

PRO-NECK NATIONAL PRO TEST

By Bob Hadley
Photos by John Ker

In all likelihood there has never been any bike that has been developed in so short a time or one that has relied so much on rider input for the basic frame geometry as the Pro-Neck National Pro frame. Understanding this frame requires understanding the process through which it was developed into its present form. Essentially, this bike is the result of research and development that Kevin McNeal did while on his way towards winning the 1981 ABA Professional Championship. What that means is that virtually every aspect of the frame's geometry was geared to meet one objective only: to perform on a racetrack. When the project to build the Pro-Neck frameset began back in mid 1981, what McNeal and Pro-Neck ultimately wanted—no, *needed*—was a bike that would fulfill that precise requirement. Championships, especially on the pro level, can't be won on sub-par machinery no matter how much grit and determination the racer has. You can't win if you are beat even before you start.

What Pro-Neck did was experiment with various prototypes, some conventional and others radical in nature, until the basic geometry was worked out through McNeal's saddle-based opinions. Mind you, we said geometry, as in frame dimensions and angles affecting turning and balance. Notice we didn't say structural design. The basic structure itself, in terms of design and cosmetics, was established at the outset and remained about the same throughout most of the development stage. So the bike has excellent credentials on both fronts: geometry capable of winning pro championships and structural integrity backed up by rigorous testing of prototypes.



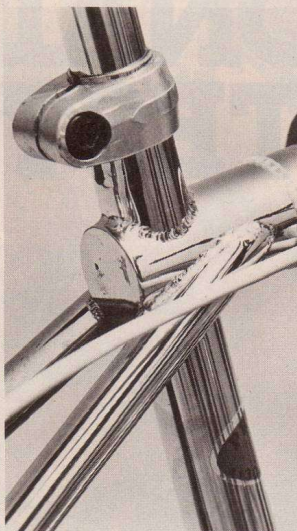
Hey, anybody can do a cross-up like that, Gary. The trick is to be ON the bike not under it.



Gary Haselhorst and the Pro-Neck National Pro—a rough team to beat, a tough act to follow.

The Once-Over

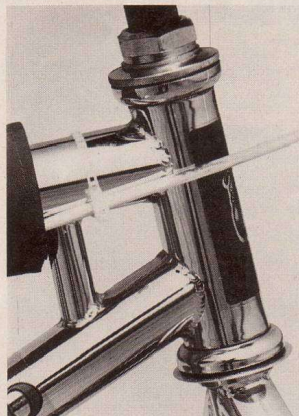
Giving the bike the once-over reveals that, aside from the head gusset and seat tube/top tube/seat-stay unusualities, the overall design is basically conventional. For the most part, Pro-Neck has chosen only proven design and building techniques when putting the National Pro together. For instance, all tubes are 4130 chrome-moly, which, if anyone doesn't already know (or hasn't realized), is used by probably ninety percent of all brands on the market. Each joint where the 4130 tubing is welded also appears to be mitered, or "fishmouthed," quite accurately prior to being welded. A poorly fishmouthed frame usually has a less-than-consistent weld around the mated parts. Mismatched tubes can cause severe alignment problems, problems of which there is no evidence on the National Pro. Each juncture is masterfully fitted and welded with a steady, consistent hand. The weld penetration looks good, as evidenced by the presence of heat-caused distortion of the tubing wall inside the hanger and head areas. The filleting of the welds is good in most areas, but particularly good on the front fork (all welds) and at the dropouts on the rear triangle. A good fillet of welding rod helps add strength to the joint (all welds) and at the dropouts on the rear triangle. A good fillet of welding rod helps add strength to the joint (all welds) and at the dropouts on the rear triangle. A good fillet of welding rod helps add strength to the joint (all welds) and at the dropouts on the rear triangle.



The Pro-Neck frame's pierced top-tube/seat-mast junction is one of the strongest features both structurally and cosmetically. All tubes are finely finished, mitered and welded.

