Instruction Bulletin for
D-45A & D-45F double miter saw

CTD 10" & 12" Cut-Off Saws Models D-45 AUTOMATIC & D-45 FOOT:
The CTD saw you have purchased is designed to cut wood, alumi-
num, and plastic, with, of course, the proper blade and con-
ditions. For the material you are cutting, please refer to
the cutting instructions for each material type. The D-45
uses a NEMA 56 Frame 1 1/2 H.P., 3450 RPM, 60 HZ, TEFC motor.
CTD uses a speed-up drive so that the blade will run at ap-
proximately 9500 SFPM on a 10" blade, and 11,400 SFPM on a
12" blade.

IMPORTANT: Before operating the saw, please be sure to read
the "SAFETY INSTRUCTIONS TO THE OPERATOR" below.

SAFETY INSTRUCTIONS TO THE OPERATOR:
1. Know your CTD saw. Read the operator's manual carefully. Learn the operation, applica-
tion, and limitations, as well as the specific potential hazards peculiar to this machine.
2. Avoid accidental starting. Make sure switch is OFF before plugging in power cord.
3. Always use a plug equipped with a ground.
4. Always keep blade guard in place. Do not wire-up or chain-up, so that blade is exposed.
5. Be sure all unnecessary tools are removed from machine before turning on power.
6. Use safety goggles. Also use a face or dust mask if operation is dusty.
7. Support work. To maintain control of work at all times, it is necessary that material
be level with cutting surface.
8. Wear proper apparel. Do not wear loose clothing or jewelry. Do not wear a tie or gloves.
These items can get caught in the moving parts of the machine.
9. Do not overreach. Keep your proper footing and balance at all times.
10. Maintain your machine in top condition. Use proper blades. Clean machine weekly for pro-
er maintenance.
11. Keep work area clean. Cluttered areas, benches, and slippery floors invite accidents.
12. Avoid dangerous environments. Keep work area well illuminated.
13. Wear ear protection if exposed to long periods of very noisy shop operations.
14. Keep visitors away. All visitors should be kept a safe distance from work area.
15. Do not force the machine. The saw will do a better job and be safer to operate at the
speed for which it was designed. Forcing the saw can be very hazardous to the operator.
16. Use recommended accessories. Use of other accessories may be hazardous. Consult the
operator's manual or CTD for the proper accessories.
17. Do not drown the blade using a steady stream of coolant when cutting non-ferrous materials.
Only spray the work to cool it.
18. Be sure to use the proper blades for the particular material to be cut.
19. Disconnect power cord before adjusting, servicing, and before changing belts or for in-
stalling accessories.
20. Safety is a combination of operator COMMON SENSE and ALERTNESS at all times when the
machine is being used.
21. WARNING!! DO NOT ALLOW FAMILIARITY (GAINED FROM FREQUENT USE OF YOUR SAW) TO BECOME
COMMON PLACE. ALWAYS REMEMBER THAT A CARELESS FRACTION OF A SECOND IS SUFFICIENT TO IN-
FLICT SEVERE INJURY.

CTD MACHINES, INC.
2300 E. 11th Street / Los Angeles, Calif. 90021 / (213) 689-4455
ELECTRICAL:
The D-45 uses two 1½ H.P. single or three phase, 3450 RPM, 60 HZ TEFC motors on a NEMA 56 Frame. CTD uses a speed-up drive so that the blade will run at 3700 RPM. A disconnect switch should be provided and the machine disconnected before blades are mounted, or at any time the machine is serviced, or the blade is exposed. For motor protection against voltage fluctuations, a Dual Magnetic Starter is provided as a standard feature. This starter protects the motor from overheatings and will not allow the motor to restart by itself after power outages.

