CONTINENTAL MODEL 2B

PIPE AND TUBE CUT-OFF MACHINE

SERIAL NO. _____

INSTRUCTION AND PARTS MANUAL

CONTINENTAL MODEL 2B

PIPE AND TUBE CUT-OFF MACHINE

INSTRUCTION AND PARTS MANUAL

T A B L E O F C O N T E N T S **SECTION**

SECTION A. S A F E T Y I N S T R U C T I O N S

1. Read and understand this manual before operating this machine.

2. NEVER operate this machine with any guard or cover open or removed.

3. This machine must be bolted to a workbench which is attached to the floor or wall.

4. NEVER reach into the work area of the machine while the cuttershaft is turning.

5. This machine will cut a wide range of tubing diameters and lengths. Each customer's layout, method of supporting the tubing, and material flow into and out of the machine, is different. As such, it is impossible for the manufacturer to provide a universal guard to keep operator's hands out of the machine. It is the customer's responsibility to:

   - provide a method to catch and collect cut pieces.
   - provide guards to prevent the operator from accidentally placing hands in the cutting area.
   - install guards along the tube being cut to prevent injury.

6. Movement of various parts may create pinch points. Operator must avoid these points.

7. NEVER wear loose clothing or jewelry that could become entangled in the machine or workpiece.

8. When changing a cut-off blade, turn off power at the customer supplied disconnect switch.

9. Be certain to remove wrench after replacing cut-off blade. NEVER leave wrench hanging from the cuttershaft.

10. NEVER push pipe or tube into the cutting area from the front of the machine. A turning cut-off blade may catch and throw it possibly causing personnel injury and equipment damage. ALWAYS slide the tube into the cutting area from the cut-off blade side of the machine.

11. ALWAYS feed pipe or tube into the cutting area from the cut-off blade side of the machine. Feeding material from the opposite side can result in the operator's hand being pinched between the pipe or tube and the underside of the Cutter Arm as the cut is being made.

12. NEVER attempt to cut material that is bent, twisted, or otherwise distorted.

13. The cutting operation may produce sharp edges and considerable heat. NEVER attempt to catch work pieces as they are cut. Take precautions when handling cut pieces.

SECTION B. I N S T A L L A T I O N

SET-UP

1. Unpack the Model 2B and all parts. Check against parts list to make certain all parts are received.

2. Mount Model 2B on a sturdy work surface and bolt in place. NOTE: The worktable should be securely bolted to the floor, or a wall, to prevent overturning when cuts are made.

3. Slide #5584 Handle into the #6220 Fulcrum Lever and tighten set screws to lock it in place.

CUTTER BLOCKS

Cutter blocks are available for tube sizes within the range of the Model 2B (see current Continental Catalog).

Select the appropriate cutter block for the tube size to be cut, and bolt it to the cutter block bracket on the machine. Note that slots are provided on the cutter block base for front-to-back adjustment. Locate the cutter blocks so that the cut-off blade contacts the top of the tube to be cut. (This point will change for different tube sizes). NOTE: If the cutter block engages the tube substantially in front of, or behind, the top of the tube, it may throw the tube. This can cause personnel injury or equipment damage.

The cutter block must be set perpendicular to the cut-off blade or "threading" will occur. Threading is a condition where the tube moves sideways as the cut-off blade contacts it. To correct threading, loosen the front cutter block bolt slightly, then tap the cutter block to move it in the opposite direction of the threading. (If tube is threading to the right move the front of the cutter block to the left, and vice versa); .then, re-tighten the cutter block bolt. Repeat until threading is eliminated.

TUBE SUPPORTS

If a Model #425 or #426 Tube Support Table is to be used with this machine, it should be assembled and installed according to the instructions provided with it.

If pipe supports are to be used, they must be carefully aligned with the machine, and bolted to the floor. First, set the supports in place. The should be spaced so that the tube to be cut does not sag between the supports.

> NOTE: If short pieces are to be cut, place one of the supports close to the machine. Place a length of tube or barstock in the supports and the cutter block rolls. Adjust the supports so that the tube is touching the entire length of both cutter block rolls (front and back), and all pipe support rolls.

At this point, the pipe supports should be bolted to the floor. Carefully mark the center of each hole in the pipe support bases. Then, drill and bolt to floor using 3/8" lag bolts with anchors.

Rotate the Pipe Support Heads so they are perpendicular to the tube (rolls will be aligned with tube). If the heads are not perpendicular to the tube, threading of the tube can result, particularly if polyurethane coated pipe support rolls are used.

Recheck alignment of pipe supports with the cutter block rolls. Misalignment may result

in cut-off blade breakage, tube threading and poor cuts.

LENGTH GAUGE

The Model #442 Length Gauge is available as an accessory for the Model 2B. This Length Gauge is designed to provide a length stop for the work, then automatically move out of the way as the cut is made.

Assemble the Length Gauge and slide it onto the #5583 Pivot Bar. NOTE: The #5354 Gauge Pin may be set up with either the round pipe stop or the blade shaped end facing the work. To adjust the Length Gauge for a particular size, loosen the back of the #5933 Gauge Support so that the pipe stop or blade catches the edge of the tube and clears the tube just AFTER the cut-off blade engages the work. This prevents the work from moving as the Length Gauge clears the work. NOTE: If the Length Gauge does not clear the work soon enough, binding will occur. This can cause damage to the cut-off blade.

SECTION C. O P E R A T I O N

CAUTION: BEFORE ATTEMPTING TO OPERATE THE MODEL 2B, READ AND UNDERSTAND THIS SECTION COMPLETELY.

Follow the steps below to set-up and operate the Model 2B for the various size pipe and tubes to be cut.

1. Install the appropriate cut-off blade for the tube to be cut. See Figure 1 and 2, or a current Continental Catalog for a description of cut-off blade models. First, remove the #5947 Wheel Guard. Then, remove the #5723 Cuttershaft Nut and #5326 Clamp Collar and place the cut-off blade on the Cuttershaft. Replace the Clamp Collar and Nut and tighten. Seat the nut securely by tapping the end of the wrench with a mallet.

2. Select the appropriate Cutter Block for the tubing size to be cut. See the current Continental Catalog for a list of Cutter Blocks.

3. Mount the Cutter Block on the machine as described under INSTALLATION.

4. Place a length of the tube to be cut in the Cutter Block Rolls and the Pipe Support or Support Table Rolls. Adjust the Pipe Supports of Support Table vertically to align with the Cutter Block Rolls. It may be necessary at this point to slide the Cutter Block forward or backward slightly to achieve this alignment. The Cutter Block must remain aligned with the cut-off blade.

5. Set the depth of the cut-off stroke by adjusting the Bottom Stop Nut on the #6225 Depth Gauge Screw. The upper nut on the Depth Gauge Screw may be adjusted to limit the upward travel of the cut-off blade when cutting small diameter tubing.

