“Pan-Cruise” full air suspension system for Harley-Davidson “Softail” motorcycles 1984–2006 and beyond.

- Oleopneumatic suspension offers:
  - Ultra smooth ride with guaranteed no bottoming out, regardless of load.
  - Improved traction, no fishtailing on gravel roads, any speed, any tyre size.
  - Outstanding handling improvement, especially two up on Australia’s bumpy country roads.
  - Easy adjustment for any load.

The “Spring-Air”

- Full air shock.
- Specifically designed for “Springer” forks.
  (all models)

- Design
  - Manufactured from aeronautical grade billet aluminium.
  - Assembled under strict aerospace standards in Toulouse, France.

Fully rebuildable
Two year unlimited mileage guarantee includes parts & labour
“ORANGE MÉCANIQUE”
Built by François Jouy

Technoparts
www.technoparts.com.au

“BALLISTIC”
built by Scotty Cox

Scotty’s Choppers
www.scottys-choppers.com.au

FOURNALES Full Air “Pan-Cruise” :- Chosen by discerning “standard” softail owners and Australia’s top custom builders for their prize winning bikes.
The Concorde airliner – still represents the State of the Art in many aspects of aeronautic design, and motorcycling is one of the beneficiaries.

And even if the Concorde should eventually follow the Dodo into extinction, there have been major benefits left behind, among them a revolutionary air only shock absorber which has been available on the Australian market for almost 20 years.

The product is the Fournales Oleo-Pneumatic shock absorber – a simplified and specially-adapted version of units originally designed to handle the enormous stresses generated within the landing-gear of the Anglo-French Concorde.

The stringent technological standards and extremely fine tolerances demanded by advanced aeronautics are reflected in the design and construction of the Fournales shock absorbers.

Fournales dispense with one of the main problem-areas of conventional shock absorbers — the mechanical spring component. The Fournales instead rely on air compression for their suspension qualities.

Perhaps the most revolutionary aspect of the Fournales in practice is the virtual elimination of the dreaded "bottoming" effect, a problem which always remains with the conventional spring-based unit.

Simple and extremely robust in design, the Fournales has two connected chambers, one containing oil and the other air. Under load the oil is pushed through a connecting channel into the air chamber, compressing the air and progressively absorbing the shock.

And with a stress limit of 9000 PSI, there’s NO likelihood of the motorcycle rider finding the limits of the Fournales, and hence NO possibility that the Fournales-based suspension will "bottom out" under any conditions and regardless of the weight carried on the motorcycle.

With all these advantages of strength and durability, the Fournales remains extremely light – as much as 60 percent lighter than conventional spring-type units.

One of the features developed with the perspective of riding with maximum comfort in mind is the incorporation of a small internal spring between the air and oil chambers. This spring fractionally lowers the internal air pressure of the Fournales at rest, ensuring that when even the tiniest of road shocks and ripples are encountered they will be soaked-up efficiently. This is in direct contrast to the spring-type shock absorber, which fails to react at all to shock below a certain pre-load level.

The new Fournales units are virtually unbreakable, and such is the confidence of Fournales Australia in their product that a two-year conditional guarantee is being offered. This unlimited mileage guarantee covers parts AND labour. For the unconvinced, a four-week trial period is also available, with Fournales Australia guaranteeing to refund the purchaser’s money in full if he or she should not be entirely satisfied with the product’s level of comfort and handling performances.
Compression phase:
When at rest, the pressure in air chamber A and oil chamber B is equal. When load is applied and compression takes place, the oil in chamber B pushes its way through a special patented valve into chamber A, causing the air in this chamber to be compressed.

Rebound phase:
When pressure on the unit is released, the compressed air in chamber A expands, pushing and forcing the intruding oil back into chamber B through a smaller rebound exit channel.

Asymmetric ratio:
The compression-rebound damping ratio is asymmetric – that is, weak in compression and strong in rebound. This ensures a controlled return of air chamber A to its original position, and ensures that the wheel of the motorcycle itself follows the contour of the road surface as closely as possible, for superior comfort and handling.

**WHY THE FOURNALES ACCEPTS AND ABSORBS EVEN THE SMALLEST ROAD SHOCKS:**
As mentioned earlier, the mechanical coil spring shock absorber has a pre-load limit below which it has NO absorption qualities. This failing is overcome by the Fournales, which has a special feature allowing it to react to even the most minor road irregularity. A small internal spring located between the air and oil chambers pulls the air chamber down slightly at rest, causing the air pressure in the upper chamber to fall fractionally below normal pressure. This has the effect of increasing the threshold of sensitivity of the unit, and ensures that all shocks occurring below minimum load are registered and absorbed, The benefits of this feature – unique to Fournales – are clearly illustrated in the following graph depicting the relative performance of the Fournales and other types of shock absorber. Basically the Fournales unit is unique by having NO spring pre-load.

**WHY IS AIR COMPRESSION SUPERIOR TO SPRING COMPRESSION?**
One of the advantages of air compression over mechanical spring compression is the fact that air compression is not constant or linear, but hyperbolic – that is, air compression develops progressively more resistance as pressure on it increases.

**THE LIMITS OF THE CONVENTIONAL SPRING UNIT:**
Any spring-based shock absorber has what is termed a PRE-LOAD. This is the lower stress limit below which it does not register ANY shock. Impacts below this limit are transmitted directly to the rider – the suspension effect is virtually non-existent. Similarly the spring shock absorber has a maximum load, above which the spring becomes fully-compressed, and again renders the suspension virtually useless. This produces the “bottoming” effect when the mechanical spring coilbind.

**LINEAR COMPRESSION:**
The compressing action of a conventional coil spring is LINEAR, because the force required to bend a spring possessing a specific poundage always remains the same, whether the spring is at the bottom or near the top of its compression phase. Because of these factors the action of a spring is represented on a graph as a STRAIGHT LINE.

**VARIABLE COMPRESSION - THE ABILITY TO ADJUST TO ALL CONDITIONS:**
Because the Fournales utilises air compression instead of mechanical spring compression, its compression performance on a graph is represented as hyperbolic instead of linear – meaning that the suspension becomes firmer as pressure on it increases, describing a hyperbolic curve instead of a straight line.

In this way the Fournales units can be said to possess variable suspension with the air in chamber A (see diagram) providing changing resistance under varying load, as opposed to the constant resistance of a coil spring compression. While the spring unit always reacts to shock according to its pre-set limits, the Fournales is self-adjusting through a complete range of conditions – from the smoothest tarmac to the toughest Australian road conditions and from 1 up riding all the way to two up and two up with heavy luggage loads, including side-cars and touring trailers.
Line 1 on the graph represents the performance of a relatively soft spring shock absorber, which is designed to provide a ride based on comfort. This results in small road shocks being registered and absorbed, but brings with it some loss of performance at the other end of the scale, where the unit’s basic softness leads to an early "bottoming-out" of the suspension.

