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DIRT RIDER

July 1994 Issue 140

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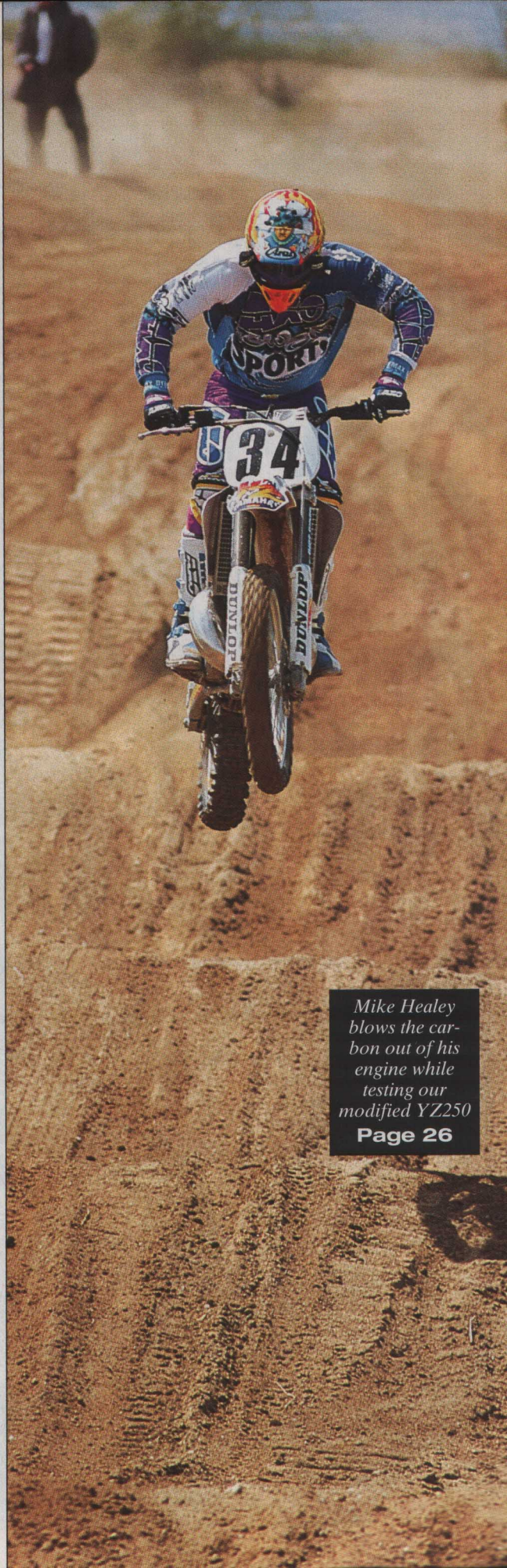
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ON THE COVER: *Our spies gave us these exclusive first looks at what could be 1995 moto hardware from Honda, Kawasaki and Suzuki.*



Mike Healey blows the carbon out of his engine while testing our modified YZ250
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1995 KTM 400 & 620 LC4 R/XC ROAD WARRIORS!



Fire roads and big four-strokes are a recipe for big fun with any rider on board. Assign the inside line to KTM off-road hero Scot Harden on a KTM 620 LC4 R/XC and tell two-time Houston National TT winner John Hateley to go wide on the 400 R/XC, and things really get wild! The beauty of KTM's new R/XCs is that they work even better on the trail than they do on the road!

PHOTOS: KAREL KRAMER

KTM continues to amaze us. This innovative European company takes chances while the Japanese manufacturers make conservative moves. KTM often equaled or beat the Japanese with technological advances like liquid-cooled 125cc motocrossers, disc brakes, digital ignitions and inverted forks on production bikes.

And now KTM has done it again with the first race-ready dual-purpose machines: the 400 and 620 LC4 R/XC, street-legal versions of the E/XC competition enduro machines.

In the past, dirt riders who've encountered sections of public highway between trails have had three equally unpleasant choices: be an outlaw and take a chance; convert an off-road bike to a pseudo-legal, don't-look-too-close EPA renegade; or put up with factory dual-purpose machines that feel light and nimble on asphalt but ride like ugly-handling, underdamped street

PHOTO: CANDACE HATELEY

We were allowed to keep only one of the machines for an extended test, and Test Editor Karel Kramer chose the 400. He felt it was lighter on the trail, a little smoother on the pavement and slightly easier to start. The 620 was almost too powerful for tight trails.



AUSTRIA UNLEASHES STREET-LEGAL OFF-ROAD RACERS



KTM's radical new 400 LC4 R/XC finally gives dirt riders the dual-purpose mix they're looking for. It combines race-spec mechanicals yet still meets EPA and DOT standards. Best of all, the performance penalty of this legality is shockingly small.



