

## Trouble-Shooting

ITEM	COMPLAINT	CAUSE/ OBSERVATION	COUNTERMEASURES
Cutting Quality	Tapper Cutting	EXCESSIVE OR LOW BLADE TENSION	Maintain blade tension between 18 to 20 kgf/sq.mm. (25000 to 28000 PSI)
		WORN OUT BEARINGS OR ROLLERS	Replace bearings / rollers which twist the blade to vertical position/
		GUIDES FAR FROM JOB	Place the moveable side arm closer to the work piece/job.
		EXCESSIVE CUTTING FEED	Change the cutting feed as per recondition for the work material.
		ABNORMAL WEAR ON BLADE	Change the cutting speed as per the recommendation for work material in the next blade. Remember to conduct breaking in of the teeth.
		BAD SURFACE OF CARBIDE GUIDES	Check the three carbide guides and replace them if there is excessive wear.
		JAWS HOLDING JOB ARE LOOSE	Check the jaw pressure and straightness with respect to the job and ensure firm positioning of work under the blade.
	Bad Surface Finish	LARGE TPI	Use suitable TPI as per recommendation for the shape and dimensions of job.
		EXCESSIVE CUTTING FEED	Use recommended cutting feed as per the work material. Optimisation of feed may be required to achieve desired surface finish.
		ABNORMAL WEAR ON BLADE	Improving cutting conditions and choosing the right grade and tooth profile of blade will reduce the wear and improve tool life.
		VIBRATIONS OF MACHINE OR BOW ARM	Machine may need over hauling. A stable and sturdy machine gives best blade performance.
Blade Damage	BLADE BREAKAGE	EXCESSIVE CUTTING FEED	Use recommended cutting feed as per the work material.
		EXCESSIVE BLADE TENSION	Maintain blade tension between 18 to 20 kgf/sq.mm. (25000 to 28000 PSI)
		LOOSE CARBIDE GUIDES	Check the carbide guides and place them close to the blade but not tight. Guides can not restrict the movement of blade.
		LOOSE JAWS HOLDING THE JOB	Jaws clamping the work piece must be firm and must hold the job in place tight.
		CRACKING THE BACK OF BLADE	Check the carbide TOP guide and replace if required. The carbide guide must not have a groove. Periodic replacement of top guide will help better blade life.
		CRACKING FROM THE GULLET OF BLADE	Smaller TPI and higher feed will result in cracking of blade from gullets.
		BLADE SHEARING/SCRACHES ALONG THE LENGTH	Bearings and Rollers guiding the blade before guide arms may be adjusted to avoid shearing of blade. A straight mark along the length of the blade shows fatigue resulting out of bearings and rollers.
		BLADE WEARING/SCRACHES ALONG THE LENGTH	Loosen the Carbide SIDE guides to ensure blade position on the job to be vertical. Replace them if required.
		BLADE RUBBING ON THE COLAR OF THE WHEEL	Machine blade wheels need alignment. A well aligned set of wheels will give best tool life.
		CHIP BRUSH NOT WORKING OR ABSENT	A functional chip brush ensures clean blade entering the job every time. Its absence will result in inconsistent tool life. Machines with Motorised chipbrushes give best tool life and clean cuts.
	Blade Teeth Ripping Off	EXCESSIVE CUTTING FEED	Excessive blade feed results in high impact load on the teeth and hence teeth break. One broken tooth initiates series of teeth breakages. Use Appropriate and recommended feed.
		CHIP BRUSH NOT WORKING OR ABSENT	A tooth with a gullet filled with a chip, when enters the job, results in cracking of the blade from that gullet. Change the chip brush and ensure it is working.
		CUTTING OIL ABSENT	Maintain 5% cutting oil concentration for Band Saw Machines.
		TPI TOO BIG OR FEED TOO HIGH	Use suitable TPI as per recommendation for the shape, dimensions and Bundle size of job.
		HYDRAULIC FEED UNEVEN	Check the hydraulic cylinder and change the oil seals if required. any leakage in the hydraulic system will result in uneven feed of blade and jerks.
		TWISTING OF JOB DURING CUTTING	This happens during bundle cutting when the jobs are not straight or Top Clamp of the Jaw is absent or loose. Take care not to have larger bundles or use straight jobs with firm top clamp near the jaws.
		VIBRATION OF THE MACHINE	Grout the machine well, over haul the machine time to time, avoid blades with constant pitch, tighten the jaws holding the job, check mounting of motor and gear box.
Others	Vibration and Noise	EXCESSIVE CUTTING SPEED	Reduce the blade speed till noise subsides.
		EXCESSIVE BLADE WEAR	Use better grade of blade or use Wide Teeth blades if job is soft,
		TPI TOO SMALL	Use recommended TPI or change to VL type.