REMINGTON
TRAVEL-RITER

INSTRUCTION MANUAL

Remington Rand
DIVISION OF SPERRY RAND CORPORATION
315 PARK AVENUE SOUTH, NEW YORK 10, N.Y.
MECHANICAL INSTRUCTIONS
FOR
TRAVEL- RITER

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FOREWORD

THIS INSTRUCTION BOOK IS INTENDED PRIMARILY FOR MECHANICS; HOWEVER, IT CAN BE STUDIED TO A VERY GOOD ADVANTAGE BY SALESMEN.

THIS BOOK IS NOT AN OPERATOR’S INSTRUCTION BOOK AND SHOULD NOT BE GIVEN TO CUSTOMERS.

THE DRAWINGS CONTAINED IN THIS BOOK SHOULD BE STUDIED IN CONNECTION WITH THE WRITTEN INSTRUCTIONS AND ARE OF GREAT ASSISTANCE IN LEARNING THE FUNCTIONS AND ADJUSTMENTS OF THE VARIOUS MECHANICAL UNITS.

FOR THOSE IN THE FOREIGN FIELD WHO DO NOT READ ENGLISH, A CAREFUL STUDY OF THE DRAWINGS WILL GIVE HELPFUL FUNDAMENTAL INFORMATION.

STUDY ONE UNIT THOROUGHLY BEFORE GOING ON TO ANOTHER TO OBTAIN THE BEST RESULTS, LEARN THE ADJUSTMENTS WHICH PERTAIN TO ONE UNIT FROM THE BOOK, THEN MAKE THEM ON THE MACHINE.

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# INDEX

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALIGNING SCALE</td>
<td>7</td>
</tr>
<tr>
<td>BACK SPACE</td>
<td>6</td>
</tr>
<tr>
<td>BELL</td>
<td>8</td>
</tr>
<tr>
<td>CARRIAGE</td>
<td>7</td>
</tr>
<tr>
<td>CARRIAGE MAIN SPRING</td>
<td>8</td>
</tr>
<tr>
<td>CARRIAGE RELEASE LEVERS</td>
<td>7</td>
</tr>
<tr>
<td>CYLINDER AND ANVIL</td>
<td>6</td>
</tr>
<tr>
<td>ESCAPEMENT</td>
<td>1</td>
</tr>
<tr>
<td>LINE SPACE</td>
<td>8</td>
</tr>
<tr>
<td>MARGIN AND LINE LOCK</td>
<td>8</td>
</tr>
<tr>
<td>RIBBON COVER</td>
<td>5</td>
</tr>
<tr>
<td>RIBBON DRIVE AND REVERSE</td>
<td>3</td>
</tr>
<tr>
<td>SPACE BAR</td>
<td>5</td>
</tr>
<tr>
<td>SHIFT MECHANISM</td>
<td>6</td>
</tr>
</tbody>
</table>
ESCAPEMENT

DISMANTLE ESCAPEMENT


LOOSEN ESCAPEMENT SHAFT PIVOT SCREW NUT RIGHT H-20-5342, REMOVE ESCAPEMENT SHAFT PIVOT SCREW RIGHT H-20-5295, REMOVE ESCAPEMENT SHAFT ASSEMBLED TO THE RIGHT.

NOTE: DO NOT REMOVE ESCAPEMENT SHAFT PIVOT SCREW LEFT H-20-5342 AS THIS SCREW POSITIONS THE ESCAPEMENT SHAFT.

LOOSEN RIBBON CARRIER SHAFT LOCK NUT H-20-5342 AND REMOVE RIBBON CARRIER SHAFT PIVOT SCREW H-20-5295.


REMOVE ESCAPEMENT WHEEL SHAFT NUT H-20-5351, ESCAPEMENT WHEEL PINION SHAFT H-20-7106, ESCAPEMENT WHEEL PINION H-20-7116 (PICA) OR H-20-7117 (ELITE), ESCAPEMENT WHEEL H-20-7105 (PICA) OR H-20-7115 (ELITE) AND ESCAPEMENT WHEEL WASHERS H-20-5447.

