The Challenge Machinery Company provides owner's manuals on its products solely as a courtesy to its customers. See the information below before using this manual.

These manuals are for reference only. These manuals include products which are non-current, unsupported or no longer produced by The Challenge Machinery Company, and are provided solely as an accomodation to our customers. By providing these manuals, The Challenge Machinery Company makes no representation or warranty as to the products, their current condition, or their suitability or fitness for use in any particular application, which are the sole and independent responsibility of the product owner and user.

Older products may not comply with current safety procedures, guidelines or regulations, and it is the product owner's and user's responsibility to evaluate the suitability and fitness of the products in their current use and application. The Challenge Machinery Company makes no representation, warranty or recommendation regarding any modifications which may be required on non-current or unsupported products. The Challenge Machinery Company assumes no liability for any modification or alteration to any Challenge product, and any such modification or alteration to any Challenge product is not authorized by The Challenge Machinery Company. The availability of these manuals is solely for the purpose of providing reference information for the products.

This manual may not be complete in all aspects of product maintenance and repair. **All products should be used only by qualified and properly trained personnel, following proper safety procedures.** All products should be regularly inspected and maintained, and their condition, application and use should be periodically evaluated by qualified personnel. Only qualified and properly trained technicians should perform maintenance, repair and replacement procedures. Attempting these procedures without proper training may cause machine damage or operator injury!

Products may be unsupported by The Challenge Machinery Company due to age or the unavailability of parts from their original manufacturer. No parts or product support will be available to repair or maintain unsupported products. Older products may not be UL listed (if the product does not have a UL label it is not a listed product), and may not comply with applicable installation or other regulations or requirements if relocated to a new facility. Many municipalities require a product to be UL listed before an electrician will connect power to them. Often the cost of updating an older product to comply with current safety regulations is greater than the value of the product.

SAFETY ALERT

This safety alert symbol means CAUTION — PERSONAL SAFETY INSTRUCTION. Personal injury may result if safety precautions are disregarded and instructions are not carefully read before attempting to operate or repair this machine. See SAFETY PRECAUTIONS, page 2.

SERIAL NO. —	
VOLTAGE —	V
PHASE —	
AMPS —	
HZ (CYCLES) —	Hz A.C.
INSPECTED —	
MODEL —	

Instruction and Parts Manual

CHALLENGE

CHAMPION CUTTER SUPPLEMENT TO MANUAL F-250

This supplement covers machine models with serial numbers as follows:

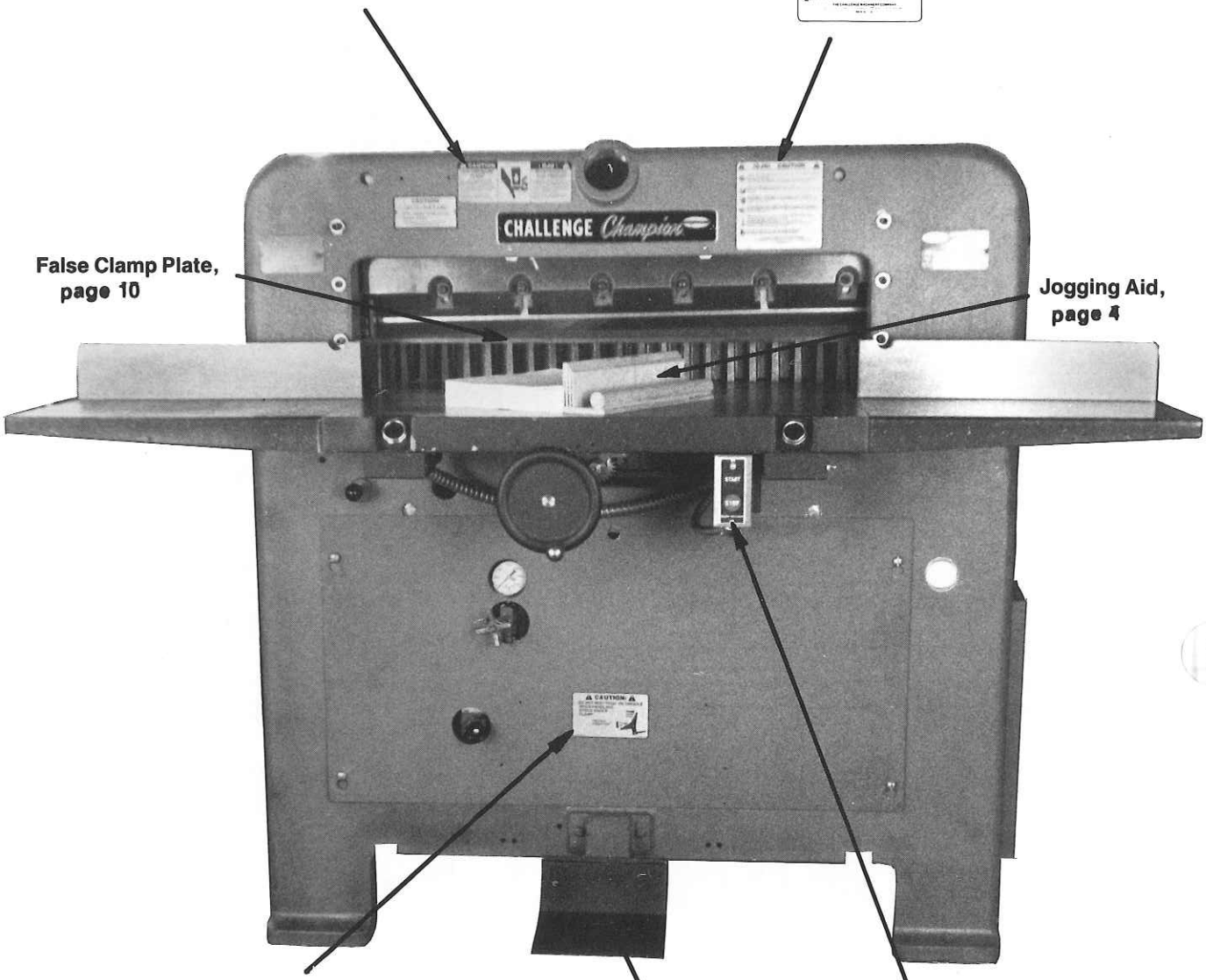
MODEL	SIZE	Serial Numbers
MB	230	1001 — 3707
	305	1001 — 3653
MC	230	1001 — 3412
	305	1001 — 3516

MODEL	SIZE	Serial Numbers
MB	230	1001 — 3707
	305	1001 — 3653
MC	230	1001 — 3412
	305	1001 — 3516

THE CHALLENGE MACHINERY COMPANY
1433 FULTON STREET / GRAND HAVEN, MICHIGAN 49417 / PHONE: 616/842-8300

CAUTION LABEL — Crush Hazard*

CAUTION LABEL — General Warnings*



False Clamp Plate, page 10

Jogging Aid, page 4

CAUTION LABEL — Foot Pedal Operation*

Foot Pedal, page 9

Power Lockout, page 13.

