

Service Manual for Ribbers

brother

MODEL KR-120

MODEL KR-710

MODEL KR-830

MODEL KR-850

MODEL KR-230

MODEL KR-260



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RIBBING ATTACHMENT KR-120/KR-710/KR-830

1. HOW TO ADJUST THE DIMENSION IN CASE OF ATTATCHING KR-120 TO KH-120, KR-710 TO KH-710 AND KR-830 TO KH-830/KH-840/KH-860/KH-881/KH-890/KH-891/KH-910/KH-930.

* You can attach above mentioned ribbers to the knitters without any adjustment. However, if the dimension is wrong, Please follow this manual.

* There are three adjusting positions, and once you do these adjustments, you are not required to adjust when you reattach the ribber.

1.1 Meeting of needles on both beds. (See Fig.1)

The plain needles and purl needles are directly opposite to each other when the Racking indicator is on No.5 while the Half pitch lever is on P. If not, adjust the position.

- (1) Set the Half pitch lever on P.
- (2) Set the Racking indicator on No.5
- (3) Loosen two screws (-) which are beside the mark D on the left end of the KR-needle bed.
- (4) By moving the KR-needle bed from side to side, adjust to get proper position (KH and KR-needles are met directly) as shown in Fig.2
- (5) After adjusting, fasten two screws tightly.

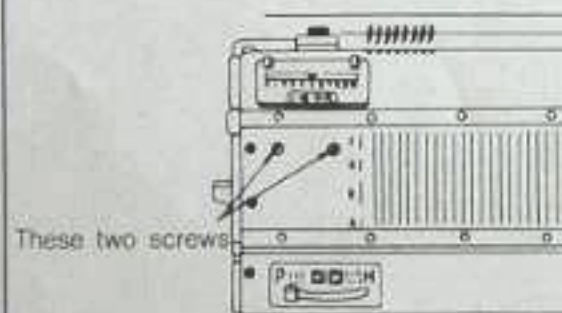
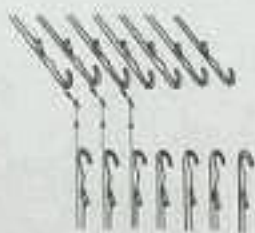


Fig.1



* Needles of each beds are met directly.

Fig.2

1.2 Height of ribber bed. (See Fig.3)

Set the half pitch lever on H, and bring forward 10 each needles on both ends of KH-needle bed. Check the clearance between the back of the KH-needles and KR-gate pegs.

* STANDARD DIMENSION

FOR KR-710 AND KR-830	1.1-1.7m/m
FOR KR-120	0-0.6m/m

- (1) By pushing down the levers on both bracket, let down the ribber one step. At the back of the ribber, you will find out the nuts. Loosen these nuts with the spanner. Then return the ribber to the original position.
- (2) By moving both height adjusters up or down, obtain the proper height. (Refer to the above mentioned standard dimension.)
- (3) After adjusting, let down the ribber one step, and fasten tightly the nuts with the spanner. (Be careful not to fasten too much.) Then lift up the ribber to normal the normal position.

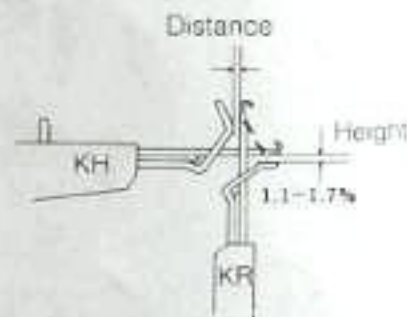
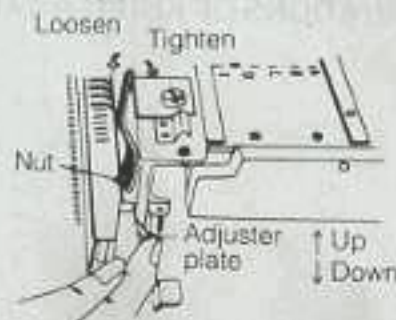


Fig.3

1.3 Distance between two beds. (See Fig.3 and Fig.4.)

Loosen the clamps for reinforcing arm. Bring forward 10 each needles on both ends of KR-needle bed. Check the distance between the back of the KR-needles and KH-gate pegs.

