Wheeling in Degree 2

The wheeling element:

$$\Omega = \exp_\sqcup \left(\tfrac{1}{48} \phi - \tfrac{1}{5760} \bowtie + \ldots \right)$$

→ This must be 0 mod link relations
→ And it is

Wheeling in Degree 3

→ This must be 0 mod link relations
→ And it is

(It seems that the wheels start coupling into the picture only in degrees ⩾ 4)