurs unless otherwise negotiated by the Company and the customer.
- 8.2 Time for payment shall be of the essence.
- 8.3 No payment shall be deemed to have been received until the Company has received cleared funds.
- 8.4 All payments payable to the Company under the Contract shall become due immediately upon termination of this Contract despite any other provision.
- 8.5 The Buyer shall make all payments due under the Contract without any deduction whether by way of set-off, counterclaim, discount, abatement or otherwise unless the Buyer has a valid court order requiring an amount equal to such deduction to be paid by the Company to the Buyer.
- 8.6 If the Buyer fails to pay the Company any sum due pursuant to the Contract the Buyer will be liable to pay interest to the Company on such sum from the due date for payment at the annual rate of 10% above the base lending rate from time to time of LIBOR, accruing on a daily basis until payment is made, whether before or after any judgment.
- 8.7 The Company reserves the right to claim interest and fixed sum compensation under the Late Payment of Commercial Debts (Interest) Act 1998.



9 WARRANTY

- 9.1 The Company warrants that (subject to the other provisions of these Conditions) upon delivery, and for a period of 12 months from the date of delivery, the Goods will be of satisfactory quality within the meaning of the Sale of Goods Act 1994. Warranty provisions are strictly at the determination of the Company on a case by case basis. The Company's determinations regarding a warranty claim are final.
- 9.2 The Company shall not be liable for a breach of the warranty in Condition 9.1 unless:
- 9.2.1 the Buyer gives written notice of the defect to the Company, and (if the defect is as a result of damage in transit) to the carrier, within a reasonable amount of time when the Buyer discovers or ought to have discovered the defect; and
- 9.2.2 the Company is given a reasonable opportunity after receiving the notice to examine such Goods and the Buyer (if asked to do so by the Company) returns such Goods to the Company's place of business at the Buyer's expense for the examination to take place there.
- 9.3 The Company shall not be liable for a breach of the warranty in Condition 9.1 if:
- 9.3.1 the Buyer makes any further use of such Goods after giving such notice; or
- 9.3.2 the defect arises because the Buyer failed to follow the Company's oral or written instructions as to the storage, installation, commissioning, use or maintenance of the Goods; or
- 9.3.3 the defect arises as a result of ordinary wear and tear; or
- 9.3.4 the Buyer alters or repairs such Goods without the written consent of the Company.
- 9.4 The following are expressly excluded from the warranty in Condition 9.1:
- 9.4.1 die sets, tooling and saw blades; and
- 9.4.2 machine maintenance, adjustment and set ups.
- 9.5 Subject to Conditions 9.2 and 9.3, if any of the Goods do not conform with the warranty in Condition 9.1 the Company shall at its option repair or replace such Goods (or the defective part) or refund the price of such Goods at the pro rata Contract rate provided that, if the Company so requests, the Buyer shall, at the Buyer's expense, return the Goods or the part of such Goods which is defective to the Company.
- 9.6 If the Company complies with Condition 9.4 it shall have no further liability for a breach of the warranty in Condition 9.1 in respect of such Goods.
- 9.7 Any Goods which have been replaced will belong to the Company and any repaired or replacement Goods will be guaranteed on these terms for the unexpired portion of the 12 month period.
- 9.8 All work carried out under the warranty contained in Condition 9.1 must be approved by the Company.
- 9.9 All electrical components and gearboxes carry a one-year replacement warranty from the manufacturer. This warranty does not include labour or shipping costs.

10 RETURNS

- 10.1 The Buyer shall not be entitled to cancel any order or Contract or return any goods without the prior written approval of the Company.
- 10.2 Special orders cannot be cancelled under any circumstances.
- 10.3 If the Company agrees to accept the return of any Goods it shall be on terms that
- a) They are returned at the Buyer's expense to the Company within 30 days of delivery
- b) They are received by the Company in "as new" condition without any damage or use
- c) Any refund will be subject to a 15% "restocking charge"
- and such other terms as the Company may impose.

11 LIMITATION OF LIABILITY

- 11.1 Subject to Condition 9, the following provisions of this Condition 10 set out the entire financial liability of the Company (including any liability for the acts or omissions of its employees, agents and sub-contractors) to the Buyer in respect of:
- 11.1.1 any breach of these Conditions; and
- 11.1.2 any representation, statement or tortious act or omission including negligence arising under or in connection with the Contract.
- 11.2 All warranties, conditions and other terms implied by statute or common law (save for the conditions implied by section 12 of the Sale of Goods Act 1979) are, to the fullest extent permitted by law, excluded from the Contract.
- 11.3 Nothing in these Conditions excludes or limits the liability of the Company for death or personal injury caused by the Company's negligence or for fraudulent misrepresentation.

(THE BUYER'S ATTENTION IS DRAWN TO THE PROVISIONS OF CONDITION 11.4 BELOW)

- 11.4 Subject to Conditions 11.2 and 11.3:
- 11.4.1 the Company's total liability in contract, tort (including negligence or breach of statutory duty), misrepresentation or otherwise, arising in connection with the performance or contemplated performance of this Contract shall be limited to the invoiced amount per each and every individual transaction; and
- 11.4.2 the Company shall not be liable to the Buyer for any indirect or consequential loss or damage (whether for loss of profit, loss of business, depletion of goodwill or otherwise), costs, expenses or other claims for consequential compensation whatsoever (howsoever caused) which arise out of or in connection with the Contract.

12 INTELLECTUAL PROPERTY

- 12.1 The property and any copyright or other intellectual property rights in:
- 12.1.1 any Buyer Materials shall belong to the Buyer;
- 12.1.2 any Company Materials shall, unless otherwise agreed in writing between the Buyer and the Company, belong to the Company, subject only to a license in favor of the Buyer to use the Company Materials for the purposes of receiving the Goods.



13 ASSIGNMENT

- 13.1 The Buyer shall not be entitled to assign the Contract or any part of it without the prior written consent of the Company.
- 13.2 The Company may assign the Contract or any part of it to any person, firm or company.

14 FORCE MAJEURE

The Company reserves the right to defer the date of delivery or to cancel the Contract or reduce the volume of the Goods ordered by the Buyer (without liability to the Buyer) if it is prevented from or delayed in the carrying on of its business due to circumstances beyond the reasonable control of the Company including, without limitation, acts of God, governmental actions, war or national emergency, riot, civil commotion, fire, explosion, flood, epidemic, lock-outs, strikes or other labour disputes (whether or not relating to either party's workforce), or restraints or delays affecting carriers or inability or delay in obtaining supplies of adequate or suitable materials. Provided that, if the event in question continues for a continuous period in excess of [180] days, the Buyer shall be entitled to give [not less than [3] days] notice in writing to the Company to terminate the Contract.

15 GENERAL

- 15.1 Each right or remedy of the Company under the Contract is without prejudice to any other right or remedy of the Company whether under the Contract or not.
- 15.2 If any provision of the Contract is found by any court, tribunal or administrative body of competent jurisdiction to be wholly or partly illegal, invalid, void, voidable, unenforceable or unreasonable it shall to the extent of such illegality, invalidity, voidness, voidability, unenforceability or unreasonableness be deemed severable and the remaining provisions of the Contract and the remainder of such provision shall continue in full force and effect.
- 15.3 Failure or delay by the Company in enforcing or partially enforcing any provision of the Contract will not be construed as a waiver of any of its rights under the Contract.
- 15.4 Any waiver by the Company of any breach of, or any default under, any provision of the Contract by the Buyer will not be deemed a waiver of any subsequent breach or default and will in no way affect the other terms of the Contract.
- 15.5 The parties to this Contract do not intend that any term of this Contract will be enforceable by virtue of the Contracts (Rights of Third Parties) Act 1999 by any person that is not a party to it.
- 15.6 The formation, existence, construction, performance, validity and all aspects of the Contract shall be governed by English law and the parties submit to the exclusive jurisdiction of the English courts.

16 COMMUNICATIONS

- 16.1 All communications between the parties about this Contract must be in writing and delivered by hand or sent by pre-paid first class post or sent by facsimile transmission:
 - 16.1.1 (in case of communications to the Company) to its registered office or such changed address as shall be notified to the Buyer by the Company; or
 - 16.1.2 (in the case of the communications to the Buyer) to the registered office of the addressee (if it is a company) or (in any other case) to any address of the Buyer set out in any document which forms part of this Contract or such other address as shall be notified to the Company by the Buyer.
- 16.2 Communications shall be deemed to have been received:
 - 16.2.1 if sent by pre-paid first class post, 2 days (excluding Saturdays, Sundays and bank and public holidays within the UK) after posting (exclusive of the day of posting);
 - 16.2.2 if delivered by hand, on the day of delivery;
 - 16.2.3 if sent by facsimile transmission on a working day prior to 4.00 p.m., at the time of transmission and otherwise on the next working day. Communications addressed to the Company shall be marked for the attention of the designated purchasing agent for the buyer.

17 EXPORT

- 17.1 In these Conditions "Incoterms" means the international rules for the interpretation of trade terms of the International Chamber of Commerce as in force at the date when the Contract is made. Unless the context otherwise requires, any term or expression which is defined in or given a particular meaning by the provisions of Incoterms shall have the same meaning in these Conditions, but if there is any conflict between the provisions of Incoterms and these Conditions, the latter shall prevail.
- 17.2 Where the Goods are supplied for export from the United Kingdom, the provisions of this Condition 17 shall (subject to any special terms agreed in writing between the Buyer and the Company) apply notwithstanding any other provision of these Conditions.
- 17.3 The Buyer shall be responsible for complying with any legislation or regulations governing the importation of the Goods into the country of destination and for the payment of any duties on them.
- 17.4 Unless otherwise agreed in writing between the Buyer and the Company, the Goods shall be delivered fob the air or sea port of shipment and the Company shall be under no obligation to give notice under section 32(3) of the Sale of Goods Act 1979.
- 17.5 The Buyer shall be responsible for arranging for testing and inspection of the Goods at the Company's premises before shipment. The Company shall have no liability for any claim in respect of any defect in the Goods which would be apparent on inspection and which is made after shipment, or in respect of any damage during transit.



INTRODUCTION

The quality and reliability of the components assembled on a Baileigh Industrial machine guarantee near perfect functioning, free from problems, even under the most demanding working conditions. However if a situation arises, refer to the manual first. If a solution cannot be found, contact the distributor where you purchased our product. Make sure you have the serial number and production year of the machine (stamped on the nameplate). For replacement parts refer to the assembly numbers on the parts list drawings.

Our technical staff will do their best to help you get your machine back in working order.

In this manual you will find: (when applicable)

- Safety procedures
- Correct installation guidelines
- Description of the functional parts of the machine
- Capacity charts
- Set-up and start-up instructions
- Machine operation
- Scheduled maintenance
- Parts lists

GENERAL NOTES

After receiving your equipment remove the protective container. Do a complete visual inspection, and if damage is noted, **photograph it for insurance claims** and contact your carrier at once, requesting inspection. Also contact Baileigh Industrial and inform them of the unexpected occurrence. Temporarily suspend installation.

Take necessary precautions while loading / unloading or moving the machine to avoid any injuries.

Your machine is designed and manufactured to work smoothly and efficiently. Following proper maintenance instructions will help ensure this. Try and use original spare parts, whenever possible, and most importantly; **DO NOT** overload the machine or make any unauthorized modifications.



Note: This symbol refers to useful information throughout the manual.



IMPORTANT

PLEASE READ THIS OPERATORS MANUAL CAREFULLY

It contains important safety information, instructions, and necessary operating procedures. The continual observance of these procedures will help increase your production and extend the life of the equipment.



SAFETY INSTRUCTIONS

LEARN TO RECOGNIZE SAFETY INFORMATION

This is the safety alert symbol. When you see this symbol on your machine or in this manual, **BE ALERT TO THE POTENTIAL FOR PERSONAL INJURY!**

Follow recommended precautions and safe operating practices.

UNDERSTAND SIGNAL WORDS

A signal word – **DANGER**, **WARNING**, or **CAUTION** is used with the safety alert symbol. **DANGER** identifies a hazard or unsafe practice that will result in severe **Injury or Death.**

Safety signs with signal word **DANGER** or **WARNING** are typically near specific hazards.

General precautions are listed on **CAUTION** safety signs. **CAUTION** also calls attention to safety messages in this manual.



DANGER



WARNING



CAUTION

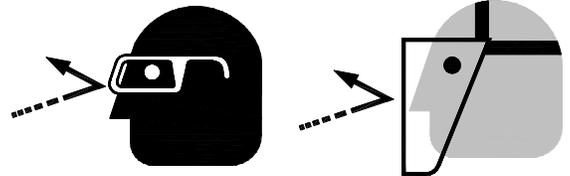


SAVE THESE INSTRUCTIONS.
Refer to them often and use them to instruct others.



