CLUTCH ADJUSTMENTS

INSTRUCTIONS FOR ADJUSTING-OPERATING-REPAIRING, etc., NEW STYLE (9" CLUTCH RING) CLUTCH AS USED ON [redacted] STITCHERS.

If the Clutch hesitates on picking up, turn upper Brake Adjusting Screw in or clockwise about 1/4 to 1/2 turn or until Clutch picks up. If the Clutch repeats, the Upper Brake Adjusting Screw should be backed out until Clutch does not repeat. Be sure, however, that the Brake Band is free when the Clutch is in operation or engaged. Too much oil in Clutch Ring may tend to cause hesitation on picking up.

When the Brake Band Adjustment is correct, there should be approximately 3/16" to 1/4" opening of Pawl. As this dimension becomes greater, a harder blow will take place between the Clutch Pawl and Stop Plunger thus causing undue shock and wear to these parts and it will also make the Clutch tripping action harder for the Solenoid. Therefore, adjust the Upper Brake Screw to obtain the 3/16" to 1/4" opening.

Note: Proper action of the Clutch and Brake Band is as follows: When the Clutch engages, the Brake Band should be free and when the Clutch is disengaged, the Brake Band should be tight and the Clutch should be free.

If the Clutch fails to pull load after making the above adjustment, it is usually due to badly worn parts. For most cases, this trouble can be remedied by removing the Clutch Unit, including the Flywheel, from the machine and putting oversize expanding pins #2347A in the Clutch Ring. When this is done, reassemble Clutch Unit in Flywheel on the Bench and see that dimension of the Clutch Pawl to the inside of Sleeve Rim does not exceed 7/16" when the play or lost motion is taken out. If the oversize pins obtain a dimension less than 1/16" it is an indication that either the Clutch Ring or the Bore in the Flywheel is very badly worn and should be replaced as soon as possible or the use of Expanding Pins #2347B should be employed. Note: When the use of #2347B pins are required it is an indication that the Flywheel or Clutch Ring are worn to the extent that new parts should be ordered and kept on hand for replacing. Before putting the Brake Band on the Clutch Unit, back out the Lower Screw until the Spring is loose and under no tension. After the Brake Band is assembled in the Clutch Unit, turn the Upper Screw in the Brake Band in until the Band can be freely turned on the Brake Ring.

The Clutch Unit can now be reassembled into the machine and the proper brake adjustment can be made.

...../2.

After the Clutch Unit is reassembled back into the machine and the machine has been turned over by hand to check for proper timing, etc., turn on the motor and trip machine so that the Clutch will become engaged and disengaged by power. Shut off the motor. With the Brake now engaged turn upper brake screw in until the spring is completely closed or compressed and then back the screw out one or two complete turns. The reason for doing this is so that the braking action will have resiliency and yet employ the spring to do some of the braking.

Note: Never allow the spring to be solidly closed when the Brake is on as this will cause too much shock to the Clutch Pawl and the Stop Plunger and the Solenoid may not be able to trip the Clutch.

Now start the motor and trip the Clutch and when the machine stops by the brake action, check for Pawl opening to be approximately 3/16" to 1/4". If this dimension is more than 3/16" to 1/4" turn Upper Screw in; if less than 3/16" back Screw out. When the Lower Screw and Spring has been adjusted as described above, the Upper Brake Screw is the only one to be used thereafter to adjust the Brake and stop the machine in the correct position.

If wear on the Brake parts comes to the point where backing out the Upper Screw will not cause the Brake to function properly, remove Clutch Unit from the machine and insert oversize pins #2347A in the Brake Ring or put on new Brake Ring or Brake Band or both as the case may require. When putting on new Brake parts be sure to adjust Brake according to the above instructions.

The Clutch Ring and the Brake Ring should be occasionally oiled with a light grade of oil. However, do not flood these parts with oil as it may cause slipping of the Brake in particular.

Note: When installing a new Ring and Flywheel, be sure to put a little light oil on the Ring and turn the Ring by hand in the Flywheel, so that both are lubricated. If the new Ring and Flywheel are assembled dry there may be a tendency for the Clutch to drag when it is disengaged. If in actual operation this condition exists as the Clutch is first assembled and run, let the Flywheel revolve with the Clutch disengaged until the condition is overcome. While doing this be sure that Clutch is oiled and does not become too hot. This applies for a new Clutch installation.