The blade must rotate down, and to the rear of the machine on the underside of the blade (see diagram "D"). If single phase motors are used and a change in rotation is necessary, reverse the #5 & #8 wires in the electrical box on the motor. When using 3 phase power without a magnetic starter, reverse 2 of the 3 wires in the electrical box on motor. When using a magnetic starter, and a rotation change is necessary, reverse any 2 of the 3 incoming power wires. If using a cord and plug, a green ground wire and a grounded plug must be used. A qualified electrician is suggested.

![Magnetic Starter Box Diagram]

**Magnetic Starter Box Diagram**

**Overload Blocks**

**Motor Load Amperes**

<table>
<thead>
<tr>
<th>Motor</th>
<th>110 Volt</th>
<th>220 Volt</th>
<th>440 Volt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 H.P., 1 Phase</td>
<td>15 amps</td>
<td>7.5 amps</td>
<td>N/A</td>
</tr>
<tr>
<td>1½ H.P., 1 Phase</td>
<td>20 amps</td>
<td>10 amps</td>
<td>N/A</td>
</tr>
<tr>
<td>1½ H.P., 3 Phase</td>
<td>N/A</td>
<td>4.6 amps</td>
<td>2.3 amps</td>
</tr>
<tr>
<td>2 H.P., 1 Phase</td>
<td>25 amps</td>
<td>12.5 amps</td>
<td>N/A</td>
</tr>
<tr>
<td>2 H.P., 3 Phase</td>
<td>N/A</td>
<td>5.4 amps</td>
<td>2.7 amps</td>
</tr>
</tbody>
</table>

ELECTRICAL INSTALLATION OF POWER TO STARTER BY QUALIFIED ELECTRICIAN

**Single Phase Motors:** Bring power line to box and connect leads to L1 (line 1) and L2. Green ground wire must be grounded to the enclosure.

**Three Phase Motors:** Bring power line to box and connect leads to L1, L2, and L3. Green ground wire must be grounded to the enclosure. BE SURE TO CHECK ROTATION, AS POLARITIES MAY BE DIFFERENT. If a rotation change is necessary, reverse any two of the incoming power wires.

BLADE INSTALLATION:

Before setting blades on spindle, shut off or disconnect air supply. With motor OFF and power disconnected; raise up blade guard by unlocking knob. Raise blade guard straight up until pin releases from support.

1. Remove spindle nut and flange.
2. Place blade on spindle with tips pointing down.
   A. The blade must ALWAYS rotate to the rear of the machine on the underside of the blade (see diagram "D").
3. Replace flange and nut as before and tighten (refer to diagram "B").
4. If blades were purchased from CTD, your machine has been set with your blades. If not, blade diameters may vary, so;
   A. Position the arms so that the centerline of the spindles are 2" above the table (see diagram "D"). A ⅜" thick spacer placed between the spindle nut flat and the table will bring the centerline up to 2"). It is at this position that the two blades are the closest together.
5. Set blades as shown in diagram "A" about 1/16" apart.
   A. Loosen three hold down bolts on pivot bracket and move the entire arm and pivot assembly in or out of its original position as needed in the keyway.
   B. Tighten three hold down bolts after positioning heads.
6. Use this method of setting blades ONLY. If blades are set at table level, they will contact each other on the upstroke. This can cause severe damage to the blades.
ROTATION:
Both blades must rotate to the rear of the machine on the underside of the blades (see Diagram "D").

Blade Guard--It is important that the blade guard is adjusted to completely cover the blade. The finger-guards, attached to the main blade guard, should be positioned around the material to give maximum operator protection. The blade guard can be raised by loosening the locking hand knob and lifting the guard vertically. A pin in the blade guard support will release to support the guard and give enough clearance to change blades. After changing blades, push in the pin and slowly lower guard. Push down guard to stop and lock hand knob. BE SURE TO PROVIDE CLEARANCE BETWEEN THE BLADE GUARD AND THE TOP OF THE BLADE AT THE TOP OF THE STROKE.

This label is attached to the blade guards. NEVER PUT HANDS OR FINGERS NEAR OR UNDER THE MOVING BLADE. Use a piece of wood to remove short pieces from saw.

