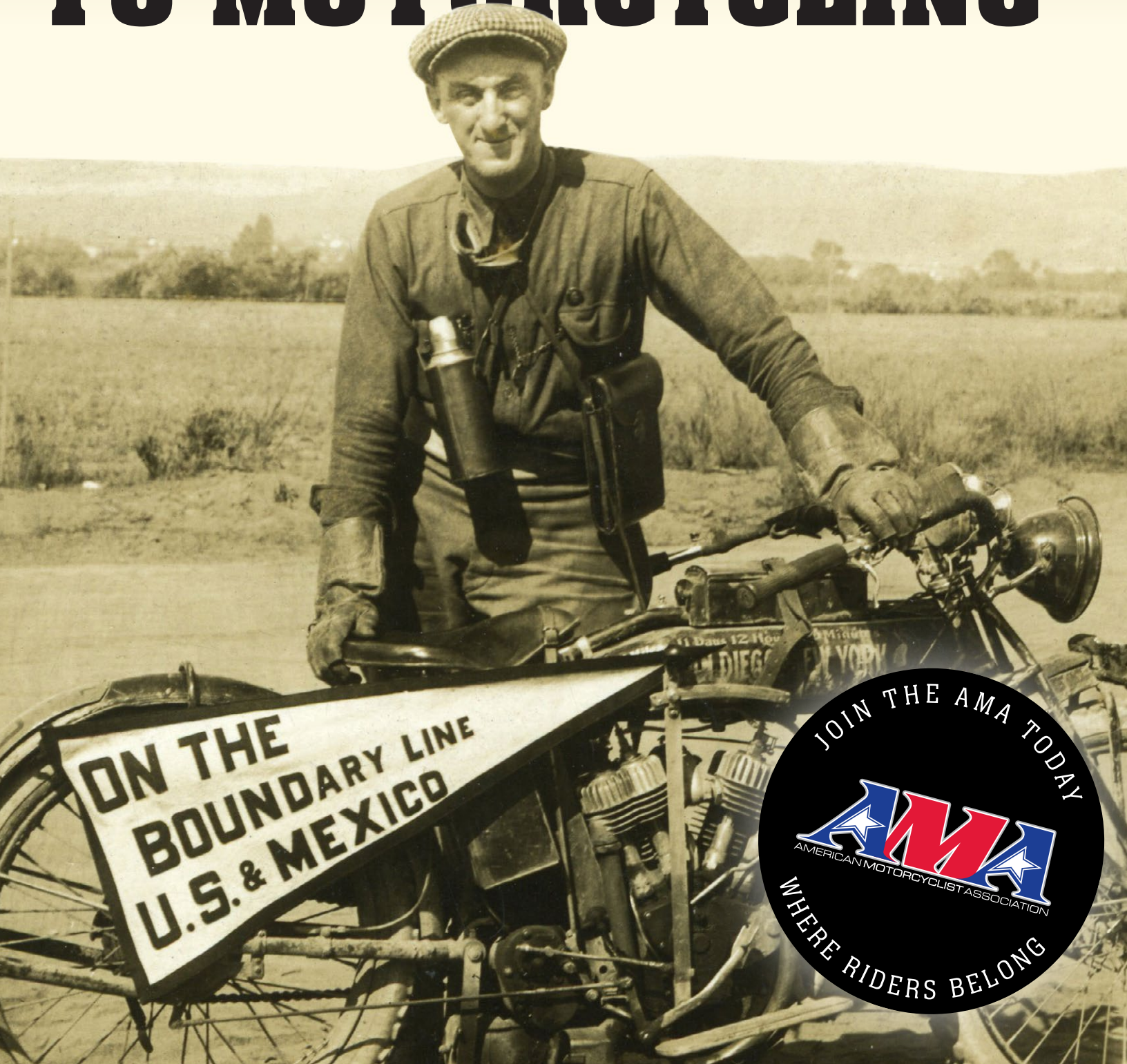


THE 124 BEST THINGS TO HAPPEN TO MOTORCYCLING



FUN FACTS



Motorcycling didn't just happen overnight. In fact, people have been building, riding and otherwise having fun on two-wheeled vehicles with engines since 1885.