   NOTE: DO NOT ALLOW THE CUT-OFF BLADE TO CONTACT THE CUTTER BLOCK ROLLS. THIS WILL RESULT IN IMMEDIATE DAMAGE TO THE BLADE AND ROLLS.

6. Place the material to be cut in the machine and run trial cuts. Adjust as required. Although the characteristics of the cutting process will vary significantly with tube size, wall thickness, and particularly material, the following will generally apply:

   - A faster cut will reduce the O.D. burr, and a slower cut will reduce the I.D. burr.

   - Spreading the rolls apart will reduce the O.D. burr; moving them closer together will reduce the I.D. burr.

   - Generally, the best cut is the fastest cut that will produce the desired end conditions. A fast cut produces less heat and less wear on the blade.

   - See the CUT-OFF BLADES NOTES section for additional information concerning adjustment of the cutting process.

   CAUTION: NEVER PUSH PIPE OR TUBE INTO THE CUTTING AREA FROM THE FRONT OF THE MACHINE. THE CUT-OFF BLADE CAN CATCH AND THROW THE MATERIAL, CAUSING PERSONAL INJURY AND EQUIPMENT DAMAGE. ALWAYS SLIDE THE MATERIAL INTO THE CUTTING AREA FROM THE CUT-OFF BLADE SIDE OF THE MACHINE.

CAUTION: ALWAYS FEED PIPE OR TUBE INTO THE CUTTING AREA FROM THE CUT-OFF BLADE SIDE OF THE MACHINE. FEEDING MATERIAL FROM THE OPPOSITE SIDE CAN RESULT IN THE OPERATOR'S HAND BEING PINCHED BETWEEN THE PIPE OR TUBE AND COMPONENTS ON THE UNDERSIDE OF THE MOTOR PLATE, AS THE CUT IS BEING MADE.

7. Lock all adjustments so that they do not change during production.

CUT-OFF BLADE NOTES

Continental Cut-Off Blades are available for almost all tube sizes and wall thicknesses. These blades are manufactured from S-7 Tool Steel. They are held to precise tolerances and heat treated to provide a long life. They may be resharpened using one of the Continental Grinders (see current catalog), or sent to Continental Pipe & Tube Cut-Off Machines for resharpening. With proper care, Continental Cut-Off Blades will provide thousands of cuts.

Following is a checklist of circumstances that can result in shortened blade life. Review this list when blade life is shorter than expected, or when unsatisfactory cutting action is encountered.

1. Make certain correct blade model is being used. Check current Continental Catalog for applications.

2. #5723 Nut must be tightened securely to make certain the Cut-Off Blade is clamped flat and cannot slip.

3. Make certain that the blade does not touch the cutter block rolls at the end of the stroke. This will immediately damage both the blade and the rolls.

4. Check alignment of the tubing in the pipe supports and cutter block roll (see OPERATION Section). This alignment is critical for smooth cuts and long blade life.

5. Make certain that the tube spins freely on the supports. Any drag or binding can cause the Cut-off Blade to slip against the pipe as it cuts.

6. Check adjustment of the Length Gauge to make certain it clears the tube shortly after the Cut-Off Blade engages the cut. As the cut is made, the end of the tube is actually moved towards the Length Gauge. If the gauge has not cleared the end of the tube it will cause binding.

7. On air powered machines, check to be sure the Hydrocheck engages BEFORE the Cut-Off Blade contacts the tube.

8. Make sure that the tubing is not striking the side of the Cut-Off Blade as it is advanced into position.

9. On tough or heavy wall material, a lubricating oil may be required to assist the cut. Use LUBRICATING oil, NOT cutting oil.

10. Do not attempt to cut excessively bent, twisted or otherwise distorted material.

11. Tubing material can vary significantly, even within one lot. Hard areas may be encountered, which can shorten blade life.

12. If material is long (over 20 ft.) or very heavy, the Cut-Off Blade may have difficulty spinning it. This will cause the blade to slip, shortening blade life.

13. During resharpening, the edge of the blade must not become overheated. This will cause the edge to soften.

14. After resharpening, the edge of the blade should be honed with a stone (available as Continental Part No. #5959) to remove the sharp edge, and provide a rounded edge. The sharper the edge the more fragile it is.

    NOTE:

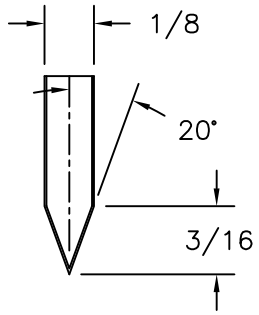
    A. If a sharper edge is left on the blade (less honing), the blade will cut faster and with less pressure, but will not last as long between resharpenings. This is more appropriate for thin-walled, softer, materials.

    B. If a more blunt edge is left on the blade (more honing), the blade will require more pressure to cut, but will last longer between resharpenings. This is more appropriate for heavier walled, tougher materials.

15. If a Cut-Off Blade becomes dull or nicked during use, remove it immediately and have it resharpened. If it is left in service, the damage will become worse. In a relatively short time, the blade will be ruined.

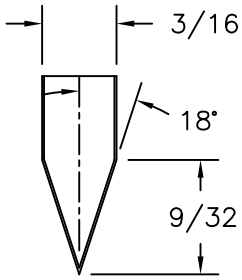
FIG. 1 – RECOMMENDED CUT–OFF BLADE BEVELS

1/8" STANDARD BEVEL



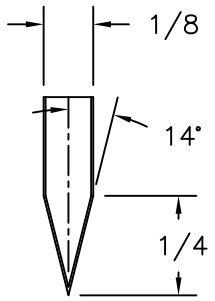
1/8" BLADE FOR WALL THICK–NESS UP TO .125" (1/8").

3/16" STANDARD BEVEL



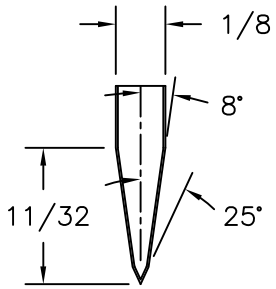
3/16" BLADE FOR WALL THICK–NESS UP TO .250" (1/4").

TUBE BEVEL



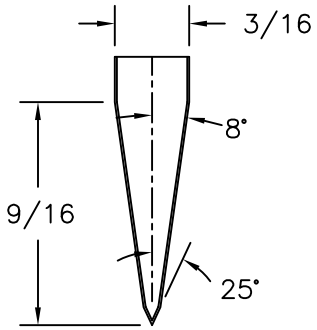
1/8" BLADE FOR WALL THICK–NESS UP TO .065".

