## SY

## Trouble Shooting Hints

The below chart shows the most common chain failures and causes, but not necessarily the only ones.

Problem	Possible Causes of Problem	Suggested Remedy
Pin or Bushing Galling	Overload Inadequate lubrication	Proper lubrication Replace chain when elongation exceeds functional limits
Turned Pins	Overload Inadequate lubrication	• Replace chain as soon as possible
Excessive Noise	Too little or too much slack Chain obstruction Loose chain guard or bearing	<ul> <li>Adjust centers or take-up</li> <li>Inspect &amp; remove obstruction</li> <li>Tighten bolts and check bearings</li> </ul>
Chain Vibration	<ul><li>Excessive chain s lack</li><li>Center dis tance too long</li><li>Stiff links</li></ul>	Adjust chain tensioner Install idler Lubricate or replace chain
Wear on inside of link plate and one side of sprocket teeth	• Misalignment	Realign sprockets and shafts     Replace chain and sprockets if necessary
Chain Stiffness	<ul><li>Excessive load</li><li>Misalignment</li><li>Inadequate lubrication</li><li>Corrosion</li></ul>	<ul> <li>Replace chain with one of suitable strength</li> <li>Inspect alignment</li> <li>Clean and establish correct lubrication</li> <li>Replace with corrosion resistant chain</li> </ul>
Chain Climbs Sprockets	<ul><li>Excessive chain wear</li><li>Excessive chain slack</li><li>Inadequate lubrication</li><li>Sprocket tooth wear</li></ul>	Replace chain     Install tensioner if necessary     Replace sprocket
Fractured Plate	• Extreme overload	<ul> <li>Inspect the drive to determine the cause of high load</li> <li>Redesign drive using a higher capacity chain</li> </ul>



Problem	Possible Causes of Problem	Suggested Remedy
Broken Pins	• Extreme overload	<ul> <li>Inspect the drive to determine the cause of high load</li> <li>Redesign drive using a higher capacity chain</li> </ul>
Broken Pins(center)	Loading is greater than pins dynamic capacity	<ul> <li>Inspect the drive to determine the cause of high load</li> <li>Redesign drive using a higher capacity chain</li> </ul>
Broken Offset Link Pins	• Overload	<ul> <li>One-pitch offsetlinks are not recommended</li> <li>Redesign drive using a higher capacity chain</li> </ul>
Fatigue Fracture	<ul> <li>Loading is greater than chain's dynamic capacity</li> </ul>	Inspect the drive to determine the cause of high load     Redesign drive using a higher capacity chain
Cracking	•Stress corrosion cracking	Protect the chain from corrosion     Install anti-corrosive chains
Broken Rollers	Foreign material between chain and sprocket tooth     Fatigue failure	Redesign chain speed and load     Shield drive from foreign matter
Worn Plates	Bottom of plates worn due to rubbing on guides	Chain should be replaced when wear becames over 5% of the plates height