Excerpts from
SnowTech
September 2006 Issue

The Next COSMIC LEAP

Many things have happened since the bogie wheel.

And progress continues.

Imagine you have a sled with a rear suspension that does such a good job at isolating the rider from bumps **that you enjoy a "fatigueless rider experience."** You still have some aches at the end of a long day's ride, but they won't be in your lower back or legs. Instead, your upper body and arms will be what's aching. Over 15 years ago, FAST unveiled their M-10 suspension that introduced the world to "suspension coupling."

Now for 2007, TeamFAST is back at it with a vengeance. Once again, the difference you will experience **will forever change your definition of a "rough trail."** Their new Air-Wave suspension will completely redefine your expectations of a rear suspension

But this **system simply devours the big stuff while at the same time purely adoring trail stutters and chop**. A rider can literally get on the roughest maintained trails he can find and just plain go without tiring because the new Air-Wave System has him so isolated from the terrain.

Either you will own an Air-Wave or somebody you will ride with will. Whichever it is, don't let the guy with the Air-Wave lead when the trails get rough, or you will never see him again.

See the September 2007 Issue of SnowTech magazine for full story.

Excerpts from
SnowGoer
Spring 2007 Issue

Aftermarket Innovation Award

by Andy Swanson

TeamFAST's AIR-WAVE™ Suspension Delivers An Amazing Ride

TeamFAST has earned the **2007 SnowGoer** magazine **Aftermarket Innovation Award** for its delivery of an aftermarket product that works amazingly well. It will have a profound impact on the snowmobile industry. TeamFAST President Gerard Karpik made bold claims last summer about the abilities of the Air-Wave rear suspension he would bring to snowmobilers this season. He said the new skidframe would "redefine the expectation levels of a snowmobiler." After our initial 130-mile ride out of Karpik's Eveleth, Minnesota-based shop last January, we agreed. We now expect a better ride from a sled's rear suspension.

Suspension Lands Softly, Makes a Big Impact – Since the Air-Wave absorbs bumps like they aren't there, it will leave a significant impact on the sport of snowmobiling because it works so well. We've ridden thousands of sleds and worked with aftermarket suspension shops (including FAST) and shock manufacturers to improve ride quality and performance on our sleds; **none have delivered a suspension or shock package….. that provides a ride quality that's as amazing as the Air-Wave.** Its effect on the sport may prove as significant as the long travel revolution of the mid-1990s.

Consider the bar raised regarding ride quality, as TeamFAST's new suspension performs too well to not have a major effect on the snowmobile industry and how manufacturers design suspensions.

See the Spring 2007 Issue of SnowGoer magazine for full story.

Excerpts from
SUPERTRAX
Spring 2007 Issue

The SKIDFRAME

Photos and stories by C.J. Remstadt

AIR-WAVE™ SUSPENSION from TeamFAST and AIRlink

The first snowmobiles were actually much more like tanks than what we ride today….. The slide rail that underpins the design of the skidframe came along quite early, appearing in the 1960s….. Suspension travel was extended to minimize the (negative) situations during the '80s and early '90s and it helped, but another breakthrough was needed.

A former racer and snowmobile chassis designer worked independently on this very problem for nearly a decade…..by designing a moving link between the two trailing arms that would allow them to work independently when needed and work together in the bumps, his suspension was capable of delivering a truly compliant ride unlike anything that came before.

That suspension was the M-10 and the designer was Gerard Karpik….**the M-10** became, without question, **the most successful aftermarket product in snowmobile history**….. But suspension design progress is still not over.

Unlike metal springs, an air spring actually absorbs energy as it cycles, making the job of controlling rebound much more straightforward. The air spring also has, as perhaps its defining characteristic, a natural progressive rate that fits perfectly with the need to set up for the G-bump. Put another way, the air spring **naturally ramps up its "spring rate" making it literally bottom-proof**.

The original M-10 revolutionized snowmobile track suspension technology. With the debut of the **Air-Wave for 2007, snowmobile suspension design takes another quantum leap forward**.

