Loom Problems
&
What Can Be Done About Them

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Loom Problems
And What Can be Done About Them

Functional Problems
Problems arising due to loom mis-adjustments or limitations, weaver’s techniques, or just plain physics.

Maintenance/Repair Issues
Problems with broken, bent, rusted, stained, deteriorated, or missing parts.
Loom Problems
And What Can be Done About Them

Functional Problems

• Shed Too Small
• Fell Line not Perpendicular to Warp
  • Inadvertent Warp Floats
  • Loss of Warp Tension
  • Warp Threads Breaking
• Floating shafts (Jack only)
Functional Problems
And What Can be Done About Them

Shed Too Small

• **Weaver Controlled**
  • Warp does not pass over back beam
  • Warp tension too high
  • Treadles not pushed down far enough
  • Cloth needs to be advanced – table looms need this frequently.

• **Loom Controlled**
  • Treadle tie-up cords wrong length – use shorter cords for tying up rear shafts (compared to those used for front shafts) so they lift more
  • Beater set too high – set beater height so that lower warp threads just contact shuttle race
Functional Problems
And What Can be Done About Them

Fell Line Not Perpendicular to Warp

• **Weaver Controlled**
  • Weaver not grabbing beater bar at center – always pull from center of beater
  • More draw in on one side of cloth than the other – control draw in of selvages

• **Loom Controlled**
  • Beater not swinging parallel to castle – adjust beater by shimming or check for non-level floor
  • Loose bolts holding reed in place – tighten the nuts.
Functional Problems
And What Can be Done About Them

Inadvertent Warp Floats

• **Weaver Controlled**
  • Shuttle catching and passing under lower warp threads due to insufficient tension in warp or sloppy shuttle throwing
    • Increase warp tension
    • Throw the shuttle along the race and keep flat

• **Loom Controlled**
  • Shuttle catching and passing under lower warp threads due to beater being set too low – raise beater until lower warp threads contact shuttle race.
Functional Problems
And What Can be Done About Them

Loss of Warp Tension

• Weaver Controlled
  • Warp tension is higher than necessary
  • Failed to install heavy paper or sticks on warp beam

• Loom Controlled
  • Brake is slipping – adjust brake for more secure holding of warp beam
    • Adjust the turnbuckle, eye bolt or other device
  • There should be no loss of warp tension on looms equipped with a ratchet system for warp beam control
Warp Threads Breaking

• **Weaver Controlled**
  • Warp tension too great – use lower tension if possible
  • Inappropriate type of yarn for warp – use yarn with sufficient strength and abrasion resistance
  • Too much draw in at selvages causes abrasion on warp threads by reed – control draw in better
  • Warp thread caught on heddle – check for incorrect threading of heddle eye and watch for bending heddles during warp advancing especially with slubby yarns.
Functional Problems
And What Can be Done About Them

Floating Shafts (Harnesses) on Jack Looms

This can be a problem with certain weave structures (ex. tied weaves) on jack looms with 8 or more shafts.

• Weaver Controlled
  • Too many treadles are connected to too few shafts causing an imbalance – select a different structure or weave the cloth upside down (ie tie up the open squares instead of the circles)

• Loom Controlled
  • Treadle weights don’t balance shaft weights correctly in some cases – add weights to shafts to increase their weight or add springs or bungy cords to ends of treadles to support and reduce their weight. If unused shafts are available, tie the offending treadles to those shafts in addition to their normal tie-ups.
Loom Problems
And What Can be Done About Them

Maintenance/Repair Issues

• Loose Parts
• Sticking Parts
• Wooden Parts
• Rust and Stains
• Heddle Alignment
• Adjustments
Maintenance/Repair Issues
And What Can be Done About Them

• **Loose Parts**
  • Check loom for loose joints
    • tighten bolts and screws as necessary but don’t tighten joints that are supposed to pivot

• **Sticking Parts**
  • Shafts sticking in castle
    • lube channels and shaft frames with silicone spray, Teflon spray or paste wax
  • Cloth or warp beam not rotating freely (with brake released)
    • check that there is end clearance and remove washers/spacers as necessary
    • lube the pivot bearings with WD40 or silicone/Teflon spray
    • make sure that the ends of tie-on rods are not catching on adjacent parts of the loom as the beams rotate.
Maintenance/Repair Issues
And What Can be Done About Them

• Sticking Parts (cont)
  • Steel heddles don’t slide side to side easily
    • Rub heddle bars with steel wool to remove rust or oxidation and put on a coat of paste wax and buff
  • Texsolv heddles
    • Be sure to buy exact same size as replacements
Maintenance/Repair Issues
And What Can be Done About Them

