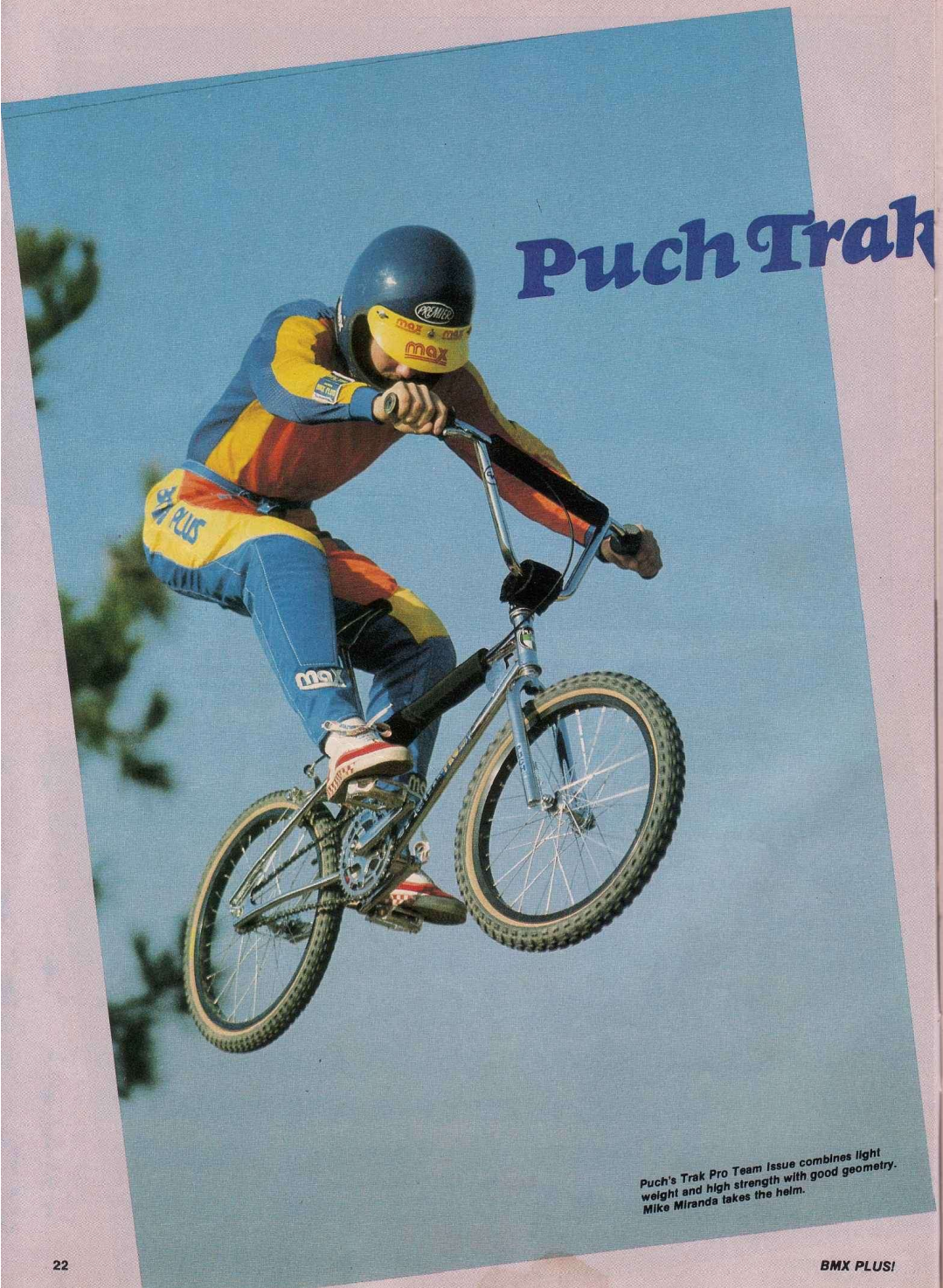
Puch Trak Pro Team Issue

Austrian Craftsmanship—American Style

By Bob Hadley
Photos by John Ker



Puch's Trak Pro Team Issue combines light weight and high strength with good geometry. Mike Miranda takes the helm.