***NOTE: Attach CAUTION Labels included with Service/Safety Bulletin in locations shown.**

HIGH PRESSURE CLAMP BULLETIN F.250-S MANUAL SUPPLEMENT TO 230/305 MB & MC CUTTERS

TABLE OF CONTENTS

CAUTION: SAFETY ALERT SYMBOLS

(triangle) (knife) (clamp) (shock) (guards) (ill. 1)

The safety alert symbols shown above are used throughout this manual. They mean; CAUTION — PERSONAL SAFETY INSTRUCTION. Pay special attention to the following instructions, personal injury may result if safety precautions are disregarded and instructions are not followed. For additional safety precautions and a Power Lockout Procedure, see page 2.

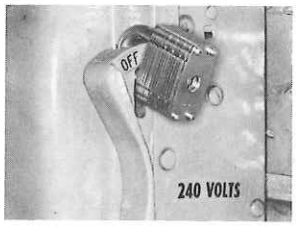
SAFETY PRECAUTIONS

⚠ This safety alert symbol means CAUTION — PERSONAL SAFETY INSTRUCTION! Read the instruction because it has to do with safety. Failure to comply with the following instructions may result in personal injury.

- **This machine is designed and safeguarded for ONE PERSON OPERATION! NEVER operate the cutter with more than one person.**
- **Safety of this machine is the responsibility of the user and the operator. Use good judgement and common sense when working with and around this machine.**
- **READ and understand all instructions thoroughly before using or servicing the cutter. If questions still remain, call your Authorized Challenge® Dealer — fingers and hands are too valuable to risk an accident.**
- **Only trained and authorized persons should operate the cutter. Turn the machine off and remove the key to prevent unauthorized use of the cutter.**
- **DO NOT ALTER SAFETY DEVICES OR GUARDS, they are for your protection and should not be altered or removed. Severe lacerations or dismemberment could result.**
- **DISCONNECT POWER before cleaning, lubricating, servicing or making adjustments not requiring power. Turn the power OFF and disconnect the power, see DISCONNECT PROCEDURE below.**
- **Lock the cutter when not in use, see ACCESSORY CONTROLS, page 12, for optional pushbutton lockout.**
- **Have your electrician make sure the cutter is properly grounded.**
- **Have your electrician make sure there is sufficient power to operate the cutter properly.**
- **Observe all caution plates mounted on this cutter, see photo inside the front cover of this supplement.**
- **Keep foreign objects off table and away from cutter blade.**
- **BE EXTREMELY CAREFUL when handling and changing the cutter knife. Severe lacerations or dismemberment could result from careless handling procedures, see Knife Change Procedure, page 5.**
- **Keep the floor around the cutter free of trim, debris, oil and grease.**
- **When replacing hydraulic parts, loosen the connections slowly to release pressure. Never loosen connections with the machine running.**
- **If the cutter sounds or operates unusually, turn it off and consult the SERVICE CHART in the manual, F.250, page 20. If the problem cannot be corrected have it checked by a qualified service person.**
- **CRUSH HAZARD — Keep feet off the foot pedal when handling paper near the clamp. Follow Loading and Unloading instructions on page 4 of this supplement.**
- **DO NOT RAISE CLAMP with pedal until knife has reached the up position. The blade will stop as the clamp rises, leaving the blade edge exposed.**
- **DO NOT OPERATE WITH ANY GUARDS REMOVED! Replace all guards after adjusting, lubricating or servicing the cutter.**

CAUTION — POWER DISCONNECT PROCEDURE

For maximum safety when changing the knife, cleaning, making adjustments or repairs to your machine, DISCONNECT THE POWER at the main power box to which the machine is connected. The switch should be thrown to the OFF position and a padlock placed in the loop. The only key should be held by the person servicing or maintaining the machine.



(fig. 1)

PRECAUCIONES DE SEGURIDAD

⚠ Este símbolo de alerta de seguridad significa ¡OJO! — INSTRUCCIONES DE SEGURIDAD PERSONAL. Lea las instrucciones porque se refieren a su seguridad personal. Falla de obedecer las instrucciones que siguen podria resultar en lesiones corporales.

- Esta máquina, junto con sus mecanismos de seguridad, está diseñada para ser manejada por UNA SOLA PERSONA a la vez. Jamás debe ser manejada por más de una persona al mismo tiempo.
- La seguridad es la responsabilidad del operario que usa esta máquina.
- LEA y entienda bien a fondo todas las instrucciones antes de poner a funcionar la guillotina. Si todavía tuviese alguna pregunta, favor de llamar al distribuidor autorizado de las máquinas Challenger — dedos y manos son demasiado valiosos como para arriesgarlos en experimentos.
- El manejo de la guillotina debe estar exclusivamente a cargo de personal entrenado y autorizado para ello.
- NO MODIFIQUE LOS MECANISMOS DE SEGURIDAD, estan ahi para su protección no deben ni modificarse ni quitarse.
- DESCONECTE LA CORRIENTE ELECTRICA antes de proceder a hacerle servicio de limpieza, engrasar, o de hacer adjustes que no requieren corriente. Trabe el interruptor en la posición OFF (apagado); vea "Procedimiento para cortar la corriente eléctrica" al pié de esta página.
- Eche llave a la guillotina y quite la llave cuando la máquina no está en operación
- Asegúrese de que la guillotina esté debidamente a tierra.
- Verifique el voltaje y asegúrese de que éste sea suficiente para el debido funcionamiento de la guillotina.
- Preste atención a todas las placas con advertencias instaladas en esta guillotina.
- No permita que objetos extranos estén en la mesa o cerca de la cuchilla cortadora.
- TENGA SUMO CUIDADO al tocar y cambiar la cuchilla. Heridas severas y hasta desmembramiento pueden resultar del manejo sin cuidado o negligente.
- El suelo alrededor de la guillotina debe mantenerse despejado y libre de recortes, desperdicios, aceite y grasa.
- Al haber la necesidad de reemplazar partes hidráulicas, afloje todas las conexiones poco a poco para dejar escapar la presion. Jamás debe aflojarse conexiones mientras la máquina esté andando.
- Si la guillotina empezara a sonar o trabajar diferentemente a lo acostumbrado, desconéctela y consulte la sección "Reparador" de este manual, F-250, página 20. Si no es posible corregir el problema, llame a su servicio autorizado para que le examinen la máquina.
- PELIGRO DE MACHUQUE No ponga los pies en el pedal sujetador de baja presión mientras esté manipulando papel bajo el sujetador.
- NO OPERE SIN LAS GUARDAS PROTECTORAS!
- NO SUBA EL SUJETADOR con el pedal sino hasta cuando la cuchilla haya regresado a la posicion de arriba, es decir que esté completamente levantada, pués la cuchilla se parara al no más empezar a subir el sujetador, dejando al descubierto el filo de la cuchilla.