PROTECT EYES

Wear safety glasses or suitable eye protection when working on or around machinery.



PROTECT AGAINST NOISE

Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear suitable hearing protective devices such as ear muffs or earplugs to protect against objectionable or uncomfortable loud noises.



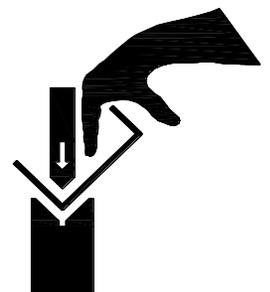
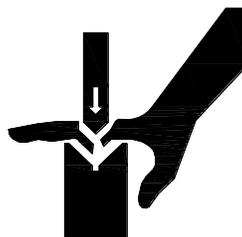
BEWARE OF CRUSH HAZARD

Closing upper beam and brake bed will result in loss of fingers or limbs if placed in machine. **NEVER** place your hand or any part of your body in this machine.



BEWARE OF CRUSH HAZARD

NEVER place your hands, fingers, or any part of your body in the die area of this machine.





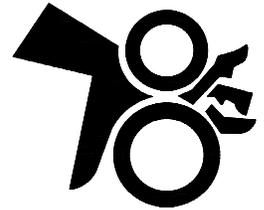
KEEP CLEAR OF MOVING OBJECTS

Always be aware of the position of the clamp handle and the counterweight. They are heavy and can swing back suddenly causing serious body or head injuries.



BEWARE OF PINCH POINTS

Keep hands and fingers away from the rolls when the machine is in operation.



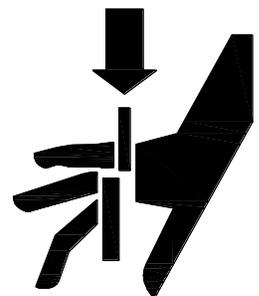
BEWARE OF SHEAR, PINCH, AND CRUSH HAZARD

NEVER place your hands, fingers, or any part of your body in the die area of this machine. Keep hands and fingers away from the shear blade and the punching and notching dies when the machine is in operation.



BEWARE OF SHEAR HAZARD

Keep hands and fingers clear from under the blade. **NEVER** place your hand or any part of your body in this machine.





SAFETY PRECAUTIONS



Metal working can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result.

Safety equipment such as guards, hold-downs, safety glasses, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness or inattention. **Always use common sense** and exercise **caution** in the workshop. If a procedure feels dangerous, don't try it.

REMEMBER: Your personal safety is your responsibility.



WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

1. **FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE.** Learn the machine's application and limitations as well as the specific hazards.
2. **Only trained and qualified personnel can operate this machine.**
3. **Make sure guards are in place and in proper working order before operating machinery.**
4. **Remove any adjusting tools.** Before operating the machine, make sure any adjusting tools have been removed.
5. **Keep work area clean.** Cluttered areas invite injuries.
6. **Overloading machine.** By overloading the machine you may cause injury from flying parts. **DO NOT** exceed the specified machine capacities.
7. **Dressing material edges.** Always chamfer and deburr all sharp edges.
8. **Do not force tool.** Your machine will do a better and safer job if used as intended. **DO NOT** use inappropriate attachments in an attempt to exceed the machines rated capacity.
9. **Use the right tool for the job. DO NOT** attempt to force a small tool or attachment to do the work of a large industrial tool. **DO NOT** use a tool for a purpose for which it was not intended.
10. **Dress appropriate. DO NOT** wear loose fitting clothing or jewelry as they can be caught in moving machine parts. Protective clothing and steel toe shoes are recommended when using machinery. Wear a restrictive hair covering to contain long hair.



11. **Use eye and ear protection.** Always wear ISO approved impact safety goggles. Wear a full-face shield if you are producing metal filings.
12. **Do not overreach.** Maintain proper footing and balance at all times. **DO NOT** reach over or across a running machine.
13. **Stay alert.** Watch what you are doing and use common sense. **DO NOT** operate any tool or machine when you are tired.
14. **Check for damaged parts.** Before using any tool or machine, carefully check any part that appears damaged. Check for alignment and binding of moving parts that may affect proper machine operation.
15. **Observe work area conditions.** **DO NOT** use machines or power tools in damp or wet locations. Do not expose to rain. Keep work area well lighted.
16. **Blade adjustments and maintenance.** Always keep blades sharp and properly adjusted for optimum performance.
17. **Keep children away.** Children must never be allowed in the work area. **DO NOT** let them handle machines, tools, or extension cords.
18. **Store idle equipment.** When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep them out of reach of children.
19. **DO NOT operate machine if under the influence of alcohol or drugs.** Read warning labels on prescriptions. If there is any doubt, **DO NOT** operate the machine.
20. Keep visitors a safe distance from the work area.

 **WARNING:** Before operating the Baileigh Shear, Brake, Roll make sure it is firmly bolted to a table, bench, or the floor. If it tips over on you, it could cause severe injury or death.

 **WARNING:**
The bending brake poses a pinching hazard.
The shear blade poses an amputation hazard.
Make sure no body part or clothing is near the specific hazard. Failure to follow this warning could result in severed or crushed fingers.



TECHNICAL SPECIFICATIONS

Bed Width	52" (1321mm)
Shear Capacity	16ga. (1.90mm) mild steel*
Bending Capacity	16ga. (1.90mm) mild steel*
Rolling Capacity	16ga. (1.90mm) mild steel*
Maximum Bend Angle	90°
Slip Roll Solid Rod Sizes	.250" (6.35mm) diameter, .312" (7.92mm) diameter, .375" (9.52mm) diameter
Minimum Roll Diameter	2.38" (60.5mm)
Box Depth	4" (101.6mm)
Frame and Base	Cast Iron
Brake	Ground Steel w/Hardened Edge
Shear Table	Precision Ground Cast Iron
Shear Blades	Hardened Steel (Can be turned four times)
Shear Hold-Down Clamp	Spring-Loaded Cast Iron
Diameter of Rolls	2.38" (60.5mm)
Power Requirements	Manual
Shipping Dimensions (L x W x H)	67" x 30" x 46" (1702 x 762 x 1168mm)
Shipping Weight	1200 lbs. (545 kg)
Based on a material tensile strength of *64000 PSI – mild steel	

TECHNICAL SUPPORT

Our technical support department can be reached at sales@baileighindustrial.com.au listing support and the model number in the subject line. Tech Support handles questions on machine setup, schematics, warranty issues, and individual parts needs: (other than die sets and blades). List the model number, serial number and contact name and phone number as well as a brief description of the nature of the contact in the body of the message.

For specific application needs or future machine purchases contact the Sales Department at: phone: 61.383.743.888 or email: sales@baileighindustrial.com.au.



Note: *The photos and illustrations used in this manual are representative only and may not depict the actual color, labeling or accessories and may be intended to illustrate technique only.*



Note: *The specifications and dimensions presented here are subject to change without prior notice due to improvements of our products.*



UNPACKING AND CHECKING CONTENTS

Your Baileigh machine is shipped complete. Separate all parts from the packing material and check each item carefully. Make certain all items are accounted for before discarding any packing material.

⚠ WARNING: SUFFOCATION HAZARD! Immediately discard any plastic bags and packing materials to eliminate choking and suffocation hazards to children and animals.
If any parts are missing, **DO NOT** place the machine into service until the missing parts are obtained and installed correctly.

Cleaning

⚠ WARNING: DO NOT USE gasoline or other petroleum products to clean the machine. They have low flash points and can explode or cause fire.

⚠ CAUTION: When using cleaning solvents work in a well-ventilated area. Many cleaning solvents are toxic if inhaled.

Your machine may be shipped with a rustproof waxy coating and/or grease on the exposed unpainted metal surfaces. Fully and completely remove this protective coating using a degreaser or solvent cleaner. Moving items will need to be moved along their travel path to allow for cleaning the entire surface. For a more thorough cleaning, some parts will occasionally have to be removed. **DO NOT USE** acetone or brake cleaner as they may damage painted surfaces.

Follow manufacturer's label instructions when using any type of cleaning product. After cleaning, wipe unpainted metal surfaces with a light coating of quality oil or grease for protection.



Important: This waxy coating is **NOT** a lubricant and will cause the machine to stick and lose performance as the coating continues to dry.





Handles

Handlebar knobs



Combination Shear, Brake, Roll



Back gauge



Long screws
with stand
dies



Long and short
handlebars



Roller adjusting knobs



Set of Allen
wrenches



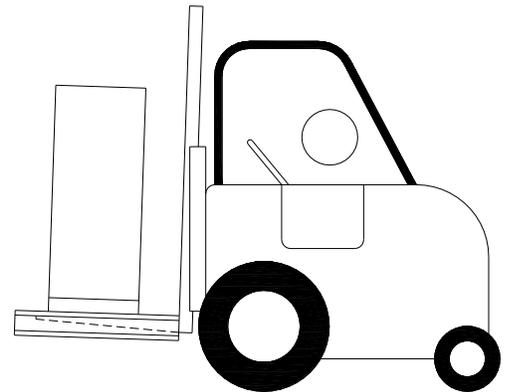
TRANSPORTING AND LIFTING



IMPORTANT: *Lifting and carrying operations should be carried out by skilled workers, such as a truck operator, crane operator, etc. If a crane is used to lift the machine, attach the lifting chain carefully, making sure the machine is well balanced.*

Follow these guidelines when lifting with truck or trolley:

- The lift truck must be able to lift at least 1.5 – 2 times the machines gross weight.
- Make sure the machine is balanced. While transporting, avoid rough or jerky motion, and maintain a safe clearance zone around the transport area.
- Use a fork lift with sufficient lifting capacity and forks that are long enough to reach the complete width of the machine.
- Remove the securing bolts that attach the machine to the pallet.
- Approaching the machine from the side, lift the machine on the frame taking care that there are no cables or pipes in the area of the forks.
- Move the machine to the required position and lower gently to the floor.
- Level the machine so that all the supporting feet are taking the weight of the machine and no rocking is taking place.



Follow these guidelines when lifting crane or hoist:

- Always lift and carry the machine with the lifting holes provided at the top of the machine.
- Use lift equipment such as straps, chains, capable of lifting 1.5 to 2 times the weight of the machine.
- Take proper precautions for handling and lifting.
- Check if the load is properly balanced by lifting it an inch or two.
- Lift the machine, avoiding sudden accelerations or quick changes of direction.
- Locate the machine where it is to be installed, and lower slowly until it touches the floor.





INSTALLATION



WARNING: It is absolutely imperative that this machine be anchored securely to the floor to prevent tipping.

If this machine is installed on a work bench or stand of any type, then the mounting to the bench or stand AND the stand must be anchored in such a way as to prevent tipping.

At full capacity, the leverage of both handles extending fully forward with each operator pulling downward WILL cause the machine to tip if not properly anchored.

IMPORTANT:

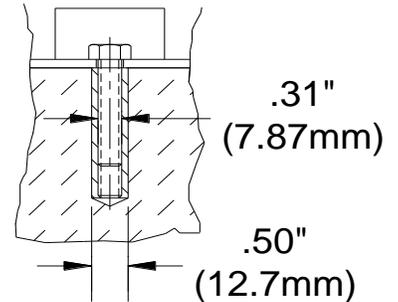
Consider the following when looking for a suitable location to place the machine:

- Overall weight of the machine.
- Weight of material being processed.
- Sizes of material to be processed through the machine.
- Space needed for auxiliary stands, work tables, or other machinery.
- Clearance from walls and other obstacles.
- Maintain an adequate working area around the machine for safety.
- Have the work area well illuminated with proper lighting.
- Keep the floor free of oil and make sure it is not slippery.
- Remove scrap and waste materials regularly, and make sure the work area is free from obstructing objects.
- If long lengths of material are to be fed into the machine, make sure that they will not extend into any aisles.
- **LEVELING:** The machine should be sited on a level, concrete floor. Provisions for securing it should be in position prior to placing the machine. The accuracy of any machine depends on the precise placement of it to the mounting surface.
- **FLOOR:** This tool distributes a large amount of weight over a small area. Make certain that the floor is capable of supporting the weight of the machine, work stock, and the operator. The floor should also be a level surface. If the unit wobbles or rocks once in place, be sure to eliminate by using shims.
- **WORKING CLEARANCES:** Take into consideration the size of the material to be processed. Make sure that you allow enough space for you to operate the machine freely. This shall include the full rotation of the handles at full extension.