It seems appropriate to start an article about Puch bicycles by first indicating the proper pronunciation of the name. You'll always be able to remember it is pronounced pook if you think of it rhyming with kook. It's an interesting name and so is the Austrian company (Styer Daimler Puch) behind it. In the two and a half years since we last tested a Puch Trak-Pro bicycle, Styer Daimler Puch has moved from its position as Austria's second-largest industrial corporation into first. The company history goes back over a century and includes some notable heritage. Originally, Styer, Daimler, and Puch were three separate companies operating in different fields of industry. According to John Selyer of Styer Daimler Puch of America, Styer was a maker of farm vehicles, utility equipment and firearms. Paul Daimler, and the son of Gottlieb Daimler of Daimler-Benz automobiles, was a designer and builder of finely crafted luxury automobiles. Puch was a maker of combustion engines, motorcycles and bicycles. It was in the 1930's that the three firms decided to pool their resources through a merger.

These days Styer Daimler Puch is a massive conglomerate involved in many of the original industries. Many of the company's operations, both in Europe and in the U.S., are joint ventures with other well-known companies. For example, according to Selyer, they currently supply Volkswagen, BMW, and Mercedes-Benz with many diesel engines, drive parts, and chassis. The combined sales from all Styer Daimler Puch operations in 1981 exceeded one billion dollars.

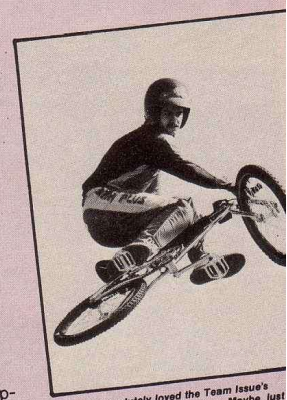
Styer Daimler Puch of America is using joint ventures in order to keep up with the changing demands in the bicycle field. In the multi-speed line, you'll find models produced in Austria and in the Orient. Still, both bikes use the Puch emblem on the head tube. In BMX, involvement began over three years ago when the company struck an agreement with Speed Unlimited, a frame maker in New Jersey, to build Puch's BMX models.

As with the smaller Puch, the rear triangle of the Trak-Pro frame is based on Speed Unlimited's popular Thruster design. Proportionally, the new Puch is a carefully scaled-up version of the small Trak-Pro that we tested in the August 1980 issue.

Currently the big version of the Trak-Pro is available as a frame-fork-handlebar set, but an "under $300" kit version is due for release in early 1983. The configuration of components that is shown on our test model was dubbed by John Selyer as the "Team Issue." Bicycle World in Howell, New Jersey, did all of the wrench spinning and supplied all components for the set-up.

Puch has stayed with the same basic frame and fork layout with the newest Trak-Pro. Key design features include oval top and down tubes, both with dimensions of .980" x 1.110", the Puch-exclusive double head gusset, and the Thruster-style "trapped" (a new word we just invented to describe this style of rear triangle) rear drop-outs. The rear triangle is gusseted at the juncture of the seat stays and seat mast and at the juncture of the chain stays and crank hanger. The tubular rear caliper brake mount adds to the rear triangle rigidity. Front-fork design is essentially the same also, except that the fork offset has been decreased slightly to improve maneuverability. The dropouts are unique in that they bend out slightly where they're welded under the fork leg. The axle slips into the fork from the front rather than being the traditional vertical-entry style. The fork dropouts are relatively thin and lightweight, but we never had any problems with twisting.

With the Puch logo permanently embossed in the head gusset, you'll never mistake this for anything but a Puch, which is the first of three nice things about this gusset. The second nice thing is that it's skip-welded around the top- and down-tube/head-tube butts. This helps prevent tempering of the surrounding metal. The third



Miranda absolutely loved the Team Issue's unique, 9-inch-rise, CW Pro bars. Maybe, just maybe, it has something to do with the fact that Mike is sponsored by and appears courtesy of CW Racing. Thanks Roger. Over and out.