NOTE: PICA PINION AND ESCAPEMENT WHEELS HAVE 11 TEETH. ELITE PINION AND ESCAPEMENT WHEELS HAVE 13 TEETH.

ASSEMBLY AND ADJUSTMENT OF ESCAPEMENT


ASSEMBLE PINION WHEEL SPRING H-20-5625 TO PINION WHEEL PAWL AND ESCAPEMENT WHEEL STUD.

ASSEMBLE TO ESCAPEMENT WHEEL PINION SHAFT H-20-7106, PINION WHEEL H-20-7116, ESCAPEMENT WHEEL H-20-7105, ESCAPEMENT WHEEL WASHER H-20-5447 AND MOUNT TO ESCAPEMENT WHEEL BRACKET H-20-7101, ADJUST ESCAPEMENT WHEEL PINION SHAFT H-20-7106 TO REMOVE EXCESS PLAY OF WHEELS, LOCK IN PLACE WITH ESCAPEMENT WHEEL SHAFT NUT H-20-5351. FORM LIP "B" OF ESCAPEMENT WHEEL PAWL H-20-7111 SO LIP "A" OF PAWL HAS A GOOD HOLD ON ESCAPEMENT WHEEL.

DISMANTLE ESCAPEMENT ROCKER SHAFT H-20-7121


ASSEMBLY AND ADJUSTMENT OF ESCAPEMENT ROCKER SHAFT H-20-7121

ASSEMBLE THE FOLLOWING PARTS ON ESCAPEMENT ROCKER SHAFT FROM RIGHT TO LEFT, ESCAPEMENT OPERATING LEVER H-20-7145 WITH HUB TO LEFT, LINE LOCK STOP CAM H-20-7135 WITH HUB TO RIGHT AND ESCAPEMENT ROCKER COMPLETE H-20-7155 WITH HUB TO RIGHT, WITH MOUNTING SCREWS FACING THE SAME DIRECTION, TIGHTEN SCREWS LIGHTLY.

WHEN INSTALLING ESCAPEMENT ROCKER SHAFT ASSEMBLED HAVE UNIVERSAL BAR FORK H-20-6509 TO THE FRONT OF SHAFT.
ASSEMBLE ESCAPEMENT ROCKER SHAFT TO ESCAPEMENT ROCKER BRACKET, REMOVE SHAFT END PLAY WITH ESCAPEMENT ROCKER SHAFT PIVOT SCREW RIGHT H-20-5295.

INSTALL SPACE BAR CONNECTING LINK H-20-5920 TO THE SPACE LEVER H-20-6415.


HOLD ESCAPEMENT WHEEL SO TOOTH OF WHEEL IS AGAINST LIP "A" OF ESCAPEMENT WHEEL PAWL. PLACE A .020 FEELER GAUGE AGAINST ESCAPEMENT WHEEL TOOTH "C", POSITION ESCAPEMENT ROCKER SO LOOSE DOG "D" IS AGAINST FEELER GAUGE, TIGHTEN ESCAPEMENT ROCKER MOUNTING SCREWS H-20-5112.

REMOVE ESCAPEMENT SHAFT MOUNTING SCREW RIGHT H-20-5295 AND ESCAPEMENT SHAFT ASSEMBLED.

MOUNT ESCAPEMENT ROCKER BRACKET H-20-7101 TO BOTTOM OF CARRIAGE FRONT RAIL H-20-7201 WITH ESCAPEMENT ROCKER BRACKET MOUNTING SCREWS H-20-5119 AND WASHERS H-20-5401. REMOVE END PLAY OF RIBBON CARRIER SHAFT H-20-6919 WITH SCREW H-20-5295 AND LOCK IN PLACE WITH NUT H-20-5342.

INSTALL ESCAPEMENT SHAFT ASSEMBLED AND ADJUST.

OPERATE ESCAPEMENT MANUALLY, CHECK ESCAPEMENT "DROP". IT SHOULD BE 1/3 - 2/3 SPACE. IF THERE IS MORE THAN 1/3 SPACE "DROP" ON THE FIRST TRIP, MOVE ESCAPEMENT ROCKER H-20-7155 TO THE LEFT AND VICE VERSA.
ADJUST ESCAPEMENT OPERATING LEVER H-20-7145 SO TYPE BAR TRIP TAKES PLACE WHEN TYPE IS 1/4 OF AN INCH FROM PLATEN. IF TRIP IS TOO SOON, MOVE LEVER H-20-7145 AWAY FROM SEGMENT; IF TOO LATE, MOVE LEVER TOWARD SEGMENT.