* STANDARD DIMENSION.

(THE COMMON DIMENSION FOR THE THREE MODELS.)

0-0.6m/m

- (1) Loosen both thumb screws with the spanner.
- (2) To obtain the proper distance (0-0.6m/m), adjust by turning the bolts on both sides of bracket with the spanner.
Turning to the left Close
Turning to the right Separate
- (3) After adjusting, go back the needles to A position and fasten both thumb screws.
- (4) Fasten the clamps for reinforcing arm.

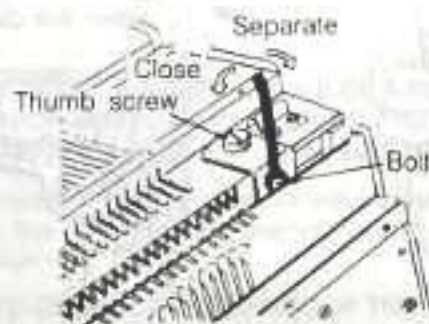


Fig.4

MOUNTING DIMENSIONS OF EACH PART OF KR-120/KR-710/KR-830.

* KR-carriage (See Fig.5)

Mounting dimension of sub raising cam 14.5m/m
(Dimension between the sub raising cam and the rear foot of KR-carriage.)

Mounting dimension of sub stitch cam 51.3m/m
(Dimension between the sub stitch cam and the rear foot of KR-carriage.)

(Please check when the KR-carriage does not slide on the needle bed smoothly.)

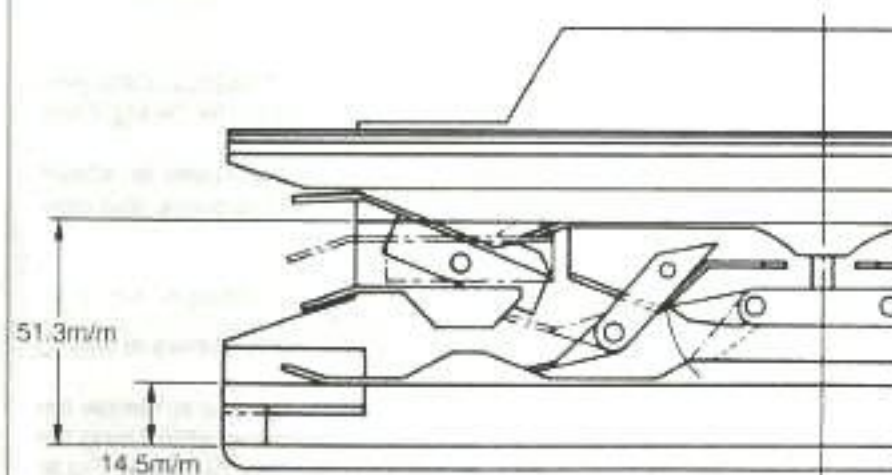


Fig.5

RIBBING ATTACHMENT KR-850

2. HOW TO ADJUST THE DIMENSION IN CASE OF ATTACHING KR-850 TO KH-830/KH-840/KH-860/KH-881/KH-890/KH-891/KH-910/KH-930.

*You can attach KR-850 to above mentioned knitters without any adjustment, however if the dimension is wrong, please follow this manual.

2.1 Standard dimension (See Fig.6)

- *DISTANCE No clearance is required between the back of the KR-needles and KH-gate pegs.
- *HEIGHT The clearance between the back of the KH-needles and KR-gate pegs is 0.7-1.3mm.