In that time, plenty of things have made our favorite sport great, from the truly ground-

breaking machines that started it all to humbler stuff like the bungee cord and the plastic garbage bag. Frankly, it's both ends of the spectrum that make motorcycling what it is.

In that spirit, the AMA offers this unscientific list of the 124 best things that ever happened to motorcycling.

12 THINGS THAT STARTED IT ALL

The invention of the wheel (about 5,000 BC in Mesopotamia): After that, we only needed to wait a mere 6,876 years for Nicolaus Otto to invent the internal-combustion engine.

▼ **The 1885 Daimler “einspur”:** Sure it had training wheels, and yes, it was a test bed for engines, not a true motorcycle. But it put two wheels in line and an engine between them, with a rider on top.

The 1894 Hildebrand and Wolfmuller:

A 1,488cc, liquid-cooled twin that was the world’s first mass-produced motorcycle.

Motorcycle clubs: Many of the earliest grew out of existing bicycle clubs, bringing together “wheelmen” of all kinds.

The Federation of American Motorcyclists:

The first national motorcycle association, and the precursor to the AMA, was founded in 1903.

The Motorcycle & Allied Trades

Association: The industry trade group, founded in 1916, that evolved into the Motorcycle Industry Council.

The M&ATA rider division: A special section of the industry group designed to represent

motorcycle enthusiasts. In 1924, it became a separate organization known as the American Motorcycle Association.

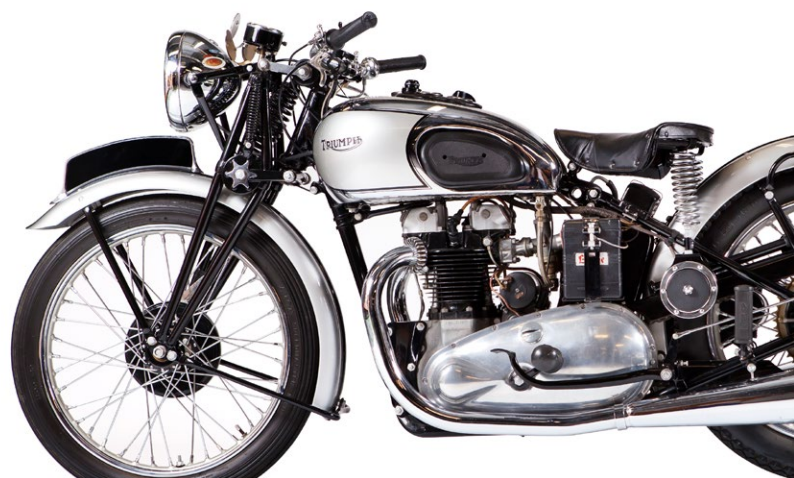
Rider education: It’s available to riders in nearly all 50 states today, but it started with the training programs created for police motor patrols and Army dispatch riders.

Hot-rodding: Thanks to the Depression and the need for motorcyclists to make do with what they had, owner modifications become commonplace, and customizing was born.

AMA News: This newsletter, which went to AMA members serving in the military around the world during World War II, grew into *American Motorcyclist* magazine, the journal of the AMA.

The British invasion: With major American ▼ motorcycle manufacturers dwindling to just two by the 1950s, Triumph, BSA, Matchless, Royal Enfield and more brought lightweight performance bikes to the U.S. market.

The Japanese invasion: A decade later, it was Honda, Yamaha, Suzuki and Kawasaki coming to America with even lighter, higher performance machines.



14 ADVANCES THAT REDEFINED MOTORCYCLES

Pneumatic tires: Invented by Robert William Thomson in 1845, and perfected by John Boyd Dunlop in 1888, pneumatic tires made high-speed travel possible.