Line 2 represents a stiffer version of the same spring-type unit with pre-load adjuster wound up. This provides stronger resistance to heavier impact and delays the onset of "bottoming" but there is a loss of performance at the lower end of the scale, where the stiffer spring is incapable of registering smaller road shocks. It should be noted on the graph that despite the stiffer nature of the spring represented by Line 2, resistance to heavier impacts still considerably less than that of the air-based unit on line 4. By winding up pre-load adjuster a fair bit of available travel is lost; with Fournales FULL TRAVEL is always available.

Line 3 represents other air-suspension systems, which have the advantage over types 1 and 2 of providing increasingly stiff resistance to shock as the degree of impact becomes larger. However this unit Line 3 loses at the lower end of the scale, providing less absorption of small impacts than either types 1 or 2 with a high pre-load.

Line 4 the Fournales – combines the upper-level benefits of the conventional air-shock with NONE of its lower-level penalties. Because of its special internal adjusting spring, the Fournales operates in two distinct stages. With the adjusting spring lowering the unit’s internal pressure, the Fournales absorbs the tiniest of road shocks more effectively than a conventional spring shocker on even the softest pre-load setting.

At the same time the Fournales has the ability to absorb the harshest of impacts at the other end of the scale. The self-adjusting nature of the Fournales is unique to this unit which has virtually no pre-load for increased sensitivity and improved motricity, handling and comfort. The benefits of this feature are especially felt when riding on country roads and on gravel and dirt roads, where motricity and traction are vastly improved eliminating "fishtailing". Allowing a much faster, yet safer ride in these conditions.

Fournales oleo-pneumatic shocks are designed to be used on real Australian roads, not the fantasy world of racing tracks. They work best in the bush, two up with luggage for riders who travel long and hard.
When you’ve got a bike that accelerates like an F18 on afterburner and stops on a sixpence, you need to make sure your two-wheeled rocket can strut its stuff through the twisties too. In Wombat’s case he took care of this with progressively wound springs up front and the Rolls Royce of Softail shock absorbers down the back.

I’m speaking of course about Fournales’ superbly efficient air shocks, guaranteed never to bottom out despite providing a totally comfortable ride and enhancing handling immensely.

---

SQUIRMY SOFTY

G’day Doc, I’ve got a ’98 Softail that squirms and twists, thus affecting my sphincter in a similar way when giving it some stick going into any bend.

Apart from a lowering kit, the rear suspension is stock...

- Nick

Ah Nick, the ‘ol Softy-squirm – know it well. It is a result of multiple problems, some inherent in the swingarm geometry, which cannot be readily altered, while many other areas need to be considered....

If they haven’t been replaced in the last few years, your shockers are probably stuffed by now, which will also affect stability. I’ve had great results with the Fournales units. Sure, they cost a fair bit but come with a great warranty and are very readily re-saleable. The importer, Bertrand Cadart, can be contacted at: lefrogscomer@lycos.com...
We had waited endlessly for them, our hopes dashed time and again by unknown Frenchmen. The foremost thought in our minds was that after waiting so long for them they’d wanna be pretty special, right? Well, have we got news for you.

“YOU ARE joking, no?” were the first words out of Bertrand Cadart’s mouth after he’d asked me how many kilometres I ride in a year. “No, I’m not joking”, I replied, very amused at the big Frenchman’s reaction. You see, Bertrand had arranged a set of prototype shockies a while back for a Softail in Victoria which covers “approximately 10,000 miles (16,200 km) in just over 12 months”. A respectable lump and a fair way to test a set of shocks — or so Bertrand thought. I explained to him that I only have one form of transport — my bike, and since both my job and my limited social life provide me with never-ending opportunities to visit exotic locations, I normally average 1000 km a week, which adds up to some 50,000 km a year, give or take a few. I saw his grip on the shiny, new Pan-Cruise shocks about to be fitted to my bike tighten visibly. “Can’t they stand the pace?” I asked, and Bertrand managed a smile. “Zey will be fine”, he said. And he was right. The shocks he’s designed for the Softail are called ‘Pan-Cruise designed by Jean-Pierre Fournales’, and due to the Softail’s need to ‘extend’ its suspension under compression, it took a bit of screwing around by Jean-Pierre to get it just right.

We had waited endlessly for them, our hopes dashed time and again by unknown Frenchmen. The foremost thought in our minds was that after waiting so long for them they’d wanna be pretty special, right? Well, have we got news for you.

By Bull-Bar The Ever-Bouncing

Here is the ‘Final Solution’
Secondly, despite what you might have heard elsewhere, the only way to improve your old Softail suspension is to throw it away. Or if you prefer, just ignore it and rubber-mount your spine instead. Now, before you all righteously declare that there are bike shops out
there which offer to 'upgrade' the standard shocks, please understand that all they really end up doing is taking away any resemblance of ride comfort. Sure, your bike will no longer bottom out. But what’s the good of that if your Softail starts riding like a rigid?

To any rational man’s thinking, a set of shock absorbers must firstly provide a comfortable ride with progressive, non-dramatic compression and rebound. Also, they must not allow the bike to bottom out and they mustn’t lose any performance when they heat up. The standard ones don’t do any of that, and no tinkering by so-called experts is gonna teach them how because they’re just not designed for it. It’s that simple. So having said that, it’s easy to see why a bike shop upgrade of your standard suspension is only a stop-gap measure at best, and you’re far better off saving your bickies for the ‘Final Solution’ – a set of "Pan-Cruise" shocks.

Now, a word of advice: read the instructions very carefully prior to installing the shocks. Why is this, you ask? Well, if you’re like me, you usually only look at the instructions after you’ve tried to build/fit/adjust/repair whatever it is and then find it doesn’t work. So in order to avoid problems with shocks, nervous breakdowns, and wounded Frenchmen, read the instructions first. The shocks aren’t hard to fit – the procedure just needs to be understood.

You’ve just gotta get used to it

With the shocks in place, Bertrand explained that they can be adjusted for ride height without sacrificing comfort or performance.

The "Pan-Cruise" units come from France ready, willing and able to support up to 30 stone worth of rider and pillion without bottoming out. If you’re heavier than that, or you’ve gotta thing about tubby women, then there’s no problem pumping them up. But be advised that you shouldn’t try pumping the shocks up unless you have access to a very high-pressure air-delivery system. We’re talking a system capable of delivering a minimum of 356 psi, and you’re not gonna find that at a service station.

AWARE OF THIS, BERTRAND HAS A SYSTEM WHERE YOU ‘BUY’ THE SPECIAL PUMP FROM FOURNALES AUSTRALIA HANG ONTO IT FOR TWO OR THREE MONTHS WHILE YOU SORT THE SUSPENSION OUT IF YOU’re not happy with the factory setting. THEN HE’LL BUY IT BACK OF YOU FOR WHAT YOU PAID FOR IT.

But let’s get back to the actual performance of the shocks.

They were fitted to my Heritage on the 22nd of March, 1991, and as I write this on the 22nd of May, 1991, the shocks have been bounced through 7885 kilometres of Australia’s finest potholes, man-traps, corrugations and canyons. They’ve been loaded, overloaded, used and abused, and not once (and I find this totally amazing) have they bottomed out or failed to provide anything but the best possible ride.

