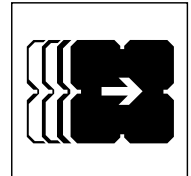


**BRL SIS (Sales Information Service)**

Herausgeber Issued by	Bearbeiter Responsible	Telefon Phone	Datum Date
BRL/SVC	H.Wagner	+49-711- 811 - 7836	2008-01-04

**Material and information flow technology****S2007-07 EN****Notes on Maintenance Intervals for  
Accumulation Roller Chains and Flat Top Chains**

Please note that, in accordance with our instructions, the chains of the *TS2plus* and *TS4plus* transfer systems must be re-oiled and correspondingly re-tensioned after a runtime of 1000 hrs.

This applies to all components that use accumulation roller chains and flat top chains as conveyor media.

On the basis of our field experience, we could determine that, if maintenance intervals are not observed, the chains themselves stiffen and the chain links elongate. The first sign of insufficient lubrication is the stick-slip effect of the chain.

In the flat top chain, the chain clips in the chain return guidance of the drive box overlap, as you can see on the photo below. As a result, the clips are torn off.



We were also able to determine that the guide profiles were then pulled into the return unit and that the guide profiles in the curves exhibited extreme wear.

In some cases, there were even motor failures due to high current consumption. This was caused by overloading due to lack of lubrication.

## BRL SIS (Sales Information Service)

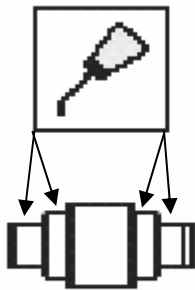
Consulting our chain supplier and the lubricant manufacturer, as well as our experience gained in the field, leads us to the following conclusions:

All flat top chains and accumulation roller chains are delivered with a basic lubrication. They must be relubricated after 1000 hrs. at the latest.

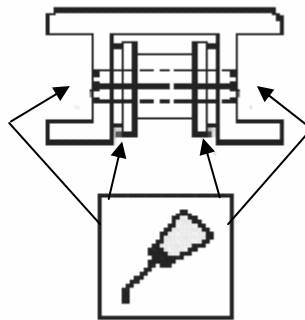
The sides of the plates are delivered unlubricated. Initial lubrication of the plate sides is absolutely necessary, especially if the chains are used in curves. Following this, they must be relubricated every 1000 hrs.

The lubricant Structovis GHD is especially suitable for this. It can be used for lubricating the chain links as well as the plates at their lateral guiding portions.

Accumulation roller chain



Flat top chain



After the basic oiling, ESD flat top chains are centrifuged at the manufacturing plant to prevent drips during operation. This chain must also be relubricated in the same way.

To lubricate, use a brush or metered oil can; this is most conveniently done in the return area of the drive unit.

As an additional lubricant, we offer the Structovis BHD spray lubricant. Its high viscosity makes it especially suitable for clean environments and ESD requirements. If used sparingly, the lubricant does not drip.

**Caution:** This BHD lubricant is not suitable for lubricating the plate clips and the guide profiles of the section and the curve.

Due to high friction between the frictional partners, the ESD chain is not suitable for use in curves.

## BRL SIS (Sales Information Service)

To clarify the lubrication position and chain re-tensioning, here are some excerpts from the assembly instructions.

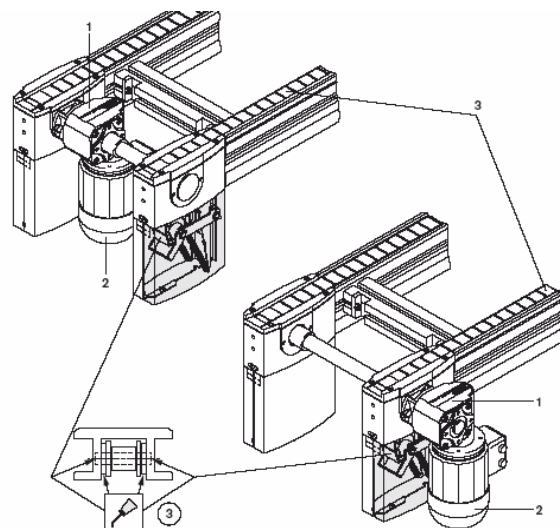
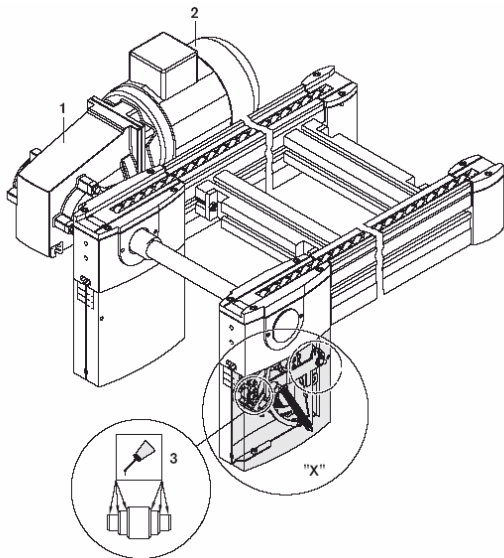
### Excerpts from the assembly instructions

#### Accumulation roller chain (Fig. 1)

#### Flat top chain (Fig. 2)

On delivery, the chains have already been oiled at the factory. They should then be oiled every 1000 hours of operation with approx. 2-3 g oil/m chain.

