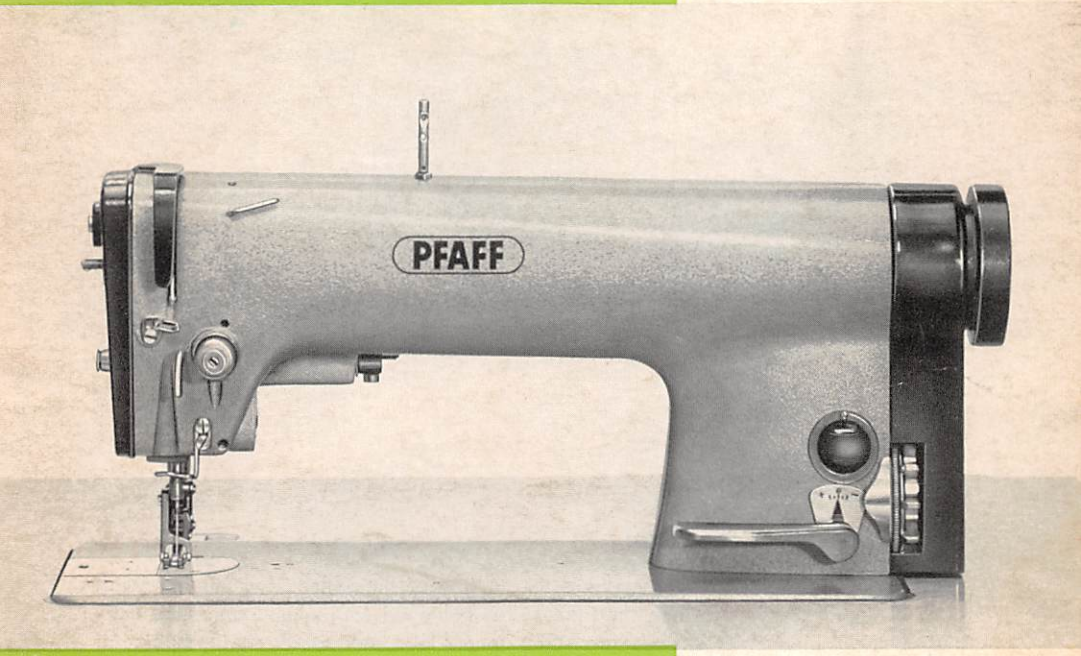
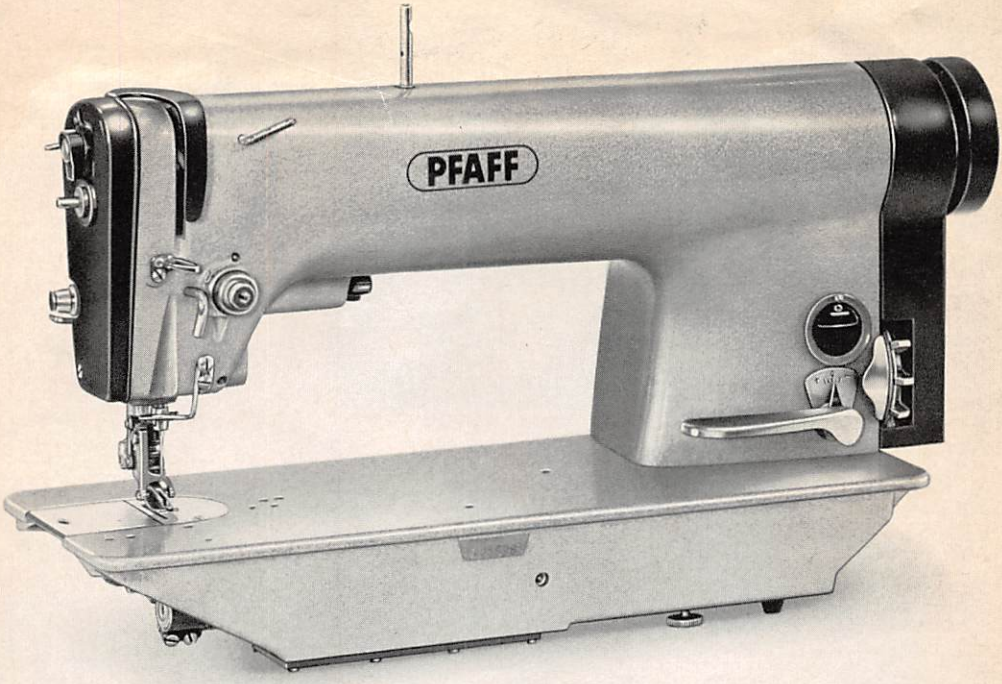
PFAFF®

