

**PFAFF**<sup>®</sup> Industrial

CS KSL

Industrial sewing solutions  
for the production of tire cord

Car tires are highly complicated constructions and each single part or layer disappears when vulcanized with a rubber mixture. One of the most important component is the tire cord. This extremely durable fabric ensures that tires stay in form even under enormous pressure. The requirement is equally high for the processing of textile materials as well as the manufacturing machines. PFAFF INDUSTRIAL and KSL acquired decades of know-how in the sewing section and in joining various textile materials. With the machines KL 624, KL 220, PFAFF 4509 and PFAFF 5626 we developed four solutions, which are predestined in the field of tire cord.

#### The compact sewing unit

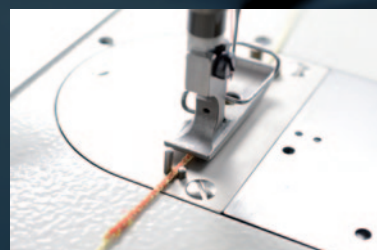
- Extremely flexible to position and use
- Safety sewing (instead of splicing)



## PFAFF 4509

Single-needle lockstitch zigzag high-speed seamer with drop feed for sewing twisted threads for the tire cord industry

- Powerful and reliable sewing machine head
- Quiet low-vibration operation even at top speed
- High tensile strength and durability through the zig-zag stitch
- A special parts kit guarantees the neat and reliable joining of both twined threads
- Thread trimmer and presser foot lift (electro-pneumatical)
- Fresh oil hook lubrication for the hook system
- Easy commissioning of the machine (220V connection / integrated compressor)
- The machine is highly mobile and deployable in production (since compressor is integrated)





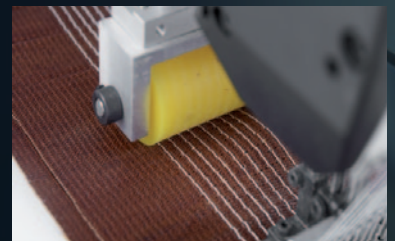
## PFAFF 5626 (Special version)

10-needle flatbed special machine for sewing light transport belt fabric as well as tire cord fabric and dipped liner

- High traction due to unison feed (bottom feed and alternating top and needle feed)
- The 5626 work with parallel located loopers which move in sewing direction (Inline)
- 700 mm arm clearance
- Puller with driven roller from below
- Pneumatic presser foot lift and puller lift (operated by hand or by presser foot)
- Thread draw-off device for tension free and twist-free draw-off of the sewing threads
- Tension- and puckering free processing of polyamide, polyester and viscose fabric
- Materials are layed in min. 2 layers
- Easy commissioning of the machine (220V connection / integrated compressor)
- The machine is highly mobile and deployable in production (since compressor is integrated)
- Web pass height: 850 mm

### The light sewing unit

- Flexible, simple work (repairs)
- For single dipped material





#### The flexible sewing unit

- Extra-heavy version
- For multiple dipped material

## KL 624 H

10-needle feed-off-the-arm special machine for sewing light transport belt fabric as well as tire cord fabric and dipped liner (2 layers, approx. 6,000 d tex)

- Extreme sturdy machine concept ensures a reliable work
- 1,000 mm clearance under the machine arm - sewing head turned 90° towards the machine arm
- Puller with driven roller
- Pneumatic presser foot lift and puller lift (operated by hand)
- Thread draw-off device for tension free and twist-free draw-off of the sewing threads
- Tension- and puckering free processing of polyamide, polyester and viscose fabric
- Materials are layed in min. 2 layers
- Easy commissioning of the machine (220V connection / integrated compressor)
- The machine is highly mobile and deployable in production (since compressor is integrated)
- Web pass height: 850 mm







## KL 220

10-needle special machine for straight sewing of heavy transport belt fabric as well as tire cord fabric and dipped liner (2-layer, approx. 2,000 g/qm)

- Sturdy steel portal for take-up of the cross sewing head
- Linear guiding system with tooth belt drive for cross travel of the mechanically divided cross sewing head
- Less product waste (on both ends of the role), because the machine can be integrated into the material flow
- Min. material width: 600 mm, max. material width: 2,000 mm (up to 3,600 mm on request)
- Pneumatic presser foot lift (automatically)
- Thread withdrawal device for tension free and twist-free withdrawal of the sewing threads
- Tension- and puckering free processing of polyamide, polyester and viscose fabric
- Materials are stacked in min. 2 layers
- Separating unit for chain threads (hot cutting unit)
- Lifiable material clamping at the right of the cross sewing head to fix the material during the sewing process
- Stationary needle holders, left and right of the sewing head, to stretch and fix the material
- Lifting unit to lift the material out of both needle holders
- Photocell monitoring for recognition of the beginning and the end of the material
- Web pass height: 1,040 mm

The full-automatic sewing unit

- Extra stable machine concept
- New: Integrated security system



## Specifications:

	<b>PFAFF 4509</b>	<b>KL 624 H</b>	<b>KL 220</b>	<b>PFAFF 5626</b>
Feeding system	Drop feed	Needle- and foot feed	Needle- and foot feed	Unison feed
Max. sewing speed	3,000 s.p.m.	1,000 s.p.m	1,000 s.p.m.	3,000 s.p.m.
Max. stitch length	1.5 mm	12 mm	12 mm	6 mm
Zig-zag width	0.9 - 1.6 mm	--	--	--
Needle gauge	--	9 mm (10 needles)	9 mm (10 needles)	4,8 - 60 mm
Stitch type	Lockstitch	Double chainstitch	Double chainstitch	Double chainstitch
Needle system	438	794 HFR SAN1	794 HFR SAN1	62x59 or 5640-62x57
Needle size	Nm 70 (A version) Nm 80 (B version)	Nm 180	Nm 180	Nm 180

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