It’s not a question of money

The only drawback is that while the back-end performs with the finesse of a million-dollar where giving head, the woeful behaviour of the standard front-end is dramatically highlighted I mean, you don’t really notice how bad your front-end is until you’ve improved the back-end. So when you get around to it, a bit of French for the front wouldn’t go astray, okay, Jean-Pierre?

What I’m trying to say, without sounding like an advertisement for "Pan-Cruise", is that they really do work. In fact the bloody things work so well you’ll suddenly find yourself riding what seems to be a new bike. No longer will you have to flinch every time your bike crunches into the highway’s deepest and finest (I found myself flinching from reflex for about two weeks after the shocks had been fitted each time I saw a big hole, but that was purely a learned response induced by the old suspension and now no longer applies); never again will your head sound like a castanet as you shudder through the latest government ‘upgrading’ – the "Pan-Cruise" system copes with everything you throw at it – you just grin and gun it.

In the first week I upset myself. I rang Bertrand and demanded to know why my bike was suddenly grinding bits of itself away every time I tried a high-speed corner. Could it be that my ground clearance had been affected by the new shocks? Bertrand laughed and explained that he gets phone calls like this from time to time. He explained that since the bike now handles better, doesn’t wallow and tracks he a train (despite the best efforts of the front-end), riders tend to enter and exit corners a good deal quicker than they did on their old shocks. So the ground clearance hasn’t changed, but rider confidence has, hence the grinding.

All that aside, this is the bottom line: despite the government’s desire that we view them in a benevolent light and all their announcements that the rip-off price we pay for petrol is really giving us better roads – we all still know they’re full of shit. The roads are not going to get any better, regardless of how much we pay for petrol. After all, we employ lots of public servants to make sure it stays like that. So what choice do you have? Keep riding your standard shock set-up, bitch continuously about it, and hope you don’t do yourself any permanent damage while your bike slowly self-destructs from all the impacts? Or invest $1265 (plus $35 for postage and handling) and find out what your $12,000-plus Softail should act like.

As for me, I’ve established the following:

a) The "Pan-Cruise" shocks are the best thing I’ve ever put on my bike apart from that spun-out blonde girlie I kidnapped last week.

b) Bertrand is never gonna get the shocks back.

c) He’s really never gonna get them back, ever.

d) I hate my front-end.

e) Girls who shave their pubic hair like it doggy style.

Now they aren’t cheap. Quality merchandise never is, and the fact of the matter is that these are the best there is. It’s safe to say that once you’ve done a few hundred kays you’ll wonder why you didn’t buy them sooner and hate your front-end just like I do.

I don’t know if you can barter with him, but if you want to get in touch with Bertrand, fax him on (03) 5278 1072, or write to him at PO Box 1925, Geelong, Vic 3220. And if you wanna talk wholesale, then Bertrand’s gotta special plan where everyone can make a lotta money and supply the whole universe with shocks. It requires no actual cash outlay on the dealer’s part and there’s no dead stock lying around.

If it sounds good, give him a call. If nothing else, he’s a big jolly bloke who’ll put you in a good mood.

Bull-Bar
It was late last year at Tassie Bike Week when I stumbled upon Bertrand ‘Le Frog’ Cadart presiding over his display of Fournales airshocks. At the time, I was looking for a fully adjustable suspension system to fit my 2003 Softail. Do you think Bertrand would let me leave before explaining how fantastique this French set up is? Of course not. He then corrected my illiteracy. After I confidently called them ‘For-nalls’ he informed me the correct pronunciation is ‘For-nar-lee’.

Fournales have been in business for many years making suspension products for the aeronautical, snowmobile, cycle and motoring industries.

To put it simply, without writing massive pages on handling and comfort, the first thing you will notice about these shocks is your kidney and spine laughing with joy. Not once in the last 10,000km have I experienced that bone-jarring jolt that would normally loosen my fillings when OEM Harley shocks hit the end of their travel. The Fournales progressive compression system works absolutely brilliantly. No need to avoid bumps and potholes to prevent your jaw from slamming into your chest and your kidneys being crushed against your ribs. The Fournales will become firmer as they progressively compress due to the high pressure air spring.

**No need to avoid bumps and potholes to prevent your jaw from slamming into your chest.**

CORNERING

As for cornering, well you just have to try it. Even though the TC88 with its square steel backbone and improved rigid frame corners quite well your confidence will go through the roof when these babies stick your bike to the bends as if you’re on rails. Including over bumps and corrugations.

If you purchase a set of these quality made suspension units, the first thing you will notice, after the brilliant workmanship, is that the French made product is half the weight of your originals and they look shit hot, far too good to be hidden under your bike, but that’s their job.

After reading the masses of information you receive with your new purchase, don’t be discouraged concerning your ability to fit them. A basic mechanical knowledge, with the ability to remove a few layers of skin from your knuckles, is all you need. It’s also handy to be able to read a manual, which is one of the best and most easily read bike manuals ever. Anybody with a good toolbox will be confident enough to do this job.
PRESSURE

When you receive your fantastique Fournales from Bertrand you will find he has them set at around 13bar pressure. Leave them at that setting for at least 1000km to allow the units to wear in fully. You will find for solo and two up riding that this is the best pressure. While covering your first 1000km it is recommended that you ride two up and give the suspension heaps in order to wear in the shocks over their full travel. Bertrand has tested and retested to achieve the best all round settings.

Now, if you are happy with your standard Softail OEM setup that’s really nice. But the rest of the world should be prepared to take a little out of the bank as you pay for quality and they ARE quality.

For $1,485 plus $38 delivery, with a 2 year unlimited kilometer guarantee, I am sure you will not regret it. Plus, if you are unhappy with the product return them within a month and you will receive a full refund.

The only problem is, after you run in your Fournales, you will be so pleased with your new shocks that you WILL need to jump on a mates softail with the original shocks, as I did, to realize what a massive difference the Fournales make. If you can afford to make the change give Bertrand a call on 03 6375 1666 and ask him all the questions you like, he just loves a good chinwag.

ed’s note: HEAVY DUTY was involved in the Australian testing of these units prior to them being made for sale. That original pair has now done over 80,000 kms in a rental FLSTC. In my opinion, they are as good as Freck claims.
Half way round the corner and goin’ way too fast the pothole loomed ahead. Too late to change line, I just gritted me teeth and thought, “Ferk . . .” Ride a softail? Yes? Then you know the feeling. This story has a twist though, cos half a second later me an’ the bike are though the corner, fillings still in tact, still on line and not a twitch outer the rear end. Not only that, the young lady riding pillion hasn’t bruised her soft-bits and is still smiling! Dreaming? Nope. Bullshitting? Not this time. On drugs perhaps? Nope . . . “Pan-Cruise” shockies courtesy of Jean Pierre Fournales.

**HOW DO THEY WORK**

Softail shocks extend under load unlike your more conventional shockies that compress when ya sit an 18 stone mate on the back. As the rear wheel moves up to the guard the shockie is pulled out and slightly upwards as you can see in diagram 1.