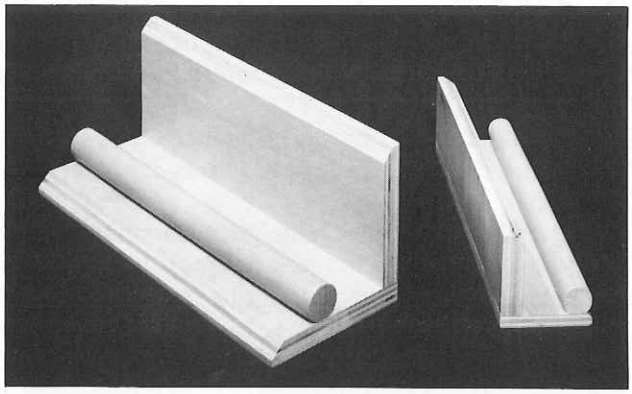
¡ OJO ! PRECAUCION — Como proceder para desconectar la corriente eléctrica.

Para máxima seguridad durante ajustes y reparaciones de su máquina, verifique bien que el interruptor principal de control de corriente al cual la máquina está conectada, esté desconectado. El interruptor deba ser puesto en la posición "OFF" (desconectado) y se debe poner un candado en la anilla. La llave del candado debe ser guardada por la persona que estará efectuando los trabajos de servicio o de reparación en la guillotina.

Desconecte la corriente eléctrica antes de proceder a hacer cualquier ajuste o reparación o de efectuar el engrase en cualquier máquina.

OPERATING PROCEDURES

Challenge now offers for sale a series of Jogging Aids, fig. 2, for loading stock. The use of the Jogging Aid allows the cutter operator to load and align stock without placing hands or arms under the clamp and knife area.

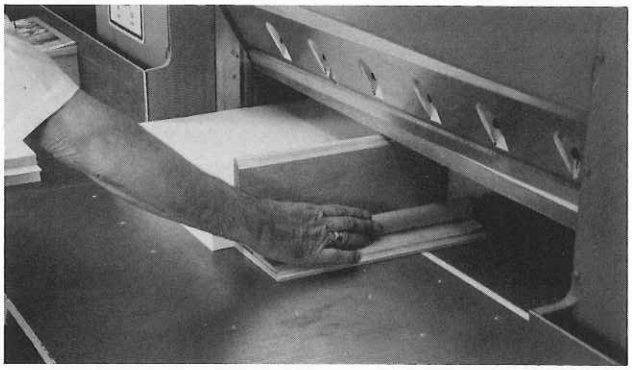


Jogging Aids **(fig. 2)**

LOADING

Load and align your stock against the side guide, fig. 3, then square it to the backgage, fig. 4, for cutting.

You can make your own (page 13) or purchase a high quality manufactured Jogging Aid by contacting your authorized Challenge Dealer.

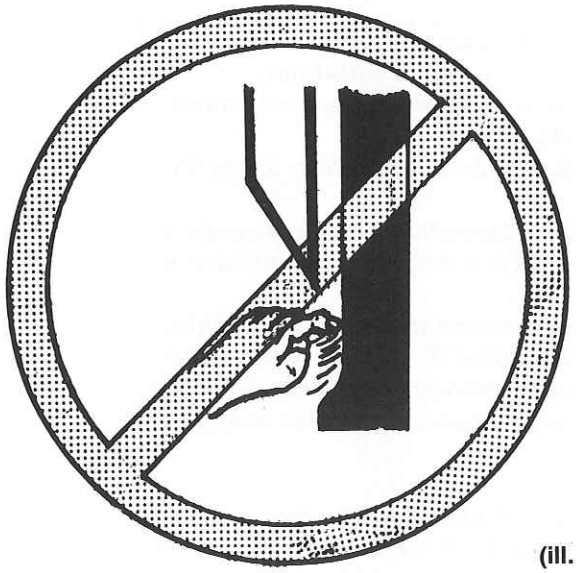


Load and Align **(fig. 3)**

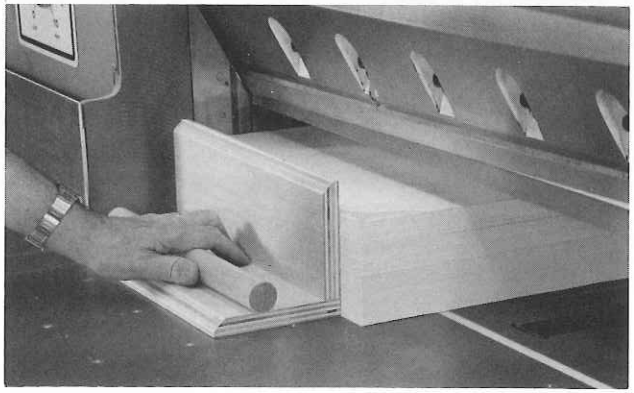
UNLOADING

DO NOT REACH UNDER THE KNIFE AND CLAMP TO REMOVE CUT STOCK!

Use the backgage controls to push your stock out beyond the knife and clamp area where it can be conveniently and more safely picked up.



(ill. 2)



Square to Backgage **(fig. 4)**

Due to static buildup, fine trim may have a tendency to stick to the clamp or knife surfaces, ill. 2. **DO NOT ATTEMPT TO REMOVE TRIM UNTIL THE KNIFE AND CLAMP HAVE STOPPED IN THE UP POSITION!** Fingertips might be drawn into the gap between the knife and clamp if this is attempted. Wait until the knife and clamp are **both** up before removing stock trim.

NOTE: After use, always lower the clamp with the foot pedal before shutting off the power. In case of knife drift, the blade edge will not be exposed below the bottom of the clamp.

⚠ CAUTION: On some MC models, the clamp will return to the up position when the power START button is pushed. Keep all hands and tools clear of clamp when starting.

KNIFE CHANGE PROCEDURE

⚠ CAUTION: Changing knives can be very dangerous unless safety precautions are observed and extreme care is taken when handling knives.

