CROWN

SX

Service Manual



SX3000 Series

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MidWestTech | Crown SX3000 Walkie Straddle Stacker Service Manual | Publication 812558-006

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DANGER

When checking for chain wear be sure to measure a part of the chain which passes over the guide pulleys. Never repair chains by cutting out the worn section and replacing it with a new section. If a chain is worn, always replace both lift chains.

Chain wear can be measured with a wear gauge (Crown No. 106440) or a steel tape measure (see Fig. 2271).

Before testing the chain elongation it is important to tension the lift chain if necessary. For non-detachable lift chains the weight of the fork carriage or mast is sufficient. If the lift chain is detached it must be kept taut during measurement.

The chain slack test must cover at least ten links, over at least three different points in a section of the chain which always passes over a pulley during operation.



2271

Chain Dimensions (Dimension C in Fig. 2271).

New: 10 links = 158.75 mm

Wear limit: 10 links = 163.5 mm

Detachable chain anchors, tie bolts and lift chains must be replaced in the event of 3% chain elongation.

DANGER

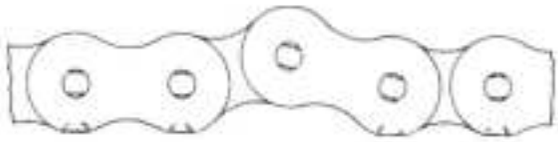
If just one of the faults mentioned in this chapter is detected, both chains together with their chain anchors or bolts must be immediately replaced.

Never repair damaged chains!

This can result in fatal accidents!

Freedom of Movement of Chain Links

Each individual chain link must flex freely. Tight joints (Fig. 2775si) increase friction and the chain tension during lifting. Excessive chain tension in turn accelerates material wear.



2775si

Possible causes of stiff joints are as follows:

- Bent pins or plates
- Rusty joints.
- Peened plate edges.

Plate edge distortion is caused by:

- Ruptured chain pinion.
- Constant overloading of the chain.
- Chain striking the mast components.

Immediately replace any chains with stiff joints.

Chain Tension

When installed, both lift chains should have the same chain tension to ensure even distribution of the load over the two chains when lifting.

When replacing the forks make sure that both forks lie evenly on the surface. If they are not even, compensate the chain length via the chain anchor so that both chains have the same chain tension.

After adjusting, tighten the counternuts of the chain anchor again (for correct torques see Chapter 1, Torque table).

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Drift Test

All drift tests should be conducted with a capacity load (refer to capacity plate for the rated capacity of your truck). The material used for the load test must be evenly stacked within the limits of a 1.2 m x 1.2 m square pallet and must be secured to the fork carriage with the forks spread to their maximum width.

CAUTION

Never stand or work under a suspended load

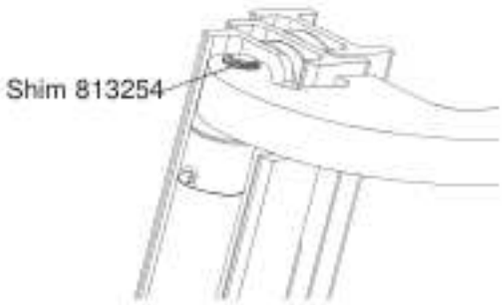
Fully extend the mast with maximum rated load. The load my not drift down more than 50 mm within 5 minutes.

Occasionally, a slight creep of the fork assembly may occur due to internal cylinder leakage, but it may also be caused by leakage in the check valves, control valve, etc. To seat these valves properly when this occurs, raise and lower the forks to flush out any foreign material from the valve seat.

Cylinder Shimming

Scondary Cylinder Shim

- Add as many shims (813254) between the circlip on the top of the secondary cylinder rod and top brace of the inner mast as possible (figure 4). At fully extended mast the cylinder bottom shall not



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lift up from its seat. Should this happen, remove a equivalent quantity of shimms.

- Adjust side plates so, that there is no rattling of the side cylinders during driving/lifting.

