

# ILLMAN WRAP SPLICER – code 101 / 103

## Customer Assistance Manual



*Belt fitting*

- The unique splicer to join traditional textile yarns and composite fiber tows in processes where knots are objectionable or impossible to tie.
- It produces high-strength joins in virtually any material within reasonable size limitations, including chenille, fiberglass, Kevlar, graphite, Polyester, nylon and cotton.
- The splice is made by tightly wrapping a fine yarn around overlapped ends of the subject yarn.
- It can be mounted on a waist-belt for portability or on the electric version of the ATS system, for efficient operation on many different types of processing materials, including creels.



*ATS fitting*

## MAKING A SPLICE

Fig. 1

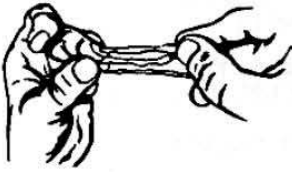


Fig. 2



Fig. 3



Fig. 4

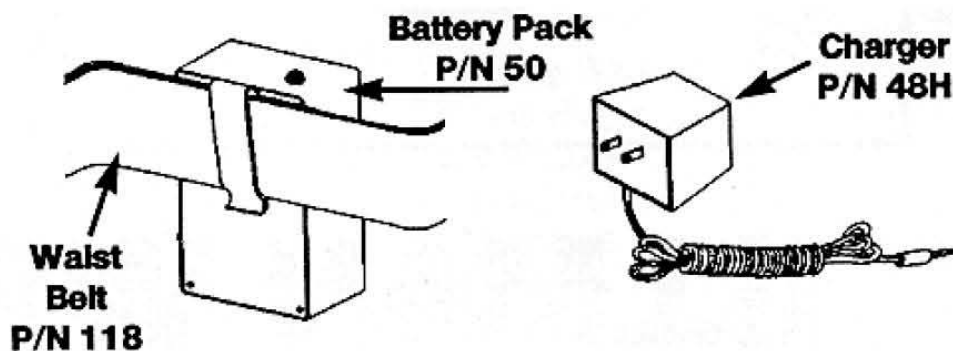


- Begin the splicer operation by overlapping the ends of yarn the desired amount
- Place the ends in the wrap wheel slot (see Figures 1 and 2)
- Press the switch lever at the right of the wrap wheel to begin wheel rotation. As the wheel rotates, a fine yarn from the bobbin is wound tightly around the ends, joining them securely. The operator controls the length of splice being made by moving the yarn from left to right.
- The complete splice is removed to the right of the splicing wheel, and the wrap yarn is then broken. (see Figures 3 and 4).

Tensile strength increases proportionally with the wrapping wheel time and length of splice.

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## BATTERY MAINTENANCE



Battery condition always should be checked before operation.

Never use a battery when the open-circuit voltage is less than 5.75 volts.

Operation at this low voltage may decrease the cycle-life of the battery.

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## GENERAL MAINTENANCE

**Cleaning:** The splicer should be cleaned frequently to remove lint and yarn from around the wheel rollers (P/N 4) and from between the motor shaft and wheel drive hub (P/N 3). Build-up in these areas may cause friction, resulting in excessive drain on the batteries. (Refer to Part List, page 4).

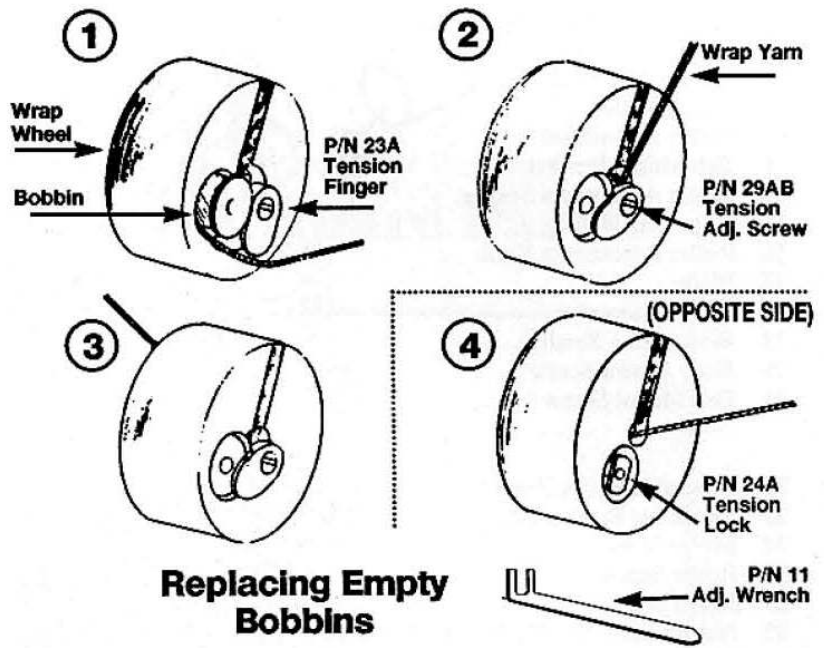
**Wearing:** Drive system parts that are most likely to need replaced due to wear are the hub cover (P/N 35), and the wheel rollers (P/N 4).

**Plug Rewiring:** If a plug must be rewired, always observe the correct polarity! Wiring a plug in reverse polarity could result in permanent damage to the batteries or charger. Refer to the diagram for correct wiring of the plug or receptacle.

## WRAP YARN - REPLACING BOBBINS

The wrap yarn is fed from a small bobbin located in the wrap reel.