EMERGENCY REVERSE: A reverse valve is located below start/stop button on left side of machine. By pushing this valve, the stroke is reversed and the arms return to their rest position. See Diagram "D".
PULL RODS: (see No. 17 above)
The pull rods are tapped left and right, and operate as a turnbuckle. By loosening the
lock nut, and turning the pull rod, the blade is adjusted up, or down from its original
position. A turn to the right shortens the pull rod length. A turn to the left lengths
the pull rod. This adjustment may be necessary after replacing or resharpening blades.
It can also eliminate tear-out on wood mouldings. **Do not adjust safety upstroke bolt to
contact table. (For safety purposes only.)

45° ANGLE ADJUSTMENT OF BLADES:
All D-45's are preset at the factory for perfect double mitre cuts. If adjustments are
necessary, an eccentric pin is located at the rear of the pivot bracket (see diagram "C").
Follow instructions under Blade Installation and set arms 2" above the blade. Loosen both
lock bolts and the three hold down bolts on the pivot bracket. Carefully adjust pin. A
draftsman's 45° triangle should be used to reset and align saw heads to the fences.

ASSEMBLY OF TABLES AND GAGES: The floor stand must be shimmed and leveled, and, if neces-
sary, bolted to the floor to eliminate vibration. To connect table or conveyor;
1. Assemble leg to table with nuts and bolts provided. The hole in the top of the table
should be toward the front and farthest away from the blade to attach fence support
angle.
2. Attach table to machine on angle bracket provided and level (see diagram "E").
ATTACHING FRONT FENCE GAGE AND RABBIT ANGLE: (refer to diagram "F")

1. Place Extended Fence Length Gage, 5/8" thick Cold Rolled Steel, on table. Bolt through front fence angle. Adjust fence gage so measurement rule is set correctly:
   A. With a scale or ruler touching the side of the tips of the blade, measure a distance away from blade. Be sure the ruler and the tape on the fence gage read the same.
   B. Adjust fence, left to right, as necessary.
   C. Both fences, left and right, must be in perfect alignment. Use a long straight edge for this purpose.
   D. Attach fence support angle to fence and table.

2. Place aluminum angle with slide into keyway. It is necessary to remove hand knob from slide.
   A. Move angle forward to front fence and square up.
   B. Place knob through slot in base and attach with special tab washer. When rabbit angle is square against front fence, both measurement rules should read the same.
   C. Adjust rabbit angle on slide as necessary by loosening bolts on rabbit slide.

3. How to use Rabbit Gage: (Be sure to read Cutting Instructions)
   A. Feed stick length with 45° mitre past right blade.
   B. Slide aluminum angle under rabbit of wood moulding and move moulding to desired dimension.
   C. Move outside stop and clamp to that point and lock.
   D. Slide rabbit angle back and cut.
D-45A AIR SYSTEM: (not for D-45F)

AIR SUPPLY--The air supply must be turned off and all electrics disconnected before making adjustments on the power feed. A working pressure of 80-100 PSI (pounds per square inch) is required. An industrial-type compressor of at least 3 CFM (cubic feet per minute) is recommended. An additional 3 CFM is required for Spray Mists. A conveniently located valve should be supplied by the user to shut off the air line. ARMS SHOULD BE RAISED OR LOWERED BY HAND WHEN SETTING UP MACHINE.

5 Oz. TRIO--An Air Filter/Regulator/Lubricator is installed ahead of the air inlet to the machine. This system prevents foreign matter from entering the system. It also provides lubrication in the air supply which prevents valves and cylinders from sticking. The 5 Oz. Trio is comprised of three different components:

1. The air filter bowl is located on the left side and is provided with an automatic dump. This collects and then releases foreign matter and condensation collected by the air filter.

