

PFAFF[®] Industrial



POWERline 2545/46



POWERline 2545/46

Revolutionary...



The combination of revolutionary design and innovative engineering has led to the development of something quite special, extraordinary – something, which will influence the future of the sewing machine. An impressive example for such a far-reaching combination is the POWERLINE 2545/2546 – a line of machines, which represents a new generation of special high-speed sewing machines with triple feed (bottom, needle and alternating top feed) and vertical hook.

2545: single-needle version

2546: double-needle version

Clear and precise functions with ergonomically arranged control elements are the outstanding features of this series, for which PFAFF won the Interzum Innovations-Award 2007 in the "Best of the Best " category. The machine achieves an equally high stitch quality on top-stitching work in the visible areas and on assembly seams in the non-visible areas – flexibility which knows no boundaries in the automotive and home upholstery sectors. Top sewing results are guaranteed both on fine leather and on heavy upholstery materials. With the largest arm clearance in its class, the machine guarantees excellent handling. Technical features, like the programmable multi-switch or the new "winding assistant" support the working flexibility and make the POWERLINE a multi-feature machine with "excellent benefits".

The fine tension of the surface signalizes power and dynamics. The attractive design, the trend-setting ergonomics and the unique service concept of the Powerline 2545/2546 mark a revolutionary milestone in the 150 year old history of the sewing machine.

Overview of the 2545/2546

The POWERLINE 2545/2546 is available in the following versions with varying equipment:

	BASIC	PLUS
Vertical hook, large (for threads up to size 10/3 syn.)	●	●
Vertical hook, XXL extra large (for threads up to size 10/3 syn.)	○	○
Thread trimmer, < 13 mm thread ends (-900/81)		●
Thread trimmer, < 5 mm thread ends (-900/82) → on request		○
Thread nipper, controlled (-909/12)		○
Presser foot lift, manual by knee lever	●	
Presser foot lift, electro-pneumatic (-910/04)		●
Manual backtacking with hand lever (-911/35)	●	●
Automatic backtacking, electro-pneumatic		●
1 pre-selectable stitch length	●	
2 pre-selectable stitch lengths, alternately switchable		●
2 pre-selectable thread tensions (per needle), one can be switched on manually	●	
2 pre-selectable thread tensions (per needle), one can be switched on electro-pneumatically by knuckle switch		●
Top feed stroke is manually adjustable up to 9 mm	●	
2 top feed strokes are manually adjustable, alternately switchable		●
Unison feed with height adjustment of the bottom feeder	●	●
Unison feed with engageable lifting motion of the bottom feeder	○	○
Oil-level indicator	●	●
Oil-level indicator on the display, with warning light on sewing head		●
Sewing feet pressure, manually adjustable	●	●
Clutch motor	●	
DC motor	○	
DC motor P74 ED *		●
Control panel BDF-PicoTop		●
Bobbin thread monitor with stitch counter and LED display		●
Integrated panel with multi-function buttons & programmable multi-switch		●
Built in LED sewing light in the machine head, dimmable	○	●
Bobbin thread winder	●	●
Attachment slide, holder	●	●
Skip stitch detection (SSD)		○
Bobbin thread monitoring with thread detection		○
Monitoring of slide plate / Safety device for the start		○
Overload safety clutch	●	●

* Necessary for thread trimmer, backtacking, thread nipper, presser foot lift, 2 switchable stitch lengths, 2 switchable top feed strokes

● standard
○ option

Versions of the 2545*

2545-021/100 BASIC

Special single-needle high-speed seamer with unison feed (lockstitch)

- Large vertical hook for threads up to 10/3**
- Top feed stroke up to 9 mm, presser foot lift up to 20 mm, stitch length up to 12.0 mm
- Max. sewing speed 3,800 stitches/min.
- Overload safety clutch

2545-041/100 BASIC

Special single-needle high-speed seamer with unison feed (lockstitch)

- Extra large vertical hook with 70% more thread capacity, for threads up to 10/3**
- Top feed stroke up to 9 mm, presser foot lift up to 20 mm, stitch length up to 12.0 mm
- Max. sewing speed 3,400 stitches/min.
- Overload safety clutch

2545-521/001 PLUS

Special single-needle high-speed seamer with unison feed (lockstitch)

- Large vertical hook for threads up to 10/3**
- Thread trimmer, automatic presser foot lift, automatic backtacking device electro-pneumatically controlled
- Quick-change stepping control of top feed, second thread tension, quick adjustment of second stitch length (electro-pneumatically controlled)
- Adjustable top feed stroke up to 9 mm with automatic speed setting, presser foot lift up to 20 mm, stitch length up to 12.0 mm
- Max. sewing speed 3,800 stitches/min.
- Built in LED sewing light in the machine head
- DC motor P74 ED
- Overload safety clutch

* further on request

** depending on parts set

Versions of the 2545*

2545-521/002 PLUS

Special single-needle high-speed seamer with unison feed (lockstitch)

- Large vertical hook for threads up to 15/3**
- Thread trimmer for short thread ends, automatic presser foot lift, automatic backtacking device electro-pneumatically controlled
- Quick-change stepping control of top feed, second thread tension, quick adjustment of second stitch length (electro-pneumatically controlled)
- Thread nipper, controlled
- Adjustable top feed stroke up to 9 mm with automatic speed setting, presser foot lift up to 20 mm, stitch length up to 12.0 mm
- Max. sewing speed 3,800 stitches/min.
- Built in LED sewing light in the machine head
- DC motor P74 ED
- Overload safety clutch