467



R 9213

High-Speed Lockstitch Sewing Machine with Drop Feed and Variable Top Feed



R 9372

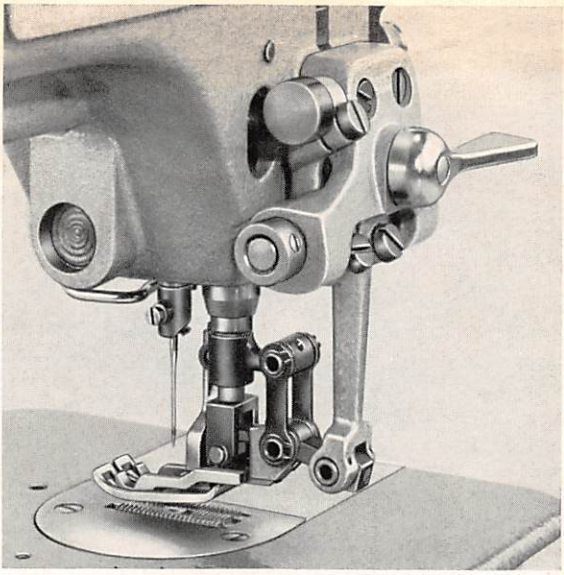
General

A recent addition to our line of high-speed lockstitch sewing machines, the Pfaff 467 is equipped with maintenance-free anti-friction bearings and a gravity-lubricated rotary sewing hook.

In addition, it is organized with drop feed and variable top feed so that multiple plies of "problem" materials, such as synthetics and blends, will finish out evenly and, if possible, without puckering. Its variable top feed can be set to act in unison with, or differentially to, the drop feed.

In most instances, the top feed of the Pfaff 467 is set to make a longer stroke which is used to gather the top ply or to offset the retarding effect of the presser foot on the upper layer.

Depending on the type of work to be performed, the material to be gathered may be placed in the machine upper or bottom-most. In the latter case, the top feed must be set to make a shorter stroke than the drop feed.