Anchoring the Machine

- Once positioned, anchor the machine to the floor, as shown in the diagram. Use bolts and expansion plugs or sunken tie rods that connect through and are sized for the holes in the base of the stand.
- This machine requires a solid floor such as concrete at a minimum of 4" (102mm) thick. 6" (153mm) minimum is preferred.

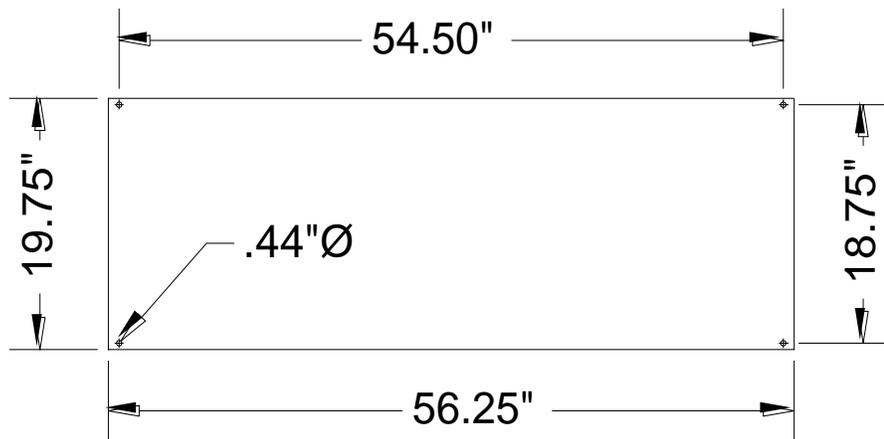
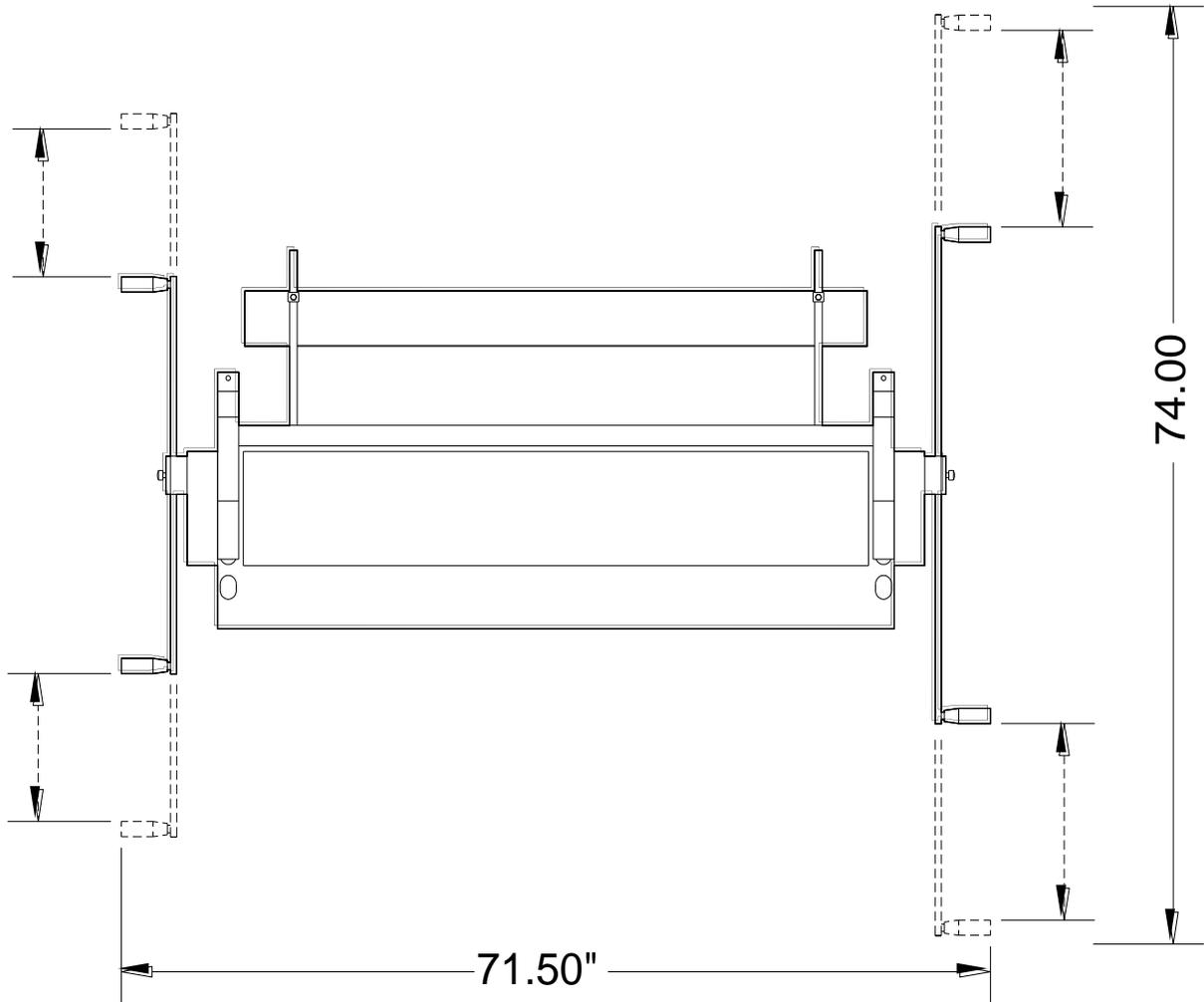


If you intend to mount the Baileigh machine on a workbench be aware of the following:

- Overall weight of the machine.
- Weight of material being processed.
- Make sure the workbench is properly reinforced to support the weight.
- The strongest mounting option is where the holes are drilled all the way through the workbench and the machine is secured with bolts, washers, and nuts.



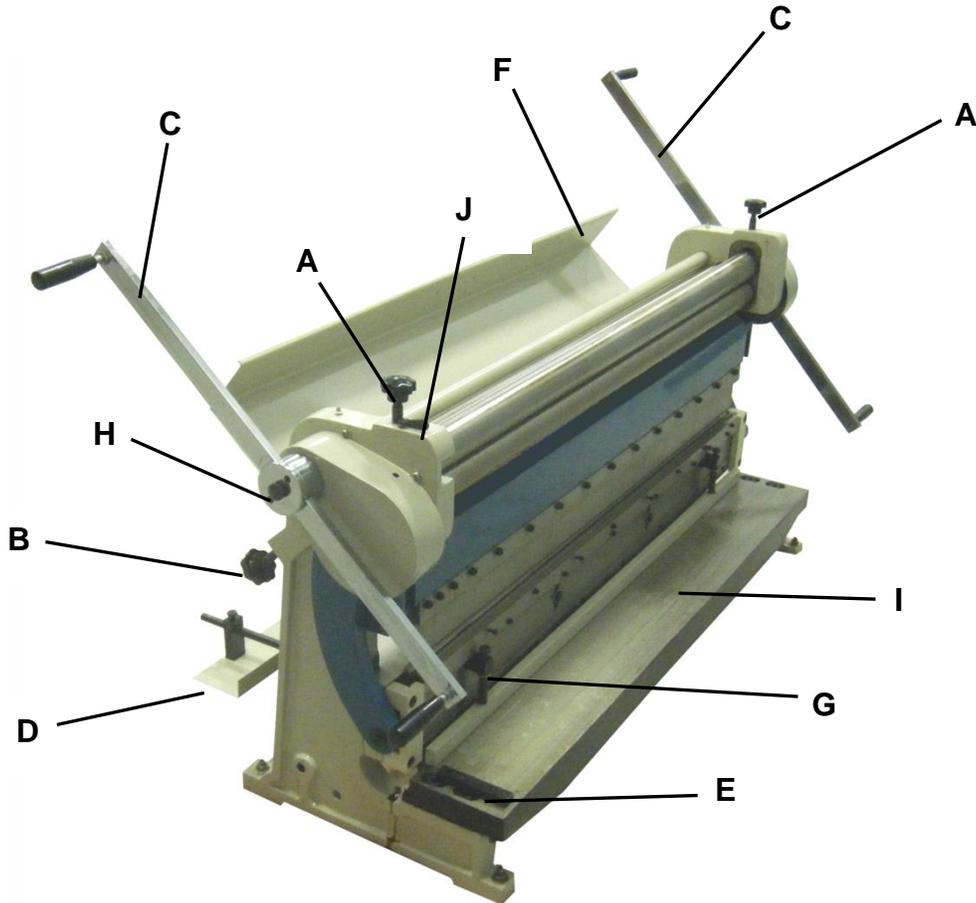
OVERALL DIMENSIONS



Mounting Holes



GETTING TO KNOW YOUR MACHINE

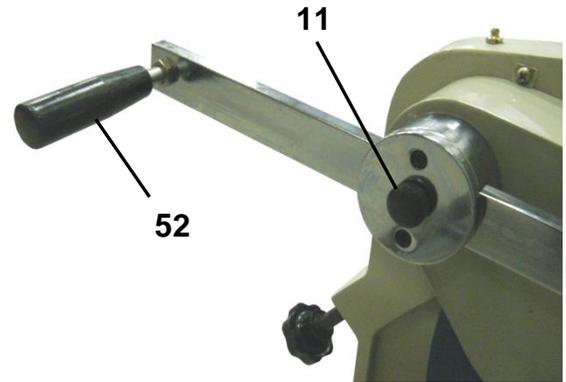


Item	Description	Function
A	Upper Roller Adjustment Knob	Clockwise to lower and counterclockwise to raise
B	Rear Roller Adjustment Knob	Clockwise to raise and counterclockwise to lower
C	Handlebars	Adjustable for leverage to controls motion of the rolls, shear, and brake
D	Back Gauge	Controls material stop distance for brake and shear
E	Shear Guide	Guides edge of material when shearing
F	Slip Roll Cover	Covers rolls when not being used
G	Spring Loaded Hold Down	Controls the hold down feed gap
H	Handlebar Adjustment Knob	Loosen knob and adjust handlebar position
I	Shear Table	Place material on the table when shearing
J	Roller Pin Shaft Release	Turning the pin contains or releases roller shaft



ASSEMBLY AND SET UP

1. This machine comes with one long (39.5" [1003mm]) and one short (31.5" [800mm]) handlebars. It is the owners/operators choice as to which end of the machine the handlebars are installed into.
2. Remove the swivel handle (52) from the handlebar.
3. Loosen the thumb bolt, (11) enough to allow the handlebar to slide into the hub.
4. Extend the handlebar though the hub enough to allow the swivel handle to be installed.
5. Tighten the thumb bolt (11) to hold the handlebar in position.
6. Install and tighten the swivel handle (52) to prevent the handlebar from coming out of the hub and to provide the handle for pulling the machine during operation.



Note: Do not overtighten the thumb bolt. The handlebar is typically slide from the center position to full extension as the material increases toward full capacity.

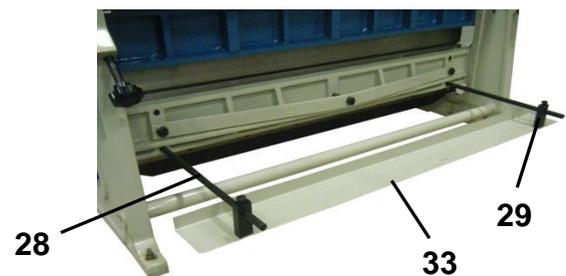
7. Repeat this procedure at the other end of the machine with the other handlebar.
8. Thread the upper roll adjusting knobs into the tapped holes on the top of each side plate as shown.
9. Tighten the knobs until just snug.
10. Thread both back stop extension rods (#28) into the lower set of holes as shown. These holes are located on the outfeed side of the casting.



Note: With the back gauge (33) is on the top of the rods, the back gauge will be aligned for use with the brake. When the back gauge is below the rods the back gauge will be aligned for use with the shear.



11. Fasten both mounting collars (#29) to the back gauge (#33). The stand dies can now be positioned where needed on the long rods to locate the back gauge.





SHEAR OVERVIEW

The shear section has blades that can be reversed to provide a sharp edge as needed and are capable of shearing up to 16 gauge (1.519mm) mild steel sheet x 52" (1321mm) wide. An adjustable upper blade assembly passes by a fixed lower blade resulting in a precise shearing action. If necessary, the back gauge can be adjusted to accommodate repeat pieces.

