

## THANKS FOR BUYING PROBLEM SOLVERS FRAME SAVER!

This is the original formula introduced in the mid-1990s and has been used to combat rust inside hundreds of thousands of steel bicycle frames since then—you're in good company.

**⚠ WARNING:** Cycling can be dangerous. Bicycle products should be installed and serviced by a professional mechanic. Never modify your bicycle or accessories. Read and follow all product instructions and warnings including information on the manufacturer's website. Inspect your bicycle before every ride. Always wear a helmet.

**⚠ WARNING:** CONTAINS ALIPHATIC HYDROCARBONS. DANGER! EXTREMELY FLAMMABLE.

Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively. Keep area ventilated during use and until all vapors are gone. **DO NOT SMOKE** - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

**CONTENTS UNDER PRESSURE.** Avoid prolonged exposure to sunlight or heat from radiators, stoves, hot water, and other heat sources that may cause bursting. Do not puncture, incinerate, burn, or store above 120°F. Keep upright in a cool, dry place. Do not discard empty can in trash compactor. **VAPOR HARMFUL.** Use with adequate ventilation. Avoid continuous breathing of vapor and spray mist. To avoid breathing vapors or spray mist, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air or wear respiratory protection (NIOSH approved) or leave the area. Avoid contact with eyes and skin. Wash hands after using.

**FIRST AID:** In case of eye contact, flush thoroughly with large amounts of water for 15 minutes and get medical attention. For skin contact, wash thoroughly with soap and water. In case of respiratory difficulty, provide fresh air and call physician. If swallowed, do not induce vomiting. Call Poison Control Center, hospital emergency room, or physician immediately.

**DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE.** Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

**DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.**

For additional product and safety information, please visit: [www.problemsolversbike.com/safety](http://www.problemsolversbike.com/safety)

## INTENDED USE

Rust attacks any unprotected steel surface and weakens it. Paint protects the outside of the frame, use Frame Saver with its rust-inhibitive coating to protect the inside.

## TOOLS

- Rubber gloves (or similar)
- Eye protection
- Paper towels
- Tape
- M5 bolts or plugs

## FRAME APPLICATION

WEAR EYE PROTECTION. WORK OUTSIDE OR IN A WELL-VENTILATED AREA.

1. For best results, the frame should be dry, with all components removed.
2. Find all the holes! You will access the toptube, downtube and seat tube from the headtube, seat tube or bottom bracket junction (fig. 1).



Figure 1

On some frames, you can access the inside of the seatstays and chainstays from the seat tube and bottom bracket junction, otherwise locate the vent holes (these allow for the release of gas and moisture during frame welding) (fig. 2).



Figure 2

3. Cover frame bosses with M5 bolts or plugs to prevent Frame Saver from leaking out (fig. 3).



Figure 3

4. Plug the headtube with wadded paper towels (fig. 4).



Figure 4

- Toptube: insert the spray wand into the toptube via the seat tube and spray a 4–6 second blast).
- Seatstays: insert the spray wand into each of the seatstays via the seat tube and spray 2–3 second blasts (fig. 5), OR spray into the seatstay vent holes.



Figure 5

NOTE: If there is only one vent hole per seat stay, DO NOT insert the spray wand—you may force liquid and propellant into the tube which may spray back out when the wand is removed. Instead, spray at the hole using a paper towel behind to catch overspray.

- Plug the top of the seat tube with wadded paper towels, and tape over the seatstay vent holes.
- Turn the frame upside down and spray a 2–3 second blast into each tube: seat tube, downtube (fig. 6), and chainstays, OR spray into the chainstay vent holes (fig. 7).



Figure 6



Figure 7

NOTE: If there is only one vent hole per chainstay, DO NOT insert the spray wand—you may force liquid and propellant into the tube which may spray back out when the wand is removed. Instead, spray at the hole using a paper towel behind to catch overspray.

- Plug the bottom bracket junction with wadded paper towel and tape over chainstay vent holes.

- With all openings plugged, slowly rotate the frame on its side, then to the other side and repeat several times. This helps the Frame Saver coat the entirety of the tubes inside.
- Leave plugs in for a few hours to help absorb excess liquid. Rotate the frame again and remove the plugs.
- For the best results, allow the solvent to completely evaporate (8–12 hours) and repeat the application again.

**⚠ WARNING:** Frame Saver can damage carbon components, resulting in component failure and leading to a fall and serious injury. Never use Frame Saver on carbon components.

## FORK APPLICATION

- Locate the vent holes (fig. 8).

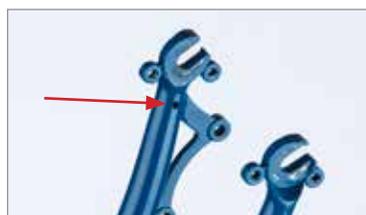


Figure 8

- Spray a 2–3 second blast into each fork blade (fig. 9).



Figure 9

NOTE: If there is only one vent hole per chainstay, DO NOT insert the spray wand—you may force liquid and propellant into the tube which may spray back out when the wand is removed. Instead, spray at the hole using a paper towel behind to catch overspray.

- Tape over the fork blade vent holes, plug the steerer tube with wadded paper towel.
- With all openings plugged, slowly rotate the fork from one side to the other and repeat several times. This helps the Frame Saver coat the entirety of the fork blades inside.
- Leave plugs in for a few hours to help absorb excess liquid. Rotate the fork again and remove the plugs.
- For the best results, allow the solvent to completely evaporate (8–12 hours) and repeat the application again.

## ONGOING MAINTENANCE

Reapply frame saver every 3–4 years. More often if you ride in wet conditions or live near the sea, less often if you live and ride in arid climates.

## WARRANTY PROCESS

If you and your shop think your Problem Solvers product is worthy of a warranty inspection, please return the product to the original place of purchase, accompanied by a sales receipt.

For complete warranty information, visit [problemsolversbike.com/safety](http://problemsolversbike.com/safety)