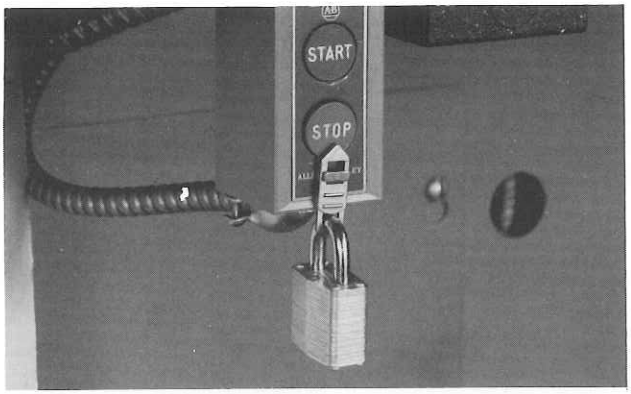
- **Knife changing is a one person operation! Having more than one person attempting to change knives invites accidents.**
- **Clear off cutter table and side tables before removing knife.**
- **Warn people of any unprotected knife.**
- **Make sure knife lifters are properly installed.**
- **Keep handling of unprotected knives to an absolute minimum.**
- **Have scabbard on cutter table, insert and attach knife immediately.**

Knife Removal:

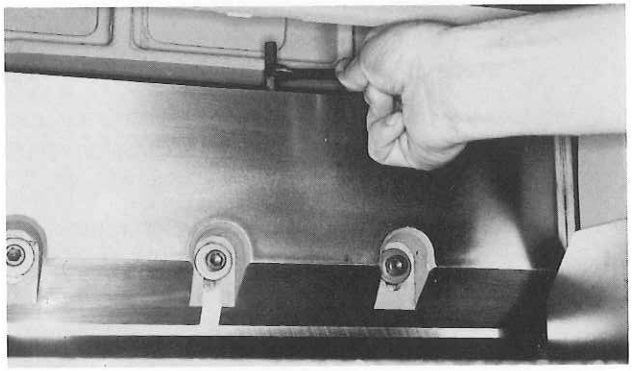
1. Clear off the cutter tables. Place the empty knife scabbard on the cutter table ready to accept the knife.
2. Run the knife and clamp down. Hold the pushbuttons down and press the STOP button to keep the knife down.
3. **DISCONNECT THE POWER.**
4. Lock the Paper Deflector down by turning in the lock knob beneath the table.
5. BACK OFF THE KNIFE ADJUSTING SCREWS on top of the knife bar. A new knife may cut deeper than an old one damaging the knife or cutter.
6. Reconnect the power and press the START button to raise the knife. Raise the clamp with the foot pedal.
7. **DISCONNECT THE POWER and LOCK IT OUT!** See Power Lockout Procedures on page 2 of this supplement.
8. Remove the knife bolts from the two slotted bolt holes in the knife bar and replace them with the knife lifters. Tighten the lifters securely to hold the knife.
9. Remove the rest of the knife bolts.

⚠ CAUTION: Knives are heavy and still very sharp. Be careful to keep the edge away from your body and keep other people out of the area while handling the blade. Severe lacerations or dismemberment could result from careless handling procedures.

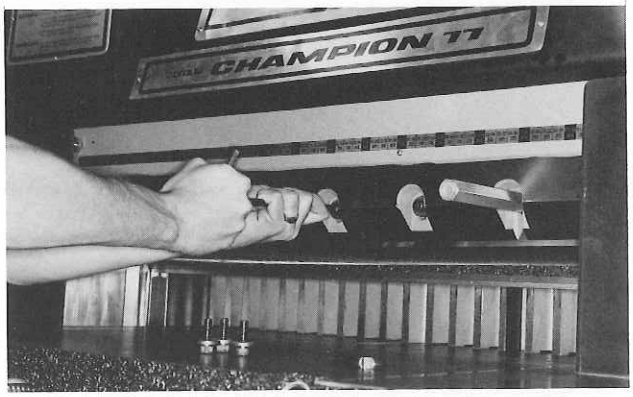
10. Grasp the knife lifters firmly and gradually loosen them until the knife is free. Lower the knife down and towards the right bringing the left end of the knife out first. Immediately put the blade in the knife scabbard and secure with the knife retainer screws.



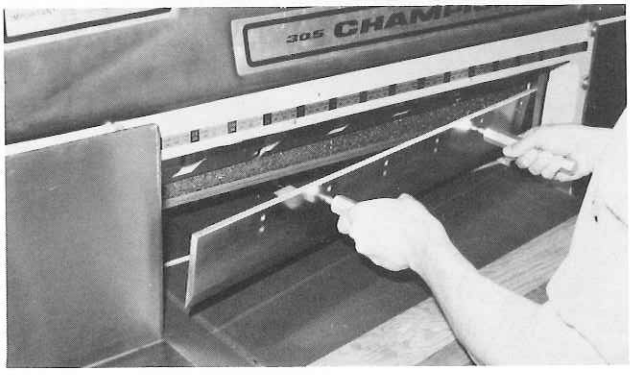
Power Disconnect **(fig. 5)**



Back Off Knife Adjusters **(fig. 6)**



Install Knife Lifters **(fig. 7)**

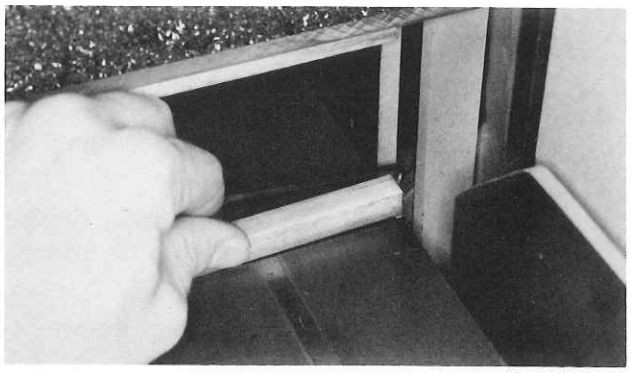


Remove Knife **(fig. 8)**

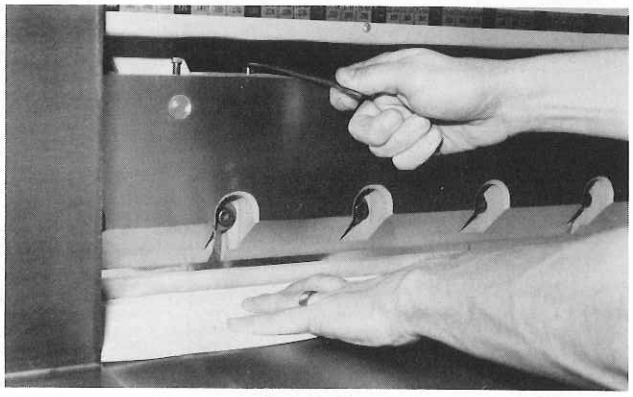
Knife Installation:

1. Back off the Knife Adjusting screws on top of the knife bar.
2. Place the new blade in its scabbard on the cutter table and remove the retainer screws.
3. Install the knife lifters in the knife bolt holes which correspond to the slots in the knife bar. Screw the lifters into the blade until they contact the scabbard, then back them out 1-1/2 turns.
4. Lift the blade and insert it into the knife bar slot. Raise the blade as high as it will go and tighten the lifters.
5. Install the knife bolts with washers into the remaining bolt hole locations. Snug these bolts to hold the knife but don't tighten completely. Remove the knife lifters and replace with knife bolts also.
6. Remove the cutting stick and turn it to a new surface. Now cover the stick end to end with several sheets of paper.
7. Reconnect the power to the cutter and press the power START button. Press the cut buttons to lower the clamp and knife. While holding the buttons down and with the knife in the down position, hit the STOP button.
8. Once again, **DISCONNECT THE POWER and LOCK IT OUT.**
9. Turn the Knife Adjusting screws down evenly to lower the knife parallel to the table. Continue to turn the Adjusters down until the knife cuts through the paper covering the cutting stick, fig.10.
10. Tighten all the knife bolts securely and release the paper deflector.
11. Reconnect the power, start the machine and raise the knife and clamp. Make several test cuts to see if the knife is cutting all the way through your stock the length of the cutting stick. Loosen the knife bolts and repeat Knife Installation steps 7-9 if necessary.

NOTE: If the ends of the knife cut but the middle doesn't, your knife and/or cutting stick may be uneven. This can be corrected by laying 1/2" strips of paper beneath the cutting stick to shim it up.



Turn Cutting Stick **(fig. 9)**



Set Knife **(fig. 10)**

OPERATING TIPS

- Use jogging aid to align stock — this will reduce the chance of an accident by not having to reach under the knife or clamp. Likewise, use the backgage to push out stock for removal.
- Never attempt to remove paper trim clinging to the clamp or blade until they have stopped moving!
- Carefully lay out each sheet before you start cutting. Find the best cut pattern to give you the most pieces out of the sheet. If the sheet will be folded, be sure the grain of the paper is running in the same direction as the fold or you will get a rough edge on the fold.
- If an accurate cut is necessary for close register work, you MUST have a sharp blade in the cutter. A dull blade will pull or draw the stock and cause uneven cutting.
- Clamp pressure should not be increased to eliminate draw without first checking for knife sharpness. Draw from a dull knife can only be eliminated by installing a sharp knife.
- Clamping pressure varies from stock to stock. The general rule is that you should have enough pressure to hold the stock securely but not so much that it marks the surface of the paper excessively. Excessive pressure causes pile distortion and inaccurate cuts.
- To make stock slide as easily as possible on the cutter table, wash the table down with non-offset powder or with a silicone/rust preventive.
- Mark the gripper edge and the guide edge of printed stock and make sure the first cuts are with these guide edges against the backgage.
- Measure printed stock to check for shrinkage or expansion of the paper from humidity. You may have to disregard the printed cut lines and make your own.

KNIFE CARE TIPS

DANGER: Knives are heavy and very sharp even after use. Be careful to keep the edge away from your body and to keep people out of the area while handling the blade. ALWAYS keep knives in a Knife Holder Scabbard when not in use to prevent damage to the knife and to prevent personal injury. Failure to follow safety procedures could result in severe lacerations or dismemberment.

- All Challenge cutters are supplied with 2 knives beveled at 23 degrees, flatground with a minimum of a #32 micro finish. This bevel is designed to be used in the average print shop with a variety of paper types. If your cutting needs are special, it may be helpful to send samples of your material to the Challenge Machinery Company for testing and recommendations.
- It is important to always have a SHARP knife. This is the only way to minimize draw. A sharp knife is essential for accurate cutting and a sharp knife prolongs machine life because it doesn't have to work as hard.
- Frequent light grinding of knives is recommended. This practice saves time needed to set the knife to the cutting stick, it keeps the knife in good condition, prolonging its life, and avoiding trouble caused by dull knives and inaccurate cuts.
- Several signs indicate the need for a knife change: the appearance of the cut, the sound of the knife passing through the stock, draw of the stock when cutting, and the presence of a burnishing on the face of the cut.
- A busy shop should have at least 3 knives so one can be in the cutter, one in reserve while another is being resharpened. It is always wise to have knives in reserve in case a blade becomes damaged or the knife sharpener gets too busy to get your blade out soon enough.
- ALWAYS keep knives in a Knife Holder when not in use to prevent damage to the knife and for safety reasons.
- If possible, schedule cutting to get the most out of each blade. Start out with easy-to-cut papers like bonds, then hard coated papers followed by chipboard. If chipboard is cut first, you may find yourself changing the knife after your first cutting job since chipboard can contain metal particles and wood chips that can ruin the edge with one cut.
- To make the cutting of hard, coated papers easier, try this: tie a rag around the end of a stick and dip it in a can with glycerine in it. Rub the rag on the knife bevel and it will lubricate the knife without staining the paper or messing up the printed material.
- When changing the knife, the new blade may be coated with light oil to prevent rusting. This should be wiped off CAREFULLY.
- The practice of honing new knives by the operator before installing them is usually not necessary and is very dangerous. Most knife sharpening companies will automatically hone the knife before sending it back to you. If they don't, ask them to. It's better to let the professionals do it than to risk cutting yourself.

CLAMP SPEED ADJUSTMENT

CAUTION: CRUSH HAZARD — HIGH PRESSURE CLAMP. Keep feet off the clamp pedal when handling paper under the clamp.

On **MC Models**, the speed of the foot operated manual clamp is determined by the amount of movement of the foot pedal. The more the pedal is depressed, the faster the clamp will descend.

A specific setup dimension is not identifiable so good judgement must be used when setting the clamp speed. The speed must be slow enough to allow the operator time to react to the downward motion of the clamp. At no time should the manual clamp speed be increased to the point where it causes a slamming action against the table.

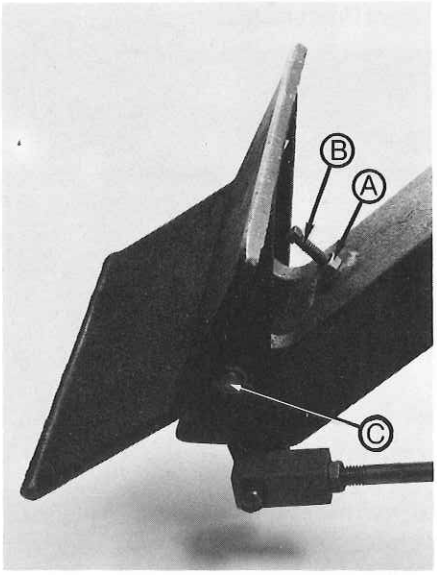
This setting should be included and checked in a routine maintenance schedule. It should be checked at least twice a year.