1/8" LONG BEVEL



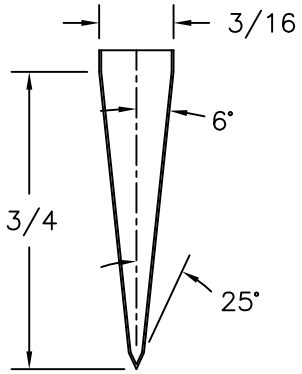
1/8" BLADE FOR WALL THICK–NESS UP TO .313" (5/16").

3/16" LONG BEVEL



3/16" BLADE FOR WALL THICK–NESS UP TO .500" (1/2").

EXTRA LONG BEVEL



3/16" BLADE FOR WALL THICK–NESS UP TO .625" (5/8").

FIG. 2 – CONTINENTAL CUT–OFF BLADE MODELS

MODEL NO.	BORE (IN.)	THICKNESS (IN.)	DIA. (IN.)	BEVEL (SEE FIG. 1)	REMARKS
7170	1–7/16	1/8	7	STD.	FOR USE ON CONTINENTAL MODEL 2B, 2A, 3H, 3A, 6H, & 6A. NO PIN HOLES OR KEYWAYS.
7171	1–7/16	1/8	7	TUBE	
7172	1–7/16	1/8	7	LONG	
7370	1–7/16	3/16	7	STD.	
7372	1–7/16	3/16	7	LONG	
7373	1–7/16	3/16	7	EXTRA LONG	
7120	1–1/2	1/8	7	STD.	ONE (1) 13/32 DIA. PIN HOLE ON 1–1/8" RADIUS.
7121	1–1/2	1/8	7	TUBE	
7122	1–1/2	1/8	7	LONG	
7320	1–1/2	3/16	7	STD.	
7322	1–1/2	3/16	7	LONG	
7140	1–3/4	1/8	7	STD.	TWO (2) 13/32 DIA. PIN HOLES, ONE (1) ON 1–13/32" RADIUS, ONE (1) ON 1–29/64" RADIUS.
7340	1–3/4	3/16	7	STD.	
7342	1–3/4	3/16	7	LONG	
8140	1–3/4	1/8	8	STD.	
8340	1–3/4	3/16	8	STD.	

FILE NAME: BVLPAGE

SECTION E. M A I N T E N A N C E

This machine is completely adjusted and lubricated at the factory. Performing the following maintenance checks will assure trouble-free operation and a long service life. Use an N.L.G.I. #2 Lithium based, Extreme Pressure (EP) grease where indicated.

Change gearbox oil after first 100 hours of operation. Use lubricant indicated on gearbox manufacturer's instructions.

DAILY CHECKS

1. Lubricate cutter block bearings, using #2 EP grease in the fittings provided.

WEEKLY CHECKS

1 Lubricate the #5583 Pivot Bar, using #2 EP grease in the fittings provided

SIX MONTH CHECKS

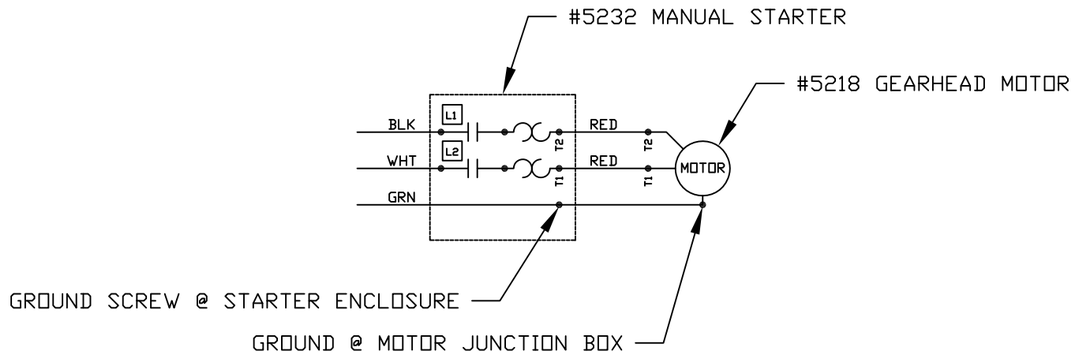
1. Drain oil from gearbox and replace with a 7 EP or 8 EP lubricant indicated on gearbox manufacturer's instructions. (DO NOT use a 5 EP or 6 EP lubricant as this can lead to excessive foaming). Fill gearbox to level indicated on gearbox for “CONTINUOUS” use.