The “Pan-Cruise” shockies from Jean Pierre Fournales work by using this extended motion to pump oil from one chamber through a compression damping valve and into an elastic membrane. As this membrane expands it raises the air pressure in the chamber around it. Air will only compress so much and gets harder to compress the more pressure rises. This means that the further the extension (or bigger the bump) the progressively harder the springing . . . So what you end up with is a system that soaks up little bumps with ease but gets progressively stiffer as it gets closer to its travel limits on the bigger potholes.

A second air reservoir at the shaft end of the shock acts as a pneumatic anti-topping spring and also a preload adjuster. This means by adjusting the pressure in the rear chamber you can raise (less pressure) or lower (increased pressure) the ride position. If that sounds back to front to ya, just remember that the more extended the shock is the lower the bike sits and it all makes sense again.

So the “Pan-Cruise” shockies offer ride height adjustment and progressive springing but it does not end there. By increasing the air pressure in the front chamber you can up the spring rate too. Not only that but a unique multistack valve assembly (which is like a stack of flexible washers that allow more oil through as the force increases) gives the system progressive damping.

If yer like me you’re probably thinking that this whole system is relying on an elacticised bladder that just ain’t gonna handle it - at least in the long term. Well that’s what I figured anyway, but all Fournales shockies have used a variation of this system and there’s plenty of people around that’ll tell ya they’ve never had a problem after years of service.

---

**It’s Been Four Months And Four Thousand Kilobugers**

since NICKO junked his standard Softail shockies and replaced them with Fournales units. So how have they shaped up?

The shockie mounting bolts are tight. Time to use a special tool.

Check out that bloody oil! Bertrand now recommends degreasing the bike BEFORE ya start.

On the left we’ve got “Pan-Cruise”, on the right H.D. No wonder Bertrand is smiling.

An’ zen you insert an’ rotate ze shock . . . Just follow the instructions and ya can’t go wrong . . .
THE FITTING

When Bertrand Cadart turned up in Sydney with the “Pan-Cruise” shockies in tow, they were the first ones in the country and cos of that no one had much in the way of experience at fittin’ them up. First thought was to head out to Frasers and grovel to Matchy to see if he’d do it, but then we figured that yer average bloke ain’t gonna have a workshop at his disposal – specially if he lives out the back of bum-fuck.

So it was back to the West residential slum with Bertrand and Freeby (who took the pics and handed out advice while avoiding the spanners we threw at him) to see how good the “Do It Yourself” instructions were.

They turned out to be pretty bloody good, although we did come across a coupla handy hints that will make life easier if ya end up gettin’ some yerself...

First up you’ll be pleased to know that ya don’t need a stack of tools or much in the way of experience to fit the “Pan-Cruise” shockies. Spanners needed for the job are 7/16ths (to get rid of the placky mudguard extension), and a 3/4 inch for the shock mounting bolts. Probably the biggest pain in the arse is loosening off these bolts which were no-doubt put on at the factory with an air wrench. You’ll also have to get the whole plot in the air to take the weight off the rear end. We used the trusty CBA single rocker stand, but if yer doin’ it hard a jack and bricks’ll do the trick.

You can get a ring spanner on the rear shock bolts but the front ones are a bit of a squeeze so you’ll need an open ender (was that Matchy I just heard screaming?). Once the old shocks are all unbolted it’s time to squeeze the buggers out.

The first thing ya notice once the old shocks are off is the difference in size and weight between the standard ones and the “Pan-Cruise” jobs. The standard ones weigh twice as much and seem to be made of pig iron compared to the beautifully made Fournales.

One thing the instructions don’t mention is that you’ll need to put the & front mounting bolts through the yokes before positioning the new shocks. There just wasn’t enough room to get them in later on, and apparently there’s even less clearance on later models. Bertrand has already put together a supplement for the instructions including that.

Once the rear mounting bolts have been loosely tightened up you have to raise the rear wheel to get the front mounts lined up. Bertrand tried to do this manually but one hernia was enough for him and we ended up using an old car jack to push the swingarm into place.

THE RIDE

With the “Pan-Cruise” shocks tightened up it was time to go out and see how they worked. Just sitting on the bike the difference was obvious straight away. My old shocks weren’t totally fucked but it seemed that my weight alone was enough to take up half their travel. The “Pan-Cruise” shocks settle down about half an inch and then feel nice and firm. Goin’ round the block you could really feel a change, the whole rear of the bike felt firm and tracked straight. Like anything built to close tolerances there’s a bit of stiction at first but this slowly went away after about 500...
Kilorabbits. Since then we've clocked up around 4000 Kilowallies on everythin' from dirt to freeway conditions, both one and two up and the Fournales still rank up there with sliced bread as far as I'm concerned.

The only problem I've had so far since fitting the "Pan-Cruise" shocks is that they've really shown up the front end. The Wide Glide used to feel great but now it feels sloppy and underdamped in comparison to the rear.

The "Pan-Cruise" shockies are definitely a winner. All that technology and quality doesn't come cheap though and a pair will set ya back $1265 (plus $35 postage, insurance and handling). Expensive, but well worth it if you're sick of yer bike handling like a pregnant hippopotamus. If yer interested in giving your Softail a quantum leap in handling ring Bertrand on (03) 5278 1072, or write to: PO Box 1925, Geelong, Vic 3220. The Yanks have just cottoned on to 'em and they're soaking up most of the supplies, so ya better get in quick...

"CONCORDE" landing gear technology designed to make a great Harley-Davidson GREATER. 100% adjustable AIR shocks for SOFTAIL and all swinging arm Harley-Davidsons. Also available for most Japanese and European Cruisers and Tourers

4 weeks trial period WITH MONEY BACK WARRANTY. Full 2 YEAR warranty. Ring-Fax Write for a FULL and FREE information kit
Good, bad or indifferent, however you feel about the way Softails handle humps and holes, the stark truth is there's always room for improvement.

I fitted a pair of replacement shocks from Jean Pierre Fournales and discovered rear-end bliss...

The Champagne of Shocks

Okay, it's been said before and I'll say it again — the ol' V-twin's biggest selling point isn't in its handling department. Luckily, one company that's situated in the land which gave us the fission fuzes, added a dose of metals and engineering precision, stirred it up with a measure of aircraft-quality, dash-pot know-how, and ended up with arguably one of the best working shock absorbers on the market.

For those of you not familiar with the Fournales product, Jean Pierre Fournales released a Softail version — the 'Jean Pierre Pan Cruise Oleopneumatic Suspension' — to replace H-D's rear-pull type shock absorbers. And despite the name, which sounds like a 9:30 pm movie on SBS, the truth is these alloy and stainless cylinders have proven they're up to the harsh Australian riding conditions not found on the manufacturer's native Euro Autobahns.

Oleopneumatic suspension has been around for many years, and in principle Jean Pierre simply swapped the spring normally found on shock absorber systems with one of compressed air and oil. The advantages are the unit's impossibility of bottoming out (even two up and heavily loaded) and its capacity to adjust your ride height by adjusting its internal pressures. The spring (for want of a better word) rate is adjusted at one valve and the rebound and ride height at another, both with a high pressure hand pump.