UPPER AND LOWER CASE TRIP SHOULD BE THE SAME. EXAMPLE -- IF LOWER CASE TRIPS BEFORE THE UPPER CASE, MOVE ESCAPEMENT ARM SCREW H-20-5287 UP IN SLOT OF ESCAPEMENT OPERATING LEVER H-20-7145 AND VICE VERSA.

RIBBON DRIVE AND REVERSE

POSITION REVERSE LEVER TO THE RIGHT. ADJUST RIBBON REVERSE LEVER STOP SCREW H-20-5304 "A" RIGHT, TO HAVE RIBBON FEED PAWL LEFT H-20-6803 "C" MESH UNDER ITS SPRING TENSION WITH RIBBON RATCHET WHEEL LEFT H-20-6845. AT THE SAME TIME CHECK RIBBON RETAINING PAWL RIGHT H-20-6812 "B". IT MUST BE CLEAR OF RIBBON RATCHET WHEEL RIGHT H-20-6855. POSITION RIBBON REVERSE LEVER TO THE LEFT. ADJUST RIBBON REVERSE LEVER STOP SCREW H-20-5304 LEFT FOR THE OPPOSITE CONDITION.

RATCHET WHEELS LEFT AND RIGHT ARE DRIVEN TWO TEETH WITH EACH STROKE OF A KEY LEVER, RATCHET WHEELS MUST NOT HAVE BACK LASH, TO REMOVE BACK LASH FORM RIBBON RETAINING PAWLS LEFT AND RIGHT H-20-6812 AND H-20-6813 AT POINTS "F" AND "B" TO THE REAR. IF SPOOLS DRIVE ONE SPACE, FORM POINTS "F" AND "B" TO THE FRONT.


FORM RIBBON TENSION ARM, AT POINT "D" TOWARD RIBBON SPOOL TO DECREASE NUMBER OF TURNS OF RIBBON ON RIBBON SPOOL AT THE TIME THE RIBBON REVERSES AND VICE VERSA.

WITH KEYLEVERS AT REST, REMOVE RIBBON FROM MACHINE, POSITION REVERSE LEVER TO THE LEFT. ARM "E" OF RIBBON REVERSE PAWL LEFT MUST CLEAR POINT "G" OF RIBBON REVERSE TENSION ARM BY .020. FORM "E" TO OBTAIN CORRECT CLEARANCE. WITH RIBBON REVERSE LEVER TO THE RIGHT, SAME CONDITION MUST EXIST BETWEEN RIGHT ARM "E" AND "G" OF RIGHT TENSION ARM.
RIBBON DRIVE & REVERSE
RIBBON COVER -- TWO-COLOR RIBBON MACHINE

PLACE THE RIBBON CONTROL LEVER H-20-6905 INDICATOR IN STENCIL POSITION. STUD "A" ON RIBBON UNIVERSAL BAR LINK OPERATES IN THE CUT OUT OF RIBBON CONTROL ARM "g" H-20-6925. IF STUD "A" IS NOT OPERATING IN THE CUT OUT, THE ADJUSTMENT IS MADE BY FORMING THE RIBBON CONTROL INTERMEDIATE LEVER H-20-6900 AT POINT "b".

LOOSEN RIBBON CONTROL ARM MOUNTING SCREW "F". HAVE RIBBON VIBRATOR AT ITS LOWEST POINT, POSITION RIBBON CONTROL ARM "g" H-20-6925 TO LIGHTLY REST AGAINST "A". TIGHTEN RIBBON CONTROL ARM MOUNTING SCREW "F".

POSITION RIBBON SELECTOR TO BLACK. DEPRESS A KEYLEVER AND HOLD TYPE BAR AGAINST PLATEN. FORM "e" TO CLEAR POINT "d" BY ABOUT .010. SWITCH SELECTOR TO RED. "e" MUST CLEAR POINT "c" BY .010.