Prior to lubrication, the chains should be freed of superfluous grease, dirt or other impurities and at the same time checked for wear and elongation.



## BRL SIS (Sales Information Service)

### Removal of chain links when reaching chain tensioner end position on AS 2/R-1200, AS 2/R-2200, AS 2/C-400, AS 2/C-700 (Fig. 3)

This position is reached when:

- Tension lever "X" is in the lowest position.
- An installed proximity switch "Y", EN 60947-5-2-I2A12 (fastened with a switch bracket SH 2/UV, order no.: 3 842 168 600) has been activated by tension lever "X" and the controller has been switched off.

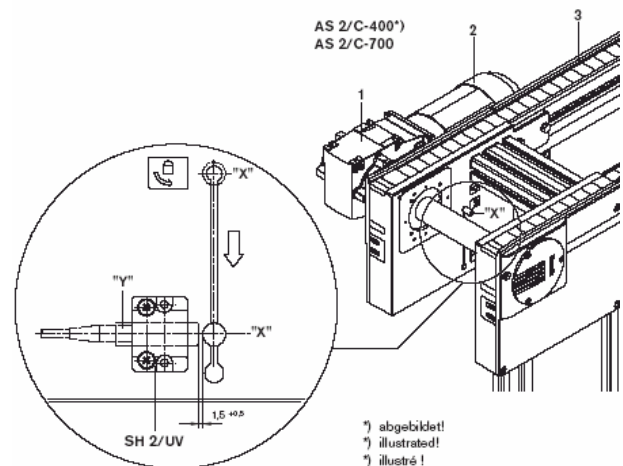


Bild 3

### Removal of chain links when reaching chain tensioner end position on AS 2/R-300, AS 2/R-700, AS 2/C-100, AS 2/C-250, BS 4/R (Fig. 4)

This position is reached when:

- Tab "1" is visible in the inspection hole area.
- An installed proximity switch "X" has been activated by tab "2" and the controller has been switched off.

#### Note:

Proximity switch EN 60947-5-2-I2A12 and switch bracket SH 2/UV, order no.: 3 842 168 600 are not included in the delivery contents and must be ordered separately. The drive wheels and the chain should in principle be replaced if the chain has lengthened by more than 3% of its original length.

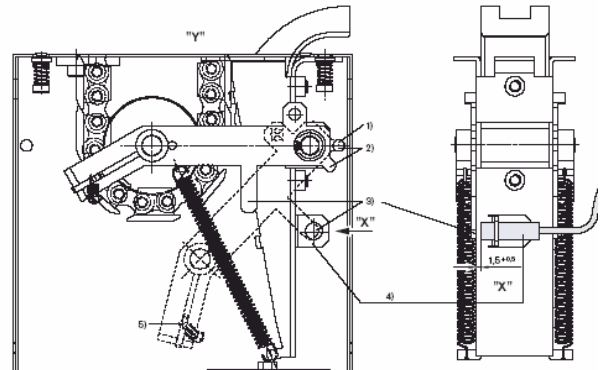


Bild 4

## **BRL SIS (Sales Information Service)**

### **Lubricants:**

You can obtain these lubricants directly from us.

Structovis GHD

Article no. 0 842 904 229, gross price: 15.30 euros  
per 0.5 l can of oil

Consumption per maintenance cycle: 0.5 l for a section length of 50 meters.

Structovis BHD

Article no. 0 842 904 238, gross price: 28.50 euros  
per 0.25 l can of spray lubricant

Consumption per maintenance cycle: 0.25 l for a section length of 25 meters.

### **Advantages of Structovis GHD /BHD:**

Good wear protection	-> Increases the service life of your chain and thereby reduces the costs of purchasing replacement parts
Intrinsically viscous lubricant	-> Good creep properties (intrinsic viscosity is the property of a fluid exhibiting lower viscosity under high shear force).
Good corrosion protection	-> Increases the length of maintenance intervals.
Good adhesion	-> This significantly reduces or prevents the risk of contaminating the transported material and the environment (oil dripping or spinning off).
Hydrocapillary effect	-> Undercuts water

Please send orders to the following address:

Bosch Rexroth AG

BRL/SVC3

Fax: +49 (0) 711- 811- 7851

or by e-mail to the spare parts administrator known to you

**Please pass this service information on to your maintenance personnel.**