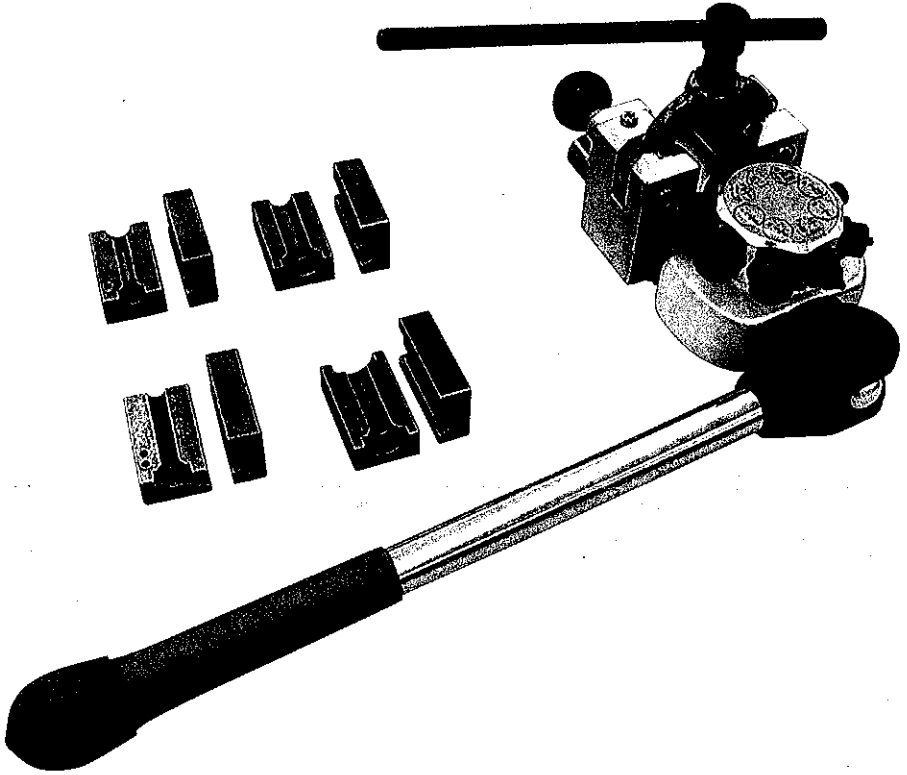




Brake Tube Flaring Tool

User's Manual

KTI-70081



DO NOT DISCARD

You will need the manual for the safety warnings and precautions, operating instructions and maintenance procedures. Keep your invoice with this manual in a safe, dry location for future reference.



WARNING!

READ AND UNDERSTAND ALL INSTRUCTIONS BEFORE USE.

Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

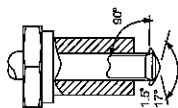
WARNINGS

- Read and understand all warning labels and operating instructions prior to use. If any portion of this material is unclear, contact a representative for clarification.
- It is your responsibility to keep all warning labels and instruction literature legible and intact. Replacement labels and literature are available from the factory.
- Never allow unskilled or improperly trained personnel to operate this equipment.
- Always wear appropriate protective eye wear.
- Always wear gloves during operation to avoid cuts from sharp metal edges.
- Keep work area clean and well lit.
- Inspect the tool thoroughly before use. Check for misaligned or binding of moving parts, breakage of parts and any other condition that may affect the tool's operation. **DO NOT** use if damaged. Check to ensure that all applicable parts are intact and firmly tightened.
- **DO NOT** operate when you are tired or under the influence of alcohol, drugs or any intoxicating medication.
- Use only accessories that are recommended by the manufacturer for this model.
- **DO NOT** make any modifications to this tool.
- **DO NOT** expose to inclement weather
- Only use the tool on properly secured materials and stable work surfaces.
- If the angle grinder requires repairs or replacement parts, have it repaired by an authorized technician and only use the replacement parts supplied by the manufacturer.
- Failure to heed these warnings may result in personal injury and/or property damage.

TUBE PREPARATION

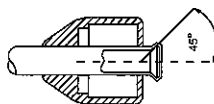
1. Use a tubing cutter to square cut the end of the tube
2. Chamfer the outside of the tube and ream the inside of the tube to remove all burrs. Clear any metal chips or other debris from inside tubing.
3. Thoroughly clean outside of tube before placing in flaring forming die
4. If the tube is plastic-covered, remove approximately 1/8" (3mm) from the end of the tube to be flared. Do not use abrasive cloth. Remove any debris from tube.
5. Using an anti-seize compound, *lightly* lubricate then end of the cut tube.
6. Place appropriate fittings over ends of tubing, with flare end facing outward.

