



### ISSUE:

Failure fatigue

### GOAL:

Improve chain wear life and decrease product costs

### SOLUTION:

Replace current chain with Diamond ANSI 60-2

### COST SAVINGS:

\$10,000 in savings after one year per line

An original equipment manufacturer produces a trunk shaker picking mechanism to harvest fruit from trellis systems. The shaking of the attachment is produced using a drive system powered by ANSI 60 double strand roller chain generating 350 – 400 vibrations per minute.

The starts and stops required to generate the shaking movement creates pulsating shock loads that, absorbed by the roller chain, contribute to link plate fatigue and premature chain failure.

To address the fatigue failures caused by the pulsation, Diamond recommended Diamond series ANSI 60-2 riveted roller chain with press-fit link and center plates. Unlike slip-fit link plates, which can accelerate fatigue failures due to flexibility, press-fit link plates provide rigid support at each tension point delivering significantly greater fatigue strength.

Following the change to press-fit construction, this manufacturer saw an increase in uptime of two to three times versus the slip-fit style chain. That amounted to a savings of approximately \$10,000 per instance.