2545-541/001 PLUS

Special single-needle high-speed seamer with unison feed (lockstitch)

- Extra large vertical hook with 70% more thread capacity, for threads up to 10/3**
- Thread trimmer, automatic presser foot lift, automatic backtacking device electro-pneumatically controlled
- Quick-change stepping control of top feed, second thread tension, quick adjustment of second stitch length (electro-pneumatically controlled)
- Top feed stroke up to 9 mm, presser foot lift up to 20 mm, stitch length up to 12.0 mm
- Max. sewing speed 3,400 stitches/min.
- Built in LED sewing light in the machine head
- DC motor P74 ED
- Overload safety clutch

Versions of the 2546*

2546-021/100 BASIC

Special double-needle high-speed seamer with unison feed (lockstitch)

- Large vertical hook for threads up to 10/3**
- Top feed stroke up to 9 mm, presser foot lift up to 20 mm, stitch length up to 12.0 mm
- Max. sewing speed 3,800 stitches/min.
- Overload safety clutch

2546-041/100 BASIC

Special double-needle high-speed seamer with unison feed (lockstitch)

- Extra large vertical hook with 70% more thread capacity, for threads up to 10/3**
- Top feed stroke up to 9 mm, presser foot lift up to 20 mm, stitch length up to 12.0 mm
- Max. sewing speed 3,400 stitches/min.
- Overload safety clutch

2546-521/001 PLUS

Special double-needle high-speed seamer with unison feed (lockstitch)

- Large vertical hook for threads up to 10/3**
- Thread trimmer, automatic presser foot lift, automatic backtacking device electro-pneumatically controlled
- Quick-change stepping control of top feed, second thread tension, quick adjustment of second stitch length (electro-pneumatically controlled)
- Adjustable top feed stroke up to 9 mm with automatic speed setting, Nähfußlüftung bis 20 mm, Stichlänge bis 12,0 mm
- Max. sewing speed 3,800 stitches/min.
- Built in LED sewing light in the machine head
- DC motor P74 ED
- Overload safety clutch

2546-541/001 PLUS

Special double-needle high-speed seamer with unison feed (lockstitch))

- Extra large vertical hook with 70% more thread capacity, for threads up to 10/3**
- Thread trimmer, automatic presser foot lift, automatic backtacking device electro-pneumatically controlled
- Quick-change stepping control of top feed, second thread tension, quick adjustment of second stitch length (electro-pneumatically controlled)
- Adjustable top feed stroke up to 9 mm with automatic speed setting, Nähfußlüftung bis 20 mm, Stichlänge bis 12,0 mm
- Max. sewing speed 3,400 stitches/min.
- Built in LED sewing light in the machine head
- DC motor P74 ED
- Overload safety clutch

* further on request

** depending on parts set

Applications



Top-stitching applications in the automotive industry

Application:

Top-stitching (double-needle) on voluminous car seat covers

Parts sets / attachments:

parts kit 63/24 C N9
(needle distance: 8 mm)



Decorative ornamental stitching in the automotive industry

Application:

Ornamental stitching on centre section of back rests

Parts sets / attachments:

parts kit 6/14 C N9



Lap-felling seams in the automotive industry

Application:

One-sided top-stitching of the assembly seam for seat section and attached head-rest on front car seat

Parts sets / attachments:

parts kit 6/14 C N9
+ edge guide (91-156-765-91)



Closing seams/assembly seams during pre-assembly work in the automotive industry

Application:

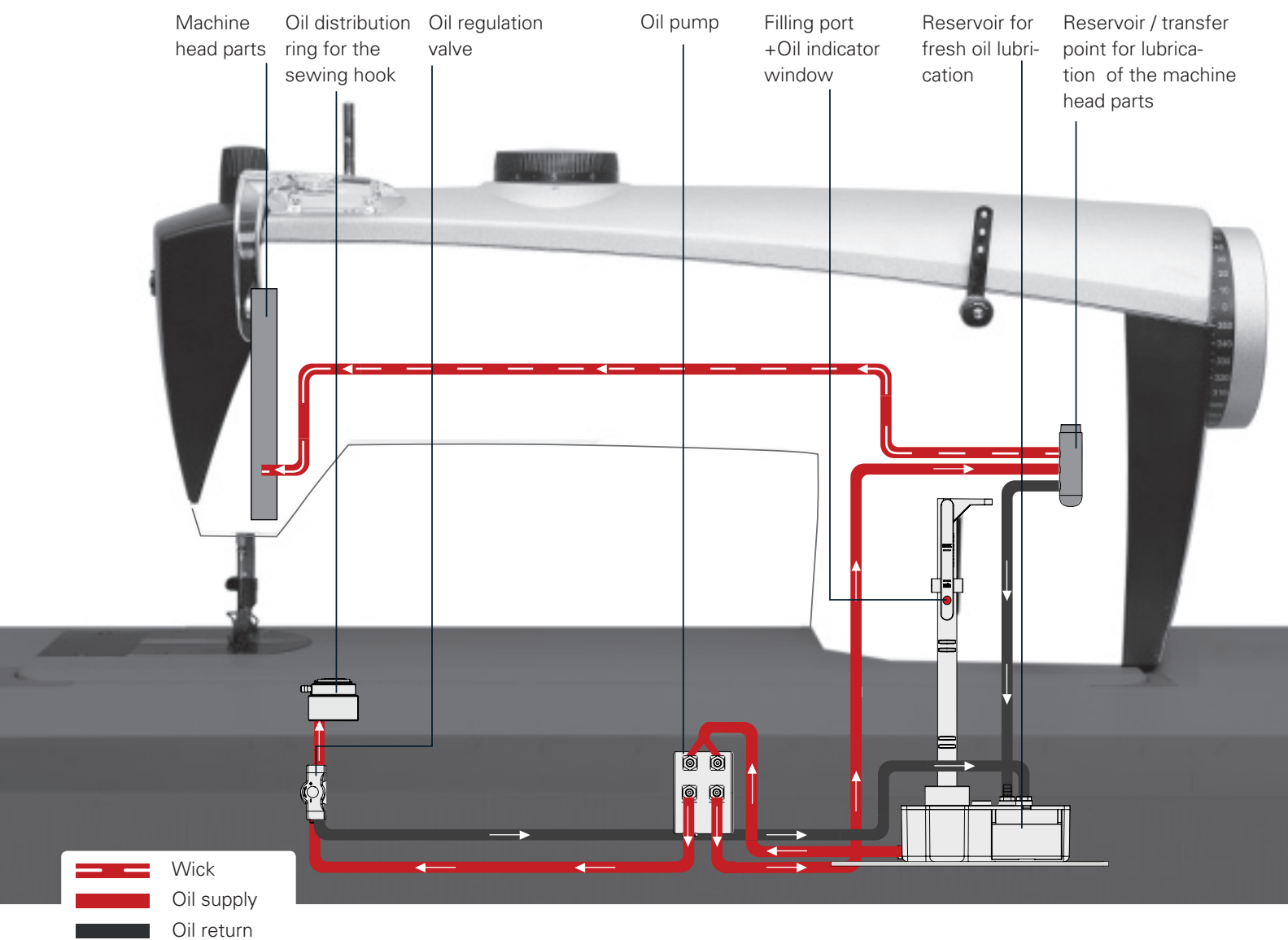
Attaching the side sections to the centre seat sections during pre-assembly of high-quality car seats

Parts sets / attachments:

parts kit 6/14 C N9
+ edge guide (91-156-763-91)

Innovative lubrication system

New lubrication system for accurate adjustment of the fresh oil supply to the hook. Prevents oil leakage (soiling of work-piece).



Features



①

Bobbin winder

Equipped with an aid for a secure and fast start of the bobbin winding process and within easy reach of the operator („winding assistant“)



②

Top feed stroke adjustment

Guarantees quick and accurate adjustment of the first and second top feed stroke. Adjustments are made in small increments.

- outer dial: up to 5 mm stroke
- inner dial: up to 9 mm stroke

Thread nipper

Ensures a neat seam start
(no thread tail on top of the
work piece)

③



LED light

Integrated in the sewing head

④



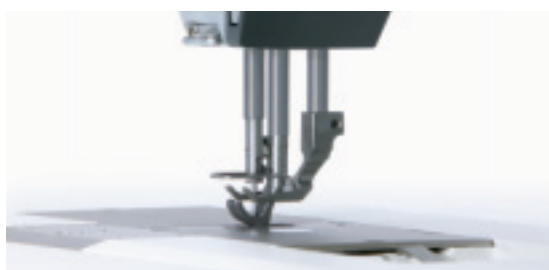
Increased top feed stroke

Up to 9 mm

⑤-⑥

Clearance under the sewing

foot Up to 20 mm



Hook saddle / Thread trimmer

Reliable and excellent cutting performance:

Threads up to 10/3 (metric) can be
cut without any problems

⑦



Large clearance

Under the machine arm
of 345 x 120 mm.

⑧



Scale disk

An adjustment aid for the mechanic:

- Needle bar rise
- Needle height
- Take-up lever

⑨



Features: control panels

From left to right:

Reverse sewing/intermediate backtacks

Needle position change (w/o trimming)

Recall preset top feed lift and adding second thread tension (programmable)

Backtack on/off

Recall preset stitch length

Second thread tension switched on / Switch for threading position (all pedal functions are blocked)

Safety switch:

Brings the machine in threading position and blocks all pedal functions. This prevents the operator from accidentally starting the machine and adds an additional safety feature.

From top to bottom:

Oil level warning

Bobbin thread control indicator

Programmable **multi-switch**

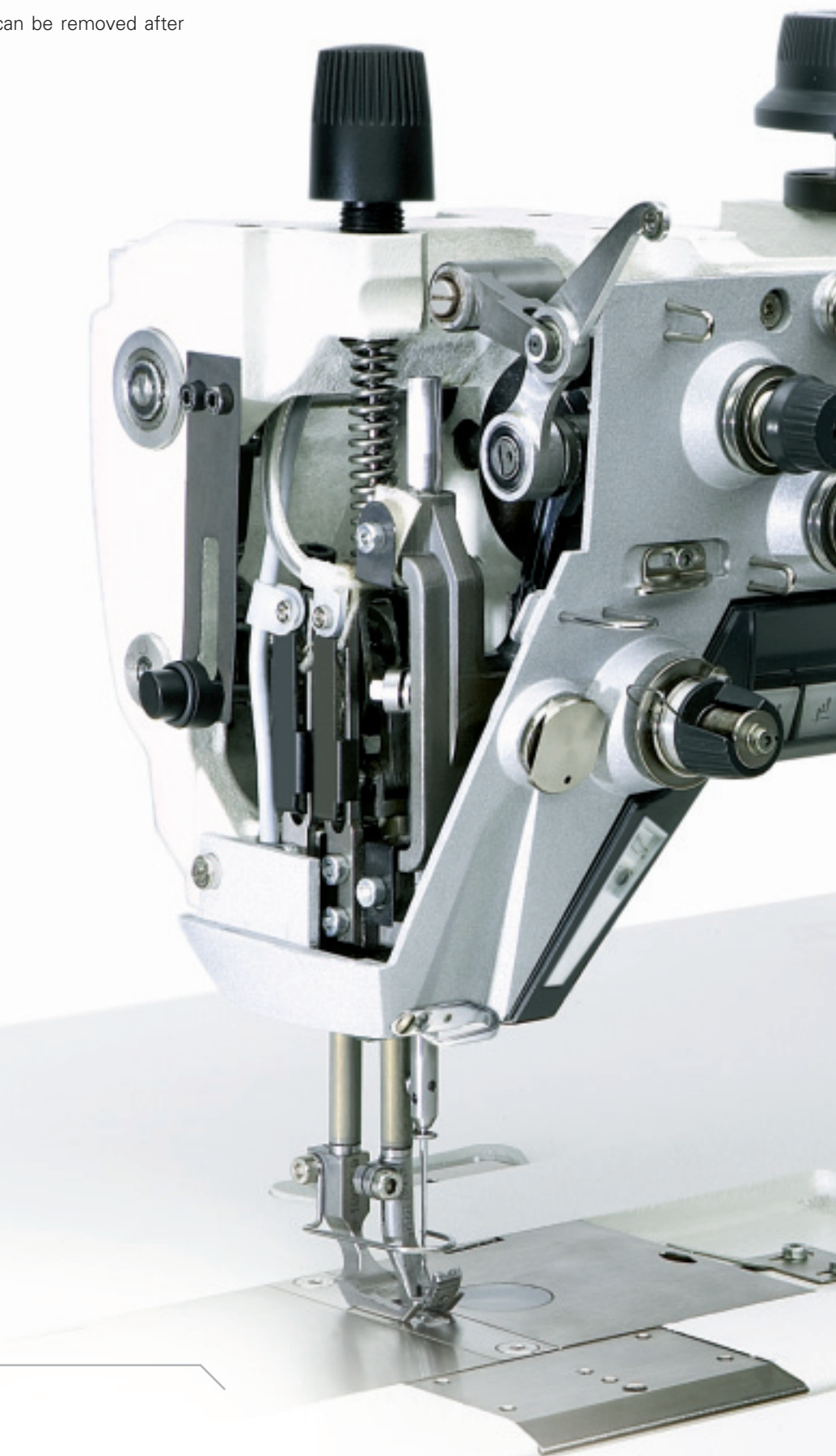
Functions, which are needed for the current sewing application, can be transferred to the soft switch (multi function switch) on the sewing head



Unique service concept

Easy and fast access to all adjustments:

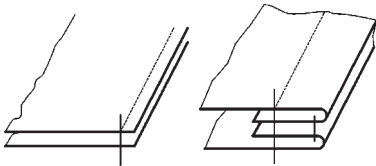
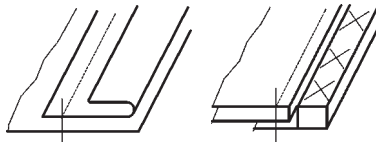
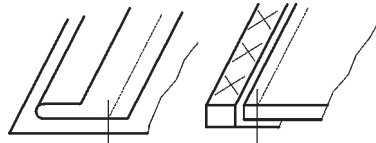
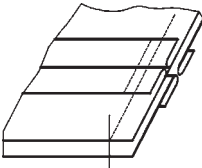
The top arm cover and the head cover can be removed after loosening just 3 screws.



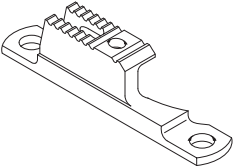
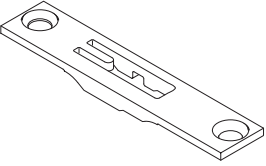
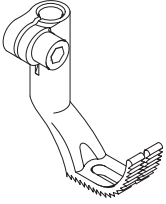
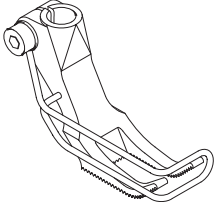
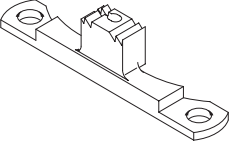
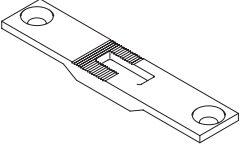
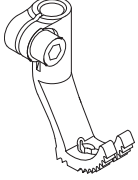
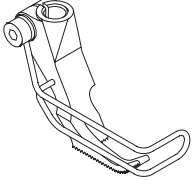
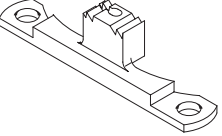
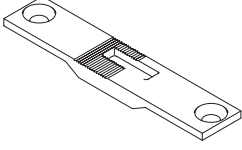
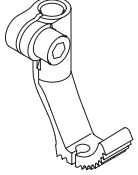
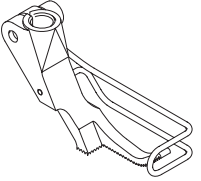
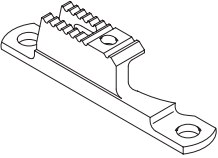
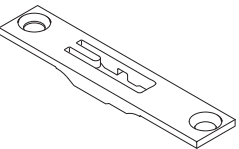
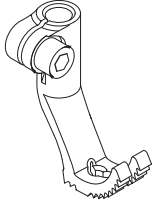
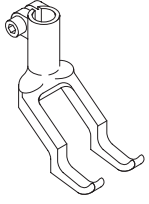
POWERline 2545/46



