



Motor Locks – Causes and Solutions

For Technical Assistance Please Call Toll Free 1-877-4BROTHER

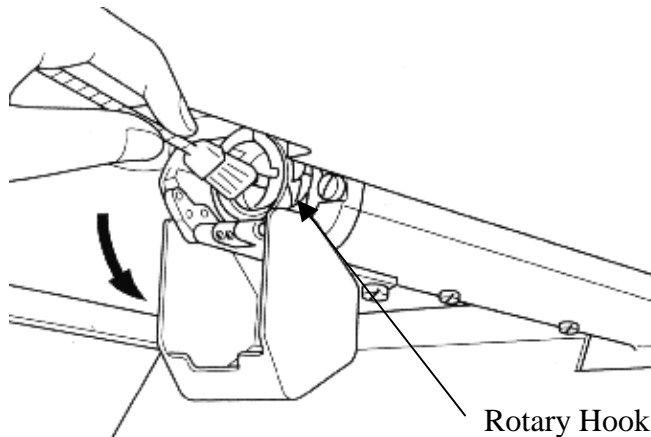
An increased resistance that makes it either hard or impossible for the main motor to turn the degree wheel or pulley causing a motor lock error. Listed below are some causes of the problem. Listed in the order that they occur most.

Lack of Lubrication

- Oil the machine as specified under initial unpacking procedure. Make sure and oil the rotary hook.

Thread tangled in rotary hook

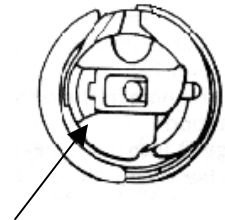
- Open bobbin case cover and look for thread tangled in the rotary hook around it or behind it and remove thread. Rotate pulley back to stop position after finished. This can be caused by bird's nest, which is created by various things. Such as
 - Incorrect threading of machine
 - Incorrect needle size or type of needle for application
 - Needle being installed backwards
 - Worn needles
 - Incorrect backing for the application.
 - Loose upper thread tension
 - Inner rotary hook adjuster set incorrectly



Foreign object stuck in the rotary hook

To check if something is causing binding in the rotary hook see if you can move the bobbin basket clockwise and counter-clockwise. The bobbin basket is part of the rotary hook. This is part that the bobbin case fits into. To check the play put two fingers on the bobbin case latch and rotate your fingers in both directions. You should have a little play in both directions. If not then there is something lodged in the raceway of the rotary hook. Clear obstruction or replace rotary hook. This can be caused by

- Broken pieces of needle lodged somewhere in hook
- Thread badly entangled in rotary hook.



Check for broken bits of needles in this area.

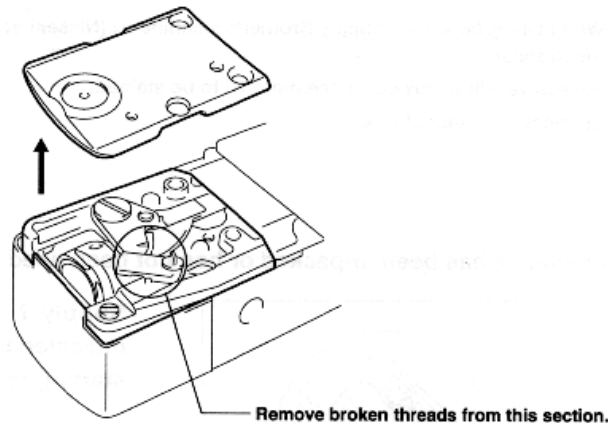


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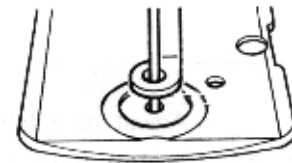
A buildup of thread is behind the moving knife

- Remove needle plate and remove the thread build up behind the moving and fixed knife. This build up is causing the moving knife not to be able to complete its cycle



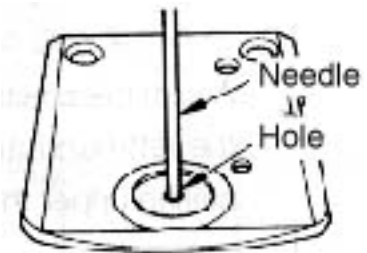
Needle hitting presser foot

- Adjust presser foot so that is aligned with the hole in the needle plate.
- Replace bent presser foot and adjust presser foot height.
- Replace bent needle.