▼ **Chain drive:** Belts and shafts are great, but most bikes today still rely on chain final drives, an innovation that Indian brought to its first bikes in 1901, when just about everybody else was using leather belts.

The clutch: The earliest motorcycles had an engine connected directly to the rear wheel—you stopped and the motor stopped. For a hundred years, though, clutches have made riding easier for all of us.

Electric start: Who doesn't love the magic button? It dates from the Indian Hendee Special in 1914.

Front suspension: Sprung forks were common, even in the early years of motorcycling, but it was decades before BMW pioneered the modern, hydraulically damped telescopic fork in the 1935 R12.

Rear suspension: Hardtails may look cool on customs, but if you actually want to ride anywhere, you appreciate some comfort out

back. A lot of companies experimented with rear suspension technology, but Moto Guzzi claimed the first swingarm with its 1928 GT.

Multi-viscosity oil: Oil is the lifeblood of a motor, but, for decades, it was thick when you wanted it thin—like when you started a bike—and thin when you wanted it thick—like when that engine got hot. Advances during World War II made 10W-30 possible.

Synthetic rubber: Introduced in 1928 and developed through World War II, synthetic rubber made tires much more durable and affordable.

The modern control scheme: Left-hand clutch, right-hand brake and throttle, right-foot brake, left-foot shift. It seems so logical now, but it wasn't until well into the 1970s that this became the standard for motorcycle controls.

Disc brakes: This quantum leap from drums was among the innovations in Honda's landmark 1969 CB750. The concept goes back to the 1920s, when Britain's Douglas put them on dirt-track racers.

The monoshock: Vincent experimented with the concept in the '50s, but Yamaha brought it to dirt bikes with the 1975 YZ250 and YZ360.

Maintenance-free batteries: When was the last time you had to check the battery fluid level on a modern motorcycle?

The halogen headlight: Actually seeing at night is great! Developed in Europe in the '60s, halogen bulbs made it to America in the '80s.

Electronic ignition: There was a time, as recently as the '80s, when you had to install and adjust ignition points every time you did a tuneup. Anyone still own a dwell meter?





10 DIFFERENT MOTORS THAT CRANK YOU UP

The single: The simple engine configuration that started it all, still going strong at the top of the sport in off-road competition.

The parallel twin: Hildebrand & Wolfmuller offered it in 1894, and added liquid cooling to boot.

▲ **The horizontally opposed twin:** BMW may be famous for the boxer design, but the British Douglas brand made flat twins as far back as 1903.

The V-twin: Indian made one earlier, but when Harley-Davidson rolled out its first 45-degree V-twin in 1909, it created what has become America's motor.

The 90-degree L-twin: Ducati is most associated with the design today, but Moto Guzzi had one years earlier, and back in World War II, Indian experimented with the Model 841, a 90-degree twin with the crankshaft in-line with the frame, Guzzi-style.

The four: Belgium's FN made a four-cylinder, shaft-drive machine in 1905, leading to a whole series of American fours from

Henderson, Ace and Indian, all with their motors mounted in-line with the frame. But it was Honda that turned the four-cylinder sideways and changed everything with the 1969 CB750.

The V-four: Honda's VF series remains the shining example, but the British Matchless brand introduced the Silver Hawk in 1931, featuring a narrow, 18-degree V-four.

The flat four: Honda made it famous with the original Gold Wing (now a flat six) in 1975, but back in 1939, a 996cc flat-four appeared in the prototype of the Brough Superior Golden Dream, a bike that was stillborn due to World War II.

The six: You're thinking Honda CBX, right? Think back a little further, to 1972, when the Benelli Sei was introduced.

The V-eight: No, really. Back in 1907, Glenn Curtiss went 136 mph on a V-eight motorcycle of his own design, and 50 years later, Moto Guzzi built an amazing V-eight machine for 500cc grand-prix road racing.