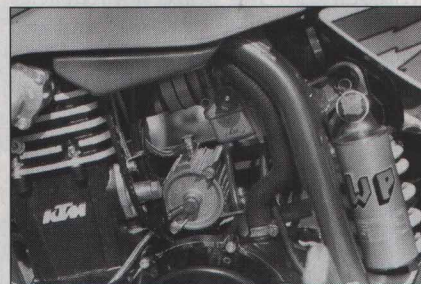
We didn't really notice that the 620's power had been diminished to meet the 80 dbA EPA standard. The exhaust system is heavy, but it must be to meet EPA longevity standards. The center stand is a very convenient addition in most conditions.

bikes in the dirt. Recent years have seen some improvement in factory offerings, but even the Honda XR-L and the stock Suzuki DR-S models are comfortable only on undemanding dirt surfaces at a fairly casual pace. Infusions of time, money and aftermarket products help make them dirt worthy, but dirt riders want a stock machine that can be ridden to an off-road race then raced competitively. Few riders do that, but the possibility gives you trail confidence.

KTM's new 400 and 620 R/XCs are closer to race-ready street-legal machines than anything we've seen in decades. Their entire effort was aimed at making the race-quality 400 and 620 E/XC models road legal. The result is a pair of machines that we would actually consider racing. You don't have to scratch the skin of the R/XCs too deeply to get the E/XCs to shine through, and that's what *Dirt Rider* expects of a dual-purpose machine. These are real off-road racers with the bare necessities of legality attached.

LOOK OUT, IT'S THE FEDS

To get their LC4 E/XCs street-legal KTM had to deal with several government entities and standards. They had to satisfy the Department of Transportation with correctly sized and con-



KTM uses a two-stroke-type crankshaft with crank seals for their four-strokes like Husqvarna or Husaberg, but KTM also uses a tiny oil pump and provides this finned oil micro filter. Those additions and a slightly greater oil capacity than the LC4 E/XCs should make for a very long-lived motor.

structed lights, turn signals, mirrors, rims and tires. Then they had to meet the EPA's noise and emissions standards. Fortunately, the KTM stokers already meet tough European standards, so they were able to pass 49 state emissions tests with no sweat, and they whispered through the 50-foot acceleration test with an 80 dbA reading. It appears that the KTMs are just a charcoal canister away from being California emissions-legal. Actual horsepower output didn't suffer much to meet these standards, but the bikes do require 16/45 (400) or 16/40 (620) gearing to pass. The 620 E/XC uses a 15/50 combo and the 400 E/XC uses 14/50,

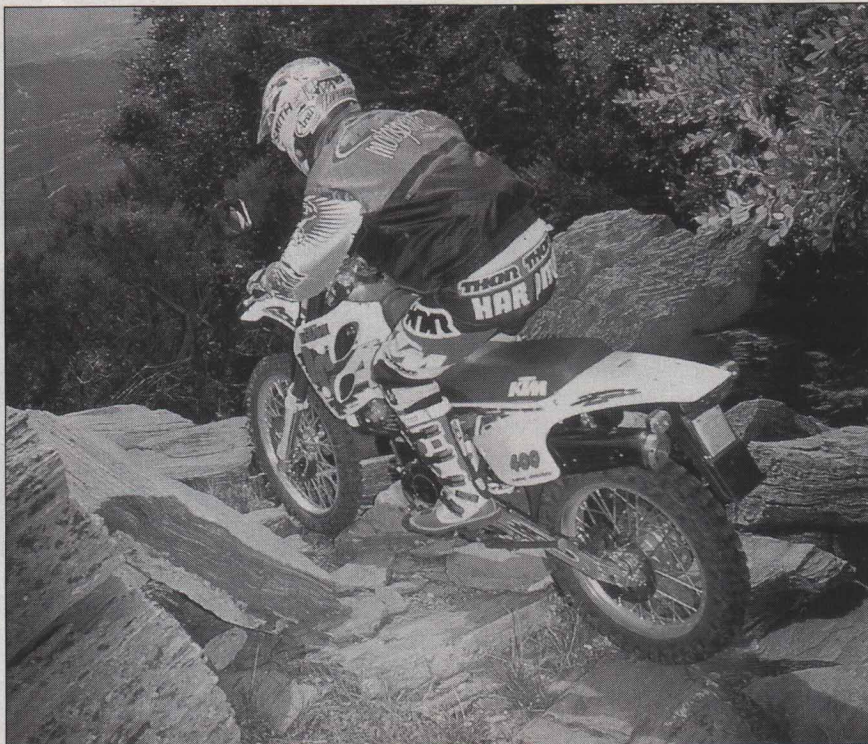
so the R/XCs feel overgeared.