RIBBON COVER

RIBBON COVER -- SINGLE COLOR RIBBON MACHINE


SPACE BAR

ADJUST SPACE LEVER PIVOT SCREWS H-20-5202 TO REMOVE END PLAY AND TO CENTER SPACE LEVER H-20-6415 IN KEY LEVER FRONT COMB H-20-6016.

ADJUST SPACE BAR TRIP TO TAKE PLACE WHEN SPACE BAR IS 1/16 OF AN INCH ABOVE DOWN STOPS BY FORMING SPACE LEVER. PLACE PLIERS JUST TO THE LEFT OF LEFT SPACE KEY EXTENSION. FORM TO THE REAR OF MACHINE FOR EARLIER TRIP, TO THE FRONT FOR A LATER TRIP.

SPACE BAR CONNECTING LINK H-20-5920 MAY BE FORMED TO GAIN CORRECT TRIP. EXTREME CARE MUST BE TAKEN TO PREVENT BINDING OF LINK H-20-5920.
SHIFT MECHANISM

ADJUST SHIFT SPRING ADJUSTING SCREW H-20-5103 TO HAVE A LIGHT BUT RAPID SHIFT.

WITH SHIFT KEY DEPRESSED, ADJUST SHIFT ECCENTRIC SCREW FRONT H-20-5301 UNTIL CAPITAL “H” PRINTS ”ON FEET”. RELEASE SHIFT KEY, ADJUST SHIFT ECCENTRIC SCREW REAR H-20-5301 UNTIL "MOTION" IS OBTAINED.

POSITION SHIFT LOCK H-20-6017 SO SHIFT KEY WILL RELEASE FROM LOCKED POSITION FROM EITHER SIDE AND "ON FEET" WILL NOT BE AFFECTED.

CYLINDER AND ANVIL POSITION

WITH A TYPE BAR HELD AGAINST THE PLATEN, THERE SHOULD BE .004 TO .008 CLEARANCE BETWEEN THE TYPE BAR AND ANVIL. THIS CLEARANCE IS SET AT THE FACTORY AND SHOULD BE CORRECT.

IF CYLINDER AND ANVIL IS NOT CORRECT, THE TYPE GUIDE WILL HAVE TO BE REPOSITIONED THRU THE TYPE GUIDE ADJUSTING SCREW H-20-5204.

TURN TYPE GUIDE ADJUSTING SCREW H-20-5204 IN TO INCREASE CLEARANCE BETWEEN TYPE BAR AND ANVIL. BACK OUT ON SCREW H-20-5204 TO DECREASE CLEARANCE.

BACK SPACE

TO REMOVE BACK SPACE PAWL COMPLETE:

REMOVE RIGHT PLATEN KNOB H-20-7770.

REMOVE RIGHT CARRIAGE END COVER H-20-7336.

REMOVE RIGHT CARRIAGE RELEASE LEVER PIVOT SCREW H-20-5248A. DO NOT LOSE CARRIAGE RELEASE LEVER SPRING H-20-5707 OR SPACER H-20-5401.

UNHOOK BACK SPACE PAWL ARM SPRING H-20-5622 FROM LEFT STUD. REMOVE SPACER H-20-5401.

RAISE CARRIAGE RELEASE LEVER RIGHT.

BACK SPACE PAWL COMPLETE CAN NOW BE REMOVED.

TO INSTALL, REVERSE ABOVE PROCEDURE.

ADJUST BACK SPACE PAWL H-20-7261A AS FAR TO THE LEFT AS POSSIBLE. TIGHTEN BACK SPACE PAWL SCREW H-20-5101.

BACK SPACE MECHANISM MUST BE FREE OF BINDS. BACK SPACE KEY LEVER H-20-6340 MUST BE HELD AGAINST KEY LEVER UP STOP, BUT BACK SPACE INTERMEDIATE LEVER H-20-7270 MUST NOT BE OPERATED WHEN BACK SPACE MECHANISM IS AT REST. FORM BACK SPACE CONNECTING LINK H-20-5919 AT ANGLE BEND TO OBTAIN THESE CONDITIONS.