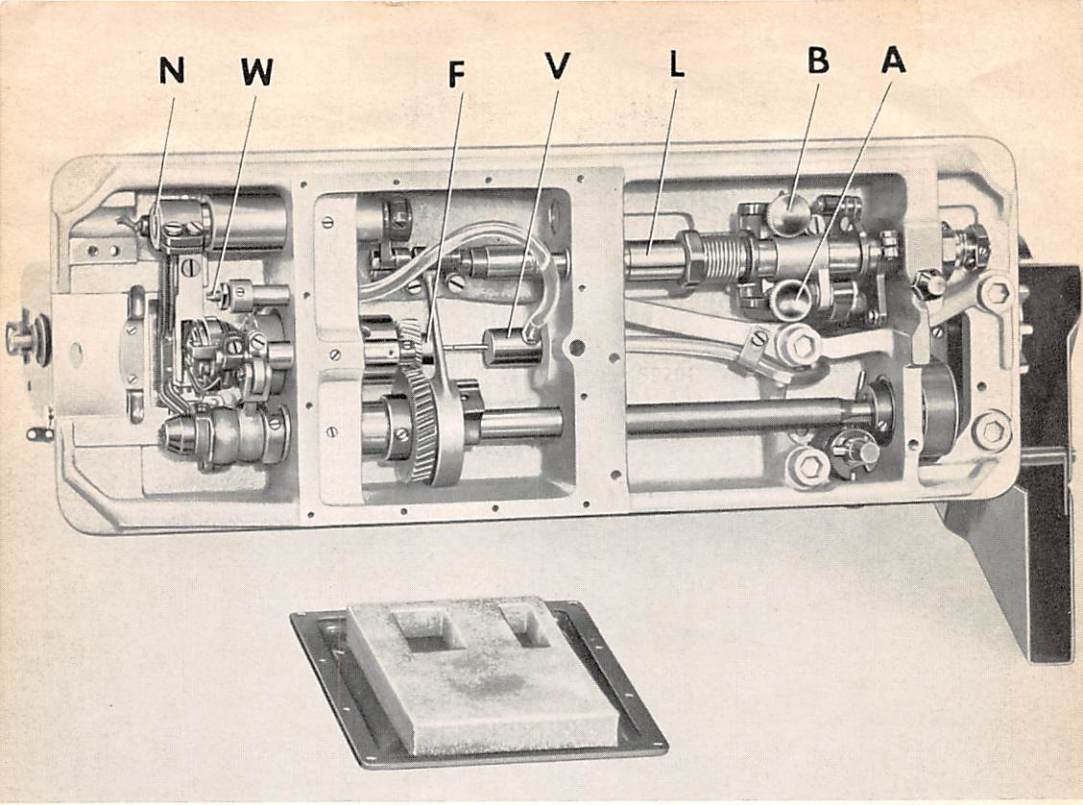
R 9375 Top feed drive

The variable top feed of this machine can be set not only for gathering, but also for stretching the top ply, as may be desired.

Its gathering or stretching action may be continuous or intermittent.

To gather or stretch the top ply continuously over the entire length of the seam, the stroke of the top feed is set by hand before sewing commences, the amount of gathering or stretching being dependent on the type of material sewn. In this way, a smooth and pucker-free seam is obtained which will meet the most exacting demands.

The Pfaff 467 can also be fitted with an additional pedal which makes it possible to vary the top feed stroke for intermittent gathering or stretching while sewing. This variety is preferred for most applications because it can be used for continuous gathering or stretching also.



R 9385

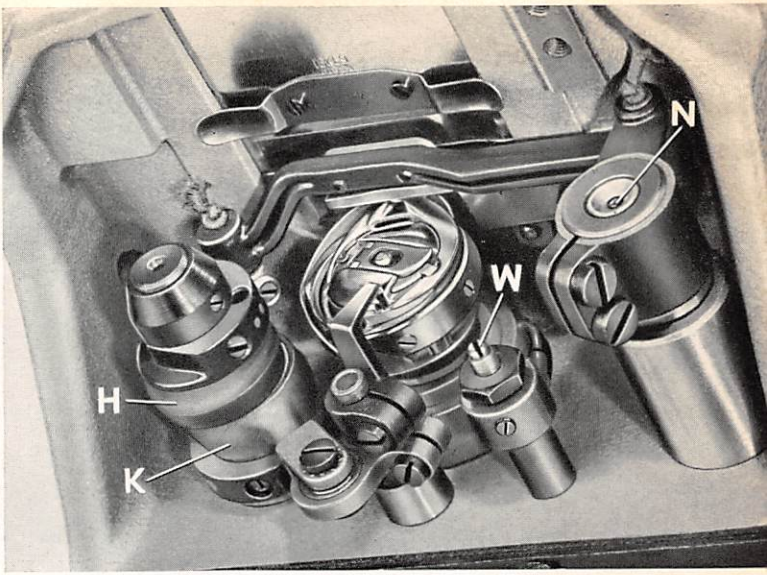
Worm's eye view of the Pfaff 467 with gear case cover removed

A = Top feed regulating screw
B = Top feed limiting screw
F = Centrifugal switch for shut-off valve V
L = Lower top feed regulator shaft
N = Feed rock shaft crank
V = Oil flow shut-off valve
W = Hook lubrication regulating screw

Construction Features

In contrast to the older and much slower unison-feed machines, the Pfaff 467 features a top feed mechanism whose feet do not engage the material alternately. Instead, the presser foot remains in contact with the material consistently, while the vibrating presser moves back and forth to assist in feeding the material. During the feeding action, the pressure exerted by the presser foot is lessened by the amount of pressure imparted by the vibrating presser.

As the vibrating presser returns to its starting point, it rises approximately $^{5}/_{64}$", or 2.0 mm, above the surface of the material, thus negotiating cross seams and other bulky spots and pushing them under the presser foot without injuring the material.