8 STYLES TO CHOOSE FROM

The cruiser: Pure American style, the cruiser look evolved out of the streamline designs of the '20s and '30s. The prototype may be the 1925 Excelsior Super X.

The full-dress tourer: The 1954 Vincent Black Prince arguably invented the genre. Harley-Davidson adopted the concept in 1969 with the first batwing-fairing equipped Electra Glide. Craig Vetter brought touring comfort to the masses with the Windjammer fairing in 1971. Honda perfected the full-dress tourer with the 1980 Gold Wing Interstate.

The two-stroke motocross bike: MX racing has gone through three distinct stages—the original four-stroke stage, the two-stroke stage and the new four-stroke stage. Husqvarna ushered in the two-stroke era in 1963 with a 250cc model known simply as the “Racer.”

The factory custom: Harley’s 1971 Super Glide practically invented the category.

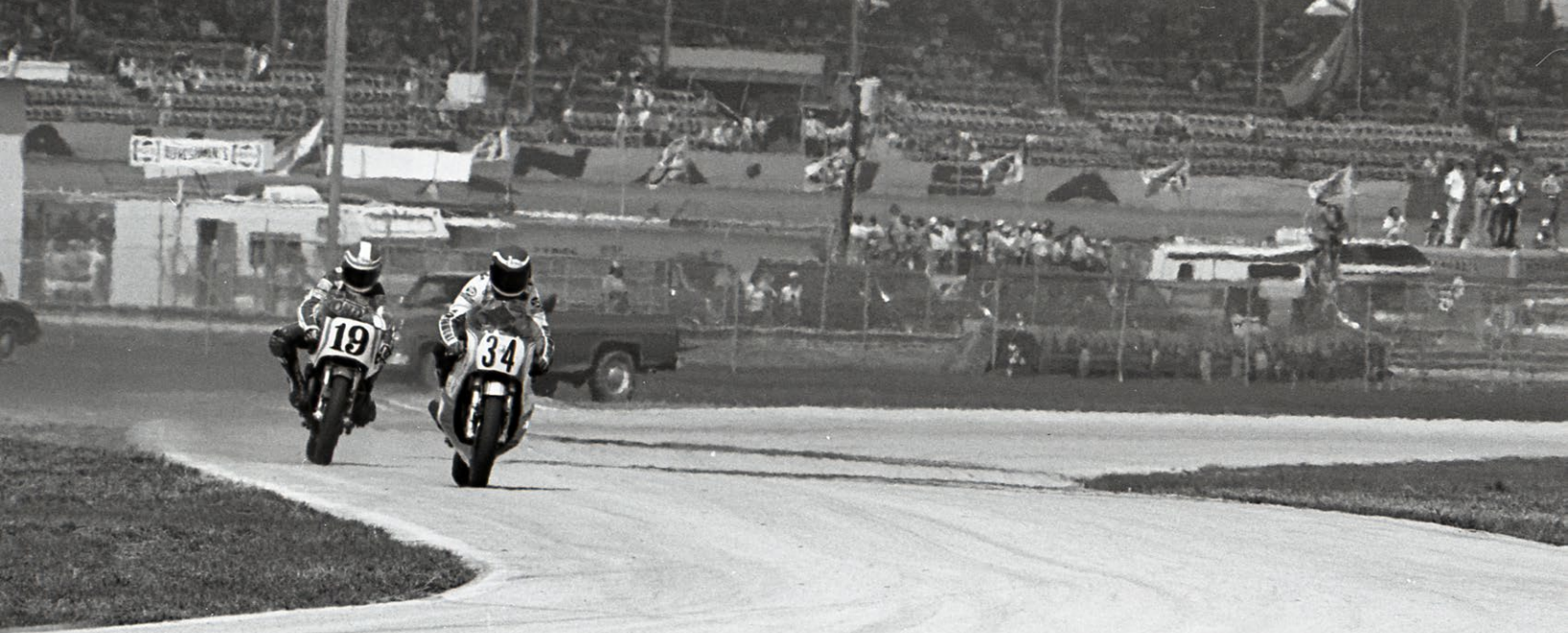
The dual-sport: OK, there was a time when all motorcycles were expected to work on and off the pavement. But the idea of a lightweight

machine that was street-legal and truly dirt-worthy clicked with Yamaha’s introduction of the 250cc DT1 in 1968.