DEPRESS AND HOLD BACK SPACE KEY LEVER. CARRIAGE SHOULD MOVE BACK ONE SPACE AND CARRIAGE MUST BE LOCKED. IF CARRIAGE DOES NOT BACK SPACE PROPERLY, BACK SPACE PAWL H-20-7261A WILL HAVE TO BE REPOSITIONED.
CARRIAGE RELEASE LEVERS

WITH CARRIAGE AT EXTREME RIGHT MARGIN, LOOSEN CARRIAGE RELEASE LEVER SCREW RIGHT H-20-5119. OPERATE CARRIAGE RELEASE LEVER RIGHT UNTIL LUG ON LEVER IS AGAINST POST ON RIGHT CARRIAGE END. MOVE FEED RACK H-20-7367 TO REAR UNTIL IT IS FREE OF PINION WHEEL. TIGHTEN CARRIAGE RELEASE LEVER SCREW H-20-5119.

WITH CARRIAGE AT EXTREME LEFT MARGIN, LOOSEN CARRIAGE RELEASE LEVER SCREW LEFT NUT H-20-5345. ADJUST CARRIAGE RELEASE LEVER SCREW LEFT H-20-5297 IN UNTIL IT TOUCHES LEFT CARRIAGE END. BACK OUT ON SCREW SO IT WILL JUST CLEAR LEFT CARRIAGE END. (THIS ADJUSTMENT REMOVES END PLAY FROM RELEASE MECHANISM.) ADJUST LEFT CARRIAGE RELEASE LEVER SAME AS RIGHT. TIGHTEN CARRIAGE RELEASE LEVER SCREW NUT H-20-5345.

ALIGNING SCALE

ADJUST ALIGNING SCALE H-20-7193 TO BE LEVEL AND HAVE TOP OF SCALE JUST BELOW BOTTOM OF PRINTED LINE. FORM BRACKET SO 6 SHEETS OF PAPER CAN BE INSERTED BETWEEN SCALE AND PLATEN.

CARRIAGE

REMOVAL COMPLETE WITH BED RAIL

NOTE: SOME MACHINES HAVE SHIMS H-20-7206 BETWEEN CARRIAGE FRONT RAIL H-20-7210 AND FRAME. SHIMS MUST BE REPLACED OR MOTION AND IMPRESSION WILL BE DIFFICULT TO OBTAIN.


CARRIAGE CAN NOW BE REMOVED FROM FRAME.

REPLACEMENT COMPLETE WITH BED RAILS

WHEN SETTING CARRIAGE ON FRAME, MAKE SURE UPPER END OF BACK SPACE INTERMEDIATE LEVER SPRING H-20-5711 IS AGAINST CARRIAGE FRONT RAIL AND TO THE LEFT OF ITS MOUNTING SCREW H-20-5233. SEAT CARRIAGE FRONT RAIL ON CARRIAGE RAIL PINS H-20-5533. INSTALL SHIMS H-20-7206 IF NEEDED. INSTALL 4 CARRIAGE FRONT RAIL MOUNTING SCREWS H-20-5102. CARRIAGE IS NOW AT ITS ORIGINAL POSITION. SEAT ESCAPEMENT BRACKET AND INSTALL MOUNTING SCREWS.

REMOVAL OF CARRIAGE FROM BED RAIL

REMOVE CARRIAGE COMPLETE AS ABOVE. REMOVE KEEPER H-20-5435 FROM ONE END OF CARRIAGE RACK H-20-7848. REMOVE CARRIAGE RACK. CARRIAGE CAN NOW BE REMOVED FROM BED RAIL.

INSTALL CARRIAGE IN BED RAIL

SLIDE CARRIAGE INTO BED RAIL. POSITION CARRIAGE SO GEAR OF CARRIAGE BALL RETAINER H-20-7845 IS IN THE LAST TOOTH OF CARRIAGE BALL RETAINER RACK H-20-7186. HOLD CARRIAGE IN THIS POSITION. INSTALL CARRIAGE RACK H-20-7848. REPLACE CARRIAGE RACK KEEPERS H-20-5435.