TUBE & DIE SELECTION CHART



113° - 117° DIN CONVEX

TUBE DIA.	OP.1 PUNCH	DIE SET
4.75mm	4.75mm	4.75mm
6mm	6mm	6mm
8mm	8mm	8mm (5/16")
10mm	10mm	10mm
12mm	12mm	12mm



SAE DOUBLE

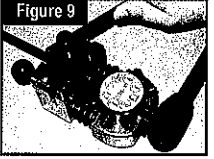
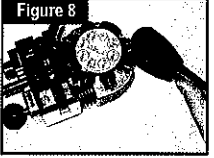
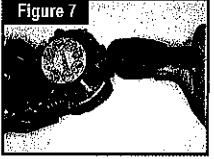
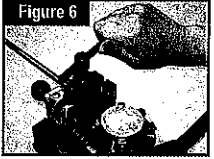
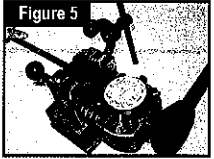
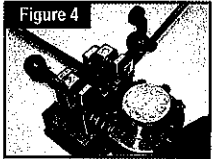
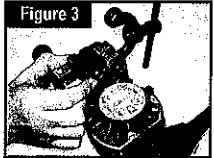
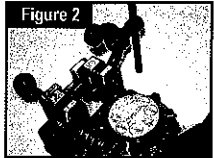
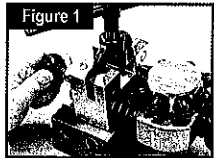
TUBE DIA.	OP.1 PUNCH	OP.2 PUNCH	DIE SET
3/16"	4.75mm-3/16"	3/16"-1/4"-4.75	4.75-3/16"
1/4"	1/4"	3/16"-1/4"-4.75	1/4"
5/16"	5/16"	5/16"-3/8"	5/16"
3/8"	3/8"	5/16"-3/8"	3/8"
1/2"	1/2"	1/2"	1/2"
4.75mm	4.75mm	3/16"-1/4"-4.75	4.75-3/16"
6mm	6mm	4.75 5mm 6mm	6mm
8mm	8mm	8mm 10mm	8mm (5/16")
10mm	10mm	8mm 10mm	10mm
12mm	12mm	12mm	12mm

OPERATING INSTRUCTIONS

1. Secure the base of the tool in a bench-mounted vise
2. Firmly attach lever to base of tool
3. Release the clamp screw by pulling clamp pin outward (**Figure 1**)
4. Rotate clamp screw upward to open (**Figure 2**)
5. Place bottom half of flare-forming die into recessed area on the base with the counter bore toward the operating lever (**Figure 3**)
6. Place tubing in die, ensuring tube is flush with flaring end of die. Position die head with "OP. 0" (arrow symbol) toward the tube end, pull lever inward using the "OP. 0" die as a stop gauge (**Figure 4**)
7. Place top half of flare-forming die over tube (**Figure 5**)
8. Close clamp screw securing with clamp pin
9. Firmly tighten T-handle screw against flare-forming die to lock in place (**Figure 6**)
10. Rotate die head to desired "OP. 1" application (*green*), aligning the flaring die with the tube end
11. Pull lever, exerting enough force to create the flare. Continue until lever stops; return lever to starting position (**Figure 7**)

NOTE: a bubble flare has been created, remove tube following steps 14 and 15 or continue with the following steps to create a 45° double flare:

12. Rotate die head to proper "OP. 2" application (*orange*), aligning the 45° flaring die with the tube end
13. Pull lever, exerting enough force to create the inverted flare. Continue until lever stops; return lever to starting position (**Figure 8**)
14. Loosen the T-handle screw and pull the clamp pin to release and open the clamp screw (**Figure 9**)
15. Remove the die halves from the recessed area to remove the brake tube. Slightly tap the die, if necessary, to remove the flared tube.
16. Inspect the quality of the flare to ensure the tube did not move during the flaring process.



LIMITED WARRANTY

This product is warranted against defects in manufacturing for a period of one (1) year. Use only as intended by manufacturer. Intended for use only as outlined in this manual. Brand new defectives must be returned in original packaging.

REPAIRS REQUIRED AS A RESULT OF ABUSE, MISUSE, DAMAGE OR REPAIR ATTEMPTS MADE BY OTHERS ARE NOT COVERED BY THIS WARRANTY.

THIS WARRANTY IS VOID IF THE UNIT IS USED FOR RENTAL PURPOSES.

Should you experience a problem within your warranty period, ship prepaid to:

WARRANTY CENTER
31133 Wixom Road
Wixom, Michigan 48393



31111 Wixom Road, PO Box 930259
Wixom, Michigan 48393
ph. 800.762.6002
www.ktoolinternational.com