

VI.**MIMIK TROUBLE SHOOTING CHART**

If trouble persists after trying the remedies noted, call MIMIK for service assistance.

TROUBLE	CAUSE	REMEDIES
1. <u>VIBRATION</u>	a) Loose gibs on machine ways:	Adjust gibs.
	b) Excessive play in feed screw nuts:	Adjust nuts or replace if not adjustable. Replace feed screw if worn.
	c) Lack of rigidity in tracer valve or template mounting components:	Stiffen mounting brackets, tighten mounting screws, snug adjustment slide gib screws.
	d) Pump pressure too high:	Check for faulty pressure gauge. Reduce pressure in 25 p.s.i. steps & check operation after each change.
	e) Pump pulsation due to wear or improper adjustment:	Re-adjust to manufacturer's instructions.
	f) Air in hydraulic circuit:	Clear system by feeding both axes several times.
	g) Stylus loose in collet:	Tighten.
	h) Trace rate too high:	Reduce.
2. <u>POOR FINISH</u>	a) Vibration:	See Above.
	b) Excessive stylus pressure:	Decrease to lowest setting that will ensure positive infeed.
	c) Uneven machine movement due to:	
	-Dirt or lack of lubrication in machine ways:	Clean & lubricate machine ways.
	-Gibs improperly adjusted on machine ways:	Re-adjust gibs.
-Machine ways worn:	Re-scrape and align.	
-Nut tight on unworn portion of feed screw:	Replace screw and nut.	
-Improper machining practice:	Sharpen tools, grind correct cutting angles, use correct speeds & feeds.	
d) Excessive backlash in feed screws:	Reduce backlash.	

TROUBLE	CAUSE	REMEDIES
2. <u>POOR FINISH</u> continued....	e) Air in hydraulic circuit:	See 1 (f) above.
	f) Play or looseness in machine slides:	Repair.
	g) Air vibrator setting incorrect (likely too high):	Reduce or change volume of air.
3. <u>UNEVEN TOOL FEED RATE OVER WORKPIECE CONTOUR</u>	a) Unequal setting of trace feed rates:	Set feed, trace infeed and trace retract to same rate.
	b) Change in machine way gib settings, operation on unworn portion of machine ways, change in ram counterbalance:	Correct machine fault.
4. <u>PART-TO-PART VARIATIONS</u>	a) Varying cutting load:	Provide uniform allowance for finish cut over entire contour.
	b) Excessive tool wear:	Use separate tool for finish cut. Check for proper speed and feed.
	c) Mechanical looseness:	Tighten all elements of tracer & machine.
	d) Air in hydraulic circuit:	Clear system by feeding both axes several times.
	e) Oil temperature variation:	Let oil warm up before tracing.
5. <u>TEMPLATE-TO-PART VARIATIONS</u>	a) Tool not on center:	Adjust cutting point to exact center height.
	b) Template not aligned in horizontal plane:	Adjust template rail using dial indicator.
	c) Varying cutting load:	Provide uniform allowance finish cut over entire contour.
	d) Incorrect tool-stylus relationship:	Stylus must be the same shape as tool, plus deflection allowance.
	e) Incorrect tool geometry:	Check for adequate clearance throughout contour.

TROUBLE	CAUSE	REMEDIES
6. <u>FEED DOES NOT SHUT OFF WHEN TRACING 90° SHOULDER</u>	a) Trim oil not adequate to oppose leakage:	See adjustment procedures on Pages 3 and 4.
	b) Incorrect tracer feed rate setting:	See adjustment procedures on Pages 3 and 4.
7. <u>TRACE AXIS WILL NOT FEED TOWARD TEMPLATE WITH RETRACT LEVER IN INFEEED POSITION</u>	a) Clutch not engaged:	Check for blown fuses. Check to see if air is getting to clutch.
	b) Trace infeed rate too low:	Increase setting.
	c) Incorrect tracer valve feed rate setting:	See Feed Rate Adjustment on Page 3.
	d) Tracer valve spool hang-up:	See Section "8" Below.
8. <u>VALVE HANG-UP</u>	a) Insufficient stylus pressure:	Increase stylus pressure & actuate stylus by hand. If tracer does not begin to infeed immediately, hang-up may be due to dirt.
	b) Dirt or gummy oil deposits in valve:	Drain tank, flush complete system and replace hydraulic oil & filters. Run tank until oil warms up. Actuate stylus by hand until smooth stylus action and positive spool return are obtained.
	c) Air lock in valve:	Cycle tracer slide full stroke several times by activating stylus.
	d) Incorrect hydraulic oil:	Change to Sunvis 747.

If Tracer Valve Continues To Hang-Up, Contact MIMIK Industries Inc.

V. SERVICING

Apart from the adjustment procedures noted previously, no attempt should be made to service the tracer valve. It is covered by a 1-year service partial warranty which becomes invalid if the valve has been tampered with. If any part of your tracer system does not operate properly, follow these steps in the order listed;

1. Consult the Trouble-Shooting Chart for possible causes and corrective action.
2. Carry out corrective procedures.
3. Contact MIMIK Service Department if faulty operation persists:

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