On our FLST we preferred a stiffer ride and raised the pressure from 25 bar (365 psi) to 30 bar; the rebound we set at 10 bar to give us near maximum ride height to maintain an acceptable steering angle and to give us optimum ground clearance (cause fuck knows FLSTs need it).

The difference in handling was immediately obvious. Gone was the rear-end's desire to wallow about in corners with every bump or deviation. The only problem — the big guards and wheels, but more of this in a later article.

We've been riding the FLST for a couple of months now and the Fournales haven't given us any reason to doubt their worth, although the $1300 price tag might put them in the 'no beer this week' category; the dollar value improves when compared with Harleys stock units sagging performance after about 10,000 km.

For Softail riders, the Fournales still represent one of the best values in bounce engineering available. If you find your bum sitting above a pair of Jean's handiwork, you'll be reaching for the corkscrew to celebrate these 'Champagne of Shocks'.
FORNICATE LESS

Ozbike – I don’t know if I should be sending this letter to ‘Animal Quack’ or to ‘Greasy Letters’, but whoever gets it had better not send me shit.

I’m either gotta give up my bike or my sex life. You see, I don’t think she (my 1983 FLH) means it, but she keeps crippling my girlfriend. The last one left me while we were doing ‘bout 80 kays down the main drag, just five minutes after I’d picked her up.

A mechanic friend of mine told me, “It’s sucked!”, as he pushed on the arse-end of my bike and watched it wobble and weave everywhere. What could I say? ‘Calm down’?

So I bought a set of Fournales shocks and they’re great! Improved my handling 300 per cent. But!! The bloody things bottom out when I’m carrying big titted bouncy women.

What am I supposed to do now, go out with skinny girls or something? WOLF MAN, Kogarah, NSW.

One of our staff bikes (an ‘81 Heritage) is fitted with a set of Fournales shock absorbers. It’s been ridden to most parts of Australia, averaging around 30,000 miles per year. Bort, the fella who imports them, recommended we have them serviced every 12 months. Ours were serviced once in four years. And the best part is – they’ve never bottomed out once.

Original FLH shocks were made soft for comfortable cruising on American highways; Fournales are performance shocks, made to handle, and should be set reasonably hard for Australian roads.

I suspect your air pressure is set too low. Unfortunately, you’ll need a special pump to increase it because service stations can’t supply the recommended 19 bar (a bar is a unit of pressure equal to 100.00 pascals, and 19 bar equals approximately 275 psi). To find out where your closest pump is, give Fournales Australia a ring on (03) 523-8015; or drop them a line to: Free Post No. 1, PO Box 93, Carnegie, Vic 3163.

We did ask Animal Quack for his advice on your letter, and he wants to know what’s wrong with skinny girls – Ed.
HEAVY DUTY

The Soft Option

Your Softail not quite as soft as you'd like? Might be worth checking out Fournales' latest billet air shocks

As any Softail owner will know, while the hardtail-look-alike rear end looks great, it has limitations in the performance department.

Softails are not noted for their abundant suspension travel, or ground clearance, so that when pushed, or two-up, their rear ends tend to feel a tad over-worked. Basically, while they are fine for baby bum-smooth US freeways, on suspension-bashing Aussie roads, they can sometimes be stretched beyond their original design parameters.

Wallowing and bottoming out are the main problems, especially as the stock factory shockers start to log up the kays.

Which is where two blokes with strange accents come into the picture. The first, Frenchman Jean-Pierre Fournales, manufactures a range of Harley replacement air shock absorbers, while his Aussie compatriot, Bertrand Cadart, sells and services them.

Most H-D riders will be aware of the Fournales name, but for those who are not, here is a quick run-down.

With a background in aeronautical engineering, including designing and building air suspension for the Concorde jet liner, Jean-Pierre applied his unique ideas to motorcycle suspension systems back in the dim, dark 70s and thus was born the first of his ‘oloe-pneumatic’ shock absorbers.

Fournales shockers differ from conventional units in that they do not rely on a mechanical spring. Instead, they use compressed air to react to bumps and other road irregularities, with an oil/air-dampening system to control rebound and compression movement.

A new September/October shipment of Fournales’ new Delta Spring Softail shockers is available. And they won’t bottom out, no matter what height they are set at.

The principle is extremely simple, although to get it to work properly requires the extremely fine manufacturing and sealing tolerances only possible in the aviation industry.

A few months ago, Bertrand offered to let us try out a set of new-generation Fournales Delta Spring air shockers on HD’s Project Dyna Might. To say they made a big difference to the handling and ride on the Wide Glide would be a big understatement.

Not too long after, Fournales released its Softail variant of the Delta Spring. As with the Wide Glide air shocks, the Softail versions are fully rebuildable units that feature new solid billet aluminium construction and high-tech, long-life, self-aligning spherical bearings at either end.

For the evaluation, we bolted the new units on to staff photographer, Ken Schultz’s Softail Custom. Following the enclosed instructions, the installation took a little under an hour, and was a simple bolt-on exercise, requiring no special tools.
Having already supplied Bertrand with Ken’s weight and riding habits, as in how much solo versus two-up riding he did, the shocks already came with the air pressure set to go.

Ride firmness and spring rate are controlled by increasing or decreasing pressure through the valve at the front end of the shocker, while ride height is altered via the rear air valve.

After three months on the road, we have had no reason to deviate from Bertrand’s original pre-load pressure setting of 25 bar. It seems to be a good compromise for both solo and two-up riding, and feels a tad firmer in both cases, without the ‘mushiness’ or ‘pogoing’ of the stock shocks.

The best thing, though, is that despite the inherent lack of travel of the Softail rear end, the Fournales never bottom out, thus extending the life of the rider’s spinal column and teeth fillings substantially.

The tendency to wallow through undulating or rough corners is minimised, too, giving a lot more confidence when riding with the race face on.

As far as height goes, its is simply a matter of increasing the pressure at the rear valve to lower the bike and vice versa to raise it. For cruising around town, we used around 25 bar/369 psi, which resulted in a nice low profile, while we bled off the air to around 10 bar/148 psi to give a fair bit more height for fangtastic though the twisties.

Heights ranged from the lowest of 4 cm up to 6.5 cm.

If you tend to cover a few miles, and particularly if you take a pillion along, you won’t be disappointed with the new Fournales Delta Spring shockers. About the only complaint we have got, considering how tricky they look, is that it is a shame they are tucked away under the bike where no one can see them.

Bertrand covers all Fournales shocks with an unlimited kilometre, two-year warranty, subject to returning them to him for a service at the end of the first 12 months. The service normally takes about a week.

Be warned though that riding on air the high-tech Fournales way costs serious money - like $1265 (plus postage and handling), but given the warranty and back-up service, quality of the units and how much you are likely to have already spent on your bike, we reckon it is money bloody well spent.

If you are still not convinced, you can even try Bertrand’s four-week trial offer. And if you are not impressed after that, chances are you have got a cast iron arse and perfect teeth.

Give Fournales Australia a phone call or fax on (03) 5278 1072.