Parts kits 2545

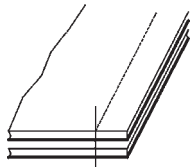
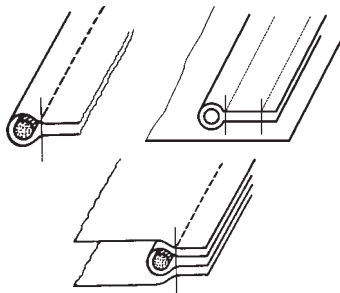
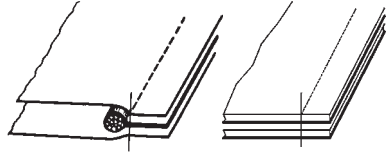
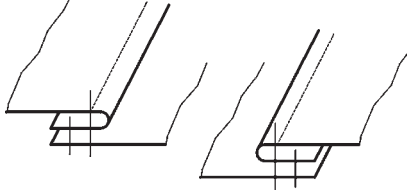
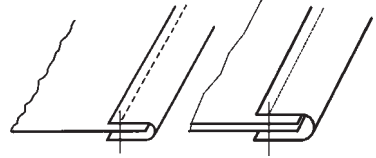
Parts kit	Seam construction	Operation
-6/14 N (N = 6 mm) C medium weight material D heavy weight material		Standard parts kit for all types of sewing work, e.g.: • Closing seams • Edge sewing work on fitted covers • Fancy seams
-6/14 N9 (N9 = 9 mm) C medium weight material D heavy weight material		Standard parts kit for all types of sewing work, e.g.: • Closing seams • Edge sewing work on fitted covers • Fancy seams
-6/14 N12 (N12 = 12 mm) C medium weight material D heavy weight material		Standard parts kit for all types of sewing work, e.g.: • Closing seams • Edge sewing work on fitted covers • Fancy seams
-2/04 N (N = 6 mm) C medium weight material Top-stitch width: 1.5 (standard), 2, 3, 4 mm		Work on right edge e.g. • Attaching fastening sections • Sewing zip on one side
-3/04 N (N = 6 mm) C medium weight material Top-stitch width: 1.5 (standard), 2, 3, 4 mm		Work on left edge e.g. • Attaching fastening sections • Sewing zip on one side
-6/07 N (N = 6 mm) C medium weight material		Closing seams, topstitching work on edges with cross seams (Climbing parts set)
-6/07 N9 (N9 = 9 mm) C medium weight material		Closing seams, topstitching work on edges with cross seams (Climbing parts set)



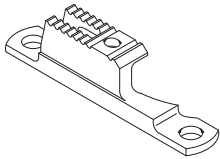
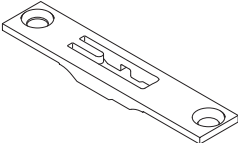
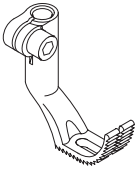
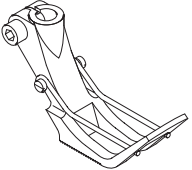
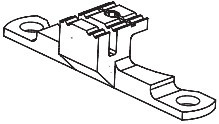
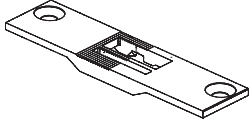
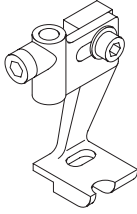
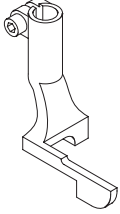
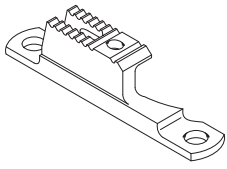
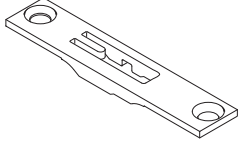
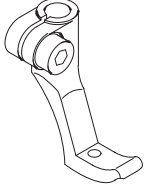
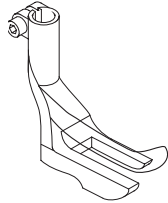
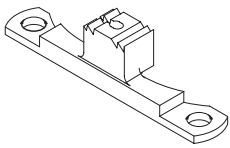
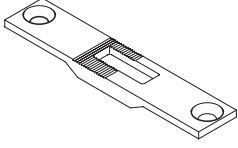
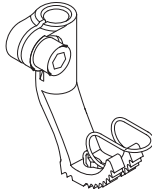
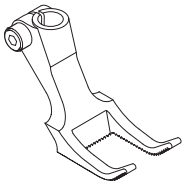
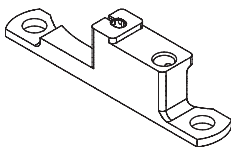
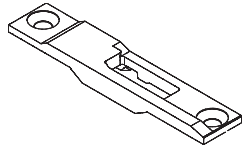
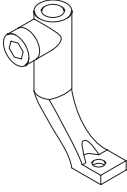
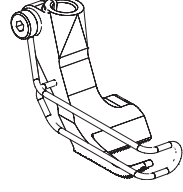
	Feed dog	Needle plate	Top feeder	Presser foot
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	91-159 027-04/... * 91-159 039-04/002 (4 mm)	91-150 935-24/... *	91-049 394-93/... *	91-149 268-93/... *
				