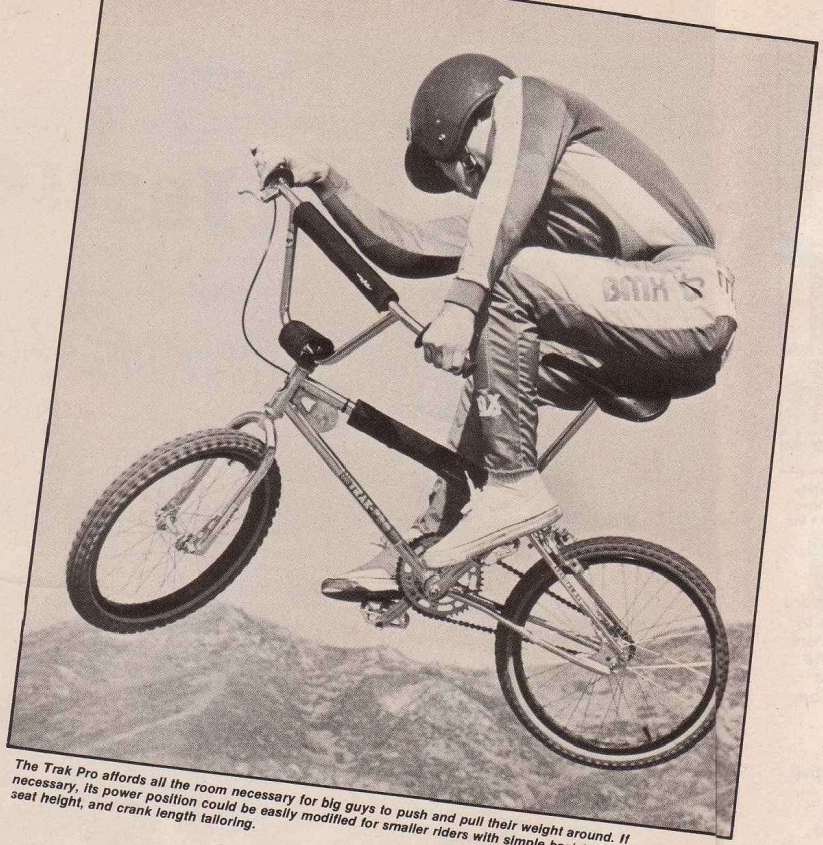
benefit is that the gusset is "form-fitted" around the top tube and the down tube, thus eliminating direct contact between the sharp edges of the gusset plate and the frame tubes. Often, poorly designed gussets can create a fracture-prone point where the sharp trailing edge of the gusset connects to the frame.

The Trak-Pro frame flexes less than your typical lightweight racer with no head gusset, but with little weight penalty. A blow that may sever an ungusseted frame likely would not phase the Trak-Pro.

The manufacturing quality of the Puch is nearly flawless from the welding right down to the chrome plating. All the traditional qualities of a good weld were present on our Trak-Pro: filleting, penetration, consistency, and coverage. Component fitting was no problem even though the rear stays had to be stretched just a slight amount to slide the rear hubs in.

Surprisingly, on these frames Speed Unlimited uses a technique called tumbling that enhances the quality of the their chrome plating. Tumbling is a process used to polish parts automatically. It is most commonly used with small parts. A large part like a frame requires a tumbler big enough to circulate the frame along with the small abrasive particles. One main benefit of tumbling is the very even finish it produces. Our Trak-Pro was proof of this—its chrome job was flawless. However, this flawless chrome did create an interesting situation. Notice we said situation, not problem, because every other frame should have this good a chrome job.

Chrome plating is very hard and very slick. This made it tough for the Italian-made OMAS rear hub fittings to get a bite on the thin rear drop outs. Normal tightening of the rear axle nuts wasn't enough to prevent the rear axle from slipping forward under hard "snap" acceleration. Frustrated, we decided to really bear down on the axle nuts, actually to the point of over-tightening them. But, typically, over tightening proved to be an error—the locknut (for the adjusting cone) on the freewheel side cracked, and then the aluminum adjusting cone that adjusts the sealed bearings stripped out and had to be replaced. That blew one day of riding. OMAS parts aren't exactly the most common things you'll find at any bike shop. The locknut is a common ISO (International Standards Organization) part, but the adjusting cone is standard only for OMAS series 1700 sealed hubs. Fortunately, we were able to find an OMAS dealer who put us back on the right track. To him it looked like the locknut had been heat treated too hard; the way it snapped indicated a high degree of brittleness. Although he had never experienced any problems with OMAS hubs before, he replaced the locknut with a lower grade one (i.e., softer) to prevent any further cracking. Then the locknut on the other side cracked the same way the first one did, indicating it was no fluke. We replaced it with a lower grade one also.



The Trak Pro affords all the room necessary for big guys to push and pull their weight around. If necessary, its power position could be easily modified for smaller riders with simple bar/stem, seat height, and crank length tailoring.

Apparently these hubs are designed for "track-style" dropouts which are much thicker than your typical BMX ones. These track frames offer a certain degree of imbedability for the rear axle hardware. With thin dropouts *and* super chroming, the hardware can't bite in when normal torque is applied. Under the stress of over tightening, something had to give. *Most* often it's the hardened washer that's common on track hubs that cracks, but in this case the locknuts gave out. To be sure, it isn't a major problem, just a minor inconvenience. It's nothing that a simple axle adjuster like the Whale-tail or softer locknuts won't solve.