The sport-tourer: Sport performance combined with long-distance capability has long been a goal of athletic motorcycles like the 1929 Indian 101 Scout and the Vincent Black Shadow. But when BMW capitalized on the cafe-racer movement with its 1974 R90S, it defined the class that became known as sport-tourers.

The adventure tourer: Yeah, people rode enduros on full-size Harleys in the '30s, but you have to give BMW credit for inventing the modern adventure tourer with its 1980 R80G/S.

The sportbike: The concept of a race replica stretches all the way back to a 1908 Indian with a torpedo tank and a rider’s seat moved over the rear wheel, earning the bike the nickname “Monkey on a Stick.” The creation of the modern sportbike was an evolutionary process, but one landmark is surely the 1984 Kawasaki GPz900, the original Ninja.



9 RACING MILESTONES

Endurance runs: Many early motorcycle events were designed merely to showcase the reliability of various machines over long distances. But once you had two bikes capable of reaching the finish, getting there first immediately became the point, and racing was born.

Indianapolis 25?: In 1909, the Indianapolis Motor Speedway opened with its first race, a 25-mile contest for motorcycles.

Board track racing: Called the “20th Century Sport,” racing on banked board tracks—some more than a mile around—drew huge crowds in the teens, but by the early '20s, safety concerns had shut most of them down.

Racing on the beach: Speed-record runs were held on the sand in Ormond Beach and Daytona Beach, Fla., before 1910. By 1937, the “World’s Most Famous Beach” became the home of the famed Daytona 200.

Class C racing: In the early years, there were lots of American motorcycle manufacturers willing to spend big money to develop exotic one-off racebikes, known as Class A machines. When the Depression hit in the '30s, the AMA invented production-based Class C racing,

starting with a race on the Springfield Mile in Illinois. This “race what you build” approach spawned the Grand National Championship and, eventually, production-based motocrossers and Superbike road racers.

Motocross: Derived from British scrambles racing, motocross went international in 1947 with the creation of the Motocross des Nations team championship. The sport arrived in America in the late '60s.

Supercross: Bringing together motocross and a big stadium was an idea whose time had come in the 1970s, with early experiments in the Los Angeles Coliseum and Daytona International Speedway. Who’d have guessed where that would lead?

Road racing: It got its own international championship in 1949. Here, that didn’t happen until 1976, with the creation of the AMA Superbike Championship.

Supermoto: Begun by the made-for-TV “Superbikers” event in the '80s, this mixture of paved and dirt racing was exported to Europe for most of the 1990s before returning to its American roots in the 2000s.

9 MATERIALS WE COULDN'T LIVE WITHOUT

Gore-Tex: Rainproof gear started with waxed cotton, progressed to rubberized fabric, then coated nylon. But Gore-Tex brought much-appreciated breathability to waterproof fabric.

Velcro: The ubiquitous hook-and-loop fastener was invented by a Swiss engineer in the 1950s. Today, you can find hooks and loops on almost every piece of motorcycle clothing or soft luggage.

Kevlar: The same stuff that made bulletproof vests possible also goes into clothing that is puncture- and abrasion-resistant and (usually under the Aramid name) into motorcycle drive belts and tire cords.

Stainless steel: Especially in exhaust systems, it's a motorcycle life-extender.

Chrome: It ain't cool if it don't shine.

Titanium: Because chrome is too heavy for sportbikes.

