

## CHAIN CARE & TROUBLESHOOTING

Problem	Possible Causes	What To Do
Excessive noise	<ul style="list-style-type: none"> <li>■ Misalignment of sprocket</li> <li>■ Loose casings or bearings</li> <li>■ Too little or too much slack</li> <li>■ Chain and/or sprocket wear</li> <li>■ Inadequate lubrication or no lubrication</li> <li>■ Chain pitch size too large</li> </ul>	<ul style="list-style-type: none"> <li>■ Realign sprockets and shafts</li> <li>■ Tighten set-bolts</li> <li>■ Adjust center or idler take-up</li> <li>■ Replace chain and/or sprocket</li> <li>■ Lubricate properly</li> <li>■ Check chain drive recommendation</li> </ul>
Chain vibration	<ul style="list-style-type: none"> <li>■ Resonance to the vibration cycle of machine to be installed</li> <li>■ High load fluctuation</li> </ul>	<ul style="list-style-type: none"> <li>■ Change vibration cycle of chain or machine</li> <li>■ Use torque converter or fluid coupling</li> </ul>
Wear on inside of link plate and one side of sprocket teeth	<ul style="list-style-type: none"> <li>■ Misalignment</li> </ul>	<ul style="list-style-type: none"> <li>■ Realign sprockets and shafts</li> </ul>
Chain climbs sprockets	<ul style="list-style-type: none"> <li>■ Excessive chain slack</li> <li>■ Heavy overload</li> </ul>	<ul style="list-style-type: none"> <li>■ Adjust center or idler take-up</li> <li>■ Reduce load or install stronger chain</li> </ul>
Broken pins, bushings or rollers	<ul style="list-style-type: none"> <li>■ Chain speed too high for pitch and sprocket size</li> <li>■ Heavy shock or suddenly applied loads</li> <li>■ Material build-up in sprocket tooth pockets</li> <li>■ Inadequate lubrication</li> <li>■ Chain or sprocket corrosion</li> </ul>	<ul style="list-style-type: none"> <li>■ Use shorter pitch chain or install larger diameter sprockets</li> <li>■ Reduce shock load or install stronger chain</li> <li>■ Remove material build-up or install side gashed sprockets</li> <li>■ Lubricate properly</li> <li>■ Install anti-corrosive chain or sprockets</li> </ul>
Chain clings to sprocket	<ul style="list-style-type: none"> <li>■ Center distance too big or high load fluctuation</li> <li>■ Excessive chain slack</li> </ul>	<ul style="list-style-type: none"> <li>■ Adjust the center distance or install idler take-up</li> <li>■ Same as above</li> </ul>
Chain gets stiff	<ul style="list-style-type: none"> <li>■ Misalignment</li> <li>■ Inadequate lubrication</li> <li>■ Corrosion</li> <li>■ Excessive load</li> <li>■ Material build-up in chain joint</li> <li>■ Peening of link plate edges</li> </ul>	<ul style="list-style-type: none"> <li>■ Realign sprockets and shafts</li> <li>■ Lubricate properly</li> <li>■ Replace with anti-corrosive chain</li> <li>■ Reduce load or replace with chain of suitable strength</li> <li>■ Shield drive from foreign matter</li> <li>■ Check for chain interference</li> </ul>
Breakage of link plate	<ul style="list-style-type: none"> <li>■ Subjected to shock load</li> <li>■ Vibration</li> <li>■ Moment of load inertia is too big</li> </ul>	<ul style="list-style-type: none"> <li>■ Reduce shock (e.g., install a shock absorber)</li> <li>■ Install a device to absorb vibration (e.g., tightener, idler wheel)</li> <li>■ Chain section should be checked (increase number of strands or select next larger size chain)</li> </ul>