Structurally Strong

Heavy duty is the word for the one-and-one-quarter-inch diameter top and down tubes. The seat and chain stays are the more typical five-eighths-inch diameter tubing. Likewise the seat tube is the typical one-inch diameter size in order to accept the current seven-eighths-inch diameter seat mast standard. The seat mast/top tube junction on the bike is the frame's strongest feature both structurally and cosmetically. The design is not too dissimilar from GT's or JMC's seat tube-through-the-top-tube arrangement, except for the positioning of the seat stays in relation to other frames. Whereas GT, the originator of the design, extends the aft portion of the top tube and connects their chain stays entirely behind the seat tube junction, Pro-Neck intersects all the angles and welds them up as they come together. The result not only looks clean and different but also allows for less bending of the seat stays to get the same job done. Also there is substantially more weld area on the Pro-Neck frame

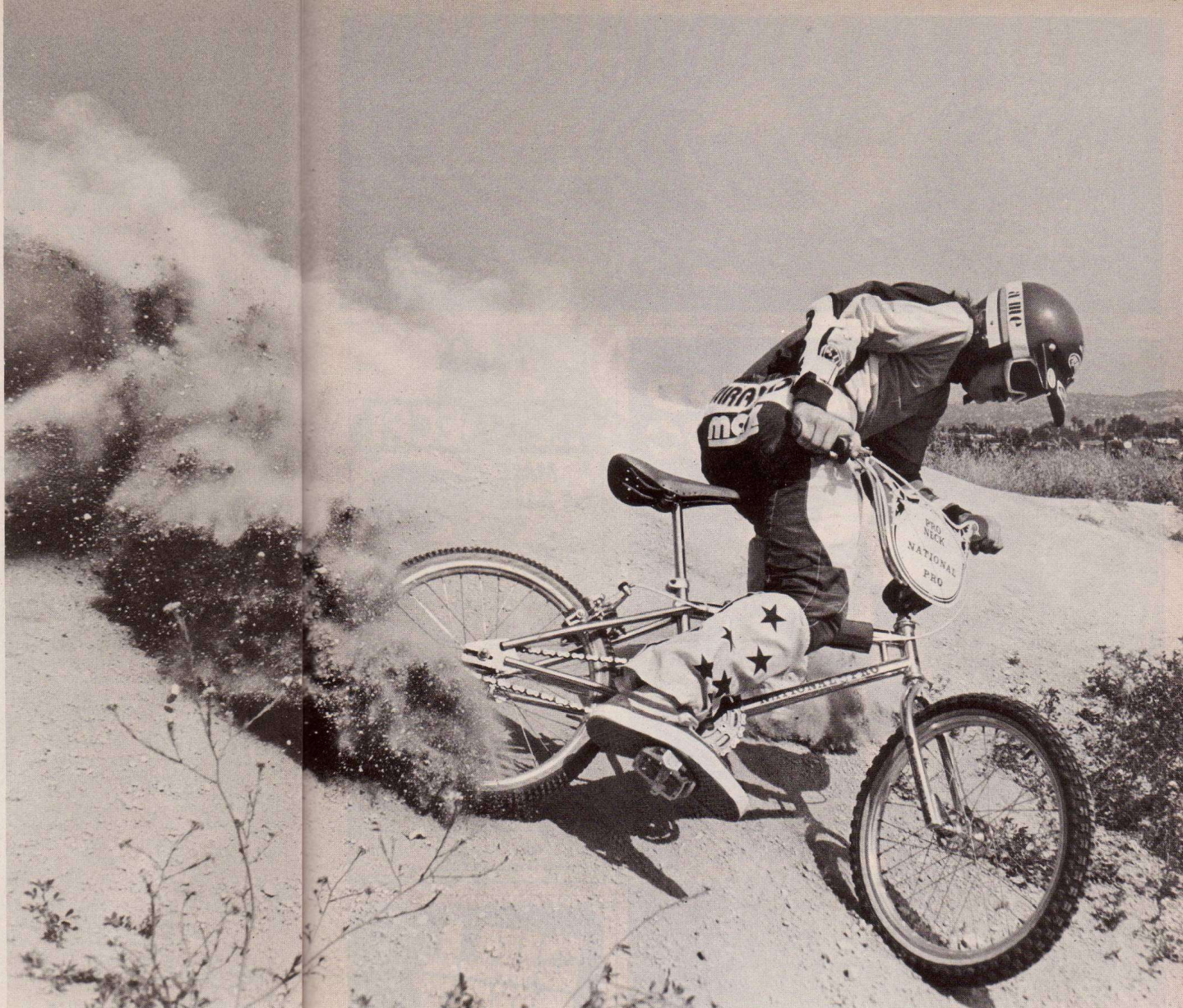


Stout 1-1/4-inch top and down tubes plus unique head reinforcement give the National Pro its superior strength.

where the seat stays connect.

All the plates and tabs on the bike, including the rear dropouts, caliper brake mount, and the fork dropouts, are thick enough to resist flexing. The caliper mount is slotted so just about any length of caliper brake from 890 reach to 1020 reach will correspond with the rear axle adjustment.

case on any other National Pro frame. The important thing is that the overall quality of the welding was good, so you could reasonably expect it to be good on any of these frames.



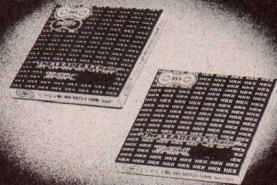
Up front, the fork is along the same theme as the rest of the frame: conventional and reliable. The fork arms are one-inch-diameter tubes welded directly to the steering stem for the lightest possible weight. The lower race flange is extra thick to insure against welding-caused warpage, which could create tight spots in