2. Check drive belts for wear and tightness. Adjust accordingly. All three belts should be tightened evenly.

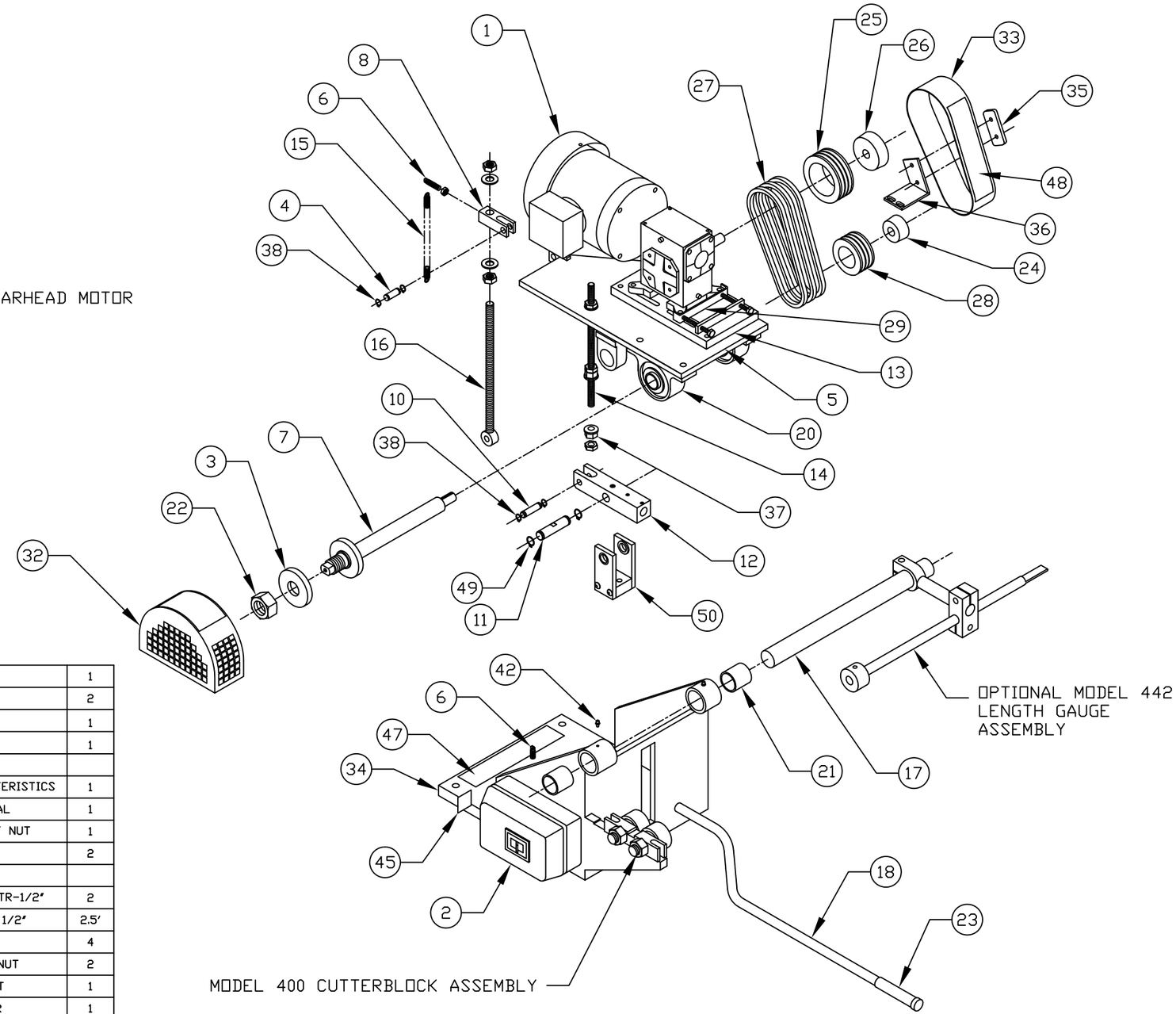
SECTION F

P A R T S I L L U S T R A T I O N S

REVISIONS			
REV	DESCRIPTION	DRWN	DATE
	CURRENT REVISION: P		3/1/05



MODEL 2B WIRING DIAGRAM



MODEL 400 CUTTERBLOCK ASSEMBLY

ITEM	PART No.	DESCRIPTION	QTY.	ITEM	PART No.	DESCRIPTION	QTY.
25	5764	TAPERLOCK SHEAVE	1	50	6219	FULCRUM	1
24	5761	TAPERLOCK SHEAVE BUSHING	1	49	241-62035	SNAP RING	2
23	5741	PLASTIC HANDLE	1	48	5879	TAG, CAUTION	1
22	5723	CUTTERSHAFT HEX NUT	1	47	5881	TAG, CAUTION	1
21	5657	OILITE BUSHING	2	46			
20	5652	PILLOW BLOCK BEARING	2	45	5875	TAG, ELECTRICAL CHARACTERISTICS	1
19				44	MANUAL-2B*	INSTRUCTION MANUAL	1
18	5584	HANDLE	1	43	5702*	WRENCH, CUTTERSHAFT NUT	1
17	5583	PIVOT BAR	1	42	300-01129	GREASE FITTING	2
16	6224	CLEVIS ROD	1	41			
15	6226	EXTENSION SPRING	1	40	04-1778*	SEALTITE CONNECTOR, STR-1/2"	2
14	6225	DEPTH GAUGE SCREW	1	39	04-1556*	SEALTITE CONDUIT - 1/2"	2.5'
13	5867	GEARHEAD ADJUSTMENT PLATE	1	38	241-62027	SNAP RING	4
12	6220	FULCRUM LEVER	1	37	5964	SPHERICAL FLANGE NUT	2
11	6221	FULCRUM PIN	1	36	5963	MOUNTING BRACKET	1
10	6222	SWIVEL PIVOT	1	35	5962	CLAMPING WASHER	1
9				34	5950	BASE	1
8	6223	CLEVIS	1	33	5948	V-BELT GUARD	1
7	5556	CUTTERSHAFT - 1-7/16 DIA.	1	32	5947	BLADE GUARD	1
6	5542	SPRING SCREW	2	31	5849*	LIQUID-TIGHT FITTING	1
5	5422	MOTOR PLATE	1	30	5848*	POWER CORD	1
4	5405	AIR CYLINDER PIN	1	29	5842	GEARHEAD PUSH BAR	1
3	5326	CUTTERSHAFT CLAMP COLLAR	1	28	5767	TAPERLOCK SHEAVE	1
2	5232	MANUAL STARTER SWITCH	1	27	5766	V-BELT	3
1	5218	GEARHEAD MOTOR	1	26	5765	TAPERLOCK SHEAVE BUSHING	1