2.2 For wider distance than the standard

- (1) Loosen a little the table clamps and the thumb screws of setting plates R and L.
- (2) Pull the ribber toward you.
- (3) Insert the slotted screwdriver into the slot of setting plates and pry upward to widen the slot for the adjustment like the Fig.7 and Fig.9.
- (4) After the adjustment, push the ribber to the knitter to attach correctly and fasten the thumb screws of setting plates, and table clamps.
- (5) Check the distance referring Fig.6.

2.3 For narrower distance than the standard

- (1) Loosen a little the table clamps and the thumb screws of setting plates R and L.
- (2) Adjust the clearance by means of prying upward to narrow the slots of setting plates with a slotted screwdriver while being the stay for the needle bed as the fulcrum. (See Fig.8 and Fig.9)
- (3) After the adjustment, fasten the thumb screws of setting plates and table clamps.
- (4) Check the distance referring Fig.6.

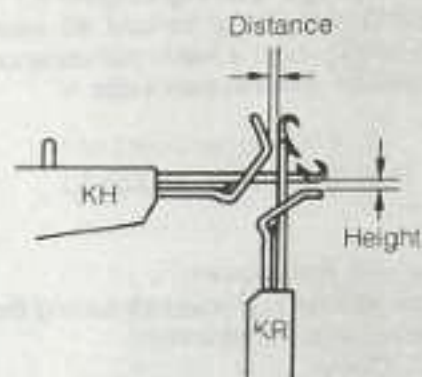


Fig.6

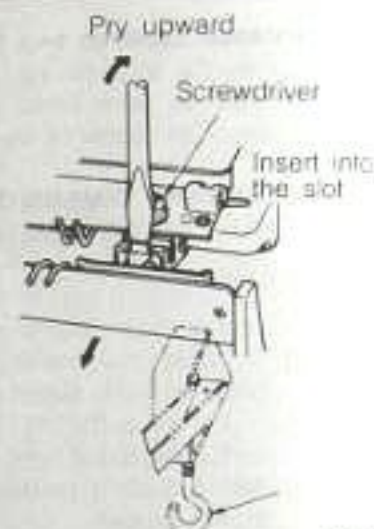


Fig.7

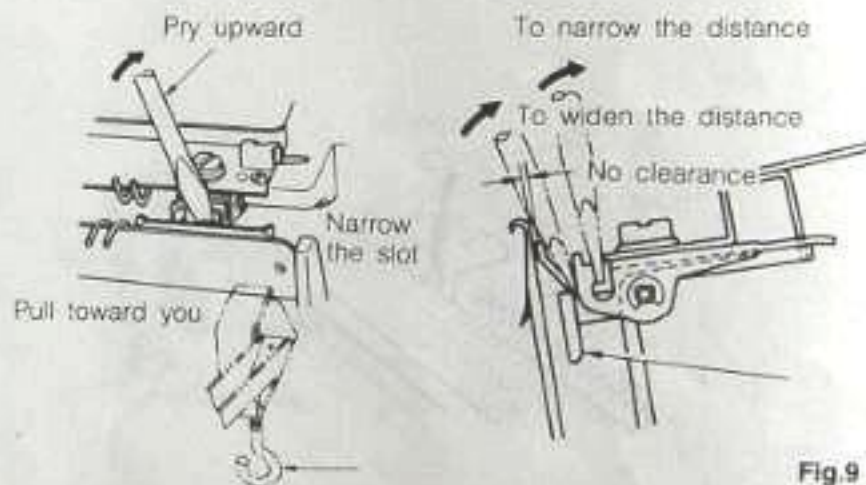


Fig.8

Fig.9

2.4 Height-adjustment

Please check the clearance between KR-gate pegs and the back of the needles of KH. (See Fig.11) If the dimension is wrong, adjust by the function of slide plate assembly. (Height adjuster plate.) See Page 1 for your reference. (From (1) to (3) of 1.2) (See Fig.10)