More on Components

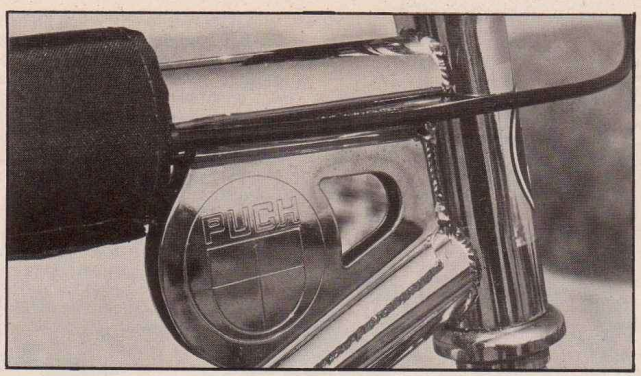
Along with the OMAS hubs, which, incidentally, were the titanium axle Titan 1700 low-flange models (which roll seemingly forever), Bicycle World supplied for the Team Issue: Red Line Flight Cranks, DX pedals and brake lever, CW handlebars, a Race Inc. chrome-moly seat post, and Dia-Compe caliper brakes and seat post clamp. Other nice touches included a Shotgun 2 seat (they must've known it's a favorite), a SunTour head lock-up, and the Araya 7X and Mitsuboshi Comp III rim/tire combination.

As a unit, the Trak-Pro tips the scales at just over twenty-four pounds. That's light, especially considering this was set up for a pro-sized rider.

Ergonomics

Ergonomics, as described in IBM's *Ergonomics Handbook*, is the

Mountainman Miranda hikes out just above treeline in California's rugged San Berdoo Mountains. On or above the beaten path the Puch survived all Mother Nature and Father (well, maybe not yet!) Miranda had to offer.



The Trak Pro's form-fitted, skip-welded head gusset and ovalized top and down tubes. A blow that might sever an otherwise ungusseted frame would probably not even phase this one. With their logo permanently embossed in the gusset you'll never in a million years mistake it for anything else.

BRADLEY

Not unlike Speed Unlimited's Thruster-style rear end, the Puch features unique "trapped"-style rear dropouts and gusseting at both the seat stay/seat tube juncture and the chain stay/crank hanger juncture. To sum it all up in one word: strong.

BRADLEY

Currently, Puch offers the Trak Pro in a frame/fork/handlebar set only but plans to offer an under-$300 kit version any time now. This, however, was our tester—a custom scoot set up for us by Bicycle World and dubbed by Puch's John Selyer as the "Team Issue." Check the specs for all the details!

science of human factors. The word was invented in the early 1950's by a group of scientists and engineers looking for a term to describe the relationship between people and machine. The word is derived from the Greek "ergon" (work) and "nomos" (natural laws of).

Ergonomics, in the context of bicycles, helps put into perspective how well the form of the cycle follows the intent of its use. For instance, would you set up a pro racer with 165mm cranks? Of course not. It's ergonomically incorrect. Our Team Issue Puch had optimum ergonomics for riders five feet, seven inches or taller. This made good sense because it's a long bike, and Puch's other model fits riders smaller than that. The key proportions of this bike are its long wheelbase and low profile, which **are** consistent with the form of the **s**maller Trak-Pro.

A Controlled Ride

Puch's one minor change in the front end—the decreased fork offset, mentioned earlier—really livened up the handling of the Trak-Pro, yet it did so with no major loss of stability. The bike felt extremely maneuverable, and it took us little time to adapt to its points of balance and handling qualities.

The bike has a good personality, a good mixture of traits that makes it a vehicle that's easy to switch from the *cruise* mode to the *race* mode. The long wheelbase and laid-back seat angle favor cruising while the low profile and nimble steering make it a swift pacer from corner to corner.

When it comes to flat corners, the Trak-Pro is one of the more secure bikes. In fact, overall, the maneuvering of this bike around corners, even at race speeds, requires less body English to maintain control than many other race bikes.

No doubt the fantastic ensemble of components helps the Puch, but when it comes to handling, good components only serve to amplify what is already there. Expensive components can make an already good bike better, but if the frame geometry were bad to begin with, all the great components in the world wouldn't save it. That's no problem with the Puch Trak-Pro, however. Even without Team Issue components it will handle up to spec.

Future Conclusion

Although you cannot expect the soon-to-be-released Trak-Pro kit ($300 price) to be as lavishly appointed as the Team Issue ($500 value), you can anticipate it to be equipped in a quality race-ready fashion. With this new Trak-Pro frameset as the base for the kit, it's just a matter of ergonomics: if you fit it, it'll fit you. As John Selyer put it to us, "We only want to do things one way, and that's the right way!"