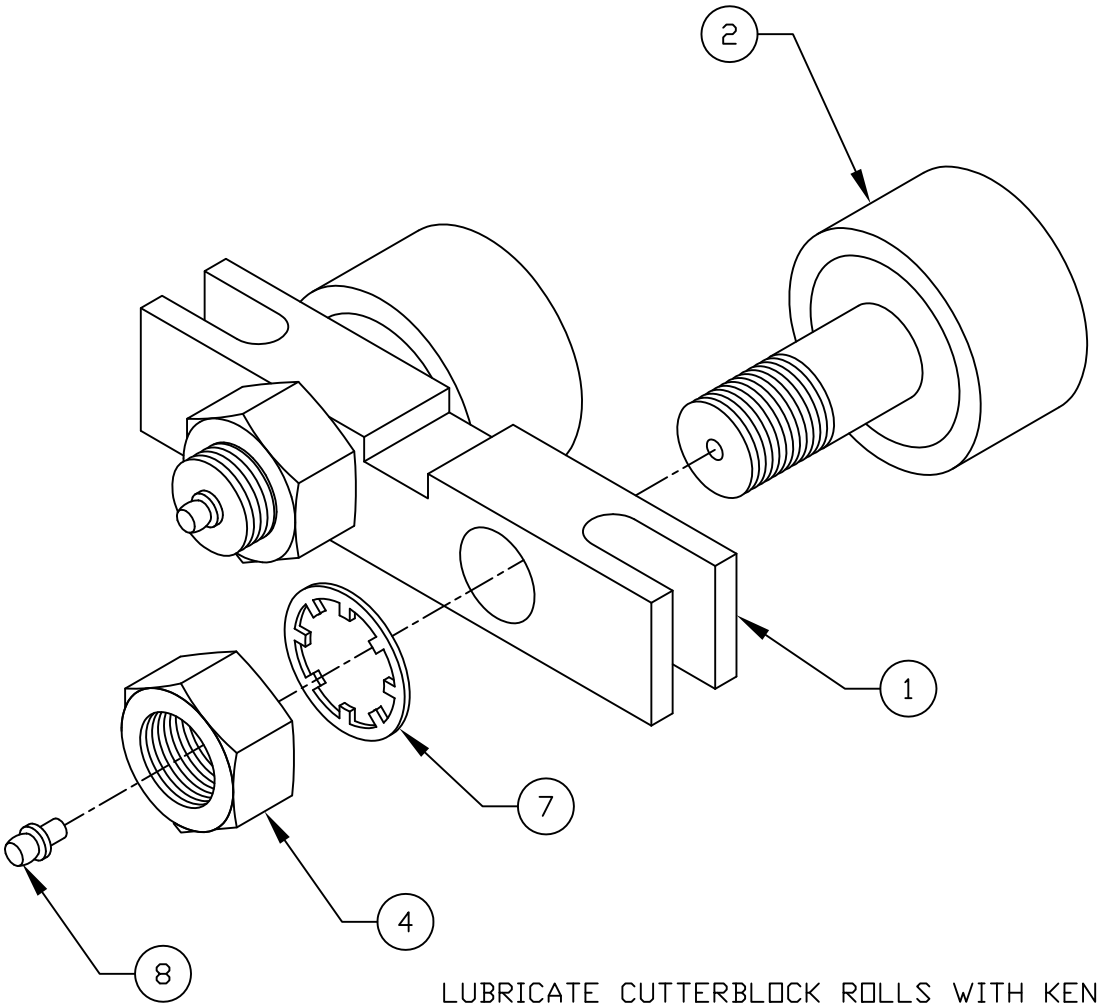
BILL OF MATERIALS

NOTE: ITEMS MARKED (*) ARE NOT ILLUSTRATED.

CONTINENTAL PIPE & TUBE CUT-OFF MACHINES
A DIVISION OF KIENE DIESEL ACCESSORIES, INC.
325 S. FAIRBANKS ST., ADDISON, IL., 60101

TOLERANCE UNLESS OTHERWISE SPECIFIED: FRACTIONS: +/- 1/64 DECIMALS: +/- .005 ANGLES: +/- .5°	PARTS ILLUSTRATION MODEL 2B		
FILE NAME: PI2B	DATE: 3/15/94	PART NUMBER: PI 2B	
SCALE: 1:12	DRWN: GFK		

REVISIONS			
REV	DESCRIPTION	DRWN	DATE
	CURRENT REVISION: B		



LUBRICATE CUTTERBLOCK ROLLS WITH KENDALL SUPER BLU HIGH TEMP EP L-427 GREASE (CONTINENTAL PART NO. 5960). PUMP A SUFFICIENT QUANTITY INTO EACH CUTTER BLOCK ROLL THROUGH THE FITTING SO THAT GREASE IS FORCED OUT BETWEEN THE STUD AND OUTER RING. REMOVE EXCESS GREASE.

BILL OF MATERIALS

	ITEM	PART NO.	DESCRIPTION	QTY.
	1	5578	CUTTER BLOCK	1
	2	5656	CUTTER BLOCK ROLL	2
*	3	201-64280	3/8-16 X 1-3/4 HHCS, GR 5	2
	4	202-63780	7/8-14 HEX NUT, ZINC	2
*	5	205-61024	3/8 FLAT WASHER	2
*	6	207-61024	3/8 SPLIT LOCKWSHR	2
	7	208-63040	7/8 INTERNAL LOCKWSHR	2
	8	300-01129	GREASE FITTING	2

NOTE: ITEMS MARKED (*) ARE NOT ILLUSTRATED.

CONTINENTAL PIPE & TUBE CUT-OFF MACHINES
A DIVISION OF KIENE DIESEL ACCESSORIES, INC.
325 S. FAIRBANKS ST., ADDISON, IL., 60101

MATERIAL: AS SHOWN

FINISH: SEE DETAIL DWGS.