Shearing Tips

- Keep the blade gap to the smallest distance possible.
- When shearing, the work should be squared against a guide.
- The pressure plate should be adjusted approximately 0.125" (3.175mm) above the table when the shear blade is in the up position. As the blade is moved downward, the pressure plate should immediately rest against the workpiece and hold it in place.
- To prevent distortion when shearing, snap the handle assembly quickly to pierce the workpiece, then continue with steady even pressure to complete the cut.
- After shearing, metal parts will have a sharp edge on them. These edges may cause cuts when handled. Deburr the workpiece to remove the edge before handling.
- Have the shear blades sharpened by a professional. This will lead to accurate, quality results.
- To avoid rolling over the edge of the sheet metal and pinching it between the two blades, NEVER cut any piece narrower than eight times the thickness of the material.



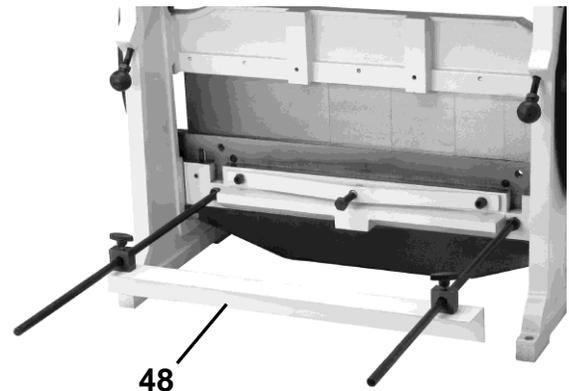
SHEARING SHEET METAL

⚠ WARNING: Before operating the Baileigh Shear, Brake, Roll make sure it is firmly bolted to a table, bench, or the floor. If it tips over on you, it could cause severe injury or death.

⚠ WARNING: The shearing blades pose an amputation hazard. Make sure no body part or clothing is near the specific hazard. Failure to follow this warning could result in severed or crushed fingers.

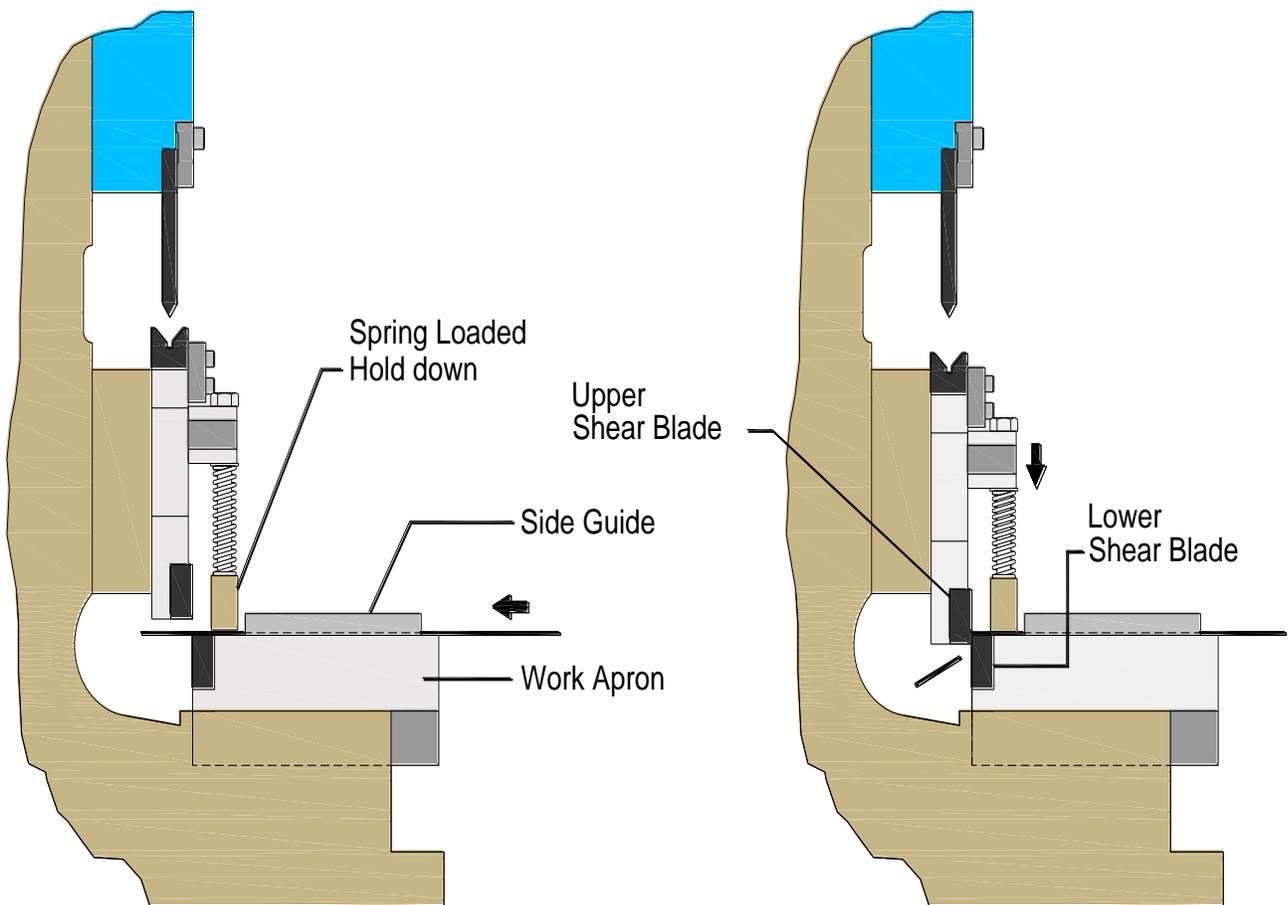
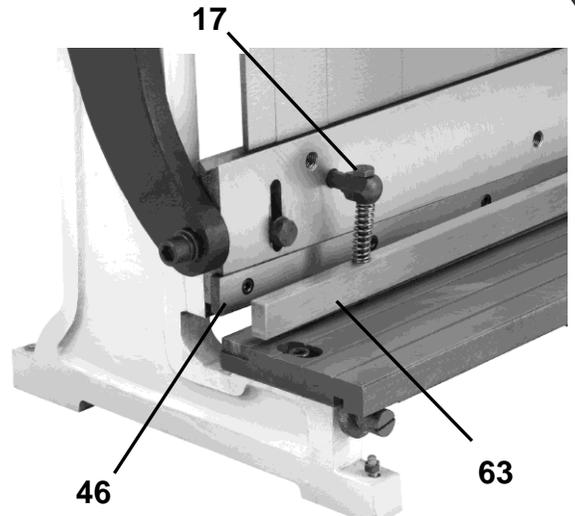
⚠ CAUTION: Always wear proper eye protection with side shields, safety footwear, and leather gloves to protect from burrs and sharp edges. When handling large heavy materials make sure they are properly supported. Use Caution and good communication skills between the primary and secondary operator. Both operators should apply even and consistent force to the handlebars during the cut.

1. Adjust the rear stop (#48) to accommodate the length of the cut.
2. Adjust the handlebars within the hubs to full extension to provide as much leverage as possible to assist in the cut.
3. Using the handle assembly, raise the upper blade to the highest position.
4. Have at least one square edge of the material against the side guide or the adjustable rear stop for accurate cuts.
5. Lay the sheet metal on the work apron against the left side guide. Push the sheet under the hold down until it bumps up to the adjustable stop.





6. In a coordinated fashion, both operators should rotate the handlebar to begin the cut. The shearing action begins at the left side of the piece part and continues to the right until the cut is complete.
 - a. The pressure plate (#63) should make contact with the sheet before the blade (#46) does. If it does not, adjust the two hex bolts (#17) on the pressure plate brackets to lower the pressure plate. When fully open the gap should not exceed 0.125" (3.175mm).
7. Carefully lift the cut piece from the rear of the machine if it does not fall to the tabletop or floor on its own.





SHEAR BLADE ADJUSTMENTS

The blade was adjusted at the factory. However, after using the shear for a time, it may become necessary to re-adjust the blade.

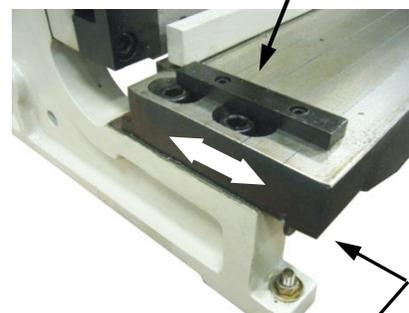
1. Remove the material hold down by unscrewing the bolts (#70) from the hold down bar (#41).
2. Loosen the two table capscrews at each end of the table.
3. Using a flathead screwdriver tighten or loosen the table adjustment screws located under both ends of the table.



Note: These screws change the distance of the table and fixed blade to the shear blade. The idea is to obtain a snug blade fit without binding the blades.

4. Re-tighten the four table top screws.
5. While keeping fingers clear of the blades, shear a piece of paper along the full edge of the blade.

Table Capscrews



Adjustment Results

- Shear cuts properly along the full length. Reinstall the hold down and follow the adjustment procedure.
- Shear cuts clean at one end but not the other. Repeat steps 2 & 3 above.
- Shear cuts at both ends of the blade but not at the center. Turn the bow nut (A) clockwise (**cw**) until the paper cuts clean at all locations.
- Shear cuts at the center but not the blade ends. Turn the bow nut counterclockwise (**ccw**) until the paper cuts clean the full length.



Once the blade makes a clean cut the whole length, reinstall the hold down and follow the adjustment procedure.

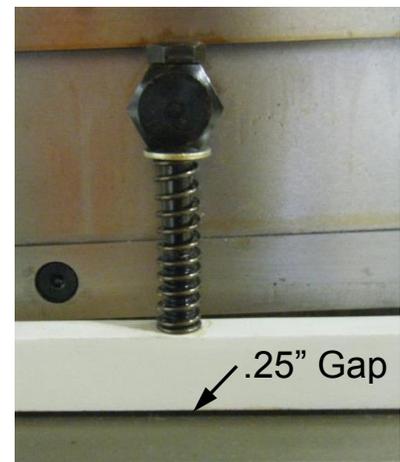
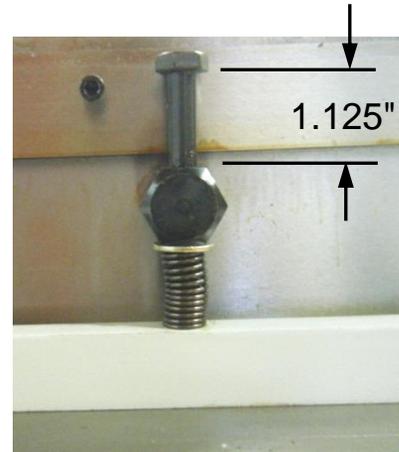


HOLD DOWN ADJUSTMENT

When the shearing cycle starts, the spring loaded hold down pushes on the piece part to secure it. It also helps keep the operator's fingers away from the cutting blades. When adjusted properly there should be no more than 1/4" (6.3mm) of clearance below the hold down to feed the piece part.

How to Adjust the Hold down

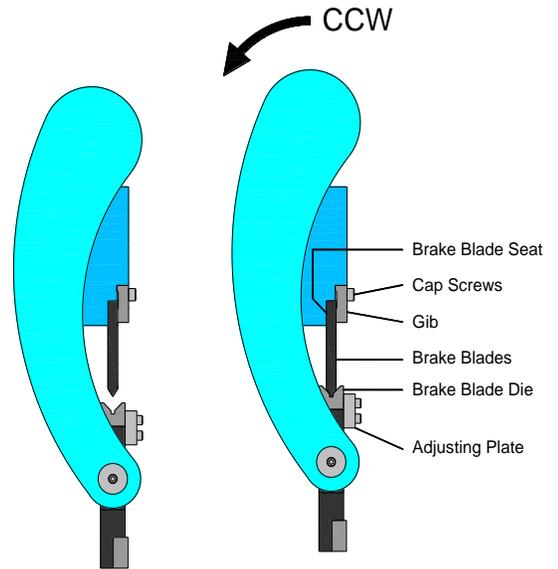
1. Turn the handlebar to lower the upper blade completely. Loosen or tighten as needed so there is approximately 1.125" (28.5mm) between the bottom of the bolt head and the flat of the hex stud (#44).
2. Turn the handlebar to raise the blade completely. There should be a 1/4" (6.3mm) gap between the shear table and the hold-down. If not, repeat step 1.