After satisfying the feds, KTM had to satisfy the vehicle codes of all 50 states. That meant a tiny gel battery had to be affixed to the top of the airbox to run a taillight with the engine off.

So, just how different is an R/XC from an E/XC? In addition to the minimal lighting and voltage regulator you'll find rubber inserts in the foot-pegs, a center stand rather than a side-stand, a steel subframe (to make it safe to carry a passenger), a steel muffler with a spark arrestor, the required switches, mirrors and an airbox cover. There are DOT-approved D.I.D rims and Pirelli MT21 tires too. A 400 E/XC weighs 265 pounds, a 620 weighs 266 pounds; the R/XCs weigh 298 wet with no gas. That's the same as Kawasaki's dirt-only KLX650R.

TEST DRIVE

Once we were done kicking the tires we wanted to hit the trails. KTM's National Sales Manager, Scot Harden, was hoping for some pavement or fire roads to begin our ride. Naturally, we headed for a nasty uphill single-track trail wrinkled with 180-degree switchbacks. We then proceeded onto our standard enduro bike test loop, and we didn't cut the bikes any slack. With the tall gearing we spent a lot of time in first and second gears, but only the gearing,

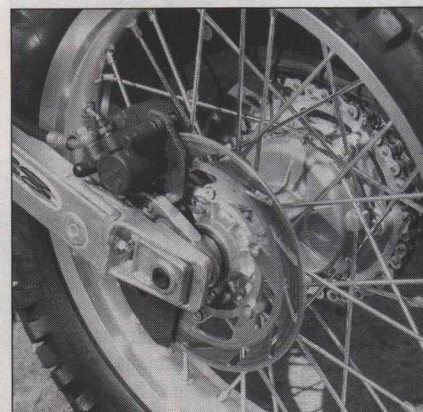


We didn't hesitate to take the R/XCs on any trail where we take our regular enduro machines, although if it looked hazardous we made Scot Harden do it; we didn't want to be the first to scratch one up. The gearing was occasionally a handicap, but the suspension, handling and performance were very dirt-capable.

tires and mirrors remind you that you aren't on race-spec enduro machines.

These trails are solid rock in some places with a shattered surface and many ugly stairsteps as well as more rain ruts than you ever wanted to see. The R/XCs have the identical suspension components, spring rates and valving as the E/XCs, but the added weight of the R/XCs makes them a little plusher, which is good for dual-sport-type exploring. They soaked up the rocks and ruts exceptionally well. The suspension action was crisp and controlled, so we felt comfortable pushing the bikes as hard as the tires would allow. We did experience some bottoming, so on subsequent rides we upped the shock preload and the compression damping front and rear with good results.

Power output was quite good for the most part. The jetting was excellent in the dirt, and both bikes started easily and ran cleanly. However, the 400 felt docile at low rpm and clearly suffered from the tall gearing on steep hills; a smaller countershaft sprocket would help dramatically. Conversely, the 620 R/XC is brutally powerful. It makes so much bottom boost that we wanted to ride it in second gear in the tight sections to calm it down. Unfortunately, we kept stalling until we got the clutch

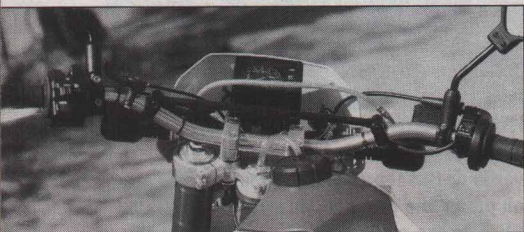


The rear hub incorporates rubber cushions to ease shock to the transmission during shifts on pavement. The smallish rear sprocket is required for the bike to pass sound and emissions standards but can be changed for off-road use.

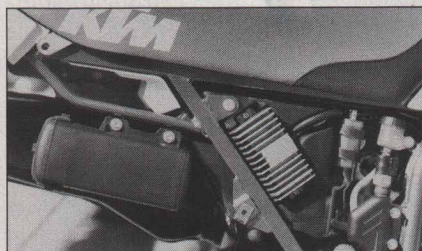
and the rider adjusted. We didn't have any comparison bikes along, but the 620 R/XC feels as fast as an XR600R or a KLX650R. It smokes any similarly sized dual-purpose machine.

WHAT'S THE DIFFERENCE?