	91-159 030-04/... * 91-159 039-04/002 (4 mm)	91-150 936-24/... * 91-150 935-24/004 (4 mm)	91-049 408-93/... * 91-049 394-93/003 (4 mm)	91-149 270-93/... *
				
	91-159 026-04/002	91-150 919-25 (CN6) 91-150 920-25 (CN9)	91-049 394-93/003	91-049 772-93/032
				

* Size required!

Parts kits 2545

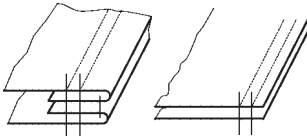
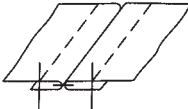
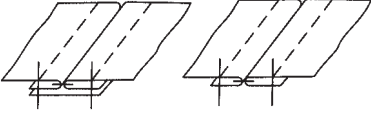
Parts kit	Seam construction	Operation
-6/13 N9 (N9 = 9 mm) C medium weight material		Closing seams on quilted covers
-40/12 N9 (N9 = 9 mm) C medium weight material for piping sizes from 3 - 10 mm (standard: 7 mm)		Piping work: side adjustment of feed dog for pre-piping and piping work
-40/14 N9 (N9 = 9 mm) C medium weight material for piping sizes from 5 - 11 mm (standard: 5 + 7 mm)		Piping work: pre-piping and piping work
-113/05 N9 (N9 = 9 mm) C medium weight material Top-stitch width: 3.5 (standard) + 4 + 4.5 mm (in connection with edge guide: 91-156-765-91)		Top-stitching and closing Seam on one side
-17/01 N9 (N9 = 9 mm) C medium weight material		Binding work

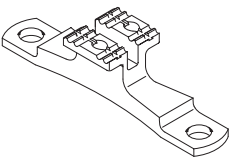
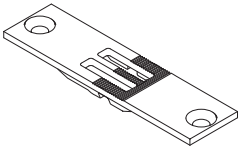
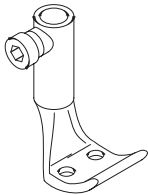
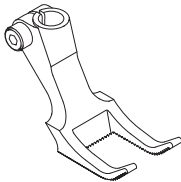
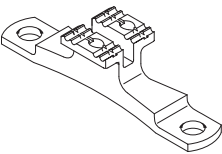
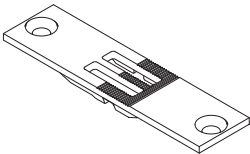
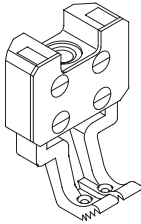
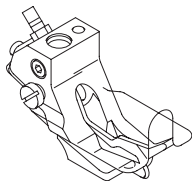


	Feed dog	Needle plate	Top feeder	Presser foot
	91-159 026-04/002 	91-150 920-25 	91-149 215-93/001 	91-149 275-91 
	91-159 038-04/001 	91-150 850-25 	91-049 402-93/... * 	91-049 782-93/... * 
	91-159 026-04/002 	91-150 920-25 	91-149 217-93/... * 	91-149 169-93/... * 
	91-159 039-04/002 	91-150 922-25 	91-149 280-93/... * 	91-149 278-93/... * 
	91-159 050-05 	91-150 979-25 	91-049 491-93/... * 	91-149 303-93/... * 

* Size required!

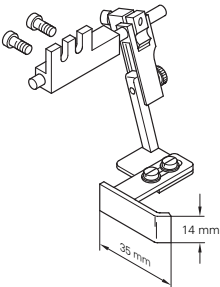
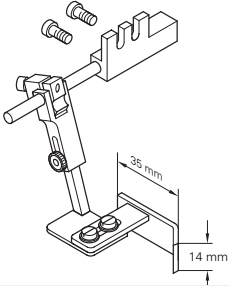
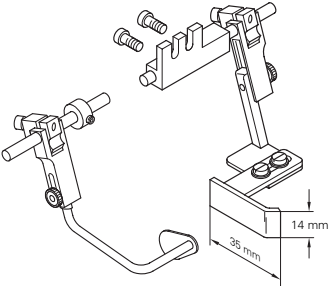
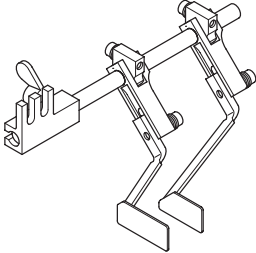
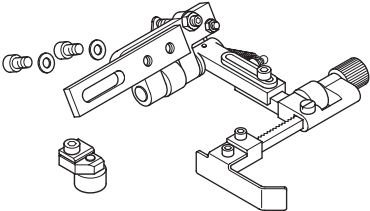
Parts kits 2546