TOLERANCE UNLESS OTHERWISE SPECIFIED:
FRACTIONS: +/- 1/64
DECIMALS: +/- .005
ANGLES: +/- .5°

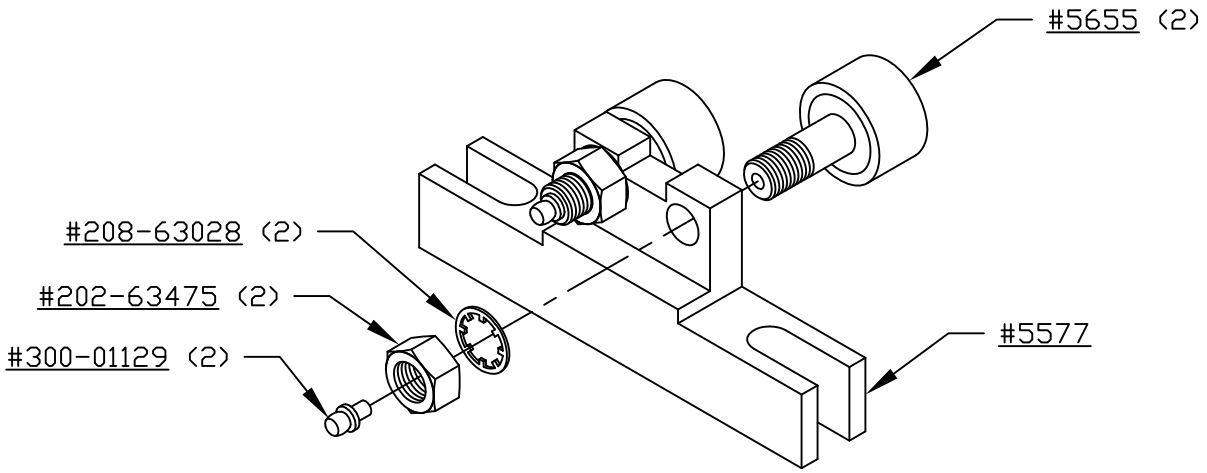
FILE NAME: PI400
SCALE: NONE

PARTS ILLUSTRATION
MODEL 400 CUTTER
BLOCK ASSEMBLY

DATE: 3/15/94
DRWN: GFK

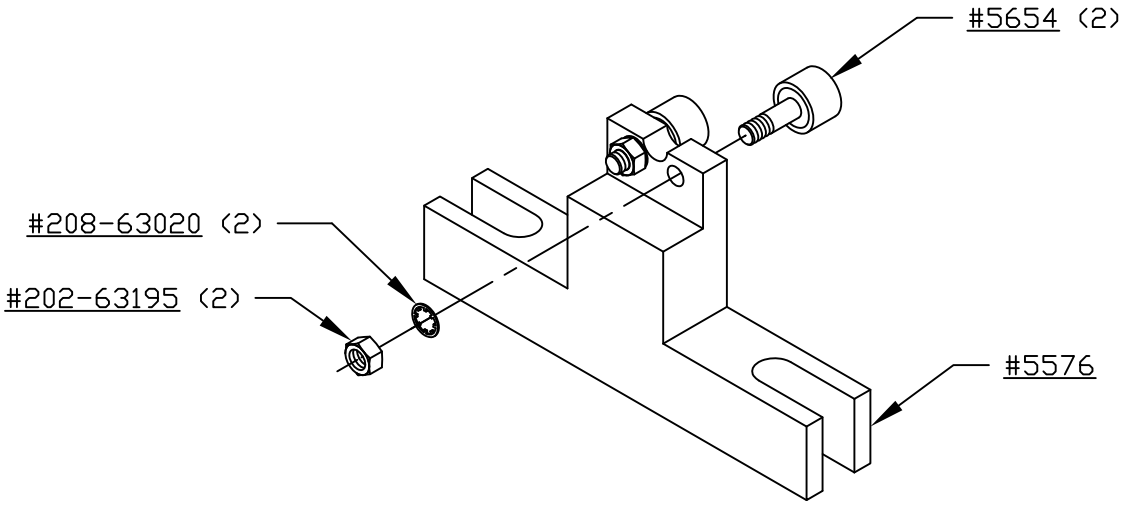
PART NUMBER: PI 400

REVISIONS			
REV	DESCRIPTION	DRWN	DATE
	CURRENT REVISION: A		



MODEL 401 CUTTERBLOCK ASSEMBLY

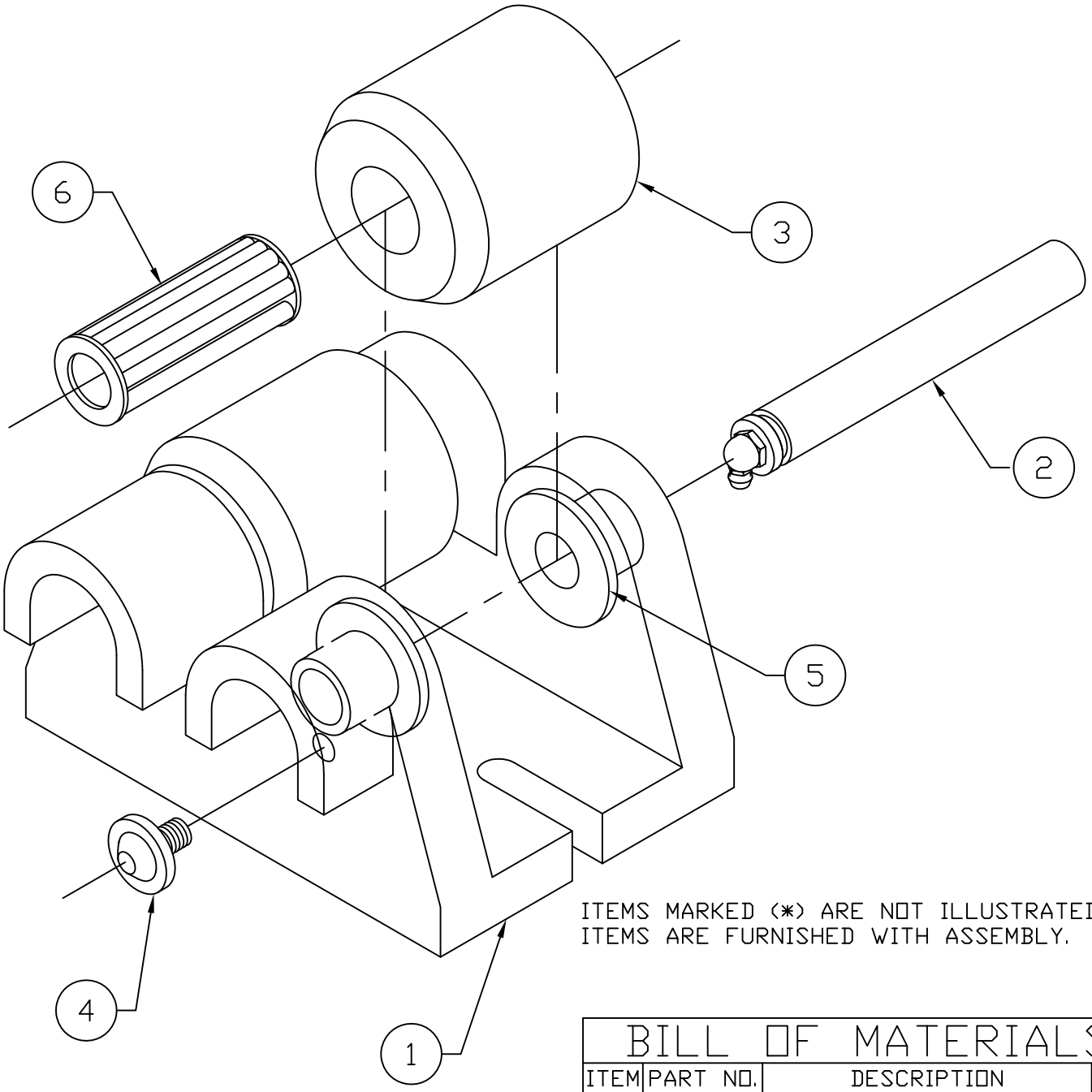
LUBRICATE CUTTERBLOCK ROLLS WITH KENDALL SUPER BLU HIGH TEMP EP L-427 GREASE (CONTINENTAL PART NO. 5960). PUMP A SUFFICIENT QUANTITY INTO EACH CUTTER BLOCK ROLL THROUGH THE FITTING SO THAT GREASE IS FORCED OUT BETWEEN THE STUD AND OUTER RING. REMOVE EXCESS GREASE.



MODEL 402 CUTTERBLOCK ASSEMBLY

CONTINENTAL PIPE & TUBE CUT-OFF MACHINES
A DIVISION OF KIENE DIESEL ACCESSORIES, INC.
325 S. FAIRBANKS ST., ADDISON, IL., 60101

MATERIAL: AS SHOWN	TOLERANCE UNLESS OTHERWISE SPECIFIED: FRACTIONS: +/- 1/64 DECIMALS: +/- .005 ANGLES: +/- .5°	PARTS ILLUSTRATION MODEL 401 AND MODEL 402 CUTTERBLOCK ASSEMBLIES	
	FILE NAME: PI401-02	DATE: 12/15/98	PART NUMBER:
FINISH: SEE DETAIL DWGS.	SCALE: NONE	DRWN: GFK	PI401, PI402



ITEMS MARKED (*) ARE NOT ILLUSTRATED.
ITEMS ARE FURNISHED WITH ASSEMBLY.

LUBRICATE ROLLERBEARINGS WITH KENDALL SUPER BLU HIGH TEMP EP L-427 GREASE (CONTINENTAL PART NO. 5960). PUMP A SUFFICIENT QUANTITY INTO EACH BEARING THROUGH THE FITTING SO THAT GREASE IS FORCED OUT BETWEEN THE BEARING AND CUTTER BLOCK ROLL. REMOVE EXCESS GREASE.