the head set. Washers may be needed to space out the axle to prevent the dropouts from being squeezed together. Adding washers is (or at least should be) a normal procedure with any fork regardless of brand. Pinching the fork blades together can bend the dropouts (especially the leading-axle type) and often cause them to crack.

Pro-Neck's main objective was to build a BMX bike that performed on a rec track. They pulled it off.

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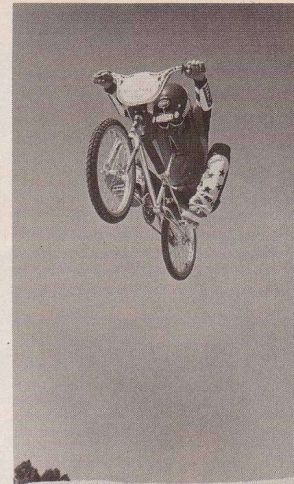
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The National Pro reflects the fact that it was developed for ABA tracks—quick starts; tight, quick turns; and lots of speed jumps—Haselhorst demonstrates.



Miranda—five feet of air, pedal to the metal, chest to the seat—gonzo. The Pro-Neck endured with style.



High-flyin' scoot at a low-down price. Frame, fork, bars, stem and seat post together for right around \$225!

Top Drawer Fit and Components

The fit of all the hardware necessary to build this bike up from scratch is first rate. Head parts go into the frame with a perfect press fit. The lower race slides onto its flange snugly. The screwed adjusting race slips over the threads well, indicating that the threads were deburred after the notch was cut into the stem. This attention to detail is indicative of all of the workmanship on the Pro-Neck National Pro.

About the only less-than-great feature the bike has is the front sprocket clearance, which is only adequate, barely. Our 43 chain ring cleared by only a small amount. A 44 would fit, but that was the limit with the bike set up the way we got it from the factory. For those who care one way or the other, you can easily run a wide 2.125 rear tire on the back because of the stay width (which creates the chain ring clearance problems). If you aren't

a racer, 2.125's aren't a bad idea because they wear much longer than 1.75 tires do.