Parts kit	Needle gauges (– = standard)	Seam construction	Operation
-6/01 N (N = 6 mm) C medium weight material	4 ; 4,8 ; 6 ; 6,4 ; 8 ; 10 ; 12 ; 16 mm		Standard parts kit for all types of sewing work , e.g.: • Top-stitching work • Fancy seams
-6/01 N9 (N9 = 9 mm) C medium weight material			
-6/01 N12 (N12 = 12 mm) D heavy weight material	6 ; 6,4 ; 8 ; 10 ; 12 ; 16 mm		
-6/03 N (N = 6 mm) C medium weight material	6 ; 8 ; 10 mm		Parts kit with compensating presser foot for top-stitching work (on both sides)
-6/03 N9 (N9 = 9 mm) C medium weight material	6 ; 8 ; 10 ; 12 mm		
-6/03 N12 (N12 = 12 mm) D heavy weight material	8 ; 10 ; 12 mm		
-63/24 N9 (N9 = 9 mm) C medium weight material	6 ; 8 ; 10 ; 12 ; 16 mm		Parts kit with compensating presser foot und seam-center guide for top-stitching work. (with or without tape from below)
-63/24 N12 (N12 = 12 mm) D heavy weight material	8 ; 10 ; 12, 16 mm		

	Feed dog	Needle plate	Top feeder	Presser foot
	91-159 020-04/... (C) * 91-159 020-04/... (D) * 	91-150 943-24/... (CN) * 91-150 904-24/... (CN9) * 91-150 944-24/... (DN12) * 	91-049 385-93/... (CN/CN9) * 91-049 385-93/... (DN12) * 	91-149 283-93/... (CN) * 91-149 278-93/... (CN9) * 91-149 284-93/... (CN12) * 
		coming soon		
	91-159 020-04/... (C) * 91-159 020-04/... (D) * 	91-150 904-24/... (CN9) * 91-150 944-24/... (DN12) * 	99-137 7..-91 * 	99-137 7..-91 (CN9) * 99-137 7..-91 (DN12) * 

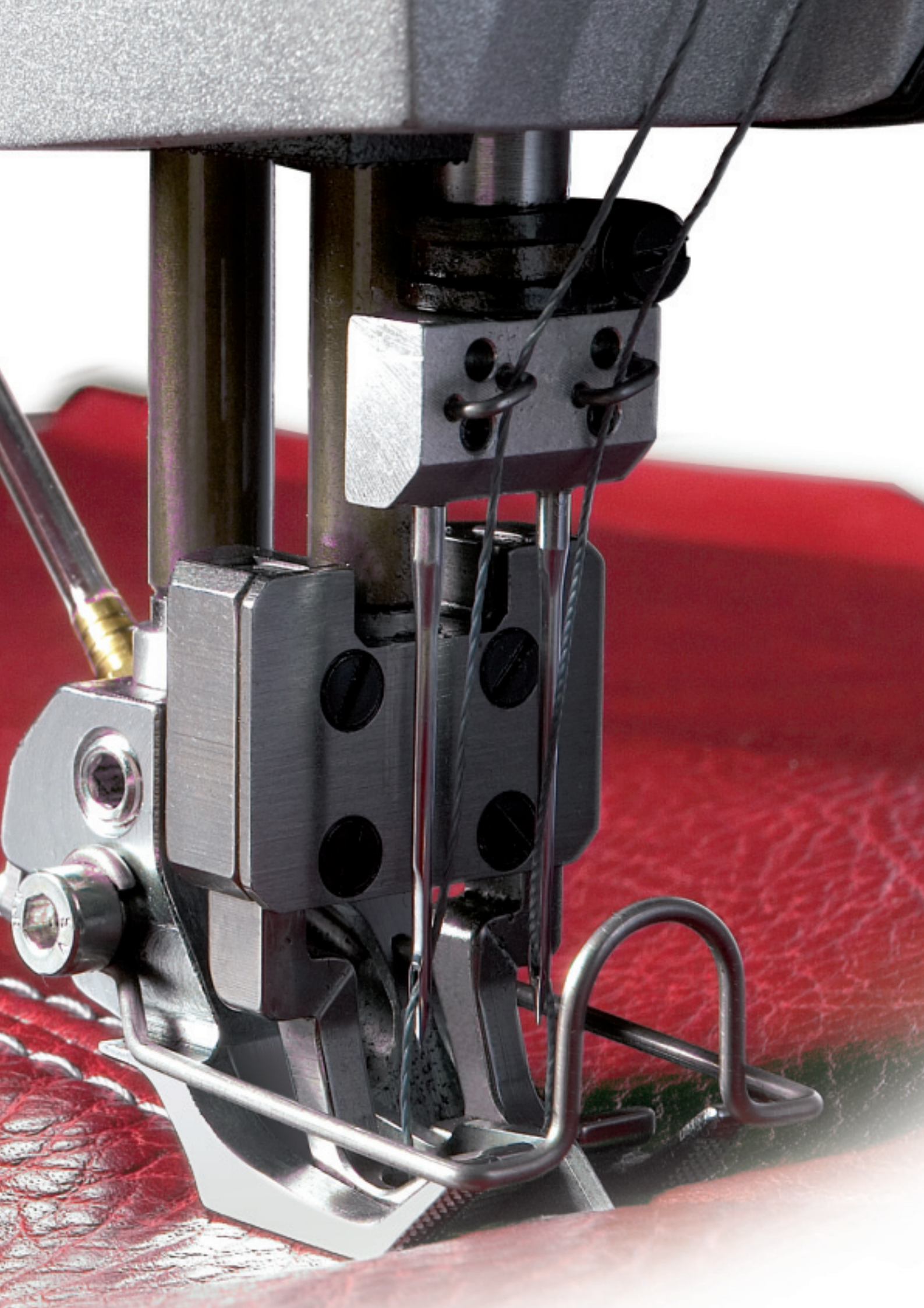
* Size required!

