Sprockets AUSTRALIA

SOCOM CHAINS

APPENDIX · CONVEYOR CHAIN

CONVEYOR CHAIN WEAR.

Measure the pitch. Check every part. Match the limit to the chain.

MEASURE FIRST · REPLACE ON THE NUMBER

ELONGATION LIMITS · BY CHAIN FAMILY

CHAIN FAMILY	TYPICAL SERIES	REPLACE AT	MEASURE OVER
Small pitch conveyor	Double pitch C2040 to C2160 Attachment chain	**1.5% paired or timed** 3% single strand	12 pitches
Large pitch conveyor	ISO 1977 M series BS and RF engineering class	**2%** Never run past 3%	4 pitches minimum
Welded steel mill and drag	WH, WR and WD series	**3%** At 4 to 5% it skips teeth	10 pitches 4 minimum
Pintle and cast chain	400 and 700 class 667 and 88 steel pintle	**Set by pitch** 0.5% long to 3.5% short pitch	As many as possible 4 minimum

Big sprockets: on small pitch chain with 68 or more teeth on the large sprocket, the limit drops to 200 ÷ N %. 80 teeth gives 2.5%.
Pintle and cast chain: ring us with the chain number. We confirm the limit for that pitch.

COMPONENT LIMITS · LARGE PITCH

- ☑ **ROLLERS**
  S type: replace at 40% of wall left. R and F type: replace when the plate touches the rail.
- ☑ **BUSHES**
  Replace when wear leaves 40% of the bush wall.
- ☑ **LINK PLATES**
  Replace at 1/3 of thickness worn on the face, or 1/8 of plate height worn on the edge.
- ☑ **SPROCKET TEETH**
  Replace or repair when the tooth bottom has worn 3 to 5 mm.
- ☑ **ATTACHMENTS AND FLIGHTS**
  Look for bent, cracked or loose parts. Fix before the next run.
- ☑ **TAKE-UP TRAVEL**
  Take-up at the end of its travel means the chain has worn out.

MEASURE IT RIGHT

HOW TO MEASURE

1. Tension the chain. Measure the tight side near the drive.
2. Measure the pitches shown in the table. More is better.
3. Pin centre to pin centre, same point on each pin.
4. Nominal length = pitch × pitches measured.
5. Wear % = (measured − nominal) ÷ nominal × 100.

WORKED EXAMPLE

WH157 welded steel chain, 153.67 mm pitch.
10 pitches nominal = 1536.7 mm. Measured = 1555.8 mm.
Wear = 19.1 ÷ 1536.7 × 100 = 1.24%. Under 3%. Keep running.

REPLACE THE CHAIN IF

- Elongation reaches the limit for its family.
- Bush or roller wears through the hard case.
- Any plate or attachment has a crack.
- Chain rides high or skips sprocket teeth.
- Paired strands drift out of time. Replace both.

SERVICE SCHEDULE · CONVEYOR APPLICATIONS

APPLICATION	INSPECT	LUBE	REPLACE BY
Conveyor, light load, 8 h/day	Monthly	Weekly drip	12 to 24 months
Conveyor, heavy load, 16 h/day	Weekly	Daily drip or bath	6 to 12 months
Mining, abrasive, 24 h/day	Daily	Continuous forced	3 to 6 months
Wet or wash-down, food grade	Weekly	Food-grade spray	6 to 12 months