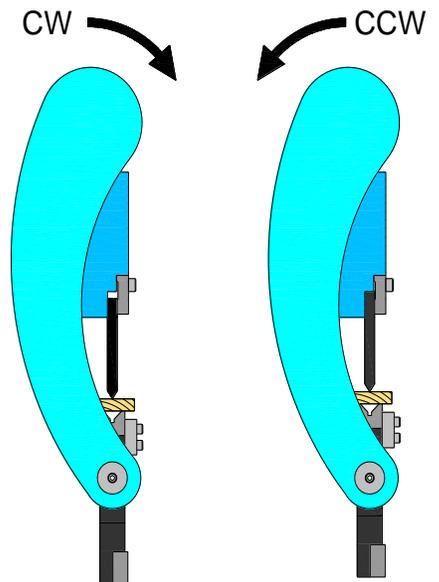
REMOVAL OF BRAKE BLADES FOR CLEANING AND SETUP

Turn the handlebar counterclockwise (**ccw**) to raise the brake blade die until it contacts the brake blades as shown at right. Using a hex wrench, loosen all of the capscrews holding the gib. Now slide the brake blades out, one at a time. Clean the casting seat, the gib, and all of the brake blades with mineral spirits. After drying, lubricate with an anti-rust lubricant.



Installing the Brake Blades

Turn the handlebar clockwise (**cw**) to lower the brake blade die. Lay a strip of wood on the brake blade die the full length as shown at right. Start inserting the brake blades. Wide blades to the right and narrow blades to the left when facing the front of the machine. When the brake blades are all in place, turn the handlebar counterclockwise (**ccw**) to raise the brake blade die. When the brake blades are firmly seated in the casting, tighten all of the capscrews on the gib. Now lower the brake blade die and remove the strip of wood.





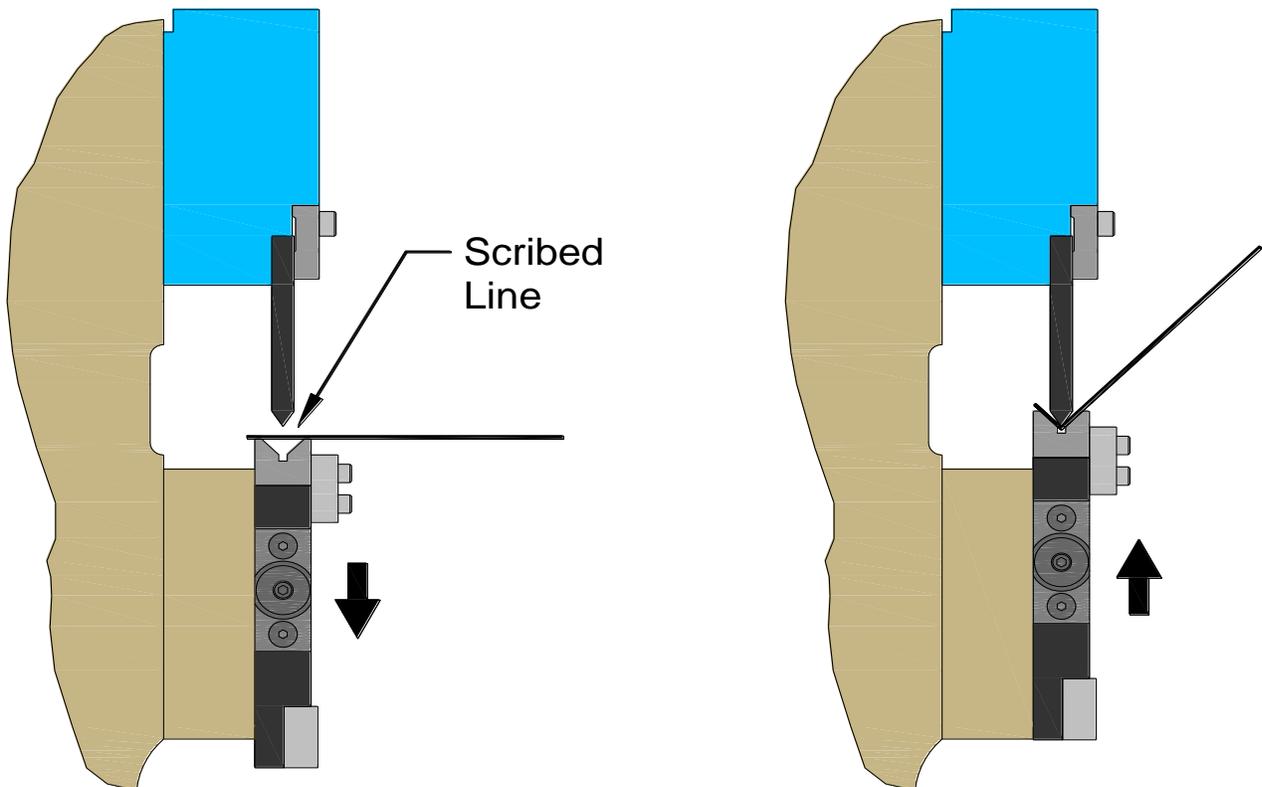
BRAKE OVERVIEW

The Combination SBR has adjustable and removable fingers to offer a wide variety of bending brake options. The brake section is capable of bending up to 16ga. (1.519mm) x 52" (1321mm) wide mild steel sheet.

To start a bend, the operator places a piece of sheet metal on the blade brake die. By turning the handlebar, the brake die is raised up until the tips of the brake blades line up with a line scribed on the sheet metal. If necessary the back gauge can be adjusted to accommodate repeat pieces. By continuing the upward travel of the brake die, the brake blades push the sheet metal down into the "V"-groove of the brake die. The thinner the material the further it will enter the groove for a slight overbend. This is helpful when the material experiences some springback. To remove the piece part, the operator lowers the brake die and removes the piece from the front of the machine.

Bending Allowance

In order to bend sheet metal accurately, you will need to consider the total length of each bend. This is referred to as bend allowance. Subtract the bend allowance from the sum of the outside dimensions of the piece part to obtain the actual overall length or width of the piece. Because of differences in sheet metal hardness, and whether the bend is made with the grain or against it, exact allowances must sometimes be made by trial and error. However bend allowances for general use can be obtained from metal working books or from the Internet.





BENDING SHEET METAL

When using the Combination SBR as a manual box and pan brake, the brake blades can be removed and setup to allow all four flanges of the box or pan to be bent upward.

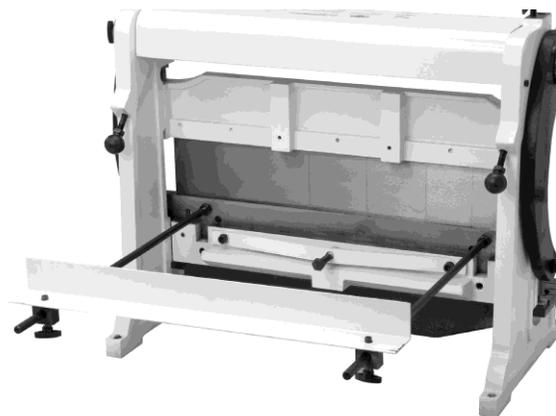
⚠ WARNING: Before operating the Baileigh Shear, Brake, Roll make sure it is firmly bolted to a table, bench, or the floor. If it tips over on you, it could cause severe injury or death.

⚠ WARNING: The bending brake poses a pinching hazard. Make sure no body part or clothing is near the specific hazard. Failure to follow this warning could result in severed or crushed fingers.

⚠ CAUTION: Always wear proper eye protection with side shields, safety footwear, and leather gloves to protect from burrs and sharp edges. When handling large heavy materials make sure they are properly supported. Use Caution and good communication skills between the primary and secondary operator. Both operators should apply even and consistent force to the handlebars during the cut.

Basic Bend Operation

1. Install the back gauge assembly to be on top of the rods as shown.
2. Adjust the stop to the required depth. It can also be mounted on the front of the brake. Or. Scribe a line on the sheet metal to indicate where the bend is to be made.
3. Adjust the handlebars within the hubs to full extension to provide as much leverage as possible to assist in the cut.
4. Using the handle assembly, raise the fingers on the brake until there is enough gap to fit the work piece.
5. Make sure the material is against the back stop or that the scribe mark is lined up to where the brake blade will come down.





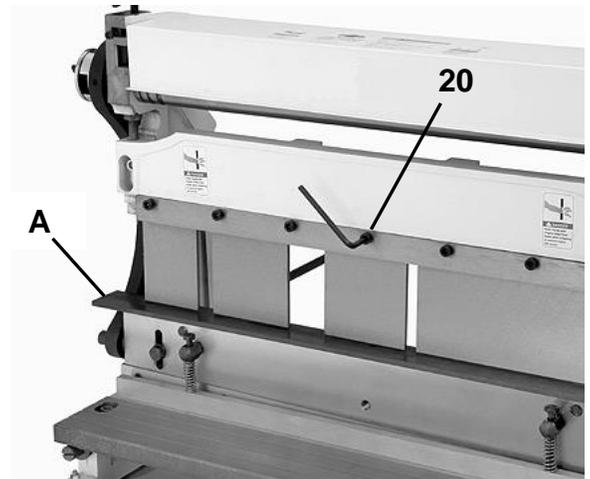
6. While the sheet metal is being held firmly, both operators should rotate the handlebar to make the bend to the desired angle.
7. Raise the brake blade die and remove the piece part.



Note: The brake die is designed to bend material up to 90°.

Adjust the fingers for box and pan bending:

1. Place a thin and flat piece of spacer material (**A**) over the notch of the brake die. This flat surface will help you obtain equal finger length.
2. With the handle assembly, lower the fingers so they are just touching the top of the spacer on the brake die.
3. Loosen, but do not remove, the six cap screws (**#20**).
4. Slide the fingers horizontally to the desired position or rearrange them to get the desired width combination for your project.
5. Using the handle assembly, lower the fingers to apply light pressure. Check to make sure each finger has continuous contact with the spacer.
6. Tighten the six cap screws.

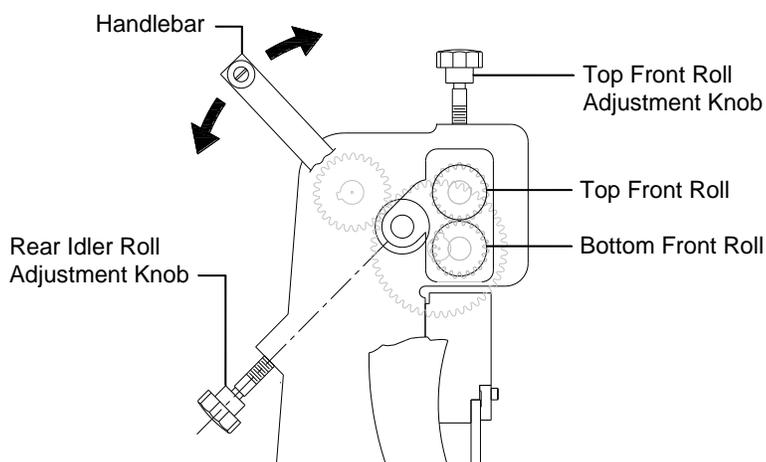




SLIP ROLL OVERVIEW

The slip roll section can be used to roll up to 16ga. (1.519mm) x 52" (1321mm) wide mild steel. It consists of 3 hardened rolls. The rear roll is adjustable to control the radius of the piece part as it is being formed. The closer the rear roll is brought to the front upper roll, the tighter the radius. The two front gear driven rolls pinch the material and pull it against the rear roll, forcing it up towards the front upper roll. The top front roll has two adjustment knobs, one on each end of the machine, to control the upper and lower roller spacing for different material thicknesses. When removing the formed piece part, the top front roll can be slipped out.

- When the slip roll section is not being used, the operator can cover the rolling mechanism with the formed steel pivoting cover / guard.
- The rear roll can be adjusted to a raised or tilted position on one end to roll cones or left flat to roll cylinders or arcs.
- Located on the end of the upper and lower rolls are three wire or forming grooves. These can be used for forming small diameter tubing or wire into rings or curved shapes.
- To prolong the life of the rolls, always keep them clean and well lubricated. Remove burrs from the edges of any sheet metal being processed through the rolls.
- **DO NOT** exceed the rated capacity on this slip roll. It has been tested at the factory to roll 16ga. (1.519mm) x 52" (1321mm) wide mild steel.
- Because material springback varies with the kind of material being formed, only by test forming several pieces can the correct adjustments be made.



⚠ CAUTION: When handling large piece parts, you may require assistance in handling the piece as it exits the rolls. Failure to adequately support the piece part may result in the piece falling and causing bodily injury.



OPERATING THE SLIP ROLL

⚠ WARNING: Before operating the Baileigh Shear, Brake, Roll make sure it is firmly bolted to a table, bench, or the floor. If it tips over on you, it could cause severe injury or death.

⚠ WARNING: Rolling poses a pinching hazard. Make sure no body part or clothing is near the specific hazard. Failure to follow this warning could result in severed or crushed fingers.

