APPENDIX · TRANSMISSION CHAIN

MAINTAIN AND INSPECT.

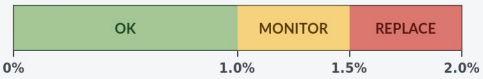
Check it. Measure it. Replace it before it lets you down.

INSPECT EARLY · REPLACE BEFORE FAILURE

INSPECTION CHECKLIST

- **CHAIN ELONGATION**
  Measure 12 link length. Replace at 1.5% wear (2% absolute).
- **SPROCKET TEETH**
  Look for hooked or pointed tooth profile. Replace if visibly worn.
- **ROLLER SURFACE**
  Smooth and round. Replace chain if rollers are flat-spotted or scored.
- **PIN AND BUSH PLAY**
  Lift each link. Side play more than 1 mm means joint wear.
- **PLATE CONDITION**
  Look for cracks at the link plate eyes. Any crack = replace chain.
- **LUBE CONDITION**
  Oil should be amber and free of grit. Black or gritty = drain and refill.
- **ALIGNMENT**
  Re-check sprocket alignment. Misalignment shows as one-sided plate wear.
- **CHAIN GUARD**
  Confirm guard is intact and in place. Replace damaged guards before run.

WEAR LIMITS



HOW TO MEASURE

1. Pull the chain taut on the bench.
2. Measure across 12 pitches pin to pin.
3. Compare to nominal: 12 × pitch.
4. Wear % = (measured − nominal) / nominal.

REPLACE THE CHAIN IF

- Elongation reaches 1.5% (red zone).
- Any plate has a crack, however small.
- Pin or bush is loose in its plate.
- Roller is missing, broken or seized.
- Joint will not articulate freely.
- Sprocket teeth are hooked or pointed.

Conveyor chain? Limits differ.
See the Conveyor Chain Wear page.

SERVICE SCHEDULE · DRIVE APPLICATIONS

APPLICATION	INSPECT	LUBE	REPLACE BY
General drive, 8 h/day	Monthly	Weekly drip or brush	12 to 24 months
Heavy drive, 16 to 24 h/day	Weekly	Bath or forced	6 to 12 months
Reversing or shock load	Weekly	Daily drip or bath	6 to 12 months
Agricultural, intermittent	Each season	Weekly hand oil	2 to 4 seasons
Packaging, 8 h/day clean room	Monthly	Food-grade drip	12 to 18 months
Drive in dust or grit, sealed	Weekly inspect seal	Sealed unit, none	Per maker hours
Wet or wash-down, food grade	Weekly	Food-grade spray	6 to 12 months