R 9387

H = Feed lifting eccentric
K = Mechanical opener eccentric
W = Hook lubrication regulating screw
N = Feed rock shaft with crank

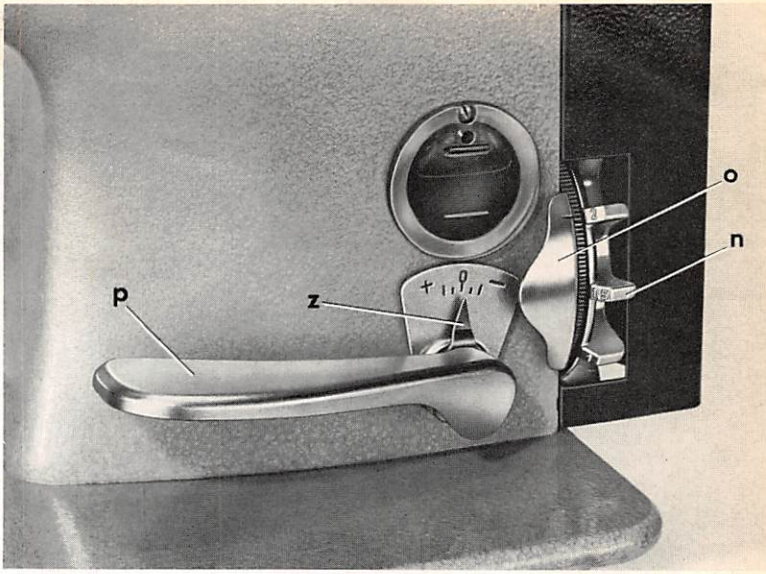
The relationship between the top and bottom feed strokes is changed by turning thumb screw **A** which is located behind the lower top feed regulator shaft. For easy identification, this screw has a concave surface. It is turned in if the vibrating presser is to make a longer stroke than the feed dog and, conversely, it is turned out, if the feed stroke of the vibrating presser is to be shorter than that of the feed dog.

Before the feed stroke of the vibrating presser can be regulated by turning screw **A** in or out, limiting screw **B** must be turned out as far as it will go.

Thumb screw **B** is the same size as screw **A**, but, for easy identification, has a convex surface and is located in front of the lower top feed regulator shaft. It serves to limit the stroke of the vibrating presser and is used when the top ply is to be gathered or stretched intermittently while sewing.

Regulating screw **A** determines the length of travel of the vibrating presser when the differential feed pedal is inoperative. This means, the more screw **A** is turned out, the shorter the stroke of the vibrating presser will be when the pedal is not used.

The more the differential feed pedal is depressed, the longer the stroke of the vibrating presser will be. When the pedal is depressed as far as it will go, the vibrating presser will make its



R 9386

n = Stitch length control
o = Stitch length locking device
p = Reverse feed control
z = Top feed pointer

longest stroke of about $^{3}/_{16}$", or 4.5 mm. The setting of the vibrating presser is indicated by a pointer an a small scale below the oil sight glass.

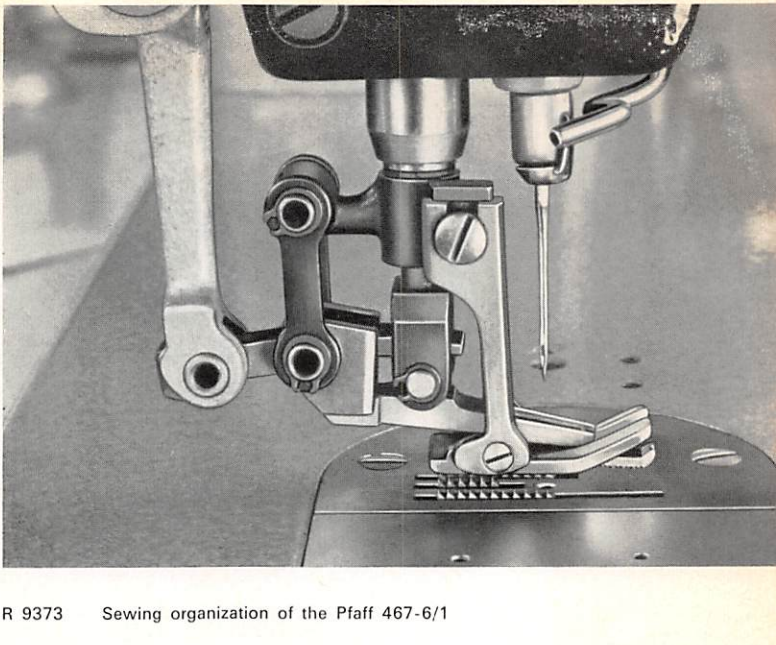
When this pointer is set on zero, the vibrating presser and the feed dog advance the material at the same rate.

