

TROUBLESHOOTING OF CHUCK

If the chuck malfunctions, stop the lathe and try the following countermeasures.

Problem	Possible Reasons	Countermeasures
Chuck will not operate	The inside of the chuck is broken.	Disassemble and replace part.
	Slideway seizes.	Disassemble and repair damaged part with oil stone or replace it.
	Hydraulic cylinder is not operating.	Check that pressure reduction valve, change over valve and horse system are correct.
Insufficient master jaw strokes	Too much swarf in chuck.	Disassemble and clean.
	Drawtube is loose.	Remove and retighten it.
Workpiece slippage	Insufficient master jaw stroke.	Position master jaw so that it is in stroke center when workpiece is gripped.
	Insufficient clamping force.	Check that hydraulic pressure adequately set.
	Formed dia. of top jaw does not match workpiece dia.	Reform top jaw according to correct method.
	Cutting force is too high.	Calculate cutting force and reduce it up to chuck specifications.
	Insufficient lubrication on master jaws and each slideway.	Lubricate from grease nipple and grip and grip again jaws without workpiece in chuck.
	Speed is too high. Whirling is found by mis-alignment such as work feeder, steady rest, tailstock, etc.	Reduce speed up to necessary gripping force. Secure alignment to eliminate whirling.
Poor accuracy	Periphery of chuck is run out.	Tighten chuck bolts correctly.
	Foreign matter is caught in serrations between master and top jaws.	Remove top jaw and clean serrations thoroughly.
	Top jaw mounting bolts are inadequately tightened.	Tighten bolts to correct torque.
	Forming of top jaw is inadequate.	Check that forming plug is parallel to chuck and face and plug is not deformed due to gripping force. Also, check hydraulic pressure while forming and face roughness.
	Top jaw is deformed and top jaw bolts are extended because top jaw is too high.	Reduce height of top jaw by replacing with standard size jaw.
	Workpiece is deformed by too much gripping force.	Reduce gripping force to prevent deformation.