BILL OF MATERIALS

	ITEM	PART NO.	DESCRIPTION	QTY.
	1	5107	CUTTER BLOCK	1
	2	5311	ROLL PIN	2
	3	5312	CUTTER BLOCK ROLL	2
	4	5361	ROLL PIN CLAMP SCREW	2
	5	5395	ROLL PIN BUSHING	4
	6	5616	ROLLERBEARING	2
*	7	5366	OUTER SUPPORT BRACKET	1

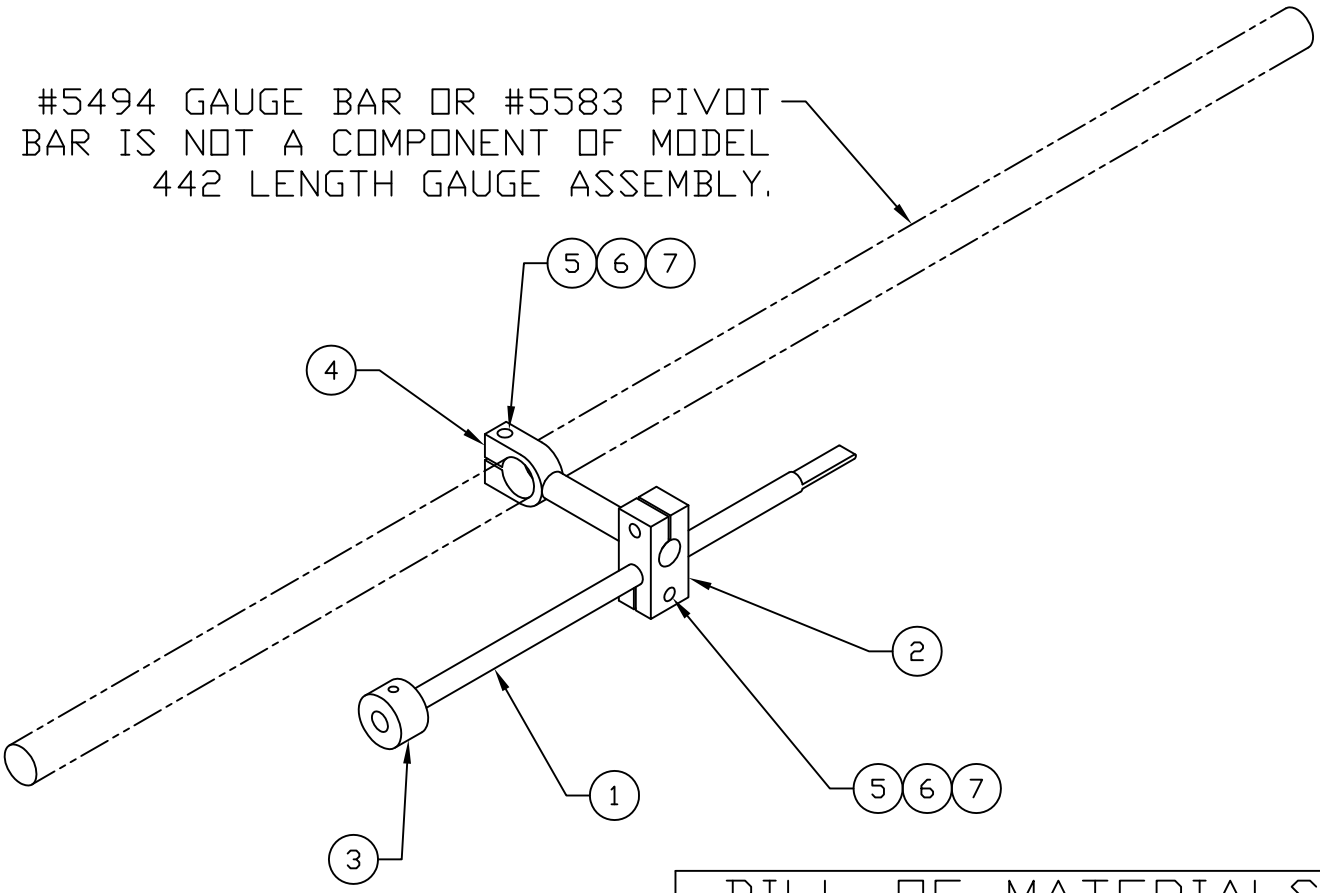
CONTINENTAL PIPE & TUBE CUT-OFF MACHINES
A DIVISION OF KIENE DIESEL ACCESSORIES, INC.
325 SOUTH FAIRBANK STREET – ADDISON, ILLINOIS 60101

PARTS ILLUSTRATION
MODEL 419 CUTTER BLOCK ASSEMBLY

CURRENT REVISION: C	DATE: 3/15/96	DRAWING NUMBER: PI 419

REVISIONS			
REV	DESCRIPTION	DRWN	DATE
	CURRENT REVISION: A		

#5494 GAUGE BAR OR #5583 PIVOT BAR IS NOT A COMPONENT OF MODEL 442 LENGTH GAUGE ASSEMBLY.



BILL OF MATERIALS

ITEM	PART No.	DESCRIPTION	QTY.
1	5354	GAUGE PIN	1
2	5439	GAUGE SUPPORT, FRONT	1
3	5516	HARDENED PIPE STOP	1
4	5933	GAUGE SUPPORT, BACK	1
5	201-64421	1/2-13 X 2" LG. HHCS	3
6	206-61028	1/2 SAE WASHER	3
7	207-61028	1/2 SPLIT LOCK WASHER	3

CONTINENTAL PIPE & TUBE CUT-OFF MACHINES
A DIVISION OF KIENE DIESEL ACCESSORIES, INC.
325 S. FAIRBANKS ST., ADDISON, IL., 60101

MATERIAL: AS SHOWN

FINISH: SEE DETAIL DWGS.

