
TREK
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TREK 1985. THE AMERICAN EVOLUTION IN CYCLING.

For the last decade, a skeptical but popular belief has held that the basic design of the bicycle had reached its technological zenith. A highly-efficient blend of form and function likely to be exceeded only by small increments, never giant leaps.

Nine years ago, in rural Wisconsin, a small group of engineers and master framebuilders (cyclists all) set about to debunk that notion.

Beginning with the assumption that the ultimate performance of a bicycle cannot exceed the performance of its frame, they set about to pioneer new techniques of bicycle manufacture. To explore the application of new materials in cycling.



And to again raise the level of bicycle performance for decades to come.

This year as in the past, the Trek story starts with a frame.

THE INVESTMENT NO ONE ELSE HAS MADE.

Trek is the only American bicycle manufacturer to feature investment-cast components in the manufacture of virtually all of its frames. Previously, such an expensive and time-consuming method could only be justified on the most exotic custom-built machines.

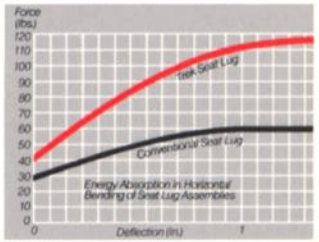


Seat stays fit into a special sleeve for a cleaner, more precise braze.

In 1985, every Trek lightweight bicycle in the line benefits from this advanced technology.

Trek's system of investment cast seat cluster, head lug assembly, bottom bracket, and dropouts is so unique that several patents have been applied for. Created as a special wax is poured into a finely-polished master "tool." The wax flows and fills every cavity of the mold-ensuring the absolute faithfulness of the pattern. The wax form is then dipped repeatedly into a fine-grained silica-ceramic solution. Next, the combination wax and coating is placed into a 2000° kiln, where it is fired into a hard pottery-like mold, the wax melting away. Finally, steel alloy is poured into the shell (much like the wax was poured into the tool) and allowed to cool.

The end result of this extensive process is a frame component of structural strength, metallurgical fineness and precision that cannot be duplicated by any other casting method. Investment-castings, when used in combination with the finest frame tubings available, ensure



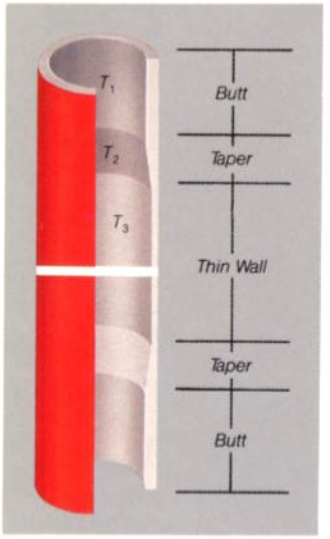
Energy absorption ("stiffness"): Trek investment-cast vs. conventional seat lug designs.



Trek was the first American bicycle maker certified by T.I. Reynolds as a Master Framebuilder.

that a Trek will be built to exceptionally close tolerances. And that consequently, each frame will be brazed to perfection.

Trek's unique sleeved-lug design also means that the finished work of art will realize a greater load-bearing capacity for touring, increased rigidity for racing, and impeccable alignment along every axis.



LESSONS IN ADVANCED GEOMETRY.

Yet all this technology would be wasted if every dimension in the blueprint did not work together in perfect harmony.

Trek frames are based upon a "function-specific" design philosophy that guides their performance. Therefore, a Trek short-wheelbase frame (with steeper head and seat tube angles) is destined to race by virtue of its agile handling, rigidity, and response to bursts of acceleration. Conversely, where comfort and capacity are of primary concern, the wheelbase is drawn out for a more stable touring platform.

Trek's selection of quality bikes guarantees that there is a selection of frames within this spectrum to suit your particular style of riding.

Double-butted tubing maximizes a frame's strength by "butting" or thickening the tubing at the ends where it is subject to the greatest stress, then tapering to a lighter, thinner cross-section in the center.

TUBING WALL THICKNESS
(in mm)

Tubing Name	Top Tube			Down Tube			Seat Tube	
	T_1	T_2	T_3	T_1	T_2	T_3	T_1	T_2
Reynolds 753 R and	0.7	0.5	0.7	0.8	0.5	0.8	0.7	0.5
Reynolds 531C and 531CS	0.8	0.5	0.8	1.0	0.7	1.0	0.8	0.5
Reynolds 501 and True Temper T-1	0.9	0.6	0.9	0.9	0.6	0.9	0.9	0.6
Tange Prestige MTB	1.2	0.9	1.2	1.2	0.9	1.2	1.0	0.7



Project Fusion: Trek pushes the limits of cycling technology in this futuristic human-powered vehicle.

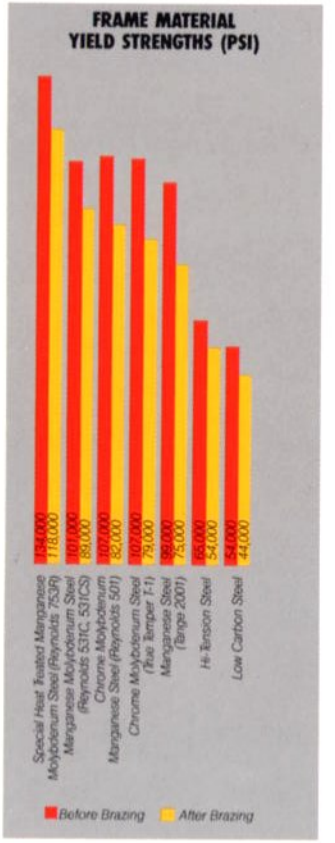
A FITTING FINISH.

After brazing and an exhaustive battery of quality control checks, every Trek receives what is considered to be the most durable finish available — catalyzed polyurethane enamel. Used on the fuselage of jet aircraft, this paint resists the corrosive effects of outside exposure while maintaining a like-new lustre for years.

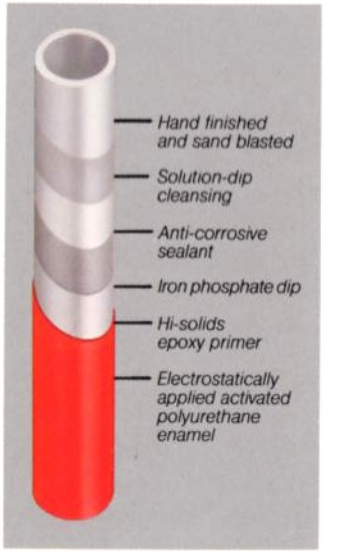
After a six-step chemical treatment and electrostatic application process, the finish is allowed to cure, and the Trek frame is ready for its transformation into a Trek bicycle, a process conducted under the closest scrutiny.

The engineers at Trek have searched around the world for component groups that can justify their use on a frame of such quality. And while the names of the equipment they've chosen are certainly impressive — Campagnolo, SunTour, Shimano, Modolo, Cinelli — they were picked by the only criterion that really matters.

Outright performance.



Minimal loss of tensile strength in Trek frames is achieved through Trek's low-temperature brazing methods.



Trek's 6-step finishing process. The result must be perfect, or it will never wear the Trek name.

MADE IN U.S.A.

Every Trek frame and bicycle is designed and crafted in Trek's ultramodern facility in Waterloo, Wisconsin.



Another member of the Trek team — Olympic Medalist and National Champion Rebecca Twigg.