

8.0 Technical information – Erection – Maintenance – Wear

8.1 Assembly instructions for chains

Assembly:

2-strand conveyor chains are always supplied as matched pairs. Chains for multi-strand conveyors, 3-4 strands, are supplied in matched bundles. Bundles are tied together with coloured wire, colour dependent on chain quality, as follows:

HEKO 280E – white

HEKO21 – yellow

HEKO210E black

HEKO 400E green

HEKO 5 red

HEKO 350E blue

It is important that the coloured wires are not removed until immediately before assembly of the chain with the attachments. Chain strands are then assembled in parallel which minimises the total length difference between the assembled chain strands. Chains should be assembled with the welds of the vertical links pointing towards the shaft centre of the chain wheel. Bolted scraper connections should be checked and re-tightened after the conveyor has been operated for several days on load and run in. Equal scraper bar length is essential for proper chain transport and

smooth operation. The shafts of the drive and idling wheels must be properly aligned and the wheel centres must also be in line. Chain tension should be minimised. Excess noise and/or vibration indicate excessive chain tension.

Chain shortening:

Should it be necessary to shorten the chain, then either a complete set of chain links is to be removed from both sides or with endless chain an equal number of links are removed from both chain strands. Heating of the adjacent chain link is to be avoided and cold cutting by using a cutting disc is preferred. Welding to the chain link, attachment and scraper bar is to be avoided. Please contact us in case of queries.

Maintenance/Wear

Measurement:

All conveyor parts which may be subject to wear (wheels, chains, attachment, scraper bars) should be checked regularly for wear or damage.

Chain contact surfaces are subject to normal wear, the extent of which is

governed by chain quality, number of link movements, contact load and material handled. Wear in the contact areas reduces the chain thickness and thus has a direct relationship to service life.

Lubrication, for example with oil, increases wear as it will form a grinding paste. Air and water washes or scrapers, which remove the material from the chains, drive and idling wheels reduce wear. Chains and attachments should be checked for damage following a conveyor overload. Chain replacement should always be combined with the replacement of all toothed wheels, or toothed rims, to ensure proper meshing of the chain. (For wear calculations see page 34)

Operational Information:

We recommend the installation of overload protection, e.g. shear pin, or overload coupling, as part of the drive unit to prevent overload of the chain during blockages in the conveyor. Material should be fed evenly over the whole width of the conveyor to avoid one sided loading and wear.

8.2 Assembly instructions for chain wheels

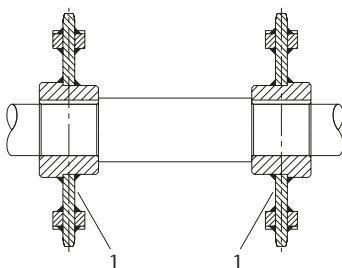


Figure 68: Assembly instruction 1

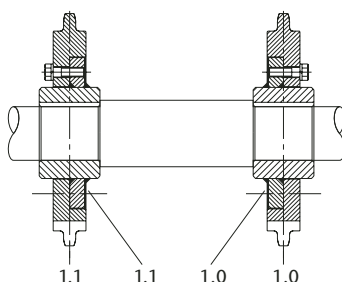


Figure 69: Assembly instruction 2

Assembly instruction 1 for chain wheels one-piece

Unless otherwise instructed in client's order, keyways will be cut in a pair of wheels central to a tooth. Chain wheels belonging together will be given the same number so that mistakes are avoided even with large numbers of wheels. Each pair of wheels will be marked with the same number sequence.

Assembly instruction 2 for chain wheels with replaceable toothed rims

Unless otherwise instructed in client's order, keyways will be cut in a pair of wheels central to a tooth. Chain wheels belonging together will be given the same number so that mistakes are avoided even with large numbers of wheels. Each pair of wheels will be marked with the same number sequence.

Each part of wheels with replaceable segments will be marked with an additional number, starting on the inside.