2. The Pressure Regulator, which is the center mechanism, controls the amount of air pressure allowed into the system. An operating pressure of between 80-100 PSI is required. (This is set at the factory.)

3. The Lubricator Bowl is located on the right side of the trio. It allows a small amount of light hydraulic oil (10 weight) into the air system to keep the air valves lubricated. One drop of oil per 20-30 strokes is all that is required. All machines are adjusted at the factory. Be sure that the lubricator is filled regularly. Check every week.

DIAGRAM "G"

POWER FEED SPEED CONTROL--The downstroke speed is controlled by the bottom Flow Control Valve No. 18. The upstroke is controlled by the top Flow Control Valve No. 19. Both are located on the left hand side of the machine, and are connected to a 4-Way Double Pilot Valve No. 20.

AIR CLAMPS--Horizontal or Vertical Air Clamps can be purchased as an optional extra and are recommended when cutting aluminum. They are controlled by a 3-Way Valve mounted on the bottom of the Power Feed Unit No. 3. When the machine is in rest position, the Upstroke Clamp No. 5 contacts the 3-Way Valve. As soon as the power feed is tripped by the Foot Valve, the 3-Way Valve is released to actuate the clamps. A manual shut-off for the clamps can be provided upon request from the factory.

FOOT VALVE--The Foot Valve actuates the saw heads downward. The stroke can be terminated at any time by pushing the Reversing Valve located at the front of the blade guard No. 16. Since the Foot Valve rests on the floor, it is important to clean it regularly, as debris from cutting can make its way into the valve causing improper function. The Foot Valve needs only to be tripped by pressing on it. Do not maintain pressure on the foot pedal, as the saw cannot reverse stroke.
TROUBLE SHOOTING THE PNEUMATIC SYSTEM FOR THE D-45 CUT-OFF SAW:

If there is no control over the power feed stroke;
A. Replace either No. 19 Upstroke Flow Control Valve, or No. 18 Downstroke Flow Control Valve.
B. If machine will not start a cycle, or will not reverse, check all 3-Way Valves No. 9 and No. 16. To do this, depress the button. Listen for the valve to bleed air out of the line. If valve will not bleed off air, replace the valve. If valves function properly, the probable cause is a stuck 4-Way Valve No. 20. Disconnect electricity and air supply from the machine. Manually move saw heads down and back to check for binding of the saw arms or feed mechanism. If the machine is bound up, clear the blockage.
C. 4-Way Valve--A 4-Way Valve is a valve that merely changes the direction of the cylinder. To function properly, the valve must be cleaned internally. To clean the valve;
   1. Mark all lines connected to the valve so they can be easily replaced.
   2. Disconnect the lines and remove the valve from the machine.
   3. To disassemble valve, remove the end caps from each end (blue color).
   4. Use 1/8" pin. Push spool out of valve being careful not to disturb O-Rings and their spacers.
   5. Clean and inspect spool.
   6. Clean and inspect end caps for dirt or scoring.
   7. Coat moving parts with a light oil and reassemble. When replacing spool, if it still feels difficult to move, the O-Rings might have become swollen and should be replaced.
   8. Reassemble the valve and install on machine.

DIAGRAM "H" MODEL D-45A AIR CIRCUIT PIPING DIAGRAM
LENGTH OF STROKE ADJUSTMENT:
The D-45 is unique in that the travel of the air cylinder can be adjusted to stroke only the length needed to cut a particular moulding. Example—the highest moulding to be cut is 2" high. To adjust the stroke:
1. Shut off air supply and disconnect power.
2. Manually lower saw blades so that they are 1/2" above the work.
3. Adjust Upstop Clamp No. 5 to contact Accessory Valve No. 3 (see diagram "D").
   A. Loosen upstop clamp by using a hex wrench on socket cap screw.
   B. Move upstop block upward on cylinder shaft to contact accessory valve, closing the valve.
   C. Tighten socket cap screw at this position.
4. The blade will now return to this height.
5. Adjust the Reverse Block No. 13 down on Reverse Rod No. 12, to contact Reverse Lever No. 11 as soon as the blades have cut through the work.
You have now eliminated wasted motion and time, thereby increasing production. Always provide a safe distance between the blade and the work. Readjust the blade guard whenever the clamp is changed to make sure the blades are completely covered.