Failure to check and adjust this setting properly could result in operator injury!

Adjustment, fig. 11

1. Loosen the locknut "A."
2. Turn on the hydraulic power.
3. Turn adjusting screw "B" up towards pedal until the clamp does not move when the top of the pedal is pressed.
4. Start turning the adjusting screw back down until the clamp comes all the way down to the table at a **very slow speed**.
5. Tighten the lock nut, "A."

NOTE: If inconsistent clamp speed is noticed when stepping on various locations of the foot pedal, the pedal and pedal shaft pin 'C' must be replaced. Part No's. 4404 — Pedal and 4416 — Pedal Shaft.



(fig. 11)

On **MB Models** the speed of the clamp is controlled by a Hydraulic Flow Regulator (part no. 4061; item #48 pp. 8 & 9 of manual F. 250). This valve fixes the speed of the clamp.

If this valve should fail, it will most likely be because of dirt blockage. In this case, you would notice a very slow clamp descent. In the unlikely case it should fail in an open condition, the clamp would descend with a slamming action. Stop the cutter immediately and do not use it until the valve is replaced.

FALSE CLAMP PLATE

CAUTION: Never try to install or remove False Clamp Plate from the front of cutter. ALWAYS DISCONNECT THE POWER AND LOCK IT OUT before beginning (see Power Lockout Procedure, page 2).

To prevent marking on pressure sensitive jobs, a False Clamp Plate is available or may have been included as original equipment on your cutter. This plate attaches to the bottom of the clamp. It is secured with two wing nuts on connector rods which pass through the clamp, fig.12.

INSTALLATION

1. Run the clamp halfway down with the foot pedal and press the STOP button.
2. **Disconnect the Power and Lock it Out!** See Power Disconnect Procedure, page 2.

(fig. 12)

3. Install the plate from the **rear** of the arch. The locator pegs are positioned to the front of the cutter and are set into holes in the clamp.
4. Make sure that all hands are clear and no tools have been left on top of the clamp. Reconnect the power.

CAUTION: CRUSH HAZARD — On some models, the clamp will automatically return to the up position as soon as the START button is pushed. Keep hands and tools clear of the clamp as the Hydraulic Power START button is pushed.

5. Press the START button to reconnect the power and raise the clamp.
6. Press the STOP button if machine will not be used immediately.

MAINTENANCE

LUBRICATION

CAUTION: Disconnect power and lock it out before cleaning, lubricating, adjusting or servicing. See Power Lockout Procedure, page 2.

A clean, lubricated machine will run longer, smoother, cut more accurately with less downtime and fewer costly repairs. Schedule lubrication maintenance both early in the day and early in the week. This allows the lubricants to work into the machine. Lubrication at the end of the day or week allows the lubricants to run off without any benefit to the machine.

Clean off old, dirty excess grease. Clean accumulated dust off valves, hoses, and connections. Dust buildup increases operating temperatures and causes premature wear of all hydraulic components.

Oil and Grease Points — WEEKLY

All parts should be oiled manually with S.A.E. 30 weight oil. Oil locations are marked with red paint. Run the knife down and lock out the power, (see page 2, Power Lockout Procedure). Remove all panel covers and look for all oil locations.

Replace all guards when finished.

CAUTION: DO NOT OPERATE CUTTER WITH ANY GUARDS REMOVED!

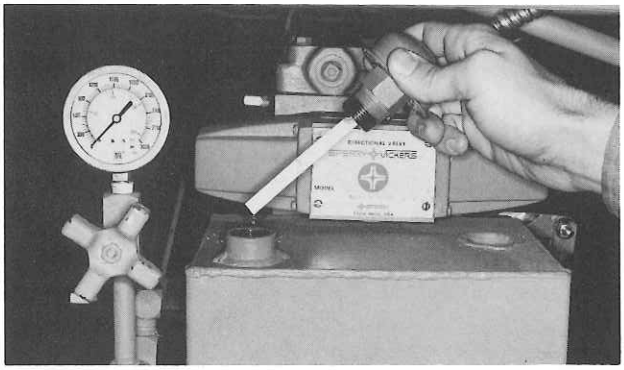
HYDRAULIC SYSTEM

The Champion Cutters have hydraulic cutting and clamping operations, each powered by individual hydraulic cylinders. The system is powered by an electric motor coupled directly to a vane type hydraulic pump.

The clamp cylinder acts on a bell crank linkage which evenly lowers the clamp when either the cut buttons (MC models with Auto Cycle) or the foot pedal (all MB & MC manual operation) are pressed.

The knife cylinder is connected directly to the knife bar. One advantage of the hydraulic system is the immediate return of the knife to the up position if either or both cut buttons are released. Instead of stopping in place, the knife immediately returns to the up position, reducing stock spoilage or the chance of operator injury.

Fluid Check



(fig. 13)

Check the level of the Hydraulic Reservoir **WEEKLY** or whenever the machine sounds like it is laboring (this could be due to low oil level). The breather cap of the tank has a dip stick attached so you can check the oil level, (fig.13) Screw the cap all the way in for an accurate reading. Do not overfill as this may cause leakage when machine is hot.

Fluid Change

The hydraulic fluid should be changed **YEARLY** or after **every 1000 hours** of operation.

NOTE: Failure to change oil when required can damage the seals in the clamp and knife cylinders.

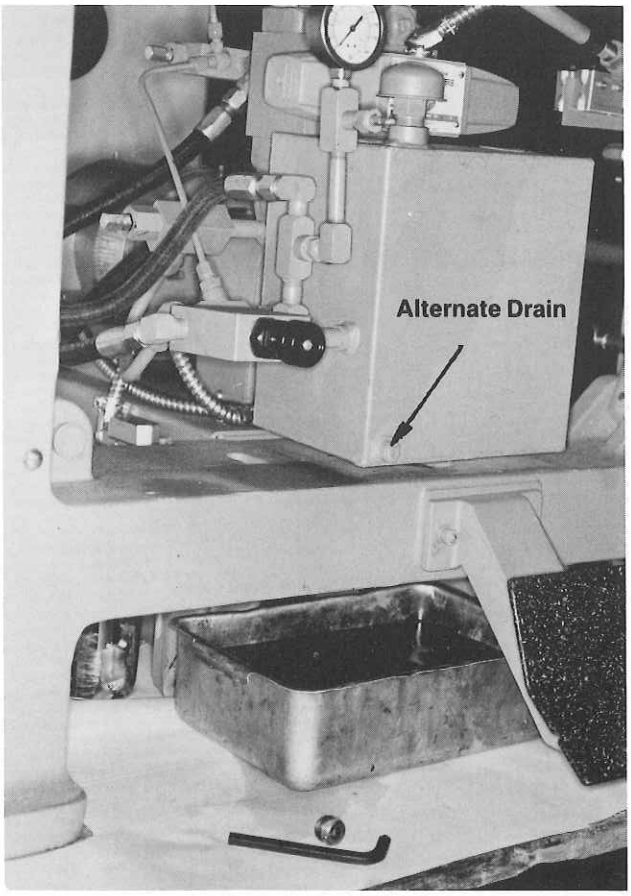
Recommended Oils

Refill the tank with International Standards Organization Viscosity Grade 46 (I.S.O. VG-46) rust, oxidation and foam inhibiting hydraulic oil. A table of various manufacturers and their equivalents is listed below.