The 620 roasts the 400, it weighs virtually the same as the 400, it required less gas at our 50-mile fill-up point, and it's no louder than the 400. This is great news for the big-bore crowd. It's a touch harder to start and a bit easier to stall than the 400, but the disparity is



The aluminum handlebar has all the necessary controls. There is a minimalist speedometer with indicator lights. The odometer resets only to zero. We'd like it to reset by tenths too. Also, the mirror heads rotate 360 degrees and will telescope up and down a bit, which is helpful in avoiding crash damage.

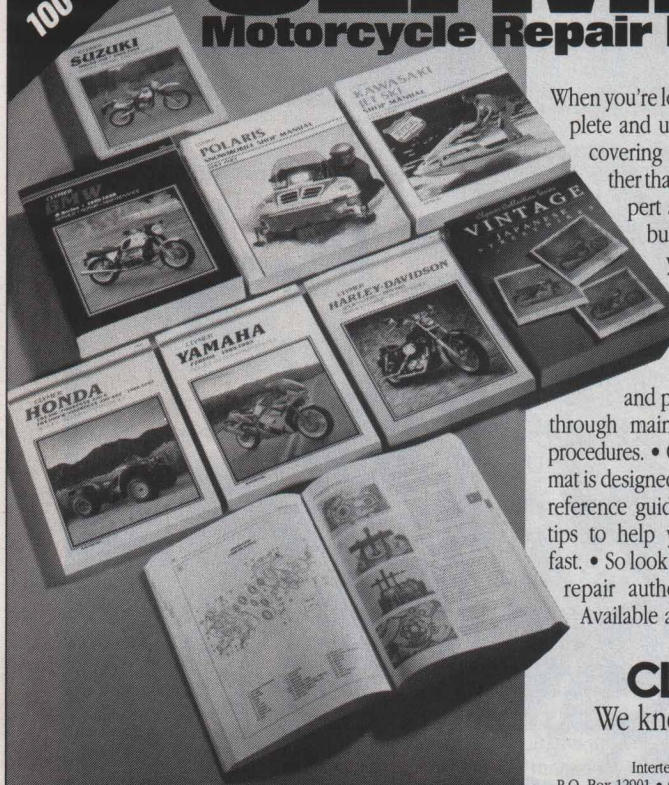


A steel subframe is used for reliability. It doesn't add much weight, though. Note how tightly tucked in the necessary electrical components are. We appreciated the toolbox.

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not great. Also, the 620 pushes the front end a little more on fast fire roads and vibrates a bit more on the street.

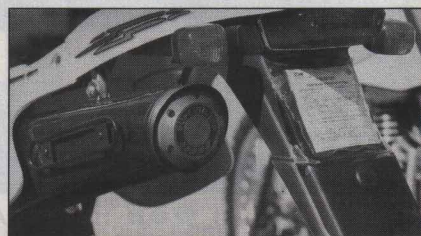
For technical riding areas the 400 is more fun to ride, and we liked the 620 for faster, more open areas. We tend to dual-sport on a lot of single-track trails, so when KTM demanded that we choose just one of the bikes for an extended test, we opted for the 400.

We put about 80 miles of hard-core dual-sporting on the 620 and about 300 miles on the 400. We even used the 400 to commute to work and ride on the freeway but only to fill out the test; we don't see these bikes as commuters or tourers. Keep in mind that these are dirt bikes; you just happen to be able to ride them on the street.

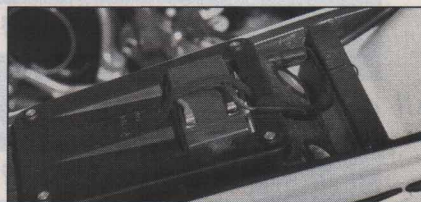
BITS AND PIECES

We tested the KTMs on a super-narrow single track with close, brushy trees. When we took the Honda XR650L and Suzuki DR350S on this loop we ended up with only one mirror, and that was just from brush damage, not crash damage.

The KTM mirrors telescope up and down, and the mirror heads spin all the way around, so we never tweaked them. For that matter we never tweaked anything on the bikes. All of the lights and hardware are as tiny and lightweight as the law allows; we never even noticed the turn signals. The same was true of the switches. We



EPA standards require that the R/XCs meet the 80 dbA standard when new, but they also have to meet the emissions and sound standards after 9300 miles. This requires a steel exhaust system with no fiberglass packing. We wouldn't change it.



There is no federal standard requiring a battery, but some states require the taillight to remain lit for 20 minutes with the engine off. This tiny gel battery handles that task without a large weight penalty.