CARRIAGE REAR RAIL ADJUSTMENT

LOOSEN AND MAKE FRICITION TIGHT 4 CARRIAGE REAR RAIL MOUNTING SCREWS H-20-5281.
LOOSEN CARRIAGE REAR RAIL ADJUSTING SCREW LOCK NUT H-20-5342. ADJUST CARRIAGE REAR RAIL ADJUSTING SCREWS H-20-5203 TO REMOVE PLAY IN CARRIAGE. CHECK CARRIAGE TO BE FREE THE FULL LENGTH OF WRITING LINE. TIGHTEN CARRIAGE REAR RAIL ADJUSTING SCREW NUTS H-20-5342. ALSO CARRIAGE REAR RAIL MOUNTING SCREWS H-20-5281.

LINE SPACE

LINE SPACE LEVER ADJUSTMENT


CHECK FOR SLIGHT PLAY IN LINE SPACE RATCHET DETENT ROLL RELEASE LEVER H-20-7005. IF THERE IS TOO MUCH PLAY, FORM LINE SPACE RATCHET ROLL H-20-7050 AWAY FROM PLATEN RATCHET AND VICE VERSA.

PLACE LINE SPACE SELECTOR AT 1. OPERATE LINE SPACE LEVER SLOWLY UNTIL PLATEN HAS MOVED TWO TEETH OF RATCHET. AT THIS TIME LINE SPACE PAWL MUST REST AGAINST LINE SPACE REGULATOR ECCENTRIC SCREW H-20-5291. IF NOT, ADJUST SCREW H-20-5291.

MARGIN AND LINE LOCK

ADJUST MARGIN LOCK STOP SCREW H-20-5204 (LOCATED AT REAR OF MACHINE JUST ABOVE REAR MACHINE MOUNTING PLATE SCREW) IN UNTIL IT BINDS MARGIN LOCK RELEASE LEVER H-20-6732. BACK OUT ON SCREW UNTIL MARGIN LOCK H-20-6733 IS FREE. TIGHTEN NUT.

SET LEFT MARGIN STOP AT 10 ON MARGIN SCALE. POSITION CARRIAGE AT LEFT MARGIN. ADJUST LEFT MARGIN STOP PLATE H-20-6736 SO THERE IS ABOUT .050 CLEARANCE BETWEEN LEFT MARGIN STOP AND MARGIN LOCK RELEASE LEVER H-20-6732. TEST CARRIAGE FOR OVER BANKING AND DROPPING AWAY FROM LEFT MARGIN SETTING. READJUST MARGIN STOP PLATE LEFT H-20-6736 IF EITHER CONDITION EXISTS.

SET LEFT AND RIGHT MARGIN STOPS 20 SPACES APART. FROM THE LEFT MARGIN TYPE TWENTY CHARACTERS. POSITION LINE LOCK STOP CAM H-20-7135 SO IT JUST CLEAR S FRONT OF MARGIN LOCK EXTENSION H-20-6733. AT THIS TIME POSITION RIGHT MARGIN STOP PLATE SO MARGIN LOCK EXTENSION HAS A FULL HOLD ON LINE LOCK STOP CAM H-20-7135.

RETURN CARRIAGE TO LEFT MARGIN STOP. TYPE TWENTY CHARACTERS. THE LINE LOCK MECHANISM WILL LOCK ESCAPEMENT ON THE 21ST STROKE IF THE PRECEDING ADJUSTMENTS ARE CORRECTLY MADE.

CARRIAGE MAIN SPRING

THE CARRIAGE MAIN SPRING SHOULD HAVE ENOUGH TENSION TO PREVENT CARRIAGE FROM PILING WHEN TYPING RAPIDLY INTO EXTREME RIGHT MARGIN. ABOUT 5 TURNS ON DRUM IS USUALLY CORRECT.

BELL

IF NECESSARY, FORM BELL RINGER H-20-6440 SO THAT IT WILL ENGAGE RIGHT MARGIN STOP. BELL RINGER HAMMER MUST CLEAR BELL BY ABOUT .020. FORM BELL RINGER SPRING H-20-6455. TO OBTAIN THIS ADJUSTMENT.

IF BELL RINGS WHEN CARRIAGE IS RETURNED, BELL HAMMER IS TOO CLOSE TO BELL.