---

Don’t listen to us. Here’s what the press said.

"What makes it even nicer now is the performance of these units over all surfaces and how they keep the wheel on the deck... they also look bloody good."

**Live To Ride**

"[On Softaill] the advantages are the unit’s impossibility of bottoming out (even two up and heavily loaded) and its capacity to adjust your ride height..."

**Ozbike**

"I tried every trick, from jumping over speed humps to riding along looking for potholes... I couldn’t get the Fournales shocks to bottom out."

"The sometimes flaky rear end of the strong-wheel-based BMW had gained rigidity... it was resisting its normal tendency to wallow when pushed hard..."

**Two Wheels**

"... the Fournales... weigh 1.2 kilos less than the standard units. [They] offer superior compression and rebound damping which helped stabilise the rear end."

**AMCN**

"... the Fournales had the rear end well under control. The harder I rode, the better it felt... there’s no way Fournales is getting this shock back. It’s mine."

**Australasian Dir. Bike**

Aircraft spec!

---

For over 500 models - Harleys, Japanese and European!

21 Day Free Trial - Money Back Guarantee!
I. YOUR HARLEY RIDES ON AIR!

Four-way Action Damping

- Fully adjustable to any load bearing (No Limits)
- No more bottoming out, regardless of road conditions or speed
- 21 day trial period (money-back guarantee)
- 2 year warranty (Parts & Labour)
- Superb comfort
- A huge handling improvement to your bike
- Spherical bearing mounts
- Made to aircraft specifications
- We have shocks for every model of Harley-Davidson
- Custom made shocks available

Harley-Davidson Softail & Springer Air Shocks

French Made Delta "Pan-Cruise" AIR Shocks blitz the competition on every count-

- Excellent for build quality
- Excellent for comfort
- Excellent for extra weight carrying ability
- Excellent for warranty & service
- Excellent for value for money

A PERFECT SCORE FOR PERFECT SOFTAIL SHOCKS!
## The Great Shockie Shoot Out

<table>
<thead>
<tr>
<th>Feature</th>
<th>Bad</th>
<th>Poor</th>
<th>Average</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BUILD QUALITY</strong></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Genuine H-D</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Works Performance</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Fournales</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Progressive</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>COMFORT</strong></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Genuine H-D</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Works Performance</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Fournales</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Progressive</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>EXTRA WEIGHT CARRYING ABILITY</strong></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Genuine H-D</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Works Performance</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Fournales</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Progressive</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>WARRANTY/SERVICE</strong></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Genuine H-D</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Works Performance</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Fournales</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Progressive</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>DURABILITY</strong></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Genuine H-D</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Works Performance</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Fournales</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Progressive</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>VALUE FOR MONEY</strong></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Genuine H-D</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Works Performance</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Fournales</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Progressive</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Australian-made content is high, and includes the frame, clutch bell housing, wheels, brakes and wiring loom. The latter is done by Zap Electrical, while John’s Custom’s on the Gold Coast does the paint and bodywork.

Dragways does the wheels and brakes—the latter are full-floater discs (two up front and one on the rear) running four piston calipers.

**Suspension is by**
**billet forks up front,**
**and twin FOURNALES shockers mounted underneath the bike on the rear swingarm.**

Tyres are high profile, with a 130 section on the front and a 230 on the rear—both by Avon.

---

This is not one the motorcycle purists are going to approve of. And it may not even be a new idea. But you have to admit the concept of stuffing a dirty great American V8 power-plant into an unsuspecting motorcycle has a weird, “Look Ma, I got away with it” appeal.

Warren Katz, a South African gent who lobbed in Australia about seven years ago, is clearly not one to let convention, design regulators or even the laws of physics prevent him from having a good time. Testament to that is his bike, simply called the Barbarian V8, which he’s now selling to other like-minded lunatics. His reasoning—if you can call it that—for coming up with the machine is simple: He wanted to build something that Mad Max would ride. Along the way, he has somehow managed to convince Australian authorities to give him a certificate to allow him to go into full volume production. That alone makes it unique.

We can only imagine what the Australian Design Rule folk thought when they clapped eyes on the monster—a snorting 350 cubic inch (5700cc) Chevrolet V8 crammed into a twin-loop chrome-moly frame with running gear that gives a styling nod to Harley.

There’s no such thing as a small number on this motorcycle—well except for the number of gears, which is a grand total of one.

As for the rest, it claims 330 horses in stock trim, weighs 430kg and costs an eye-watering $60,000 plus GST. The publicity blurb proudly claims that you need big bucks and big balls to own one. I’d be tempted to add that a diminished sense of self-preservation would also be an asset-well, at least until I rode it.

By far its most endearing aspect is that you can hit the throttle at 80 or 100 and it slingshots you at the horizon at an appalling rate. Something this big simply should not go that fast. It does, and for some the biggest danger will be managing to see past your own silly grin. You end up thinking, that this can’t possibly be legal.
VIVA LE FRANCE!

Bonjour — I just read your report on the Fournales shocks and I had to write. I have now completed more than 1500km on my new Fournales shockers (most of it two-up) and I am absolutely amazed! Although having owned and ridden bikes for more than 30 years, I have never ridden on anything like the Fournales before.

Three things stand out the most: the bike does not wallow through corners anymore; the bike does not bottom out anymore (and hence, it does not scrape anymore, either); and quite unexpectedly, the shocks soak up small bumps and road surface irregularities.

After fitting, I started to ride the bike but could not put my finger on what was so different. Yes, they were good — no wallowing, no sagging, no scraping — but there was something else that I couldn’t quite identify. It wasn’t till I got the information pack (Thank you, Bertrand) that I realised the unique design of Fournales allowed them to absorb all bumps large and small, not just those above a pre-set load. This was an unexpected bonus and should be a major selling point. No other shocker does this! I had not thought about the standard shockers inability to cope with small bumps, due to not being able to work below their pre-load. This was just an expected part of bike riding. You felt every small bump. Not anymore! I cannot believe how smooth the Fournales are. You see bumps coming, you tense up, and then nothing happens. Magnificent! I bought Fournales to stop the wallowing, bottoming out and scraping; I had no idea they were going to make the whole ride so smooth. I have never ridden on anything that absorbs small bumps as well as large bumps.

I personally found the whole process of ordering, postage, delivery, fitting, great. No hassles, no issues. Everything as Bertrand said, when he said. They were, however, too hard to find. I had to contact the factory in France, who passed my details to Bertrand, who then made contact with me. This took five weeks to happen. If I had not been so determined to have Fournales, I would have bought something else. Most people with money in their pockets would spend it on some other brand they could access quicker. It’s a world of convenience.

All up, I’m very happy with my purchase, and am telling all I can how good they are.

— Dean Swindells

* 22/9/05

Dear Bertrand,

I would like to thank you for your prompt and professional service with regards to your company’s Fournales rear shocks for my Triumph Rocket III.

These rear suspension units have transformed the handling of my motorcycle. They are far superior in all respects to the original factory units. I would highly recommend them to any Rocket III owner.