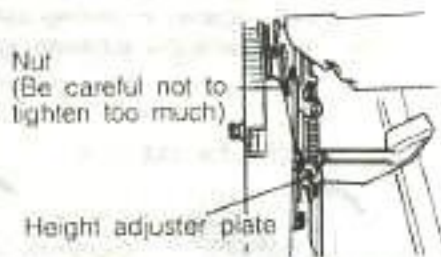


Fig.10



Fig.11

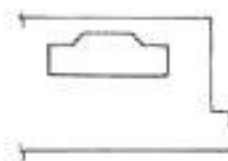
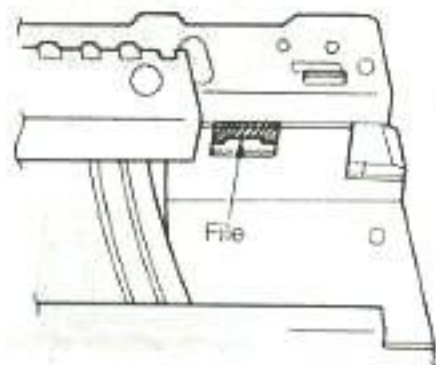
(Press the KH-needles downward slightly to contact Needle position indicator)

*** THE BRACKET INSERTION HOLE OF A FEW VERSIONS OF KH-830 WHICH WERE MADE BEFORE THE SALE OF KR-850 IS NOT SUITABLE FOR THE BRACKET OF KR-850.**

If the bracket insertion hole is not suitable for the bracket of KR-850, correct the shape of the bracket insertion hole along following manual.

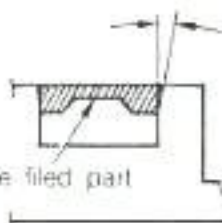
HOW TO CORRECT THE SHAPE OF THE BRACKET INSERTION HOLE

- (1) Take the needle bed out of the case. (See the page 21 of the service manual of KH-830)
- (2) Correct the shape of the both right and left bracket insertion hole with the file. (See Fig.12)
- (3) Mount the needle bed into the case. (See the page 33 of the service manual of KR-830)



The shape required the correction

A little wider is no problem



The filed part

The corrected shape

It is the illustration of the right end of the reverse side of the knitter.

Fig.12

RIBBING ATTACHMENT KR-230/KR-260

1. HOW TO ADJUST THE DIMENSION IN CASE OF ATTACHING KR-230 TO KH-230, OR KR-260 TO KH-260

* You can attach above mentioned ribbers to the knitters without any adjustment. However, if the dimension is wrong, please follow this manual.

3.1 Standard dimension

- * DISTANCE The clearance between the back of the KR-needles and KH-gate pegs is from 0 m/m to 0.6 m/m. (It is the common dimension for KH-230/KR-230 and KH-260/KR-260.)
- * HEIGHT (The clearance between the back of the KH-needles and KR-gate pegs.)