⚠ CAUTION: Always wear proper eye protection with side shields, safety footwear, and leather gloves to protect from burrs and sharp edges. When handling large heavy materials make sure they are properly supported. Use Caution and good communication skills between the primary and secondary operator. Both operators should apply even and consistent force to the handlebars during the cut.

Determining Length of Material

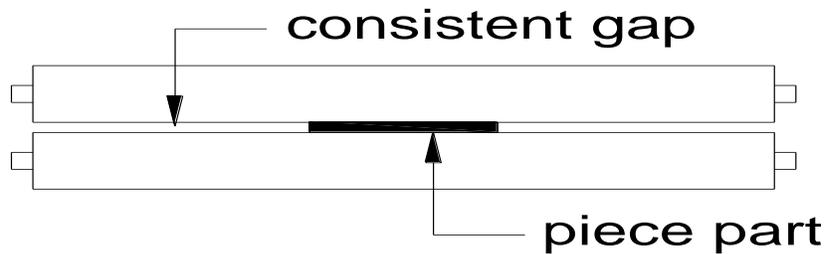
LENGTH OF MATERIAL necessary to form the desired size circle is the first consideration in circle forming. To determine the approximate length of material needed use the formula: $C = I \times D$, Where **C** is the circumference, **I** is the value of π or 3.1416, and **D** is the diameter. For example, to find the length of material (C or Circumference) to form a 4" (101.6mm) diameter circle, multiply (3.1416 x 4). The result is 12.5664 or the approximate length of material needed. Cut a few pieces of material to this length for test forming. Material may have to be lengthened or shortened depending upon results of the test forming run.

Pre-Bending and Finish Rolling

PRE-BENDING is the operation where the ends of the material are bent to the same radius as that of the finished piece. This principle is used to get the best results in full circle bending.

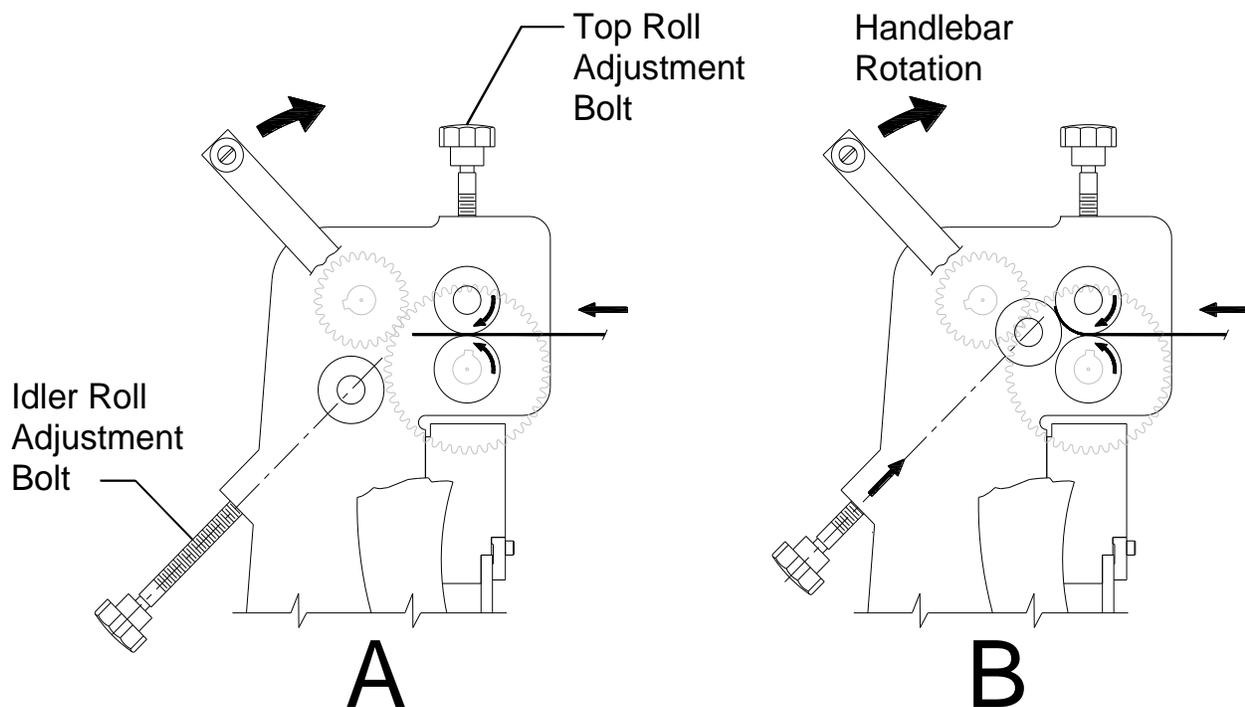
Before bending, follow these steps:

- Clean the material and rolls of any dust or grease.
- Make sure the edges of the piece part are free of chips and burrs.
- Check that the material is flat.
- Have a template of the finished diameter to compare with.
- Always work in the center of the rolls.



Rolling Operation

1. Back off the idler roll by turning the two adjustment bolts counterclockwise (**ccw**) as in view "A" below.
2. Unscrew the top roll adjustment bolts until there is enough gap between the top and bottom rolls to allow the piece part to fit between.
3. Rotate the handlebar to advance the piece part about 1" (25.4mm) beyond the rolls.
4. Tighten the top roll adjustment bolts to hold the piece part firmly.
5. Raise the idler roll enough to get the material started in an upward direction against the top front roll as shown in view "B".



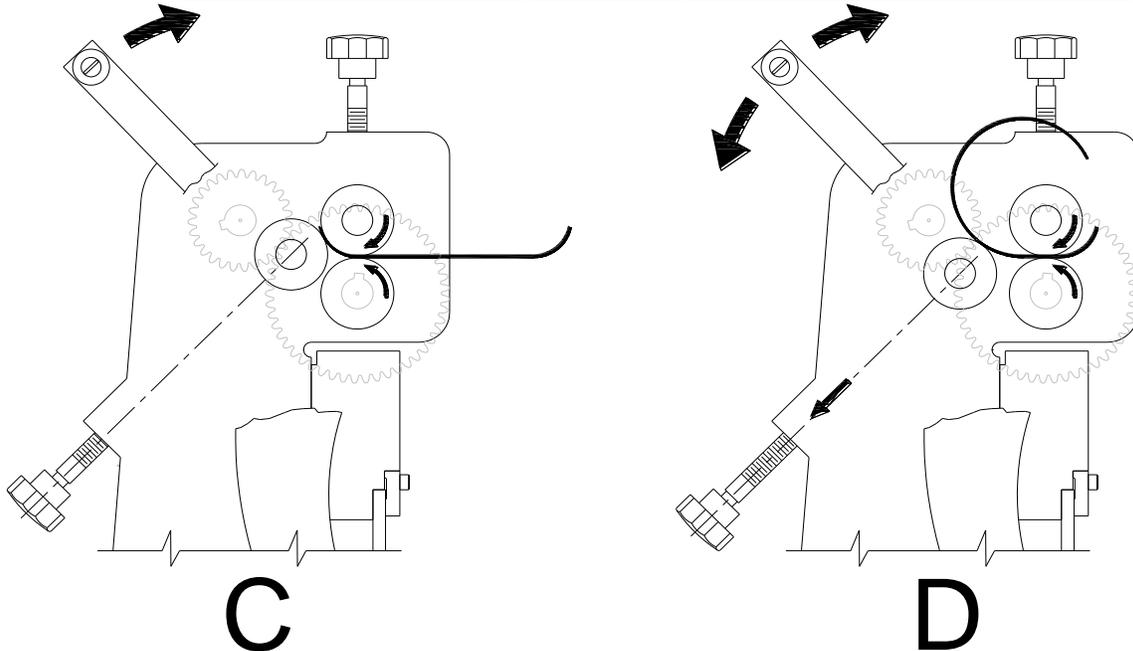
6. Rolling the initial edge slightly will give it a pre-bend.
7. Back the piece out, turn the piece part and repeat the sequence for the other end. See view "C" below.



8. Now that you have a pre-bend on both ends, it is time to roll the final diameter.
9. Back down the rear idler roll and start rolling the piece forward and reverse as shown in view "D".
10. Start raising the idler roll gradually and continue rolling the piece forward and reverse until you have reached the finished diameter.

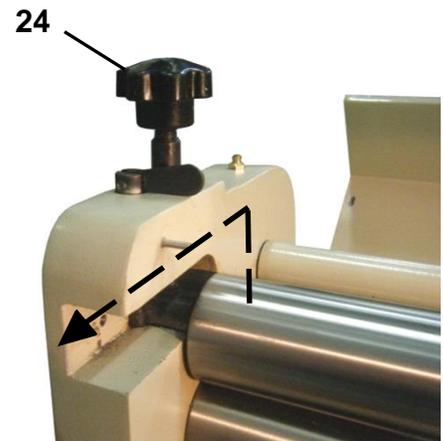


Note: *To achieve a cone configuration, adjust the idler roll on one end only.*



⚠ CAUTION: Have an assistant support the top roll when removing finished cylinders from the top roll. Failure to adequately support the top roll may result in the roll falling, and causing personal injury.

11. To remove a finished piece part from the top roll, loosen both top roll adjustment bolts (#24).
12. With the help of an assistant, lift the left end of the top roll, up and out, keeping the right end gears meshed as much as possible. The other person will slide the finished cylinder off. The roll is heavy, so **DO NOT** attempt this alone.

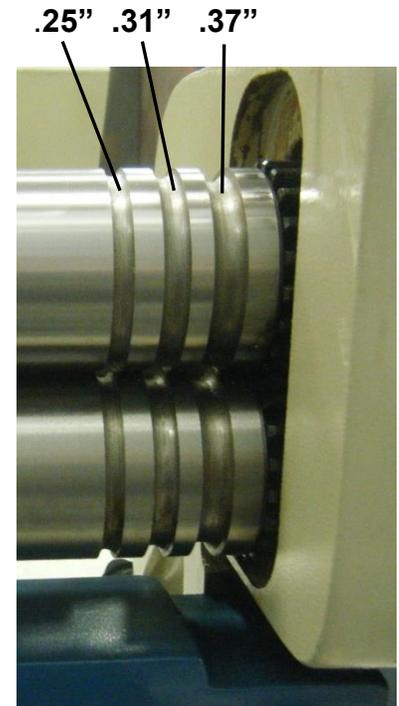




Rolling Round Shapes

There are three wire or forming grooves located on the right end of the upper and lower rolls. They can be used to form solid wire, rods, and small tubing.

To make rings, follow the "Determining Length of Material" procedure to calculate the actual length. Then proceed with the rolling operation.





BENDING ALLOWANCE

In order to bend sheet metal accurately, you will need to consider the total length of each bend. This is referred to as bend allowance. Subtract the bend allowance from the sum of the outside dimensions of the piece part to obtain the actual overall length or width of the piece. Because of differences in sheet metal hardness, and whether the bend is made with the grain or against it, exact allowances must sometimes be made by trial and error. However bend allowances for general use can be obtained from metal working books or from the Internet.

UNDERSTANDING SPRINGBACK

Springback, also known as elastic recovery, is the result of the metal wanting to return to its original shape after undergoing compression and stretch. After the bending leaf is removed from the metal and the load is released, the piece part relaxes, forcing the bent portion of the metal to return slightly to its original shape. The key to obtaining the correct bend angle is to over bend the metal a little and allow it to spring back to the desired angle. All metals exhibit a certain amount of spring back.

MATERIAL SELECTION

 **CAUTION:** It must be determined by the customer that materials being processed through the machine are **NOT** potentially hazardous to operator or personnel working nearby.

When selecting materials keep these instructions in mind:

- Material must be clean and dry. (without oil)
- Material should have a smooth surface so it processes easily.
- Dimensional properties of material must be consistent and not exceed the machine capacity values.
- Chemical structure of material must be consistent.
- Buy certificated steel from the same vendor when possible.



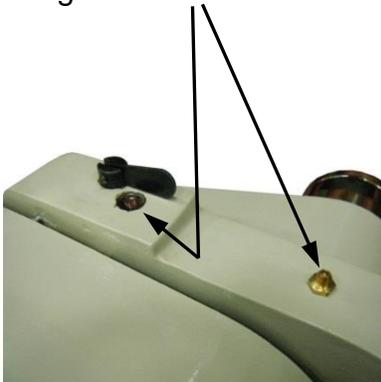
LUBRICATION AND MAINTENANCE

⚠ WARNING: Maintenance should be performed on a regular basis by qualified personnel.
Always follow proper safety precautions when working on or around any machinery.