As the pointer swings to the right (—), the stroke of the vibrating presser grows shorter and the feeding of the top ply is retarded. If, however, the pointer is moved to the left (+) by turning in screw **A** or actuating the differential feed pedal, the stroke of the vibrating presser grows longer and the top ply is gathered.

Feed stroke of vibrating presser

longer + ← 0 → — shorter

= gathering **= stretching**



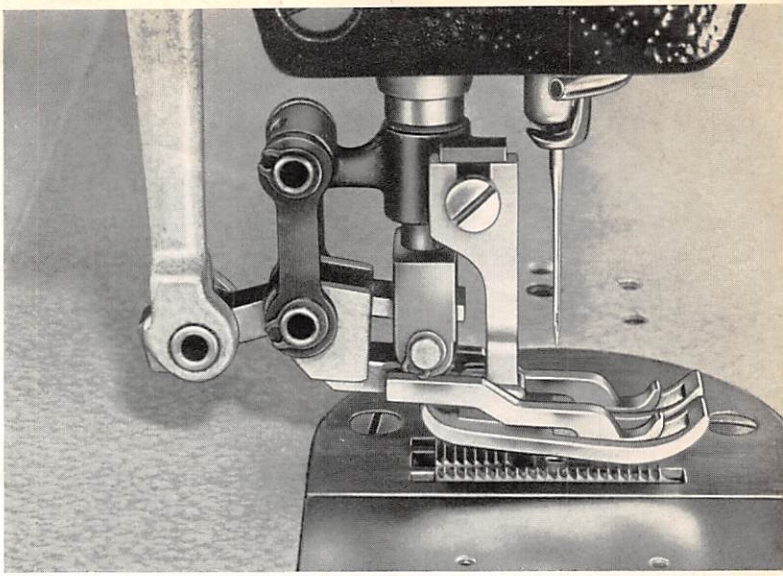
R 9373 Sewing organization of the Pfaff 467-6/1

By retarding the feeding of the top ply it is possible to gather the bottom ply to some extent.

Although it is not exactly difficult, thanks to the clear view of the material and the top feed regulator scale, to regulate the stroke of the vibrating presser foot action so that the bottom or top ply is gathered or both plies are advanced at the same rate, this technique calls for some skill on the part of the operator. To simplify the sewing operation, most operators, therefore, set screw **A** for the minimum rate of feed and screw **B** for the maximum rate of top feed required for the particular sewing job. This gives them a fixed stop when they actuate the pedal to switch the machine from plain sewing to gathering.

The stitch length control of this machine regulates the drop feed motion and is designed for a maximum stitch length of 7 stitches per inch. By turning in screw **A**, the vibrating presser can be set for a maximum feed stroke of about $^{3}/_{16}$", or 4.5 mm, equalling a stitch length of about 5½ stitches per inch.

The mechanical design of the Pfaff 467 differs from that of the standard Pfaff 463 in that it incorporates an additional top feed drive mechanism in the machine arm, similar to that of the Pfaff 461, as well as a vibrating presser assembly and a suitable connection on the back of the machine arm.



R 9374 Sewing Organization of the Pfaff 467-6/2

The top feed motion is controlled by a special mechanism which is located under the bedplate.

The motion of the lower feed regulator shaft is transmitted to the crank of the upper feed regulator shaft in the machine arm by means of a connection. The stroke of the vibrating presser can be lengthened or shortened by setting the feed regulator shaft accordingly. The machine is set for gathering or stretching the top or bottom ply by varying the setting of this shaft in relation to the stroke of the feed dog.