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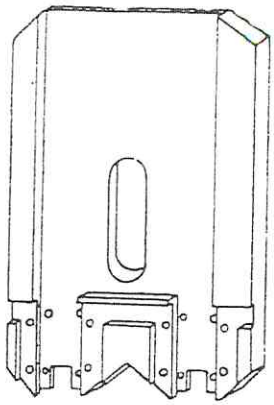
In order to identify the Clutch Expanding Pins referred to above, the following information is given:

#2347 Pin is .156" thick
#2347A Pin is .166" thick
#2347B Pin is .176" thick

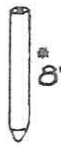
This thickness is determined by measuring the pin from the flat side to the opposite round side. The use of a micrometer will be required to obtain this dimension.

Another way of identifying these pins is to measure the width of the flats on the pins which should be as follows:

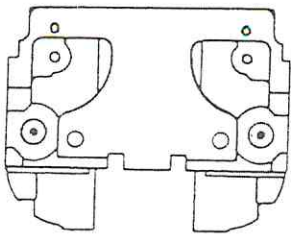
#2347 Pin is approximately 9/64"
#2347A Pin is approximately 1/8"
#2347B Pin is approximately 3/32"



A110G3

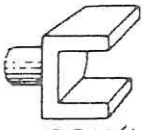


*87H



A50G3

53H-18 TEETH (L.H.)
53HR (R.H.)

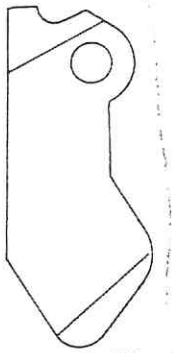


68H (L.H.)
68HR (R.H.)

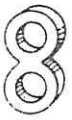
A114G

96H

95H

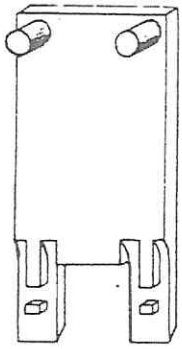


A450G2

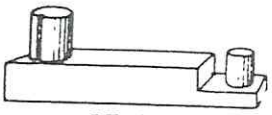


66H

*117H

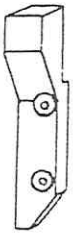


A113G2

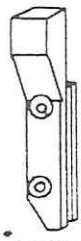


67H

*116H



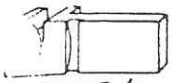
*115HS



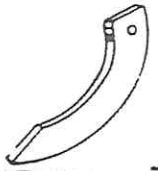
*116HS

*115H

A455G2
A454G2



107H3 (L.H.)
107H3R (R.H.)



136H - 7/16"
136H2 - 3/8"

98H2

126H2 (L.H.)
126H2R (R.H.)

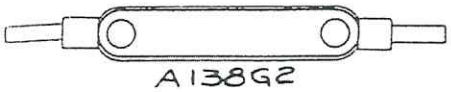
124H

127H

GRIPPER ASSEMBLED
*119H (L.H.) - 119HR (R.H.)

*120H (L.H.)
120HR (R.H.)

*121H (L.H.)
121HR (R.H.)



A138G2

BODY AND BASE PARTS

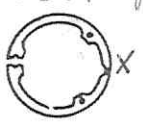
MECHANICAL CLUTCH PARTS

OBSOLETE

456H2

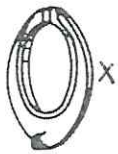
2347

2333

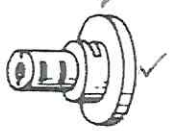


18283GA

18285BA

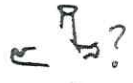


446H3



18282E

2336



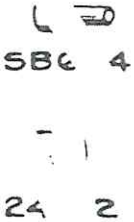
152[illegible]B

19237

166 3 261 52

24 32

25 GA



SB[illegible] 4

24 2

269[illegible]

188H3
188H4
188H24

* REFER TO PARTS LIST

SKETCH OF CLUTCH USED ON V BELT MODELS