KH-230/KR-230 1.0m/m - 1.6m/m

KH-260/KR-260 0m/m - 0.6m/m

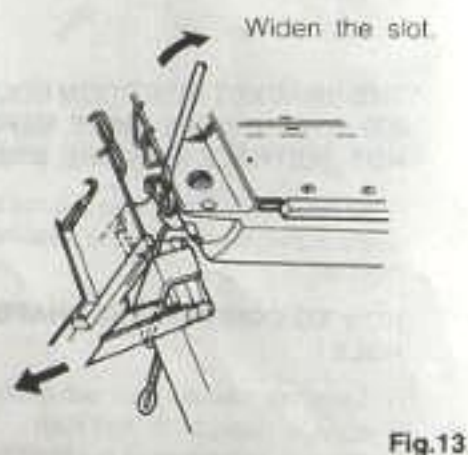
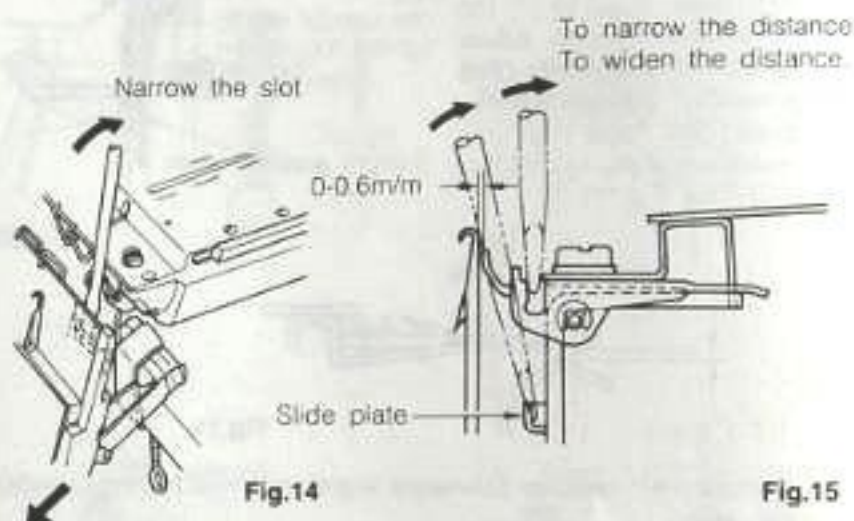
3.2 For wider distance than the standard

- (1) Loosen a little the table clamps and the thumb screws of the setting plates R and L.
- (2) Pull the ribber toward you.
- (3) Insert the slotted screw driver into the slots of the setting plates and pry upward to widen the slots for the adjustment like Fig.13 and Fig.15.
- (4) After the adjustment, push the ribber to the Knitter to attach correctly, and fasten the thumb screws of setting plates and the table clamps.
- (5) Then check the distance.

3.3 For narrower distance than the standard

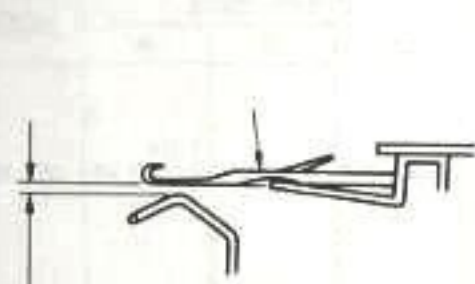
- (1) Loosen a little the table clamps and the thumb screws of the setting plates R and L.
- (2) Pull the ribber toward you and fasten the thumb screws of the setting plates R and L temporary.
- (3) Then adjust the clearance by means of prying upward with a slotted screwdriver while being the concave part of the slide plate as the fulcrum.

- (4) After the adjustment, loosen the thumb screws of setting plates, push the ribber to the Knitter to attach correctly and fasten the thumb screws of setting plates and the table clamps.
- (5) Then check the distance. (See Fig.14 and Fig.15.)



3.4 Height-adjustment

Please check the clearance between KR-gate pegs and the back of the needles of Knitter. (See Fig.16) If the dimension is wrong, adjust by the function of slide plate assembly. (Height adjuster plate.) See Page 1 for your reference. (From (1) to (3) of 1.2)



* STANDARD DIMENSION

FOR KR-230 1.0mm-1.6mm
FOR KR-260 0mm-0.6mm

Fig.16

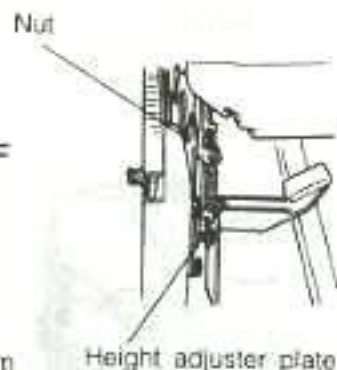
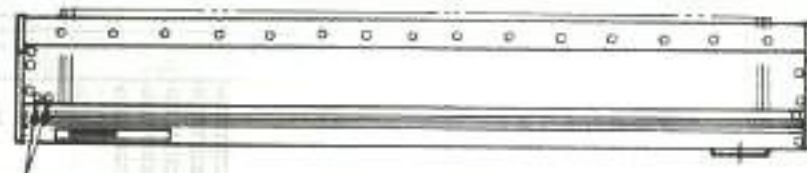