Carbon fiber: Because sometimes you need something lighter than titanium.

Duct tape: The fifth element—it fixes everything.

The plastic garbage bag: Saddlebag liner, tankbag rain cover, overnight seat cover, and, in a pinch, rain gear.



II RIGHTS BATTLES WE CAN BE PROUD OF

Garden State Parkway: In the 1970s, New Jersey officials banned all motorcycles from the Garden State Parkway. Years of effort resulted in a reversal in 1975, setting a precedent for highways across the country.

Off-road access: President Richard Nixon's Executive Order 11644 in 1972 could have shut trail riders out of all public land. The AMA gathered 250,000 petition signatures to keep those lands open to motorized recreation.

St. Louis park ban: In the late 1970s, St. Louis banned bikes from all roads in its vast Forest Park. Three years of work resulted in a reversal in 1982.

Rider ed: There was a time when you learned how to become a motorcyclist from a friend, acquiring all the friend's bad habits in the process. In the early '80s, the AMA and the Motorcycle Safety Foundation started a nationwide campaign to promote state-run rider-education. It's still going strong today.

Sportbike showdown: An insurance industry study claimed in 1987 that sportbikes are inherently dangerous, prompting a U.S. senator to propose a nationwide ban. The AMA challenged the research and got the senator to withdraw his bill.

Victory in Massachusetts: Also in 1987, the city of Brockton, Mass., banned motorcycles from public roads in a huge park. The AMA fought the ban, winning a precedent-setting victory in the state's highest court, then got national legislation prohibiting bans on any road where federal funds are used.

Rush-hour relief: High-occupancy vehicle lanes can ease traffic congestion on crowded freeways. And thanks to federal regulations promoted by the AMA, motorcyclists may use

them legally nationwide.

Health paradox: What if you had health insurance, but it wouldn't cover you when you got injured? That's a dilemma some motorcyclists continue to face, even though the AMA got specific legislation passed a decade ago that was designed to prevent employers from excluding legal activities, such as motorcycling, from the health coverage they offer workers. It's a battle we continue to fight.

Distracted driving: A driver is texting and driving, crosses the center line and runs head-on into a group of motorcyclists. Three riders are killed and two seriously injured—just because the driver wanted to text home about dinner. AMA members have helped raise awareness of distracted driving and its consequences; but, as drivers continue to face even more distractions behind the wheel, the campaign continues.

Defeating the lead law: It was a ridiculous outgrowth of efforts to protect American kids from cheap imported small toys that contained ingestible lead, but unfortunately the 2008 law technically outlawed kids' dirt bikes and ATVs. The "lead law" could have ended riding for a generation, but the AMA and its members fought hard to defeat it. In the end, when others were ready to compromise, the AMA continued to demand a categorical exemption for kids' dirt bikes and ATVs, and we won. On Aug. 12, 2011, President Barack Obama signed into law H.R. 2715 that created the exemption we fought for.

Ethanol: Ethanol—specifically E-15—can void modern motorcycle warranties and wreak havoc in older motorcycles, many of which remain on the road. The AMA, along with its partners, works daily on this complex issue that has drawn attention and big-money backing from a wide range of industries and special interest groups.

13 THINGS THAT MAKE A REAL DIFFERENCE ON THE ROAD

Route signs: Originally, long-distance travelers navigated from town to town to get where they were going. Then somebody had the bright idea of creating numbered routes, and clearly marking them. Everybody who hates stopping at gas stations to get directions owes that person a debt of gratitude.

Mile markers: Great for keeping track of exactly where you are on your map, and for providing endless math entertainment in your head while you're bored on the...

Interstate: Great for making time when you must; great for reducing congestion on back roads when you don't have to make time.

The roadside diner: Ride to eat, eat to ride.

The motel: An outgrowth of the tourist camps that sprang up out of the 1920s car travel boom, motels are our homes away from home.