CUTTING:
A fixed double mitre saw, such as the D-45, operates by making two 45° cuts at one time. The machine "Y" notches the piece of material between the two blades. To make the first cut on a stick length; (see diagram "I")
1. Feed the material to the centerline of the machine so that only the left blade makes a trim cut. Be careful not to overfeed beyond the centerline of the machine, as the piece can be hit with right blade and possibly thrown into the saw blade causing damage.
2. After making the trim cut, feed the material (now with a 45° mitre cut) to the stop at the desired length. If using a Rabbet Gage, slide angle under rabbet of moulding and move moulding to desired dimension. Move outside stop to same position and lock (see diagram "J").
3. Continue to feed length to stop as above, and make double mitre cuts until length is used.
CUTTING SPEED:
The blade is rotating at approximately 3700 RPM. When moving the blade through the material, the blade must NEVER be allowed to dwell in the work. If fine finishes are required;
1. Use a sharp blade.
2. Use a constant, even pressure when cutting through the material.

SPRAY MIST APPLICATOR:
The Spray Mist Applicator is used when cutting aluminum. Lubrication is essential. Use a soluble oil mixed 10 parts water to 1 part oil. The fluid container (supplied by the user) should be placed just below the level of the spray head. The fluid must be clean or the spray heads will clog. To clean the Spray Mist Applicator, DO NOT REMOVE NEEDLE, or clogging may occur between the air nozzle and the fluid nozzle. Remove both polyfio lines, remove body from mounting rings, and clean by removing air nozzle, then removing fluid nozzle and blow air through fluid nozzle. Do not blow through needle hole, as this will cause internal parts to be lost.

Part No. B3P95 Complete Spray Head Assembly
(less polyfio fittings)

Miscellaneous Spray Head Parts:
1. Spray Head Needle
2. Spray Head Spring
3. Spray Head Washer
4. Spray Head Packing
5. Spray Head Fluid Nozzle
6. Spray Head Air Nozzle

CLAMPING AND WORK SLAPPAGE:
The work must never be allowed to move or vibrate as it is being cut. When the work is positioned against a stop, it must be clamped. Never allow unclamped work between the blade and the stop. CTD offers both horizontal and vertical clamps. The horizontal clamp pushes the material forward against the front fence. Vertical clamps hold the material down against the table base. Both clamps are offered as optional extras and are highly recommended. The clamps are actuated at the same time as the saw heads by depressing the foot valve.

CUTTING ALUMINUM:
As with cutting any material, it is important that aluminum be clamped properly. Precision blades are required for accurate cutting. CTD suggests and uses a Triple Chip Grind on all its non-ferrous carbide blades. When cutting aluminum, or other non-ferrous materials, blades must be lubricated with a Spray Mist for the finest finish. See SPRAY MIST APPLICATOR above for more details.

CUTTING WOOD:
While wood is soft and simpler to cut than aluminum, it still requires that the material be held in place as the blades pass through the material. Again, CTD suggests using a carbide blade with an Alternate Top Bevel (ATB) for lighter wood sections and picture frame moulding. This type of blade gives the finest of finishes.