Fig.17

3.5 Meeting of needles on both beds. (Transverse adjustment)

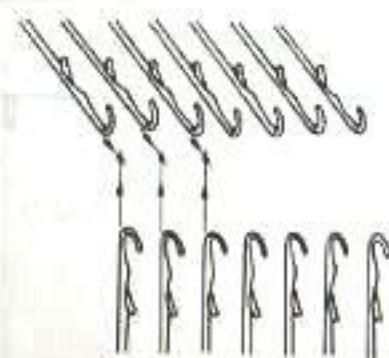
When the ribber is on the position P3 the KH-needles and KR-needles should be opposite directly to each other. If not, adjust the position.

- (1) Set the ribber on the position P3.
- (2) Loosen a quarter round the two screws beside the mark A on the left end of the ribber to move the ribber from side to side. (Be careful not to loosen the screws too much.)
- (3) Adjust the position of the ribber to get the proper position.
- (4) After the adjusting, fasten the two screws.



Loosen a quarter round (Not to loosen too much.)

Fig.18



Needles of each beds should be opposite directly.

Fig.19

3.6 Intervals between each KH-gate pegs.

* Generally, if the intervals between each gate of knitter are not even, the vertical stripes appear in the materials some times. And as per KH-230/KR-230, stitch-presser switching gear can not turn smoothly, when they are not even.

* STANDARD DIMENSION

FOR KH-230/KR-230 AND KH-260/KR-260 $7.2 \pm 0.3\text{m/m}$

* If the intervals are not even, please adjust them in above mentioned dimension with the tool like pliers.

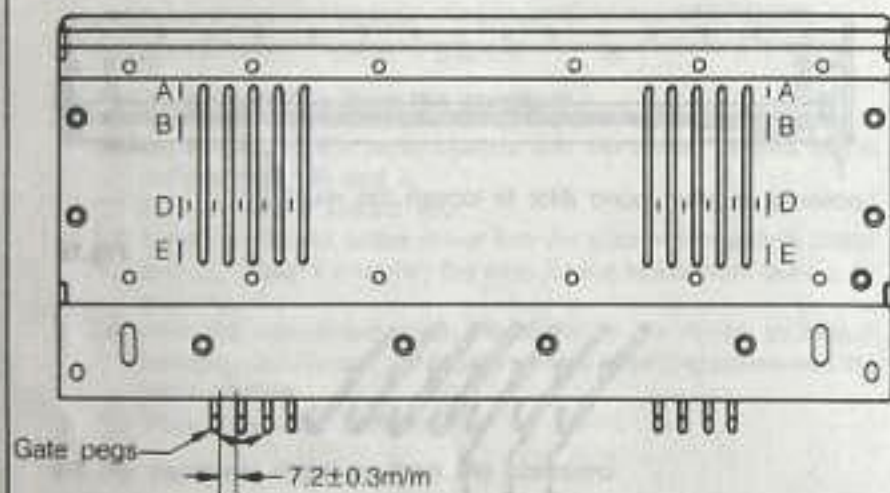
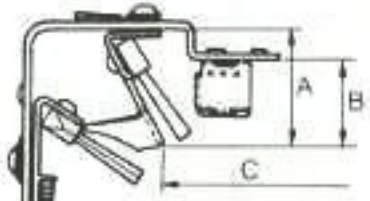
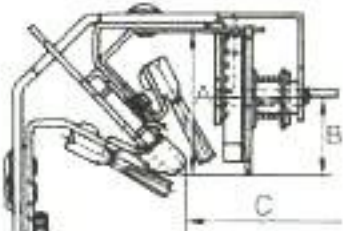