The Internet: Planning trips, scrounging parts, checking the weather and e-mailing your moto-buds—what did we do before it?

The intercom: Shouting is so old-school.

Earplugs: Hearing loss is so old-school.

Scenic Byways: Established by Congress in 1991, the National Scenic Byways Program for the first time recognized that some roads—like the Pacific Coast Highway, the Blue Ridge Parkway, the Beartooth Highway and about 125 more across the country—are valuable not because of how much traffic they carry or where they go, but for the sheer enjoyment of traveling them. We knew it all along.

National parks: A government-sponsored must-ride list.

Maps: Cheap, accurate and they fold up right into that clear pocket on top of your tankbag to keep you on course.

GPS: Small, even more accurate and it mounts right next to your speedometer to keep you on course.

Getting lost: Sometimes, going off course is the best way to ride.



10 GREAT EXPERIENCES ON A BIKE

On the road again: That feeling you get when you fire up the bike and pull out of the driveway in the morning, knowing you'll still be smiling when you stop for dinner.

Over the top: The slight sense of weightlessness you experience as you pass through vertical making the transition from a righthander to a lefthander.

Only on the outside: The smug satisfaction that comes from being thoroughly sealed up in waterproof gear while rain hammers down all around you.

In all directions: Taking in the scenery up, down and all around, rather than seeing it in windshield-sized chunks.

I claim this land: Going exploring on a road you've never seen before.

Gourmet grub: Feasting on electrolytes and crackers in the middle of nowhere.

Group rides: A bunch of friends all sharing the enjoyment of a great ride.

Two-up rides: Everybody you need to make lasting memories.

Solo rides: You're never really alone as long as you and your bike are traveling together.

Calling in sick to go riding: You know you've done it. You know you'll do it again.



14 REASONS OFF-ROAD ROCKS

Singletrack: The pure trail-riding experience—just you and a ribbon of dirt leading...somewhere.

Two-track: It's like a singletrack, with an emergency auxiliary singletrack right next door.

Fire roads: So you can find out what fifth gear feels like.

Rocks, roots, logs and mud: What normal people consider obstacles are really the fun parts.

12 inches of suspension travel: Keeping the fun parts fun.

Handguards: The replacement clutch-lever industry has never been the same.

Big fuel tanks: Ride farther.

Backpack hydration systems: Survive riding farther.

Roost: Not fun when you get it, but always fun when you give it.

Airtime: Never have so many put in so much effort for so few seconds.

Riding with your buddies: It's a team sport, right up until you see a conveniently placed puddle.

Campground lies: You know, that puddle story gets funnier every time you tell it.

Riding with your kid: There's nothing better to do on a Saturday afternoon.

That hill over there: And the one after that, and the one after that.





14 THINGS THAT DEFY CATEGORIZATION

“The Great Escape”: Steve McQueen. Stunt rider Bud Ekins. A Triumph. A barbed-wire fence.

Minibikes: The lowly machines that got most of us started.

Harley-Davidson buying itself out of AMF: The rebirth of an American success story.

The rat bike: At some point, a poorly maintained bike stops being an eyesore and turns into art.

Bungee cords: They may not be perfect, but where would motorcycling be without them.

Electric gear: Descended from the heated suits that World War II bomber crews used, they add weeks or even months to the riding season.

Cruise-ins: Motorcycles are cool even when you’re not riding them.

Flame paint jobs: You can’t beat a classic.

Rental motorcycles: The experience of riding a great road 2,000 miles from home can be priceless.

“On Any Sunday”: The best motorcycling movie.

Women riders: Who said motorcycles were gender-specific, anyway?

A new bike: Nothing beats that first ride.

Cell phones: Not when someone is using it behind the wheel. But, cell phones can be a lifeline when you coast to a stop alongside a road far from home.

Lane splitting: Allowed in California, possibly on its way to other states in the near future, it’s one instance when the law falls firmly—and sensibly—on the side of motorcyclists’ convenience.