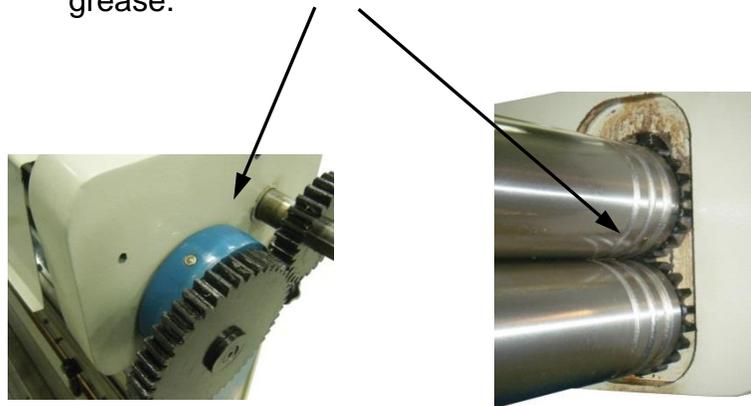
Check for the following conditions and repair or replace when necessary:

- Check daily for any unsafe conditions and fix immediately.
- Check that all nuts and bolts are properly tightened.
- On a weekly basis clean the machine and the area around it.
- Lubricate gears, bushings, threaded components and sliding devices.
- Apply rust inhibitive lubricant to all non-painted surfaces.
- Loose mounting bolts.
- Chipped brake fingers.
- Dull or chipped shear blades.
- Inadequate lubrication.
- Any other condition that could hamper the safe operation of this machine.

Apply multi-purpose grease



Brush a light coat of grease on the gear teeth. Turn the handlebar to disperse the grease.



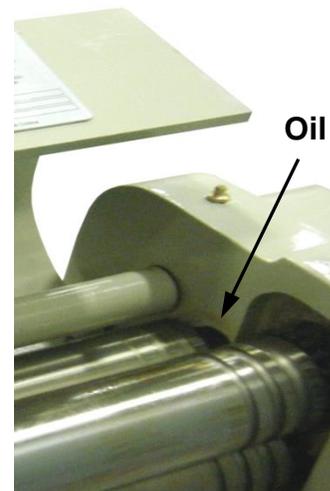
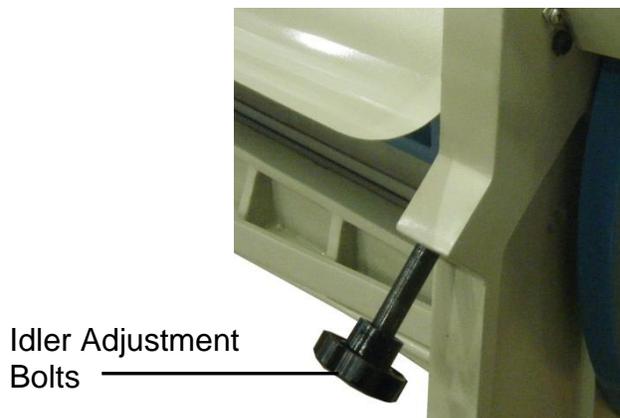
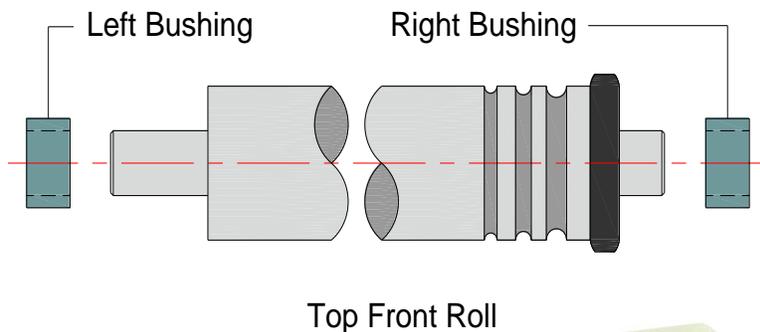
Note: Proper maintenance can increase the life expectancy of your machine.



SLIP ROLL MAINTENANCE

Every (6) months remove and lubricate the roller bushings.

1. With the aid of an assistant carefully remove the top front roll. To do so, back off both top roll adjustment bolts, and rotate the roll release pin (left side of roll), 90°. Be careful not to damage the roll.
2. Remove both bushings from the ends of the roll.
3. With mineral spirits, wipe all old grease from the bushings, gears, roller end shafts, and machined pockets that the bushings rest on.
4. After the parts have dried, lubricate them sufficiently with multi-purpose grease.
5. Apply some 10W30 or equivalent oil into the bushings of the bottom front roll.
6. Lower the idler roll by turning the (2) idler adjustment bolts counterclockwise (**ccw**). This will give you access to apply oil to the bushings.
7. Remove the idler adjustment bolts and clean the threads. Lubricate with oil and re-install.



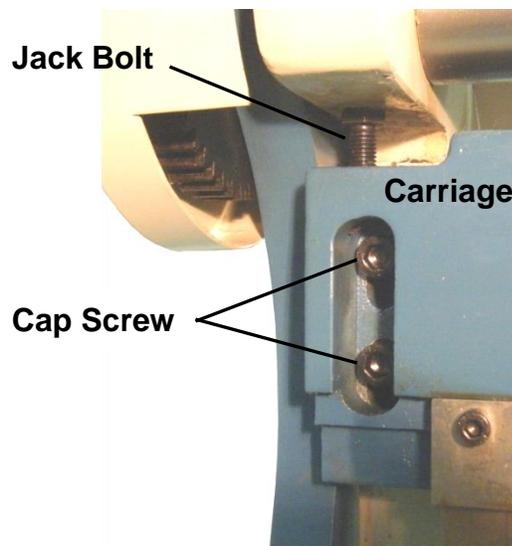
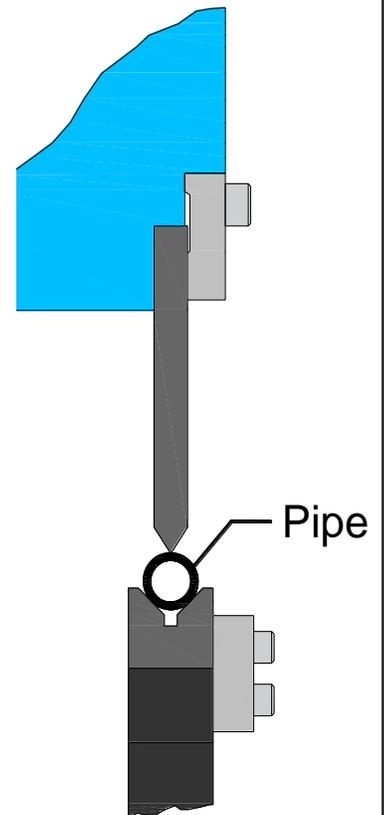


BRAKE ALIGNMENT

⚠ WARNING: The bending brake poses a pinching hazard. Make sure no body part or clothing is near the specific hazard. Failure to follow this warning could result in severed or crushed fingers.

On occasion, it may become necessary to realign the brake blades and the brake die. Follow the procedure below:

1. The first thing to do is clean and then deburr the brake blades and the V-groove of the brake die.
2. Make sure all brake blades are tight and seated properly.
3. Place a straight piece of .5" to .75" (12.7 to 19mm) diameter tubing (approx.) 42" (1067mm) long in the brake die "V"- groove.
4. Raise the blade die until the side of the pipe lightly contacts the brake blades.
5. From one end to the other, visually check for consistent contact between the pipe and the blades.
6. If you notice a gap at one end of the brake, loosen the (2) carriage lock capscrews at that end, and adjust the jack bolt until the brake blades just touch the pipe.
7. Tighten both capscrews and remove the pipe.
8. After cycling the brake a few times, recheck the alignment.





REPLACING THE SHEAR BLADE

⚠ WARNING: The shear blade poses an amputation hazard. Make sure no body part or clothing is near the specific hazard. Failure to follow this warning could result in severed or crushed fingers.

The blades on the Baileigh Combination SBR each have four usable edges. If you have not already used all four cutting edges, you can rotate the blade to expose a sharp edge. After all edges have been used the blade can be reground or replaced.

Contact Baileigh Industrial for replacement blades.

Rotate or Replace Blades

1. Remove the material hold down by unscrewing the bolts (#70) from the hold down bar (#41).
2. Raise the shearing blade assembly to the top of its stroke and secure either by blocking the frame or tying off the handlebar. **MAKE SURE** it is secure to avoid accidental shearing.
3. Remove the eight flathead screws holding on the upper blade (#40) and remove it from the movable blade (#39). When handling the blade always wear leather gloves to protect your hands.
4. Either rotate the blade or replace it if all the sharp edges have been used. Replace the flat head screws and tighten securely.
5. To rotate or replace the lower blade you must work from the other side (rear) of the machine.
6. Remove the eight flathead screws holding on the lower blade (#40) and remove it from the shear table (#2). When handling the blade always wear leather gloves to protect your hands.
7. Either rotate the blade or replace it if all the sharp edges have been used. Replace the flat head screws and tighten securely.
8. While keeping fingers clear of the blades, shear a piece of paper all along the full length of the blades.

Material Hold Down →

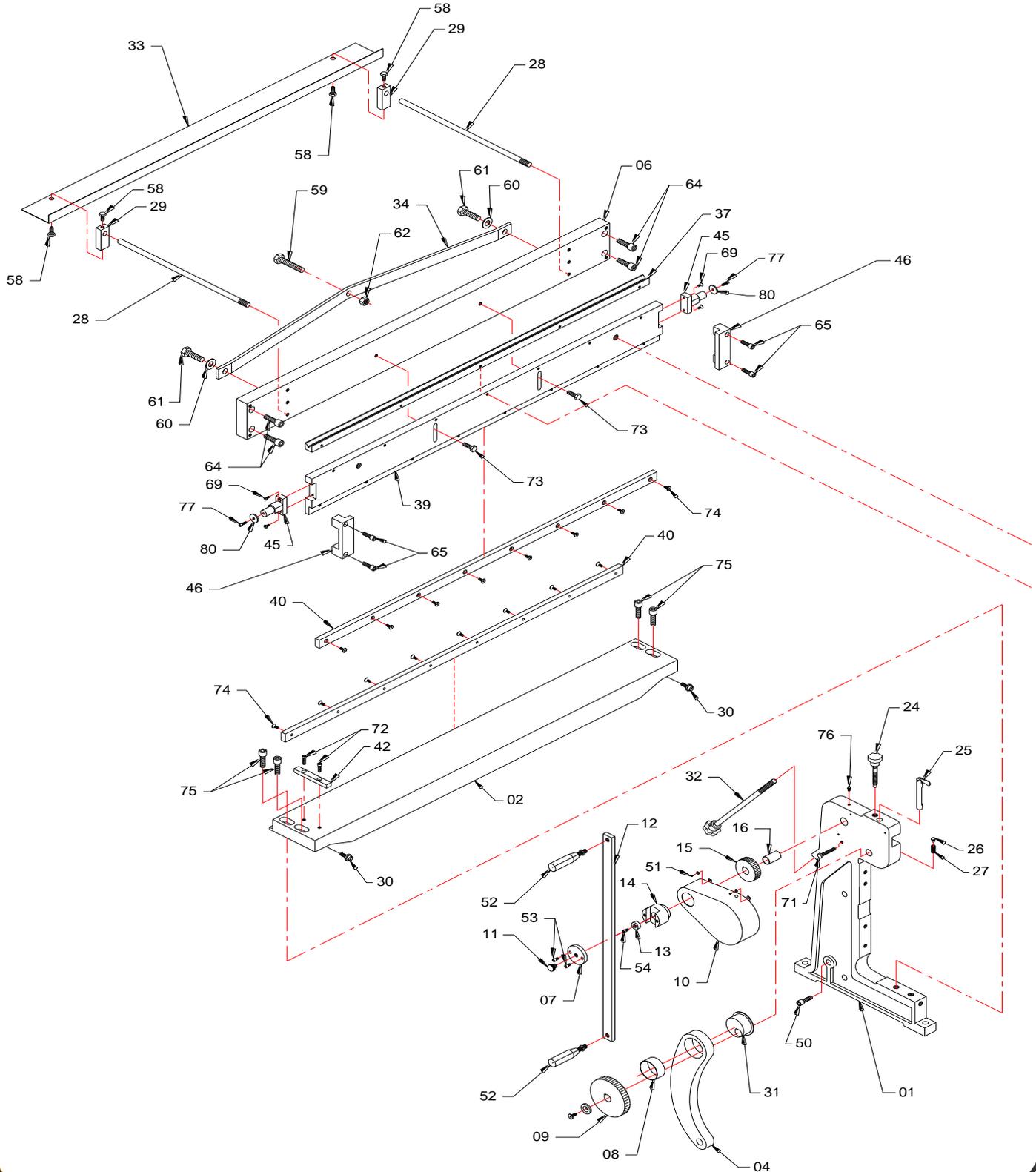


Shear Results

- Shear cuts properly along the full length. Reinstall the hold down and follow the adjustment procedure.
- Shear cuts poorly at the blade ends. Follow the blade adjustment procedure.
- Shear cuts all but one or two locations in the center. Loosen the flat head screw at the location where the cut is poor. Apply a piece of shim material between the blade and the backup and then retighten the screw. Check cut again.