TOLERANCE UNLESS OTHERWISE SPECIFIED:
FRACTIONS: +/- 1/64
DECIMALS: +/- .005
ANGLES: +/- .5°
FILE NAME: PI442

SCALE: NONE

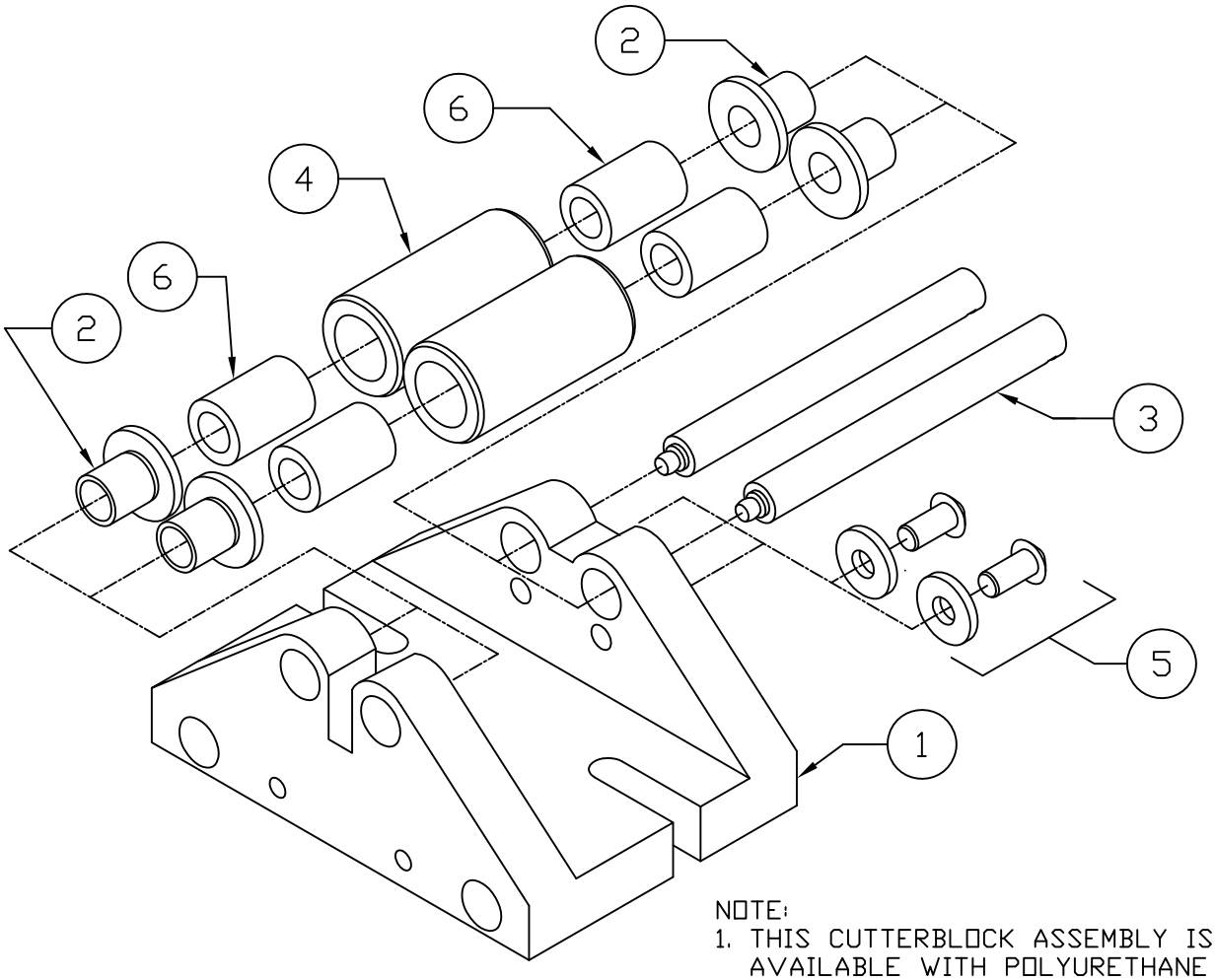
PARTS ILLUSTRATION MODEL 442 LENGTH GAUGE ASSEMBLY

DATE: 3/27/92

DRWN: GFK

PART NUMBER: PI 442

REVISIONS			
REV	DESCRIPTION	DRWN	DATE
	CURRENT REVISION: C		



NOTE:
1. THIS CUTTERBLOCK ASSEMBLY IS ALSO AVAILABLE WITH POLYURETHANE COATED ROLLS (PART NO. 5368).

2. ITEMS MARKED (*) ARE NOT ILLUSTRATED. ITEMS ARE FURNISHED WITH ASSEMBLY.

LUBRICATE ROLLERBEARINGS WITH KENDALL SUPER BLU HIGH TEMP EP L-427 GREASE (CONTINENTAL PART NO. 5960). PUMP A SUFFICIENT QUANTITY INTO EACH BEARING THROUGH THE FITTING SO THAT GREASE IS FORCED OUT BETWEEN THE BEARING AND CUTTER BLOCK ROLL. REMOVE EXCESS GREASE.

BILL OF MATERIALS

	ITEM	PART NO.	DESCRIPTION	QTY.
	1	5109	STATIONARY CUTTER BLOCK	1
	2	5313	CUTTER BLOCK ROLL PIN BUSHING	4
	3	5314	CUTTER BLOCK ROLL PIN	2
	4	5315	CUTTER BLOCK ROLL	2
	5	5361	CUTTER BLOCK PIN CLAMP SCREW	2
	6	5615	CUTTER BLOCK ROLLERBEARING	4
*	7	5366	OUTER SUPPORT BRACKET	1

CONTINENTAL PIPE & TUBE CUT-OFF MACHINES
A DIVISION OF KIENE DIESEL ACCESSORIES, INC.
325 S. FAIRBANKS ST., ADDISON, IL., 60101

MATERIAL: AS SHOWN

FINISH: SEE DETAIL DWGS.

TOLERANCE UNLESS OTHERWISE SPECIFIED:
FRACTIONS: +/- 1/64
DECIMALS: +/- .005
ANGLES: +/- .5°
FILE NAME: PI491

SCALE: NONE

PARTS ILLUSTRATION MODEL 494 CUTTER BLOCK ASSEMBLY

DATE: 07/16/96

DRWN: KAM

PART NUMBER: PI 494

W A R R A N T Y

The equipment delivered hereunder is guaranteed to be free from defective material and workmanship for a period of six (6) months from date of delivery, when given normal and proper usage, and when used by the original purchaser.

Notice of any claimed defect must be given to seller within thirty (30) days after discovery of any claimed defect. During warranty period, seller's obligation shall be limited to delivering to the buyer, F.O.B. seller's plant, replacements of any equipment or parts, or repairing such equipment or parts, found defective by inspection.

Any article not of seller's manufacture included in this proposal is sold under such warranty only as the makers give us, and we are able to enforce, but it is not guaranteed by seller in any way. No equipment or material shall be returned to seller except on our specific instructions and no claim will be honored unless we have been given an opportunity for inspection on site and in the claimed defective condition. The determination of seller's representative will be final. Seller assumes no responsibility for reimbursing repair or replacement costs incurred without our prior written authorization, or prior to a determination of seller's authorized representative. Seller assumes no liability for the cost of installation of repaired or replacement parts. All costs of packing and shipping defective parts and/or replacement of repaired parts shall be paid by buyer. In no event shall our liability under this warranty exceed the purchase price paid for the products.

THE WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SELLER SHALL HAVE NO LIABILITY WHATSOEVER IN ANY EVENT FOR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING DAMAGES RESULTING IN PERSONAL INJURY.

Any action for breach of this warranty or other action under this contract must be commenced within one (1) year after such cause of action arises.