Please feel free to have any prospective buyers phone me and I will pass on all I have concluded so far.

— Terry Leake (Turtle)

iacs@bigpond.net.au
ph. 0754823451 mob. 0419 925761

* From Bertrands mailbag.
OWNERS of Softails will not exactly be shaken by the news that their bikes are anything but—soft in the tail, that is. A better name, at least on Australian roads, would be Hardtail. Originally designed by the factory as a rigid lookalike with twin underslung shockers, Softails won a lot of fans in the US, mostly because they spent nearly all of their time cruising baby bum-smooth interstate freeways. But once they started logging up miles on our own interstate tracks, a new medical condition developed. Softail Syndrome symptoms included bowed legs, calloused cheeks and loud curses. There was also a tendency to swerve violently when approaching the smallest pot holes or bumps.

Despite the fact that the factory has come up with some beef-up mods to try and overcome the problem, the stock units still just aren't up to scratch. From new, it just takes a few months, or one good long ride to loosen them up. After that, damping deteriorates rapidly, things begin dragging 'round corners and the rear end starts bottoming out.

Overall, the situation seemed ripe for some smart aftermarket operator to come up with a quick fix. It should have been just a matter of time before a shocker specialist developed an answer for an eager and willing market. So everybody waited, and waited...and nothing happened.

Enter Le Frog. Bertrand Cadart is a large, jovial bloke of the French persuasion who spends a lot of time being large and jovial while flogging Fournales shock absorbers around the bike trade. Not surprisingly, the shockers are also French and up until recently they were only made to suit conventional twin-shock Harleys and other "lesser" brands. But persistence on Bertrand's behalf has ensured that the technology that was applied to the rest of the unique gas-charged shockers was finally brought to bear on the Softail Syndrome. Relief was in sight, if not hand.

Bertrand spent a lot of time pestering the French factory to develop a replacement for the stock underslung units, but the solution required some pretty complex engineering. The main problem was...
geometry. The Sotail rear end has relatively little suspension travel, meaning that the shock absorbers have to do a lot more work over a very short distance. They have to be able to control both the up and down motion of the rear wheel approxi-

mately half of the distance of most other suspension systems. Hence, Jean Pierre Fournales would not use them. While Bertrand persevered and Sotail owners suffered, he worked slowly and quietly on the problem.

Finally, earlier this year, a phone call from Bertrand announced the long awaited arrival of a parcel from France. Inside, proclaiming Le Frog, was the cure for the Sotail Syndrome.

Fournales has christened his invention Pan Cruise and, with all his other shockers, explains in the sales blurb that they are of the "viscous pneumatic" breed. A quick glance in the Webster's revealed that, in English at least, the Pan Cruise system relies on the compressed air substitute principle. Obviously something was false in the translation. Further delving revealed that the term refers to a combination of compressed air and oil used to control suspension movement. It turns out that the basic system has been used successfully in the aviation industry, most notably on the Concorde, so the principle has been well and truly tested.

Now, anyone familiar with South Pacific geography and recent New Zealand shipping history will know that the French have a weakness for explosives. Jean Pierre is no exception. His shockers come from the factory painted in around 335 psi. That's a lot of air in a small space. But then again, they can be pumped up to 510 psi for an even softer spring rate. Ride heights, likewise, adjusted by varying air pressure, in this case anywhere from 115 psi to 290. Valves are positioned at either end of the shockers for adjustment. Through this system, the shock will conform tailored to individual requirements as they are sold.

Bertrand has come up with his own system for determining shocker settings. He's basically divided the human race into a number of categories, with various sub categories based on weight. Which category you fall into determines the settings for your shockers. It's a simple, convenient system and Bertrand says that about 85 percent of his customers can use the same settings. The main "universal" category displays another French weakness, Bertrand determining that at least one includes young, nimble 250's around 50 kg in weight, as well as average-sized couples riding two-ups, and "fat, mega-ugly, mean bikers" (120-plus kg). These three categories share exactly the same settings, illustrating the scope of the shockers' performance. Beyond this, Bertrand has come up with two final categories that he says would require special attention. In his own words, there is your average "murphy Lithuanian Harley rider" (20 kg), while at the other extreme are two large Vikings riding two-ups, with four stubs under each arm (140 kg each plus stubs). In either case, Bertrand offers an accessory Super Pump, so that owners can adjust the shockers to suit their preferences. It's available on a scale or return basis for $15. The pump is specifically designed to work with the high pressures involved, and has a number of other applications. Including "inflatable toys", according to Le Frog. This is obviously an application with which few are very familiar. The only alternative is you have access to a compressed air supply capable of delivering at least 510 psi. If all else fails, just read the-expandable instructions.

For our evaluation we needed a volunteer and Ed Garraway conveniently needed some fresh shockers. His Springer's rear end was becoming a pain in the butt, and Bertrand reckoned he had just the deal. Only $900 changed hands. Ed reported that the installation was pretty straight-forward, taking less than an hour following the detailed instructions. Ed occasionally rides two-ups, so Bertrand adjusted the shocks to his universal setting.

There are a couple of traps for the unwary when fitting these units. In particular, care should be taken to protect the air valves at either end of the shocks. Also, Bertrand advises that some earlier model Sotails were fitted with a large plate across the front of the shocks. In some cases this plate may have to be removed to provide access to the air valves. Fortunately, the installation kit comes with a plenty thorough explanation, so there should be no dramas.

Having completed the job, it was time to give the new units a solid workout. The verdict? Ed says the Pan Cruise is just what the doctor ordered. Ed had a 110 up and fully loaded, the Springer was a new bike. Suspension operation was improved dramatically, with both the ride and ground clearance much better than with the stock factory shockers. They're brilliant. Especially as far as ground clearance goes," says Ed. "It was a pleasant surprise to peel into a corner and not have everything hit the deck. Whereas, before I used to grind the frame tubes, now the side stand is the first thing to touch."

Ed said the Pan Cruise units restored the rear end's intended geometry, giving the shockers the ideal working relationship with the swingarm. The original units were starting to sag, raising the ride height slightly. With the new shockers in place, ride height was restored to almost ideal.

At $900, some would say the Pan Cruise are a tad expensive. Ed reckons that ride comfort and handling improvement are well worth the extra outlay. He says that the new shockers have actually highlighted problems with the Springer's front end, adding that Bertrand had hinted at the possibility of a special Fournales replacement unit for the single Springer front shock.

Bertrand offers a 14-day trial period as well as a two-year warranty. The warranty is unique to Australia, the normal Fournales warranty period being 12 months. To qualify for the extra year, customers have to return their shocks for an inspection and possible service at the end of the first year. Any work needed is done free of change.

Anyone interested in checking out the Pan Cruise Schick option should contact Fournales Australia on (02) 781 072, or write to HT A Box 1255, Geelong, Vic 3218.

We'll leave the last word to Ed. His advice to anyone suffering the Sotail Syndrome: "Just trim 'em and go looking for bumps."
AFFORDING FOURNALES

Doc, I know you are a fan of Fournales shock absorbers and I would like a set. However, the price scared me until I did some internet searching and found I could buy them a bit cheaper overseas. Do you see any problems with this, such as warranty?