Edge guides 2545/2546

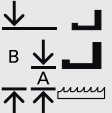
Edge guide	Parts No.	Suitable for parts kit	
		2545	2546
	91-156 763-91	-2/04 -6/07 -6/13 -6/14 -40/14	-6/01
	91-156 764-91	-3/04 -6/07 -6/13 -6/14	-6/01
	91-156 765-91	-6/07 ** -6/13 ** -6/14 ** -113/05	-6/01
	91-156 767-91	-2/04 -6/07 -6/13 -6/14	-6/01
	91-156 768-91	-2/04 -6/07 -6/13 -6/14 -40/14	-6/01

** feet have to be adapted

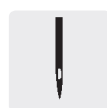
POWERline 2545/46



Technical data + Specifications 2545

Types								
2545 BASIC 2545 - 021/100	●	3,800	12	A: 9 mm B: 20 mm		134-35	90 - 180	80/3 - 10/3
2545 BASIC 2545 - 041/100	●	3,400	12	A: 9 mm B: 20 mm		134-35	90 - 180	80/3 - 10/3
2545 PLUS 2545 - 521/001	●	3,800	12	A: 9 mm B: 20 mm	≤ 13	134-35	90 - 180	80/3 - 10/3
2545 PLUS 2545 - 521/002	●	3,800	12	A: 9 mm B: 20 mm	≤ 5	134-35	90 - 160	80/3 - 15/3
2545 PLUS 2545 - 541/001	●	3,400	12	A: 9 mm B: 20 mm	≤ 13	134-35	90 - 180	80/3 - 10/3

* = the max. sewing speed depends on pre-selected stroke and stitch length



Number of needles



Max. sewing speed



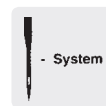
Max. stitch length



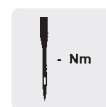
Top feed stroke (A) and fabric clearance (B)



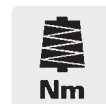
Remaining thread length after cutting in mm



Needle system



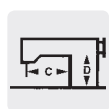
Recommended needle size in Nm



Thread size (metrical number in Nm)

											
C:345 x D:120		●		●						●	
C:345 x D:120			●	●						●	
C:345 x D:120	●			●	●	○	●	●	●		●
C:345 x D:120	●			●	●	●	●	●	●		●
C:345 x D:120			●	●	●	○	●	●	●		●

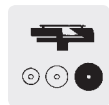
● standard
○ option



Arm clearance in mm



Vertical hook, large



Vertical hook, extra large



Bottom feed, needle and alternating unison feed



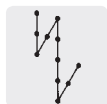
Thread trimmer



Thread nipper



Presser foot lift



Automatic backtacking



Control for two different stitch lengths

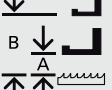


Top feed lift adjustable by knob



Top feed lift pre-selectable and recallable by knuckle switch, with automatic speed limitation

Technical data + Specifications 2546

Types								
2546 BASIC 2546 - 021/100	●	3,800	12	A: 9 mm B: 20 mm		134-35	90 - 180	80/3 - 10/3
2546 BASIC 2546 - 041/100	●	3,400	12	A: 9 mm B: 20 mm		134-35	90 -180	80/3 - 10/3
2546 PLUS 2546 - 521/001	●	3,800	12	A: 9 mm B: 20 mm	≤ 13	134-35	90 - 180	80/3 - 10/3
2546 PLUS 2546 - 541/001	●	3,400	12	A: 9 mm B: 20 mm	≤ 13	134-35	90 - 180	80/3 - 10/3

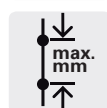
* = the max. sewing speed depends on pre-selected stroke and stitch length



Number of needles



Max. sewing speed



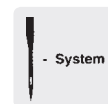
Max. stitch length



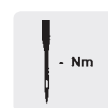
Top feed stroke (A) and fabric clearance (B)



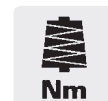
Remaining thread length after cutting in mm



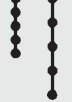
Needle system



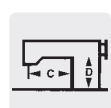
Recommended needle size in Nm



Thread size (metrical number in Nm)

											
C:345 x D:120	4.0 - 50.0	●		●						●	
C:345 x D:120	4.0 - 50.0		●	●						●	
C:345 x D:120	4.0 - 50.0	●		●	●	○	●	●	●		●
C:345 x D:120	4.0 - 50.0		●	●	●	○	●	●	●		●

● standard
○ option



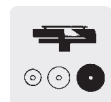
Arm clearance in mm



Needle gauge in mm



Vertical hook, large



Vertical hook, extra large



Bottom feed, needle- and
alternating unison feed



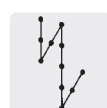
Thread trimmer



Thread nipper



Presser foot lift



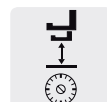
Automatic backtacking



Control for two different
stitch lengths



Top feed lift adjustable by knob



Top feed lift pre-selectable
and recallable by knuckle
switch, with automatic speed
limitation

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