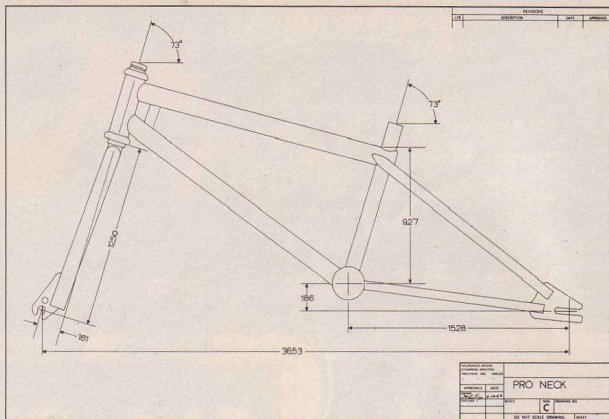
Handling Characteristics

As we said the Pro's credentials are about as flawless as you could want, and, once you get used to the quick handling of the frameset, you can perform flawlessly on it too. The bike's balance feels very even when standing up and pedalling. The front end seems heavier when

PRO-NECK SPECS

- Crank:** Profile, 3-piece, Chrome-moly, 175mm
- Gearing:** Regina 3/32x1/8
- Pedals:** Shimano DX
- Rims:** Araya 7B alloy
- Hubs:** Shimano Dura Ace, high flange, low flange rear
- Tires:** Mitsubishi Comp III 2.125" front, 1.75" rear
- Bars:** Pro-Neck, chrome moly, 8" rise by 26-1/2" wide
- Grips:** A'ME
- Stem:** Pro-Neck Tuff Neck
- Headset:** Tange Seiki MX-2
- Brakes:** Shimano DX and DX lever (rear only)
- Seat:** Kashimax plastic
- Seatpost:** Pro-Neck chrome moly
- Clamp:** Suntour alloy
- Weight:** 24 pounds

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The rear stay width allows for the use of wider, longer-wearing, 2.125" tires. Haselhorst runs a 1.75" rear and a 2.125" front.



Haselhorst blasts again!

Pro-Neck perfection. Quick handling by the National, super style by Miranda.

sitting down because the seventy-three-degree head angle puts the rider's weight more towards the bike's center. Without a doubt, the bike reflects the fact that it was developed for ABA tracks: quick starts, effective speed jumping, and tight/quick turns. On higher-speed tracks or on rough downhills, the bike could be a hand for inexperienced riders because of the quick handling response, but, once used to the bike, even novices

won't find any problem going any speed over any terrain.

Conclusion

Of the components on the bike, the frame fork, bars, stem, and seat post are by Pro-Neck. Together they total less than 225 dollars (depending on dealer freight charges) of the cost. Not bad at all and very competitive price-wise for comparable merchandise.

VANS HAS THEIR ACT TOGETHER

Vans has one of the gnarliest freestyle teams found in BMX. They put on ultra rad shows at schools promoting safety and have performed at Knott's Berry Farm, Magic Mountain, LA County Fair, on national TV and in large annual city parades.

Executing those vital radical moves requires precision timing, balance, dedication and a shoe that can perform as well as the rider. That's why they all wear Vans, the trickiest tennie around. Jump into Vans and you'll get your act together.



Gary Haselhorst

Ron House

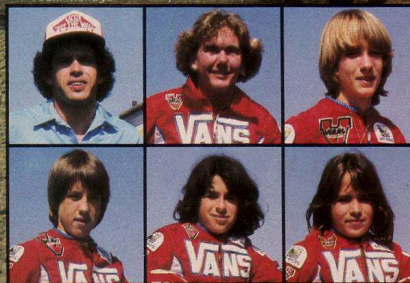
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Kele Rosecrans

Beatie Rosecrans

Brian Gass

Everett Rosecrans, Team Manager; Gary Haselhorst, 16-Ex; Ron House, 14-Ex



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