CUTTING PLASTIC:
Plastic can be cut as easily as wood on the D-45. However, because of its elastic properties, the material can deflect as the blades pass through. Therefore, it is important to clamp the material as close as possible to the blade and support it by use of fixtures. CTD offers special 45° clamps for this application.
CUTTING WIDE MATERIALS: (see Diagram "D")
Wide mouldings are easily cut using 10" blades on the D-45 by simply using the bottom as well as the front of the blades. To do this, adjust Reverse Block No. 13 down on the Reverse Rod No. 12, so that the machine will reverse before the arms contact the work. Shut the air supply off and disconnect the power when making this adjustment. See LENGTH OF STROKE ADJUSTMENT for more details. (refer to Page 8)

CUTTING SMALLER MATERIALS:
Shut off the air supply and disconnect power. Lower heads so that saw blades are 1/2" above the work. Adjust Upstop Clamp No. 5 to contact Accessory Valve No. 3. This clamp limits the upstroke of the cylinder on the piston rod. The Upstop Clamp on the machine can be adjusted to eliminate wasted motion and time when cutting narrow materials. Always provide a safe distance between the blade and the work. Readjust the blade guard whenever this clamp is changed. Make sure the blades are completely covered. See LENGTH OF STROKE ADJUSTMENT for more details.

SCRAP:
To reduce the size of the "V" shaped scrap, the blades must be close together. Follow instructions under BLADE INSTALLATION to set blades for minimum scrap. A scrap chute is provided on the machine.

NOTCHING CONFIGURATION: (not standard)
The D-45 has a maximum notching capacity of 2" high. The blades are staggered, right above the left. The notching configuration must be set at the factory & special length pull rods purchased. The centerline of the material must be raised off the table base to the centerline of the pivot point, 2" above table base. The material to be cut must be raised or a radius will appear in the notch. Example—1/4" high material must be raised 1/2" off table base. This leaves 3/4" below and above the 2" centerline or pivot point. Special notching and toe-kick plates are available for an additional charge. Please consult factory.

D-45F FOOT OPERATED DOUBLE MITRE SAW:
The D-45F is a manually foot operated saw. By depressing the foot pedal, the operator moves the saw heads down. A spring return is provided for the upstroke. For the best results, use a constant even pressure on the downstroke and the upstroke. Follow all other instructions contained in this manual for D-45 operation. To attach foot pedal:
1. Slide foot pedal into the pivot tube.
2. Attach with 5/16" hex cap screw from bottom of pivot tube.
3. Attach pull rods to pivot tube shaft as shown in diagram below.

LUBRICATION AND ADJUSTMENTS OF BEARINGS:
NO LUBRICATION OR ADJUSTMENTS ARE REQUIRED. All CTD cut-off saws are assembled using sealed, prelubricated ball bearings. The spindle and pivot assembly are constructed using preloaded belleville springs. These springs eliminate the need for adjustments of bearings and also greatly increase the life of the bearings.
D-45 SPINDLE ASSEMBLY AND BEARING INSTALLATION INSTRUCTIONS: (refer to sketch below)

It is suggested that replacement spindle assemblies be purchased from CTD before disassembling. Old spindles can be returned for bearing replacement and slinger facing for a nominal cost. The D-45 spindle assembly provides for a "slip-fit" between the outer races of the bearing and the housing (arm casting), and a "press-fit" between the inner race and the spindle. Great care must be taken with ball bearings or the life of the bearing will be reduced. To remove the spindle assembly:

A. Loosen motor and remove belts.
B. Remove spindle pulley nut No. 9 by holding pulley.
C. Remove pulley No. 10 and place pulley nut No. 9 back onto spindle to protect threads.
D. With a soft hammer or rubber mallet, gently drive spindle towards blade side. Take care to protect pivot bearings by holding arm casting on blade side to overcome effects of hammer blows.
E. Remove pulley nut No. 9 again.
F. Spindle assembly consisting of spindle No. 1, slinger No. 3, and blade bearing No. 4 will come out of housing. Pulley bearing will slip out.
G. If bearing on the blade side must be replaced, an arbor press must be used to disassemble the bearing and the slinger from the spindle. Great care must be used in disassembling, or the spindle will be scored or stripped by the slinger. Before pressing apart, scribe a line on the face of the spindle and the slinger, so that they will be reassembled in exactly the same position in relation to each other.
H. Press off slinger and bearing from spindle.
I. Press new bearing on to spindle, making sure spindle is square to the bore.
J. Replace slinger, as above, making sure scored lines match.
K. The face of the slinger must be checked to make sure the face (next to the blade) is running true. If it is not, it should be refaced. To reface, partially assemble pulley bearing on spindle. Hold outer races of both bearings gently in a vise. Use the side of a surface grinder wheel to dress the face of the slinger by rotating spindle in bearings slowly against the direction of the grinding wheel.
L. Make sure that belleville springs No. 6 are assembled in housing as shown in sketch. To reassemble spindle assembly, slip blade bearing into housing up to the snap ring.
M. Slide pulley bearing onto the spindle as far as it will go.
N. Slide pulley onto shaft without spacer washers. This will allow you to use pulley nut No. 9 to press bearing on.
O. Hold pulley with pipe wrench. After bearing is partially assembled, remove nut and pulley and install spacer washers and complete assembly as shown in sketch.
P. Since motor was moved the centerline of the motor shaft and the spindle must be parallel. Both pulleys must be in line or belts will not wear evenly. This should be checked by placing a straight edge across both pulleys. Tighten motor.
Q. Belt tension is of critical importance. To obtain proper tension, press down on top of the belts with a moderate amount of pressure. Belts should deflect approximately 1/4".
R. Tighten set screw in both pulleys. To check assembly after tightening belts, apply pressure in the direction of the blade on the pulley nut. A slight spring pressure should be felt. If the spindle does not spring back, the belts may be too tight.
PIVOT SHAFT ASSEMBLY

Assemble preload springs back-to-back, as below.

A. Pivot Shaft (1 req) 2BMO8
B. Pivot Snap Rings (2 req) 2B2P11
C. Pivot Bearings (2 req) 2B2P09
D. Belleville Springs (2 req) 2B2P10
E. Pivot Washer (2 req) 2BM13
F. Pivot Shaft Assembly 2BE22

BLADE GUARD PARTS
15F42  Blade Guard
15F43  Blade Guard Support/Power Feed
20F18  Finger Guard w/special stud and wing nut

PNEUMATIC CLAMPS AND PARTS
2B3P20  1" Stroke Air Clamp Cylinder
2B3P22  Pressure Regulator from Clamps
2B3P20A 1" Vertical Clamp Shaft
2B3P20B 1" Vertical Clamp Spring
2B3P20C  Vertical Clamp Pad
2B3P20D  Clamp Piston
2B3P20E  Clamp Front Cap
2B3P20F  Clamp U-Cup

MISCELLANEOUS PARTS
2D7SR  Right to Left Measuring Tape
2D7SL  Left to Right Measuring Tape
10F01  Soluble Oil
B5P01  Single Phase Toggle Switch
B5P02  Three Phase Toggle Switch
BF19  Tab Washer

GUARANTEE:
CTD warrants that their cut-off machines and accessories are free from defect of materials, workmanship, and title, and are of the kind of quality indicated and described in applicable specifications. The foregoing warranty is exclusive and lieu of all other warranties, whether written or oral. CTD's obligation under the foregoing warranty is limited to the repair or replacement (at CTD's option) of the part which is defective in materials or workmanship for a period of one (1) year from the date of shipment to the original purchaser of the equipment. CTD's liability to the purchaser, whether for warranties, negligence, or otherwise, shall not in any way include consequential damages or costs of removing or reinstalling the products. All machines and parts are shipped FOB CTD Los Angeles, CA.

MOTOR WARRANTY:
Motors which fail during the warranty period of one (1) year, must be returned to an authorized Baldor Service Representative for examination to determine whether the failure was caused by defective manufacturing. In the event a replacement is required before factory examination, a motor will be sold at the list price. If the factory authorized replacement, CTD will credit customer's account for the replacement cost. All motors are shipped FOB CTD Los Angeles, CA.