Oil Name	Distributor
Rykon No.46	AMOCO
Industron 46	Std. Oil Indiana/Boron
BP Energol HL-EP 46	British Petroleum Oil Inc.
Press Oil M10+	Anchor/LithKemco
Pacemaker XD No.46	Citgo
Terrestic 47	Humble Oil Co.
DTE No.25	Mobil Oil Co.
Tellus No.46	Shell Oil Co.
EP Hyd. Oil No.46	Chevron
Noto No. H-46	Exxon
Duro AW Oil S-215	Arco
Super Hyd. Oil No.46	Continental Oil
Hyd. Oil No. 531-MW	Sunoco
Rando Oil HD No.46	Texaco
Magnus A Oil 215	Phillips
Unax AW No.46	Union Oil Co.

⚠ CAUTION: NEVER use Automatic Transmission Oil or Brake Fluid as a substitute! Oils other than the recommended type will cause seals, cups and O-rings to deteriorate. Unsafe operating conditions will result.

Draining



(fig. 14)

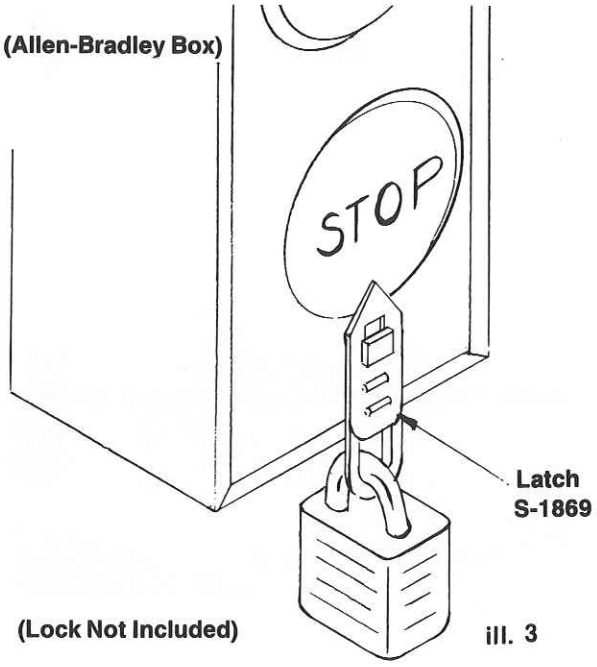
Place a proper capacity pan (see manual F. 250) below the hydraulic reservoir behind the foot pedal, fig.14 Remove the socket head pipe plug from the bottom of the tank and drain. (Alternate drain plug located on front lower left hand corner of tank).

ACCESSORY MACHINE CONTROLS

CLAMP CONTROL, TWO-HAND CONCURRENT PUSHBUTTONS

As an additional safety measure, a field kit may be purchased which requires both hands to bring the clamp down. Much like the knife cut buttons, it keeps hands away from the knife/clamp area during activation.

PUSHBUTTON BOX LOCKOUT LATCH



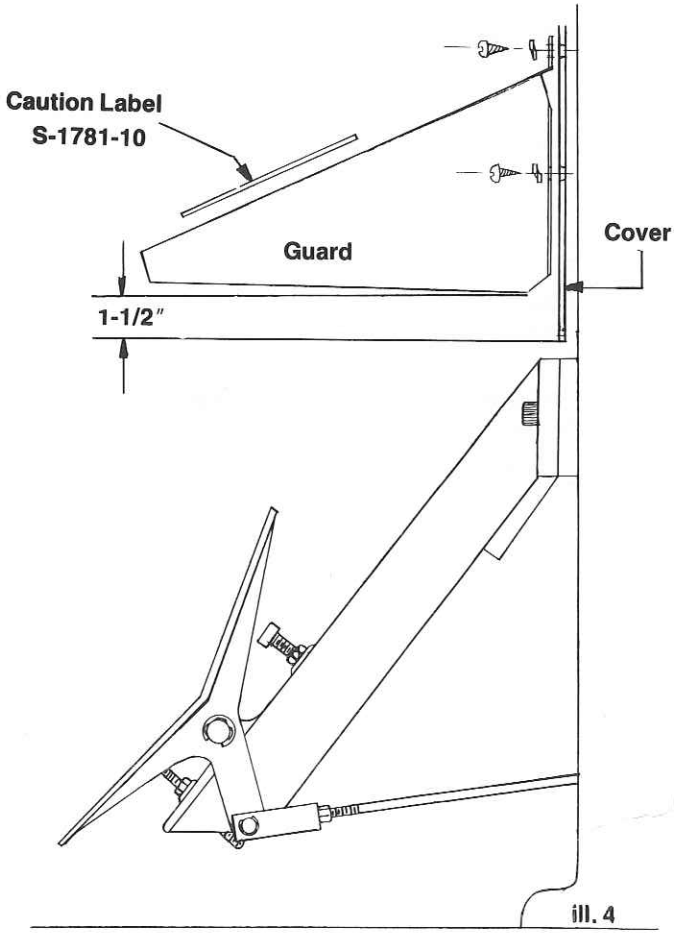
ill. 3

This item, ill 3, may be purchased and installed on the start/stop pushbutton station to prevent unauthorized use of the cutter by persons unfamiliar with safe operating procedures.

TREADLE GUARD, AA-4400-8

A guard is available and may be purchased from your Challenge Dealer to prevent unintended activation of the foot clamp.

Installation is a simple matter. Use the guard as a template to mark the screw locations as shown, ill. 4 Drill (5) 5/32" holes in these locations and attach the guard with the sheet metal screws and lockwashers provided.