- To replace the empty bobbin, remove the wheel from the splicer by lifting it upward.
- Then remove the empty bobbin from the wheel by pushing in on the tension lock (P/N 24A), which is on the opposite side of the splicing wheel from the bobbin and tension finger (P/N 23A).
- Rotate the tension finger and remove the bobbin.
- Place a full bobbin in the wheel (reversing the sequence above).
- Then pull the wrap yarn from the bobbin under the tension finger, around the tension adjustment screw (P/N 29AB), and through the center of the splicing wheel. The bobbin must rotate counterclockwise.



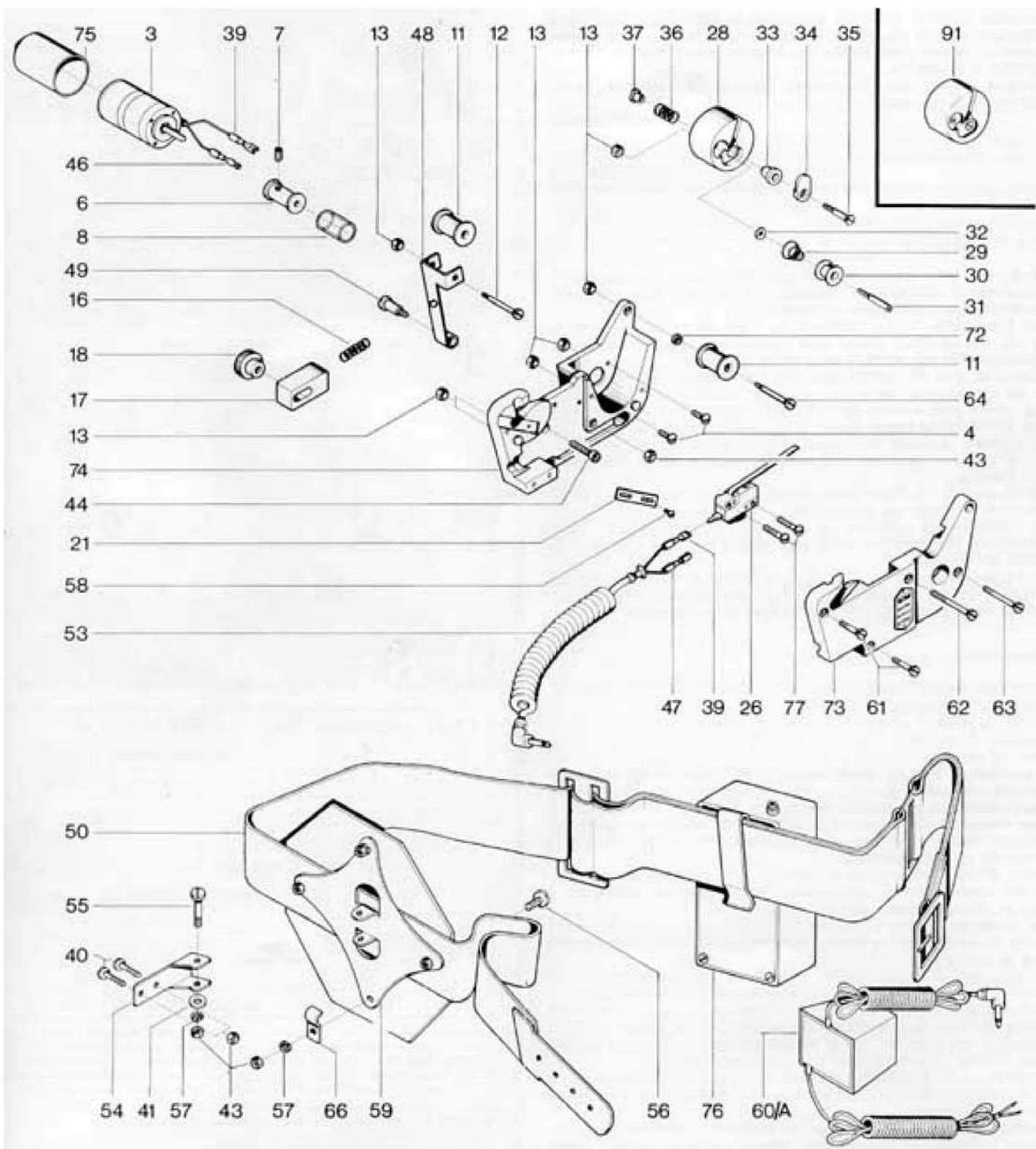
Always check tension of the wrap yarn after rethreading the wrap reel. A weak splice may result in the yarn is not properly installed under the tension assembly. Tension may be adjustable by turning the tension adjustment screw (P/N 29AB) while holding the tension adjustment nut (P/N 24A).

Place the replenished wheel in the splicer with the bobbin-side next to the motor. Before starting a splice, the wrap yarn must be pulled about an inch to the right of the wrap wheel.

## STANDARD WRAP YARNS

Code	Range	Composition	Colour	Main application
30	Ne 40	cotton	natural white	cotton and jute yarns
30A	Ne 100	cotton	natural white	cotton and jute yarns
30B	Ne 50	polyester	white	polyester yarns
30C	Den 40	texturised nylon 66	white	
30E	Den 50	monofil nylon 66	transparent	chenille and dyed yarns
30I	Ne 50	nomex	white	keVlar or industrial yarns resisting to high temperatures
30J	Ne 40	nomex	green	keVlar or industrial yarns resisting to high temperatures
30K	Ne 30	keVlar	yellow	keVlar or similar industrial yarns
30S	Den 100/20	soluble P.V.A. 60°	white	where the dissolution of the wrapping yarn is needed

The count range of the above mentioned yarns are indicative only. They could be modified by the supplier.



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