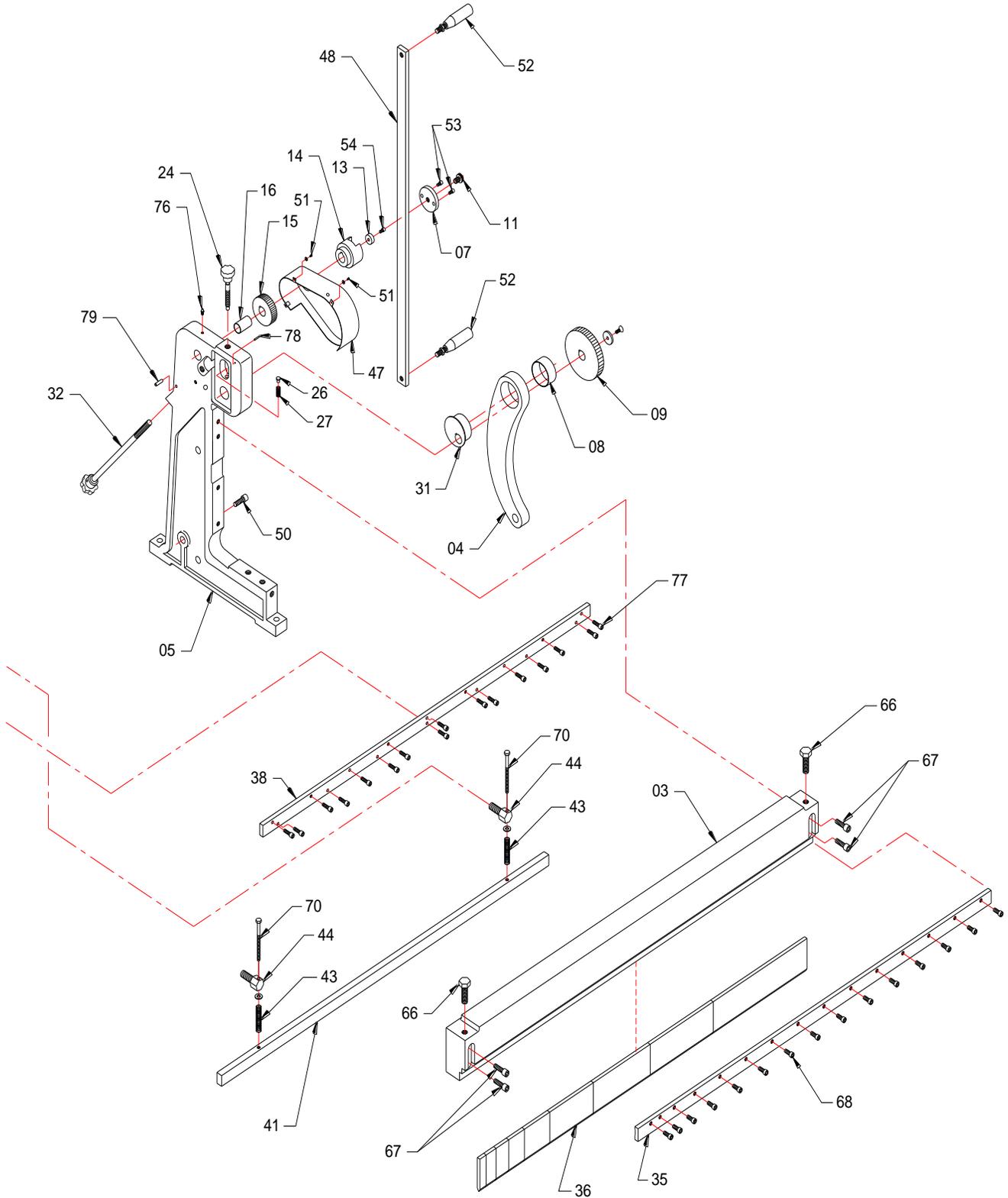


PARTS IDENTIFICATION DRAWING - A



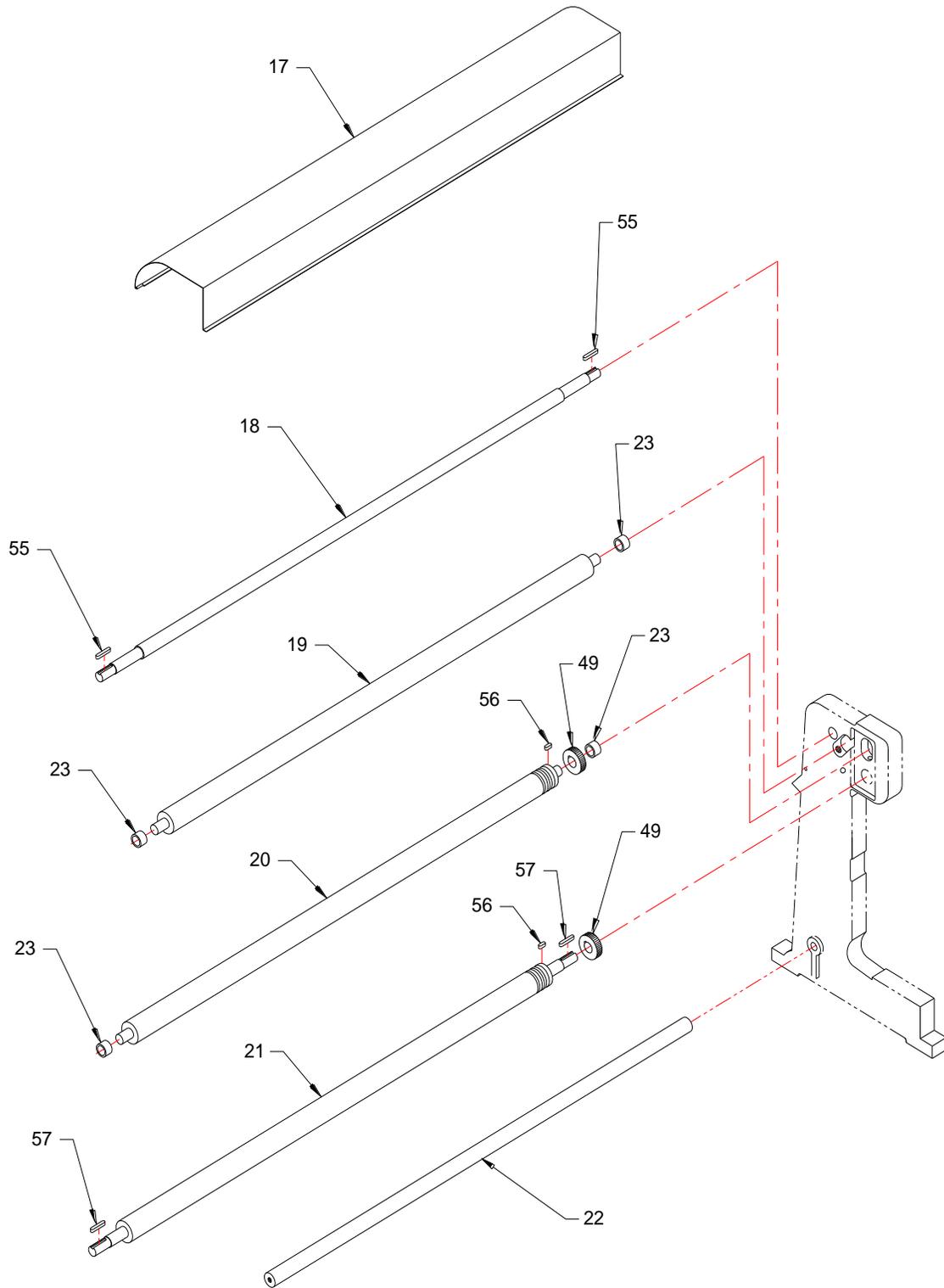


PARTS IDENTIFICATION DRAWING - B





PARTS IDENTIFICATION DRAWING - C





Parts List

Item	Description	Qty.	Item	Description	Qty.
01	Left Side Member	1	40	Blade-Upper	2
02	Shear Table	1	41	Hold Down	1
03	Crossbeam	1	42	Side Guide	1
04	Crank Arm	2	43	Hold Down Spring	2
05	Right Side Member	1	44	Hex Stud	2
06	Connector	1	45	Pin Seat	2
07	Cover	2	46	Left And Right Press Block	2
08	Bushing	2	47	Right Gear Cover	1
09	Large Gear	2	48	Long Handlebar	1
10	Left Gear Cover	1	49	Small Roll Gear	2
11	Threaded Knob	2	50	Socket Capscrew 12 x 55mm	2
12	Short Handlebar	1	51	Machine Screw 6 x 16mm	6
13	Pressing Cover	2	52	Handle	4
14	Handle Seat	2	53	Socket Capscrew 6 x 12mm	4
15	Small Gear	2	54	Socket Capscrew 6 x 14mm	2
16	Bushing	2	55	Flat Key	2
17	Roll Cover	1	56	Flat Key	2
18	Transmission Shaft	1	57	Flat Key	2
19	Rear Shaft	1	58	Hex Bolt 12 x 20mm	2
20	Front Upper Shaft	1	59	Hex Bolt 16 x 80mm	1
21	Front Lower Shaft	1	60	Washer 16mm	2
22	Connect Pipe	1	61	Hex Bolt 16 x 40mm	2
23	Bushing	4	62	Hex Nut 16mm	1
24	Top Roll Adjustment Bolt	2	63		
25	Top Roll Lock Pin	1	64	Socket Capscrew 16 x 60mm	4
26	Pin	2	65	Socket Capscrew 12 x 40mm	4
27	Spring	2	66	Hex Bolt 12 x 32mm	2
28	Long Screw	2	67	Socket Capscrew 12 x 65mm	4
29	Stand Die	2	68	Socket Capscrew 8 x 25mm	15
30	Table Adjustment Screw	2	69	Socket Capscrew 8 x 30mm	4
31	Eccentric Plate	2	70	Hex Bolt 10 x 114mm	2
32	Rear Adjustment Knob	2	71	Hex Bolt 8 x 65mm	2
33	Back Gauge	1	72	Socket Capscrew 6 x 12mm	2



Item	Description	Qty.	Item	Description	Qty.
34	Bending Bar	1	73	Hex Bolt 10 x 40mm	2
36	Brake Blade (Assorted Sizes)	1	74	Flt. Hd. Soc. Capscrew 8 x 25mm	16
37	Brake Blade Die	1	75	Socket Capscrew 16 x 45mm	4
38	Adjusting Plate	1	76	Grease Fitting	2
39	Movable Blade Mount	1	77	Socket Capscrew 6 x 20mm	2



TROUBLESHOOTING

Shear Operation

FAULT	PROBABLE CAUSE	REMEDY
Can't shear material	Improper blade gap distance, exceeding machine capacities	Widen gap for thicker material
Cuts are not square.	Blade gap unequal across length, Too much bow in blade, Inadequate hold down pressure.	Adjust blade gap to be equal across length, Adjust blade bow, Adjust hold down gap.
Poor quality of cuts, ripping./ or tearing	Dull blades, Poor blade gap set-up, Loose blade	Replace or sharpen blades, Adjust blade gap, Remove blade, clean mounting.

Brake Operation

FAULT	PROBABLE CAUSE	REMEDY
Heavy resistance during bends	Exceeding machine capacities.	Use materials within machine capabilities
Bend radius is not consistent	Brake blades and die are not aligned.	Adjust brake alignment.
Brake blade points are chipping.	Brake blades and die are not aligned.	Adjust brake alignment.
Piece part shows scoring marks after bend.	Brake blades or die has scratches.	Polish out scratches,

Slip Roll Operation

FAULT	PROBABLE CAUSE	REMEDY
Slip Roll creates cones instead of cylinders.	Rolls are not parallel to each other.	Adjust the rear roll to be parallel to the top roll.
A noticeable crease forms in the piece part.	Excessive pressure applied to one spot.	Reduce the radius and make the bend in several passes.
Piece part is pitted.	Material sheet is dirty or roll is damaged.	Clean material, polish nicks in roller.



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