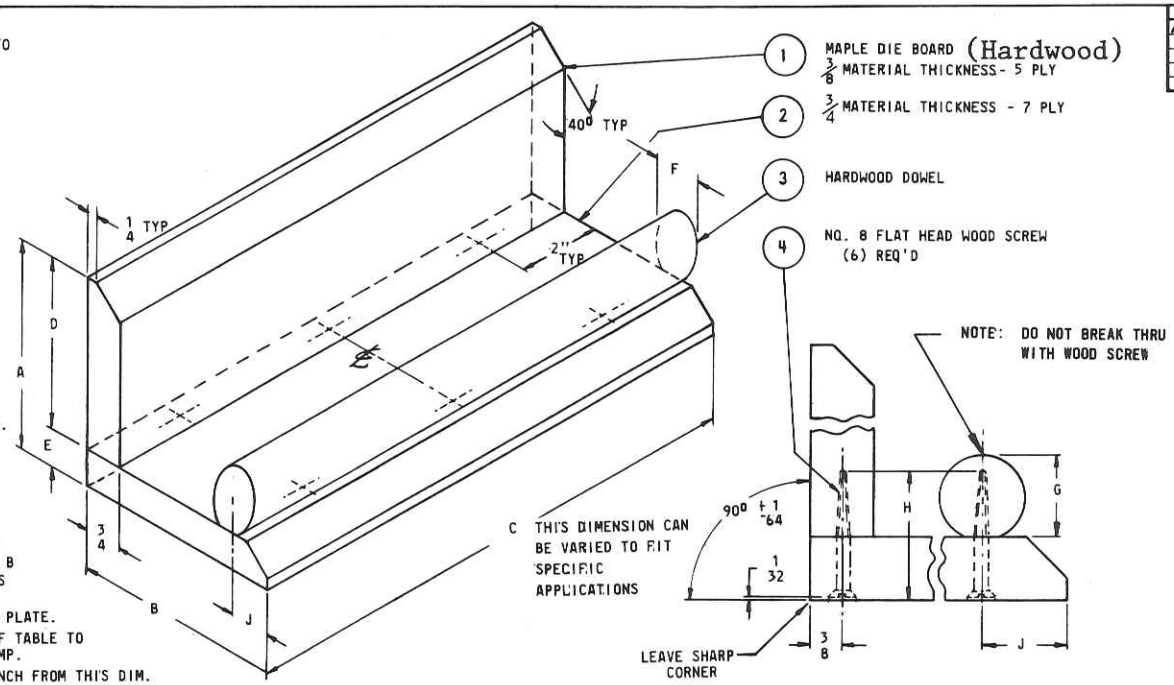


ill. 4

DATE	SYM	REVISION RECORD	ECO/TR	APP'D	DR.
12-11-84	—	RELEASED FOR PROD. (NO ECN)		D	W

INSTRUCTIONS

1. CUT WOODEN PARTS TO DESIRED LENGTH.
   SAND SURFACE.
   REMOVE SHARP EDGE EXCEPT AS NOTED.
2. SCREW ALL PARTS TOGETHER SECURELY USING WOOD GLUE BETWEEN MATING SURFACES
3. TO AVOID WARPING APPLY PROTECTIVE COATING.
   2 COATS SANDING SEALER
   2 COATS CLEAR LACQUER OR EQUIVALENT
   SAND LIGHTLY BETWEEN COATS.
4. STORE IN DRY PLACE.



NOTE!

FOR CLAMP OPENINGS NOT LISTED, DIMENSIONS A & B ARE TO BE DETERMINED AS FOLLOWS:

1. REMOVE FALSE CLAMP PLATE.
2. MEASURE FROM TOP OF TABLE TO BOTTOM FACE OF CLAMP.
3. SUBTRACT 3/8 OF AN INCH FROM THIS DIM.

PART NUMBER	CLAMP OPENING (REF.)	A	B	C	D	E	F	G	H	J	K
A-12608-1	2-1/2	2 1/8	2 1/8	12	1 3/4	3/8	1	15/16	1 1/4	1/2	
A-12608-2	3-1/4	2 7/8	2 7/8	12	2 1/2	3/8	1	15/16	1 1/4	1/2	
A-12608-3	3-1/2	3 1/8	3 1/8	12	2 3/4	3/8	1	15/16	1 1/4	1/2	
A-12608-4	4	3 5/8	3 5/8	12	3 1/4	3/8	1	15/16	1 1/4	1/2	
A-12608-5	4-1/2	4 1/8	4 1/8	14	3 3/8	3/4	1 1/4	1 3/16	1 3/4	2	
A-12608-6	5	4 5/8	4 5/8	14	3 7/8	3/4	1 1/4	1 3/16	1 3/4	2	
A-12608-7	5-1/2	5 1/8	5 1/8	14	4 3/8	3/4	1 1/4	1 3/16	1 3/4	2	
A-12608-8	6	5 5/8	5 5/8	14	4 7/8	3/4	1 1/4	1 3/16	1 3/4	2	
A-12608-9											
A-12608-10											

PART NUMBER	CLAMP OPENING (REF.)	A	B	C	D	E	F	G	H	J	K
A-12608-11											
A-12608-12											
A-12608-13											
A-12608-14											
A-12608-15											
A-12608-16											
A-12608-17											
A-12608-18											
A-12608-19											
A-12608-20											

NOTICE

WHEN SELECTING A JOGGING AID FOR A PARTICULAR SIZE CUTTER BE SURE DIMENSIONS A & B ARE 3/8" LESS THAN THE CLAMP OPENING, (MINUS FALSE CLAMP PLATE) DO NOT DEVIATE.

USED IN

DO NOT SCALE DRAWING.

DE-BURR SHARP EDGES UNLESS OTHERWISE SPECIFIED

TOLERANCE ON DIMENSIONS NOT OTHERWISE SPECIFIED
TWO DIGIT DECIMAL EQUALS PLUS OR MINUS .010
THREE DIGIT DECIMAL EQUALS PLUS OR MINUS .005
FRACTION 1/64

ANGULAR LIMITS ± 1°

NO.	PART NO.	DESCRIPTION OF ACCESSORIES	NO. USED
MATERIAL	ASSEMBLY ~ PURCHASE		1

NAME OF PART

JOGGING AID

CHALLENGE PAPER CUTTER

DRAWN	W
TRACED	
CHECKED	DMW 12-11-84
SUPERSEDES DRAWING NO.	

THE CHALLENGE MACHINERY COMPANY
GRAND HAVEN, MICHIGAN

SCALE NONE DATE 10-15-84

SUPERSEDED BY DRAWING NO.

A-12608-( )

DE-16

THE CHALLENGE MACHINERY COMPANY

1433 FULTON • GRAND HAVEN, MI 49417 • PHONE (616) 842-8300 • TELEX NO. 228409