Other than that, the Pfaff 467 is equipped like all other Pfaff Series 460 high-speed seamers.

The arm shaft is carried in maintenance-free anti-friction bearings and the take-up lever components in sealed-for-life ball bearings. All moving parts in the gear case are pad-lubricated. The hook gravity lubrication system incorporates a centrifugal switch and shut-off valve which interrupts the supply of oil to the sewing hook when the machine is idle and opens the oil line when the machine starts running again.

Varieties of the Pfaff 467

In order to enable users to select the most suitable machine for a given sewing job, the Pfaff 467, for the time being, is offered in two varieties, as follows:

Pfaff 467-6/1

This machine is specially designed for the pucker-free sewing of light and delicate fabrics and, consequently, is equipped with slender organizational parts. The narrow single-row vibrating presser of this machine operates between the toes of the presser foot, engaging the material in front of the needle on the smooth needle plate surface and pushing the top ply toward the needle to produce the desired gathering effect.

Pfaff 467-6/2

Fitted with a long 2½-row feed dog and a two-row vibrating presser, this machine is designed for versatility in use. The vibrating presser extends far ahead of the needle and engages the outer tooth rows of the feed dog. This organization slightly gathers the top ply, regardless of the type of fabric involved, to ensure that all plies will finish out evenly. It can even be set to produce a more pronounced gathering effect because the top ply is held in place until it reaches the needle.

The Pfaff 467-6/2 can also be set for gathering the bottom ply since the large feed surface of the vibrating presser is highly conducive to retarding the feeding of the top ply.

Another advantage offered by this machine is that it negotiates cross seams with special facility because the presser foot which encloses the vibrating presser on all four sides holds the materials down against the needle plate securely.

Men's and Boy's Wear

Sackcoats:	Closing back, shoulder and side seams, inserting sleeve linings, setting in sleeves and working in extra fullness.
Casual jackets:	Joining tafetta lining and moltoprene-coated top material.
Trousers:	Closing inseams and outseams, attaching waistbands.
Overcoats:	Closing side, shoulder and sleeve seams.

Ladies' Wear

Skirts and dresses:	Closing side seams.
Ladies' suits:	Closing back, shoulder and side seams, inserting sleeve linings, setting in sleeves and working in extra fullness.
Overcoats:	Closing side, shoulder and sleeve seams.

Shirts, Blouses, etc.

Shirts and blouses:	Closing side seams.
Pajamas:	Various gathering operations.

Miscellaneous

Joining and hemming articles while matching the pattern, e. g. table cloths, napkins, etc.

Sewing cushion and mattress covers.

Pfaff 467

High-Speed Lockstitch Sewing Machine with Drop Feed and Variable Top Feed for Sewing Light and Medium-Weight Problem Materials

Technical Data

Model: A or B

Maximum Speed: 4,200 s.p.m.

Drive: ½-HP clutch motor

Motor Pulley: $3^{15}/_{16}$" dia.; Order No. 99 090

Motor Speed: 2,800 r.p.m.

Maximum Stroke of Feed Dog: $^{9}/_{64}$", or 3.5 mm

Maximum Stroke of Vibrating Presser: $^{3}/_{16}$", or 4.5 mm

Maximum Stitch length: 7 per inch

Needles: System 134 R

Fabric Clearance: $^{13}/_{64}$", or 5.0 mm

Maximum Thickness of Material: $^{13}/_{64}$", or 5.0 mm

Maximum Thickness of Cross Seams: $^{1}/_{8}$", or 3.0 mm

Clear Work Space: $11^{7}/_{16}$" x $4^{3}/_{8}$" (290 x 110 mm)

Bedplate Dimensions: $18^{3}/_{4}$" x 7" (476 x 177 mm)

Net Weight (head only): 75 lbs

Gross Weight (head boxed): 97 lbs

Box Dimensions: 24" x $18^{1}/_{8}$" x $10^{5}/_{8}$" (610 x 460 x 270 mm)

Subject to alterations in design

G. M. PFAFF AG
KAISERSLAUTERN BRANCH

Nr. 12315 engl. Schn. 1264 Printed in Germany