-Jeff

Well Jeff, this is the conundrum we all face; save a bit but risk warranty and other problems. I thought I would get Bertrand Cadart to explain his position on this, as he is the long-time Fournales importer.

"Doc, the current retail price in Australia of a pair of Fournales Pan-Cruise Evolution for Harley-Davidson Softail (all models) has not changed in over four years and is $1850 a set including GST."

We are still the only exclusive distributor in the world offering a 30-day money-back warranty trial period on the range to ensure a 100 per cent satisfaction rate amongst our clients.

"All Fournales shock absorbers are engraved with an individual serial number, which allows the factory to check that only the shock absorbers sent to Fournales Australia are covered by the full two-year factory warranty."

"Any Fournales shock absorbers with a serial number showing that they were purchased outside Australia or on the internet are creating havoc. I am very aware it is possible to buy some Fournales products cheaper than from Fournales Australia but I have not increased (nor decreased) the price for almost five years because of the unusual strength of the Australian currency."

"I have seen many fluctuations of this kind over 32 years of distributing the range in Australia and my policy has always been to ensure, as best as I can, price stability and better service for my clients. If someone chooses to purchase Fournales products overseas, or on the Internet, piggybacking on a reputation painfully archived locally and with the help of local publications like HEAVY DUTY, over all these years, so be it. However, they will be 'on their own' for service, repair, advice, spare parts and information. It is a choice that the client is free to make but Doc, one cannot have his cake and eat it too!"
Fat Muller lives in Horsham (Kevin Magee’s town), Victoria. He rides a superb customised Harley-Davidson "SOFTAIL". In September, 1989, a set of "PAN-CRUISE" air shock absorbers designed by J. P. FOURNALES were fitted on Fat’s bike. FOURNALES AUSTRALIA wanted him to be their tester on a pair of "prototype" shock absorbers especially designed for "SOFTAILS". It must be emphasised that these units were only at their development stage. In February, 1991 (after nearly a year-and-a-half on his "SOFTAIL", Fat sent us this report:

From Fat Muller, Horsham, Vic.


Dear Bertrand,

Well where can I start this story but at the beginning. After receiving the PAN-CRUISE designed by J. P. FOURNALES shocks which were a piece of piss to fit (they bolted straight on), I then decided to take a ride where I’ve had a bloody awful experience before with the standard units at speeds of about 80 MPH (130 KPH) around a sweeping bend. The bike used to get the wobbles very badly which I always related to the front end because of fork flex and running a 21" front wheel. Wheel bearing preload had just been done before the PAN-CRUISE designed by J. P. FOURNALES air shocks were fitted. After doing the same bend with the shocks fitted, I was bloody rapt to say the least. I found I could do the 80 MPH bend with stuff all, if any, wobbles. It handled bloody great!! I then did a couple of routes around town where I usually cruise and found at 35 MPH (57 KPH) the rough patches of road were really smoothed out. The next ride I went on I took the Missus to check out the PAN-CRUISE air shocks two-up. Anybody that’s ridden in the country will know how bloody rough our great roads are and there was about 40 miles or so (65 Kms) of really rough patches on this ride. For this 380 mile ride (615 Kms) it was very comfortable; even the Missus commented on how much better the bike was to ride on. I didn’t have to stop at any intervals and give her a rest which I previously would have. The next ride after that had a bit of everything in it: a few rough back roads, highways and freeways. It was a real test for the shocks handling the back roads with comfort as they were rough as guts. The bike was a real pleasure to ride on the freeways at 80 MPH (130 KPH). It cruised spot on. It is a real credit to the shocks as that trip, all up, covered 680 miles (1101 Kms) and if this ride is anything to go by, I’m really hanging out for the new shockers as they are a three times better ride according to the factory. Another special feature about the PAN-CRUISE shocks I’ve noticed is that they never bottomed out or even looked like it. With the stock units, the frame has hit the road on several occasions on account of the stock units collapsing after only doing approximately 15000 miles (24300 Kms). Very bloody ordinary, I thought! To sum up, the PAN-CRUISE shocks designed by J. P. Fournales; after doing approximately 10 thousand miles- (16200 Kms) in just over 12 months, well what can I say....they are excellent shocks and I’d like to thank Bertrand Cadart from Fournales Australia Pty. Ltd. for giving me the opportunity of testing these prototype shocks designed by Jean-Pierre FOURNALES, they are brilliant.

Thanks,

FAT.
SPRINGER SHOCKS

Hi Doc, I've been reading HEAVY DUTY for a few years now and I love the mag and the wealth of info you guys manage to put together for every issue. I hope you can help me out with some advice. I've gathered from past HEAVY DUTY articles that you're a bit of a FOURNALES fan, and from my reading they sound like the shock to have.

I've been riding a 2003 FXSTS for a few years now, but I wanted to improve its braking and handling a bit.

After reading the Project Mean Street QTM Brembo article in the latest issue, I called Ian up at North Coast V-twin to talk about the Springer's braking. Ian has sold me on the Brembo 4-spot front caliper and 12.6 inch floating disk for the Springer front end.

That should help with the braking, but I'm now tossing up whether I should add FOURNALES to replace the standard front shock or fit them all round.

What are your thoughts on this, and where in Melbourne would you recommend I go if this looks like a good option? Keep up the good work guys.

- Pete

Hi Pete, I've run FOURNALES previously on Springers, Dynas and Road Kings and I've always found them to be excellent. In fact, my current project, the former "Budget Chop" - now called "Custom Springer" due to the inappropriateness of the 'budget' tag for a bike with ever-rising costs - is going to wear FOURNALES all round. Of course, it's a personal choice thing and I've run several other brands of shocks with excellent results. This is where it gets a bit hard to make recommendations in print, as it can look like I'm favouring one brand over another, but if your finances can handle it I believe you can't go wrong by contacting Bertrand Cadart, the FOURNALES importer, who you can reach at lalugisforscorner@lycos.com. The photo of the shockers illustrates the geometry of a Softail-style rear end.

as many readers might not be familiar with it. The big difference with Softails when compared with conventional swingarm bikes is that the shockers lengthen as they are loaded, so everything has to work in reverse compared with a normal shock, which shortens as it's loaded.

Bike pics from Smith & Smith's 50th Anniversary event.

- Branko's Pan was a pearler - this Aussie entry did us proud. (below)
Bertrand Cadart  
Fornales Australia  
P.O. Box 1925  
Geelong  
Victoria 3220

I am returning my Fornales Pan-Cruise shock absorbers for inspection and service. I purchased them from you by mail order on 9/3/95.

As a tour operator I have clocked up about 25,000 kilometres in the past year and have found your product to be excellent. I spend very nearly all of my riding time with a passenger, (and some of them are really BIG) and the rear end has never bottomed out once. This was a frequent occurrence with the standard shockers.
Please return my Fornales as quickly as is possible as I have little desire to ride with the standard shocks for any length of time.

My return address is - 4 Field Street  
Reynella  
S.A. 5161

Thank you.

Chris Hartley