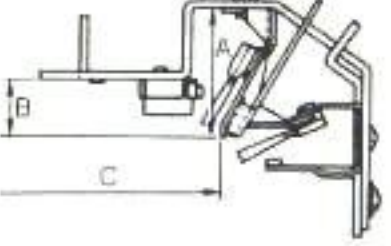



Fig.20

**4. THE DIMENSION BETWEEN GUIDE PLATE OR YARN FEEDER, (LATCH PRESSER) AND REAR RAIL OF KH.
(MOUNTING DIMENSION OF CONNECTING ARM)**

Generally, it is not needed to adjust above mentioned dimension

However, if the contact or interference between latch presser and purf needles or plain needles is caused by some accidents, please adjust the dimension following this chart.

MODEL	DIMENSIONS			FIGURE	MODEL	DIMENSIONS			FIGURE
	A	B	*C			A	B	*C	
KR-120	$24.5 - 0.6$ $+0.2$ m/m	18m/m	110.6m/m		KR-230	31.1 ± 0.4 m/m	16.6m/m	146.8m/m	
KR-710	$24.5 - 0.6$ $+0.3$ m/m	18m/m	112.5m/m						
KR-830	$24.5 - 0.5$ $+0.3$ m/m	18m/m	123.6m/m		KR-260	34.5 ± 0.4 m/m	15.5m/m	155.2m/m	
KR-850	23.5 ± 0.3 m/m	16m/m	123.0m/m						

*NOTE: C is the dimension between the yarn feeder or guide plate (latch presser) and rear rail of KH.

5. MOUNTING DIMENSIONS OF EACH PART OF RIBBERS.

* MOUNTING DIMENSIONS OF GATE PEGS OF RIBBERS.

MODEL	THE DIMENSION BETWEEN THE GATE PEGS AND THE REAR RAIL OF THE KR-NEEDLE BED
KR-120	103.5m/m
KR-710	102.4m/m
KR-830	102.4m/m
KR-850	102.4m/m
KR-230	139.8m/m
KR-260	144.6m/m

DIMENSIONS BETWEEN THE GATE PEGS
AND THE REAR RAIL

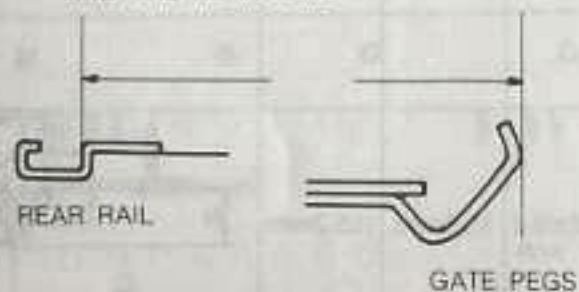


Fig.19

6. COMBINATIONS OF KNITTERS AND RIBBERS

KH \ KR	KR-110, 120	KR-830	KR-850	KR-710	KR-230	KR-260
KH-120	OK	IMPOSSIBLE	IMPOSSIBLE	IMPOSSIBLE	IMPOSSIBLE	IMPOSSIBLE
KH-710 KH-711	IMPOSSIBLE	IMPOSSIBLE	IMPOSSIBLE	OK	IMPOSSIBLE	IMPOSSIBLE
KH-830 KH-835 KH-840 KH-860 KH-881 KH-890 KH-891 KH-910 KH-930	IMPOSSIBLE	OK	OK	IMPOSSIBLE	IMPOSSIBLE	IMPOSSIBLE
KH-230	IMPOSSIBLE	IMPOSSIBLE	IMPOSSIBLE	IMPOSSIBLE	OK	IMPOSSIBLE
KH-260	IMPOSSIBLE	IMPOSSIBLE	IMPOSSIBLE	IMPOSSIBLE	IMPOSSIBLE	OK