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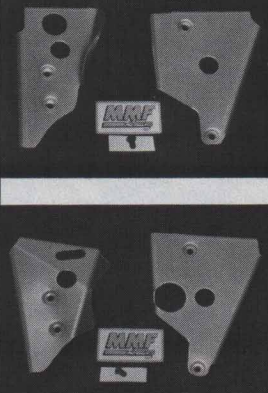
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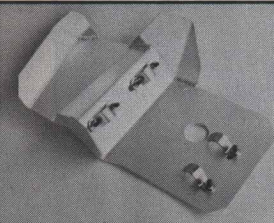


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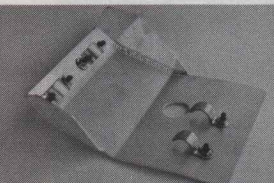
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know for a fact that these bikes will stand up well to off-roading.

For dry, hard terrain we'd probably lever on some different tires, although the standard Pirelli MT21s are as good a traction/wear compromise as you'll find.

BANKING SENSE

The KTMs are a good value as well. Among the street-legal machines the \$5798 KTM 620 R/XC's closest competitor is the \$4899 Honda XR650L. To make that bike more off-road wor-

thy it would need new tires, different gearing, suspension modifications and a larger fuel tank. We'd also change the air filter, pegs and handlebar (personal preference). Those mods put the XR-L within \$100 of the KTM, and the KTM needs only a countershaft sprocket to be off-road ready. But even after you spent the extra cash on the XR-L it will still be heavy and have poor gearbox spacing and less power than the KTM.

The \$5698 400's closest competition is the Suzuki DR350S. The DR-S re-tails for \$3999 and requires at least

\$1000 worth of mods, including suspension upgrades, gearing and a new handlebar before it is an effective off-road machine. The DR-S has competitive engine performance, but a reinforced swingarm and a cartridge-type or inverted fork and better shock would be required to match the KTM's handling, and that makes the Japanese machine quite expensive.

It depends on how serious you are about your dual-sporting. If you're a serious trail rider or a racer you are used to the handling performance the



PHOTO: CANDACE HATELEY

We took the opportunity to test the 400 with a nicely modified Suzuki DR350S. The DR-S's six-speed transmission is a bit more flexible, and the Suzuki has good response and bottom power too. However, the KTM is more stable, much better suspended and has more high-rpm power.

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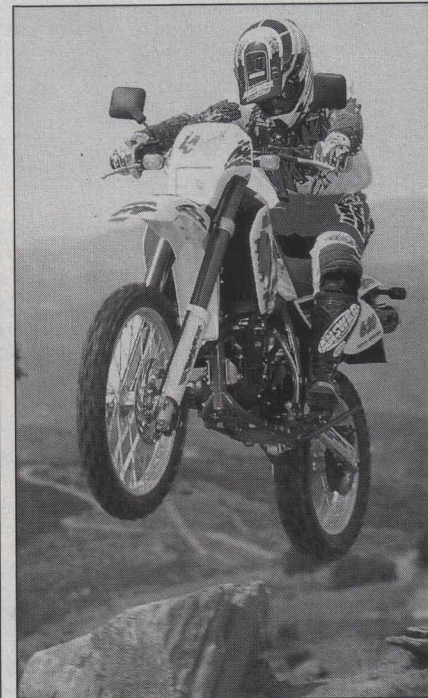


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KTM offers, and you won't be satisfied with less. With current government regulations, it's unlikely that we will see truly legal dual-purpose machines that are any more dirt-oriented or -capable than these KTM R/XCs. The government not only requires these bikes to be clean and quiet, they require that they stay clean and quiet for at least 9300 miles. KTM's R/XCs have satisfied Uncle Sam, but, most importantly, they satisfied *Dirt Rider*. **DR**



We jump-tested the KTMs. The E/XC suspension settings are a little soft for this with the heavier R/XC, but setting the sag correctly and dialing in a little more compression damping eased that. We feel that we could race the R/XC models in standard trim in many areas of the country. John Hateley was shocked at how good the bikes were both on and off the road.

DR TEST REPORT

MAKE/MODEL: KTM 400 LC4 R/XC
PRICE: \$5698
ENGINE TYPE: L-c 50HC 4-valve 4-stroke
BORE & STROKE: 95.0 x 56.2mm
TRANSMISSION: Five-speed
FINAL GEARING: 16/45
SEAT HEIGHT: 37.8 in.
WHEELBASE: 59.4 in.
WEIGHT (Wet, no gas): 298 lb. (288 claimed dry)
FUEL CAPACITY: 3.0 gal.
RESERVE: Yes
FORK: WP 4057 IBS
TRAVEL: 11.8 in.
SHOCK: WP 4681 BA
WHEEL TRAVEL: 13.3 in.
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