See the Spring 2007 Issue of SUPERTRAX magazine for full story.

TeamFAST's
ASSAULT – Air Shocks

WHY

Our goal is to deliver our customers a level of ride quality that makes bombing down the roughest trails as comfortable as it is thrilling! To accomplish this we need to get well past the level of performance customers can achieve with a stock sled. To achieve our goal we must continually advance our systems to overcome the ever-spiraling cycle of rougher trail conditions. Along with creative and well thought designs we need extremely high quality components to achieve our goal.

With our long time high quality shocks suppliers having little choice but to pass on their ever increasing costs, we found ourselves getting priced out of our own market. We needed to find a significant means to improve our cost controls while at the same time improving the technologies that our customers need and desire. This meant we needed a new approach and that cost and quality constraints would dictate in-house controls of production.

HOW

With the AIR-WAVE's rear suspension arm being well under control through the application of Firestone Airsprings and FOX PPS-V shock absorbers, we now needed to cost-effectively bring "AIR" to the front arm. In similar fashion to our AIR-WAVE project, we chose to seek out and acquire existing expertise within what turns out to be a fairly well developed technology.

We found the requisite engineering skills in Legend Engineering Incorporated, developers of Airshocks and Suspension Systems for the motorcycle and auto drag racing industries. In them, we found the solid and workable designs that we needed to bring forth our line of ASSAULT AIR SHOCKS from design concept through in-house production and quality controls.

WHERE WILL IT BE USED?

The ASSAULT systems will be featured not only on the front arms of all complete 2008 Air-wave Suspension, it will also be available as the premiere front arm shock on our 2008 M-10 suspension. A kit will also be available for existing M-10s that will include the ASSAULT Air Shock. As a complete kit the retail price is $326.

TeamFAST.com™
Ride Inspired!

www.TeamFAST.com
Email: rider@teamfast.com

Sales Order Line: 218-744-2101
FAST Tech Line: 218-744-2107
Fax Line: 218-744-5872

201 Jackson Street
Eveleth, MN 55734-9604

For additional information please contact Gerard Karpik through the above contact points.

FEATURES & BENEFITS

Rider Isolation

The ride characteristics of rolling sleeve rubber Airsprings are flatly superior! When it comes to achieving an acceptable state of separation between the rider and the often rough and widely varied sledding terrain its performance is unmatched. Our experience with the Air-systems over these past three years has taught us that this technology sets an unreachable standard that we have never been able to achieve through metal springs.

Tunability

Our Assault systems offers a broad range of customer friendly calibrations. The low to middle range performance is fine tuned through the static air pressure settings while the big end performance is tailored by adjusting our proprietary "Flex-Air Piston" *(see pictures below)*. This feature provides a great amount of flexibility in-putting the larger big end spring forces required to control heavy impacts on the front arm.

In a typical rolling sleeve Airspring design, the ramp up of the Airspring's force curve is defined by the static air pressure setting and the shape of the spring's piston. In these springs the shape of the pistons are often tailored pretty aggressively to input high force increases at the end of travel. This design feature can often be observed on over the road trailers. At the base of a trailer's Airsprings there usually is an aggressive bell shape. As the spring compresses over the bell shape the diameter of spring increases resulting in more surface area, which results in more force to resist bottoming.

With the Flex-Air piston not only can the height at which the piston engages be raised or lowered, the piston itself can be changed providing the end user a great amount of flexibility in tuning the force curve from our ASSAULT system to their particular application.

Extremely light

At approximately 2.6 pounds these shocks are nearly 50% lighter than our steel body shock/spring assembly and 45% lighter than our aluminum body/steel spring assembly.

Consistent Waterproof Performance

Though water absorption has been greatly reduced through brass scraper technologies in many sled shocks, shock performance still erodes when water gets past the seal heads into the shock oil. With the shock's seal head being contained complete within the Airspring, it is shielded 100% from snow, water and ice, totally eliminating water ingestion.

Flex-Air Piston
Firm Setting

Flex-Air Piston
Soft Setting