• **Sticking Parts (cont)**
  • Shafts sticking in castle
    • lube channels and shaft frames with silicone spray, Teflon spray or paste wax
  • Cloth or warp beam not rotating freely (with brake released)
    • check that there is end clearance and remove washers/spacers as necessary
    • lube the pivot bearings with WD40 or silicone/Teflon spray
    • make sure that the ends of tie-on rods are not catching on adjacent parts of the loom as the beams rotate.
  • Steel heddles don’t slide side to side easily
    • Rub heddle bars with steel wool to remove rust or oxidation and put on a coat of paste wax and buff
Maintenance/Repair Issues
And What Can be Done About Them

• Wooden Parts

  • General refinishing and preservation
    • For looms with lacquer or varnish finish, use polyurethane to refinish repaired areas.
    • For Norwood cherry looms, apply an annual coating of a 50/50 mixture of turpentine and raw (not boiled) linseed oil

  • Nicks and scratches
    • For lacquered or varnished looms, wipe the scratches with a clear stain such as Minwax Woodfinish Natural
    • For Norwood looms, put a matching cherry stain on the scratches.
Maintenance/Repair Issues
And What Can be Done About Them

• **Rust and Stains**

  • Glue residue from old masking or Scotch tape
    • Remove with Goo Gone
  
  • Stains on wooden parts
    • Remove with cleanser

• **Rust on heddle bars**

  • Remove with steel wool then put on a coat of paste wax to prevent future rusting and help heddles slide

• **Rust on reeds**

  • Remove with fine sandpaper (240 grit) or coat with naval jelly and wash off then spray on a coat of polyurethane to prevent future rusting

• **Rusty Heddles**

  • Rusty heddles should be replaced with new ones
Maintenance/Repair Issues
And What Can be Done About Them

• Heddle Alignment

• Aim Steel Heddle eyes all in the same direction
  • Choose the eye direction to suit left- or right-hand threading
  • Change the eye orientation by turning individual heddles or the entire shaft upside down
  • Note: Texsolv heddles do not need to be aligned
Maintenance/Repair Issues

And What Can be Done About Them

• Adjustments

• Brake
  • Adjust brake to prevent rotation of warp beam when warp is under tension but to still allow cranking on of warp without disengaging the brake

• Beater Height
  • Adjust beater height to allow the bottom warp threads to just touch the shuttle race on jack looms. On counterbalance and countermarche looms, the height should be such that the warp thread passes through the center of the reed

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Tools

• Screw drivers (incl Robertson for Leclerc looms)
• Wrenches
• Scissors
• Pliers

• Hammer
• Utility knife
• Stitch holders
• Vise Grip
• Soldering Iron
• Allen Wrenches
Supplies

• Steel wool 0000
• Paste wax
Supplies

• Sandpaper
• Spray Polyurethane
• Gaffer’s Tape
Supplies

- Cleaner
- Goo Gone
Supplies

- Bumpers
- Felt Pads
- Weather Stripping (sponge tape)
- Contact Cement
- Rubber Cement
Supplies

• Texsolv Cord
• Masons Cord (#18 Braided)
Supplies

Lubricants
Supplies

Minwax Wood Finish
For hiding scratches
Supplies
Supply Purchasing Options

Paste Wax – Minwax: Menards SKU: 5557655

Steel Wool 0000 – Rhodes American: Menards SKU: 5612723

Spray Polyurethane – Minwax Clear Satin: Menards SKU: 5557736

Cleaner – Orange Champ: Menards SKU: 6478038

Goo Gone – 8 oz: Menards SKU: 6471701

Contact Cement – DAP Weldwood (non-flammable): Menards SKU: 5208982

Rubber Cement – Elmer 4 oz: Menards SKU: 2512004

Texsolv Cord – Glimakra USA: Fine Line is a dealer

Masons Cord (Line) - #18 braided: Home Depot in various colors except white

Masons Cord - #18 braided white: Amazon:

Silicone Spray – WD40: Menards SKU: 2610665
Teflon Spray – WD40: Menards SKU: 2612723

Raw Linseed Oil – Paint Store (might be special order) or Amazon

Bumpers, felt pads, and weather stripping: Any hardware store – choose to suit requirements
A Little Sales Pitch for The Fine Line

Fine Line is a dealer for

• Louet
• Leclerc
• Schacht
• Harrisville Designs
• Glimakra

You Get

• Discounted prices
• Superior service/support

Fine Line Gets

• Financial support to help maintain our educational programs

Contact Dan at: looms@fineline.org
Any Questions?

Email additional or future questions to Dan at: DRWHLW@AOL.COM