Primary Cylinder Shim

- The primary lift cylinder of the ST/SX mast can be adjusted so that its installation angle can be set correctly. This is done by adding shims 811812 between the cylinder and the middle cross brace of the inner mast. (figure 5)

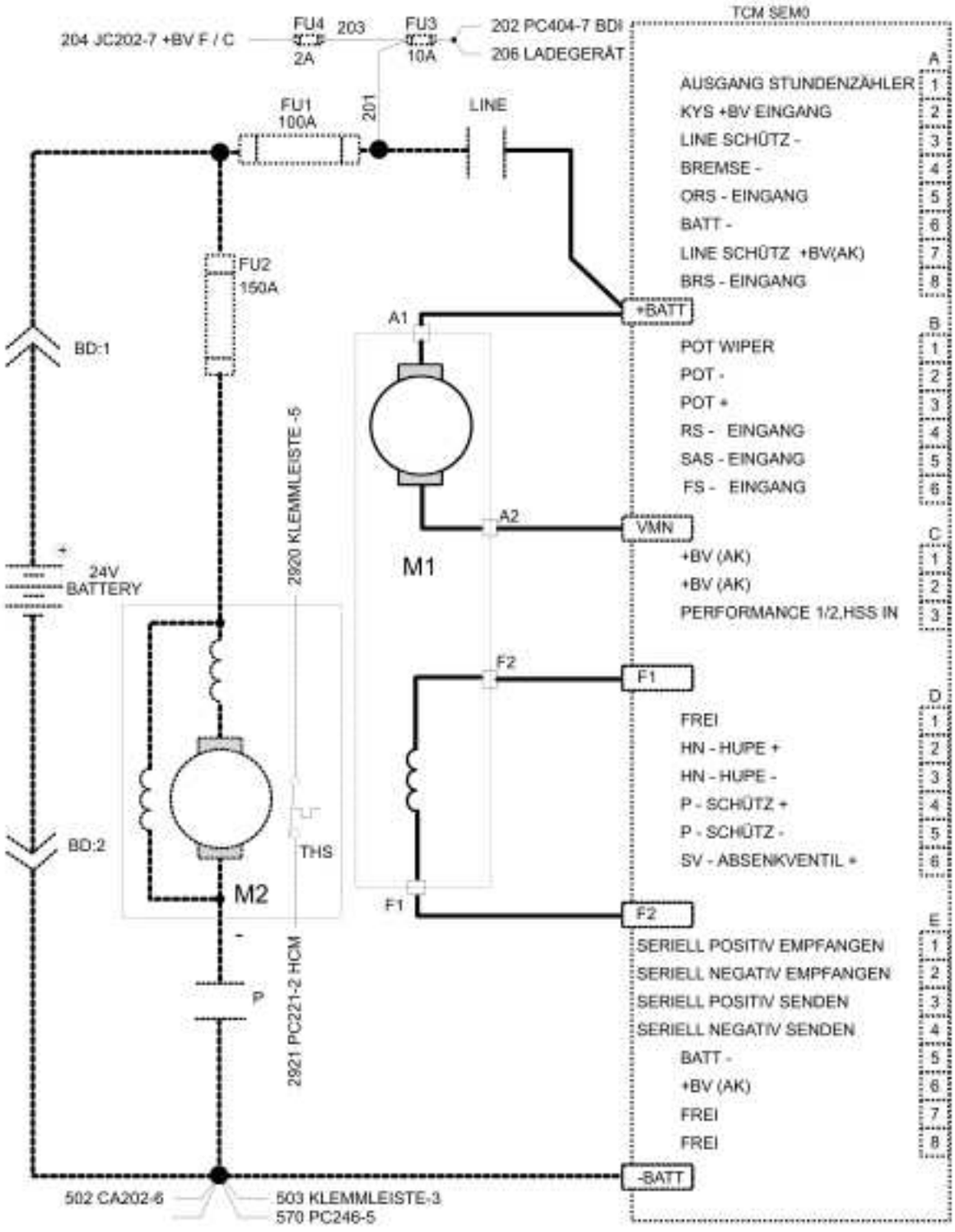
- Nominal you have to add 2x 811812. Remove or add shims, that the centre cylinder is fixed vertical. The chain should have a min. distance to the fork carriage of 3mm when passing the yoke.



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Traction Controller - Sem0 Power Circuit



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Hinweis
1) Spannung zwischen B1 & B2:
10V = Max.speed
0V = No drive command

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