Needle hitting needle plate

- Adjust the alignment of the needle plate. Rotate pulley to 150 degrees and see if needle goes through the middle of the hole in the needle plate. If not, loosen the two screws that hold on the plate and move the plate to align with needle and retighten screws. Turn pulley backwards to stop position (100 degrees).

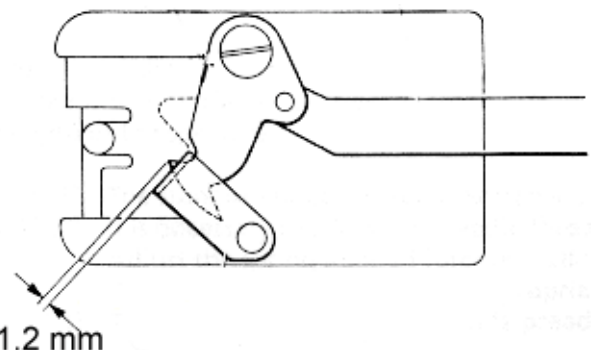


Needle hit the hoop while sewing

- Loosen the needle holding setscrew of the needle that is stuck in the hoop. Rotate the pulley to bring the needle up. Remove hoop from machine and turn pulley back to stop position (100 degrees). Remove needle from hoop with pliers.

Moving knife is not at proper position

- Remove needle plate and check position of moving knife. If knife is out of position try manually moving it back into position with your fingers. Cycle the trimmer with the button on the keypad and recheck adjustment.



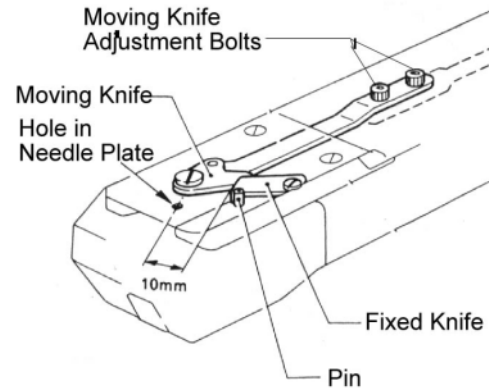


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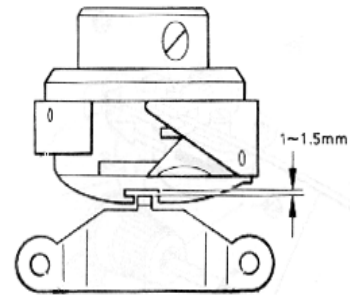
Moving knife is out of adjustment

- Before adjusting moving knife check the fixed knife to see if it is 10mm from the needle and against the pin. Usually if the fixed knife is pushed all the way back against its adjustment slot that is approximately 10mm. If needed adjust clearance of moving knife to 1.2 mm. You will need to remove the chrome are cover to gain access to the adjustment bolts.



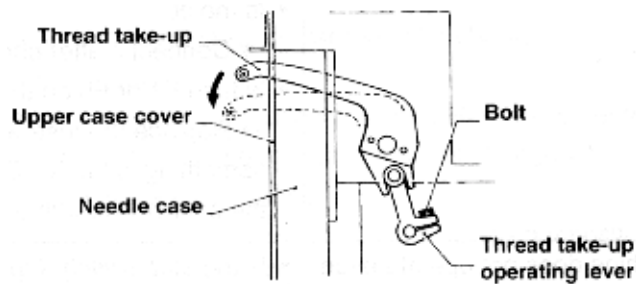
Inner rotary hook adjuster set incorrectly

- Check clearance of inner rotary hook stopper, also known as the positioning finger. It may be in too far causing thread to wrap around it.



Thread take up lever striking the needle case cover

- Adjust thread take up driving lever so that all take up levers are even. Make sure this is done at stop position (100 degrees). You will need to remove the tension base to gain access to the adjustment bolt.



Needle depth or 0 degree stopper out of position

- Adjust needle depth first and then 0 degree stopper. Please refer to your instruction manual for adjustment.