



# TAK-4 INDEPENDENT FRONT SUSPENSION

## TAK-4® INDEPENDENT FRONT SUSPENSION PERFORMANCE SPECIFICATIONS

	15" Rotor – Pierce® Standard	17" Rotor – Pierce® TAK-4 IFS
<b>CRAMP ANGLE</b>	45° (22,800 lbs w/ 425/65R22.5 tires)	40° (24,000 lbs w/ 445/65R22.5 tires)
<b>FRONT AXLE GVW RATING</b>	24,000 lbs (w/ 445/65R22.5 tires)	22,800 lbs (w/ 425/65R22.5 tires)
<b>BRAKING DISTANCE FROM 60 MPH</b>	With TAK-4: 60' shorter than a straight axle truck of the same weight with 15" rotors	
<b>MILES BETWEEN BRAKE JOBS</b> (approx.)	Standard: 9,000	TAK-4: 50,000*
<b>ESTIMATED MAINTENANCE COSTS PER LIFE OF VEHICLE</b>	Standard: \$16,000	TAK-4: \$3,500
<b>RIDE QUALITY ACCELEROMETER READINGS</b> (same vehicle)	0.51 g (g = vertical g-force)	0.15 g (3 times better ride quality)

\* All brakes wear differently based on driver input and secondary braking devices.



Want to find out more? Contact one of the 4,000 departments that have TAK-4® Independent Front Suspension. Or contact your Pierce representative.

[www.piercemfg.com](http://www.piercemfg.com)



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Gaping potholes, daylong rush hours and clueless drivers with 300-hp cell phones. Getting to the scene has never been easy. That's why Pierce created TAK-4® Independent Front Suspension (IFS), which stops faster, corners better, improves handling, offers better ride quality and is far more maneuverable than any straight-axle truck on the road.

TAK-4 IFS from Pierce gives you more control between the house and the scene, saves a few seconds when seconds count, and more than anything else, helps you perform like no other.

## Stops sooner. Turns tighter. Rides smoother.

### IT STOPS SOONER. PERIOD.

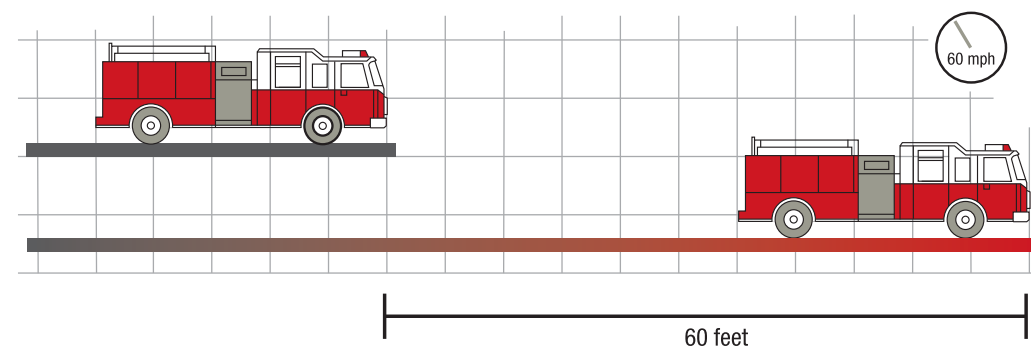
When you're strapped into 34 tons of apparatus running at 60mph down the expressway, odds are you're not thinking about your TAK-4® Independent Front Suspension. How it will stop your Pierce rig in just 200 feet. Or how that's 60 feet less than the same size truck with a straight axle. You're totally focused on getting to the scene and doing your job. Just the way it should be.

But when a sedan full of teenagers suddenly jumps lanes and the only thing that matters is getting your rig stopped NOW, one thought will flash through your mind: Thank God for TAK-4 IFS. It stops sooner.

### MANEUVER THROUGH ANY KIND OF TRAFFIC.

It may seem obvious, but TAK-4 IFS makes your rig a highly maneuverable fire truck – more maneuverable than any straight-axle could ever be.

The cramp angle and turning radius of many fire trucks are limited by straight-axle designs. But TAK-4 IFS delivers a tighter turning radius and more control of the vehicle along with improved handling. Which is exactly what you need to get through road construction, congested intersections and every other obstacle that sits between the house and the scene.



*With TAK-4 IFS, braking distance is 60' shorter than a straight axle truck of the same weight with 15" rotors.*



### LOW VERTICAL G-FORCES. TURNING A MOUNTAIN INTO A MOLEHILL.

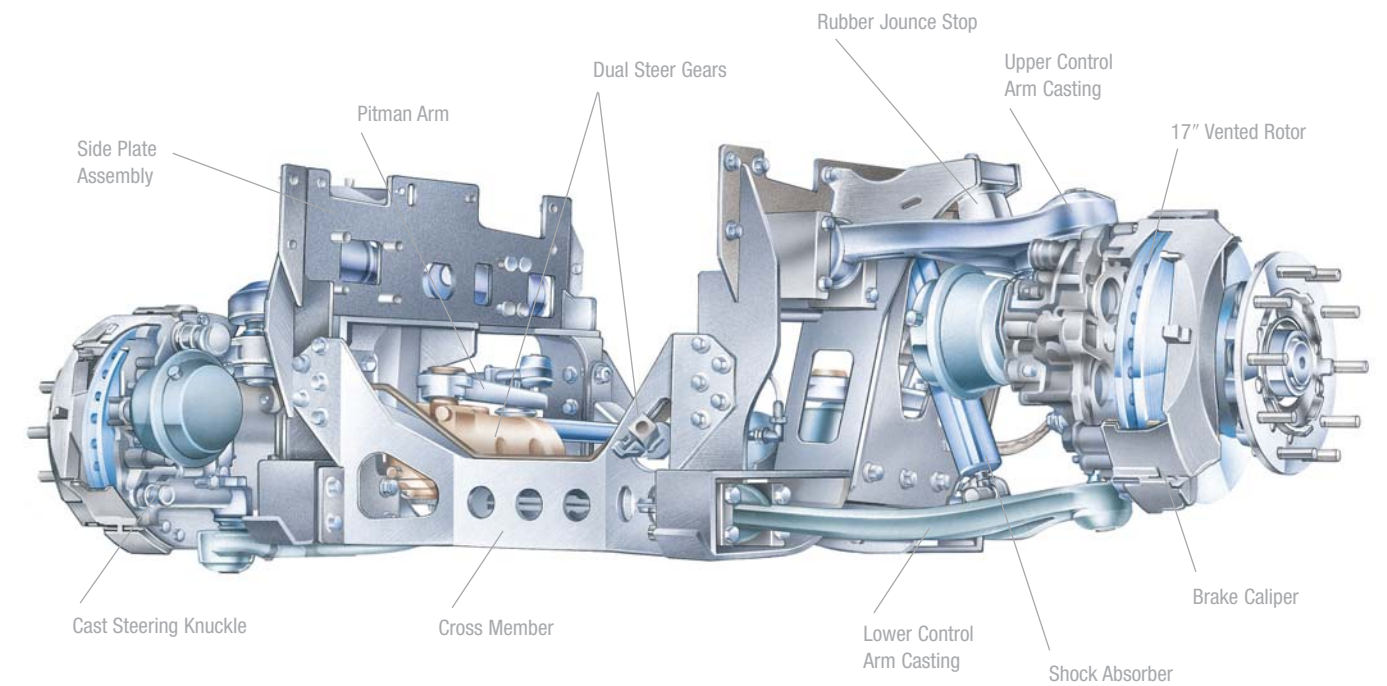
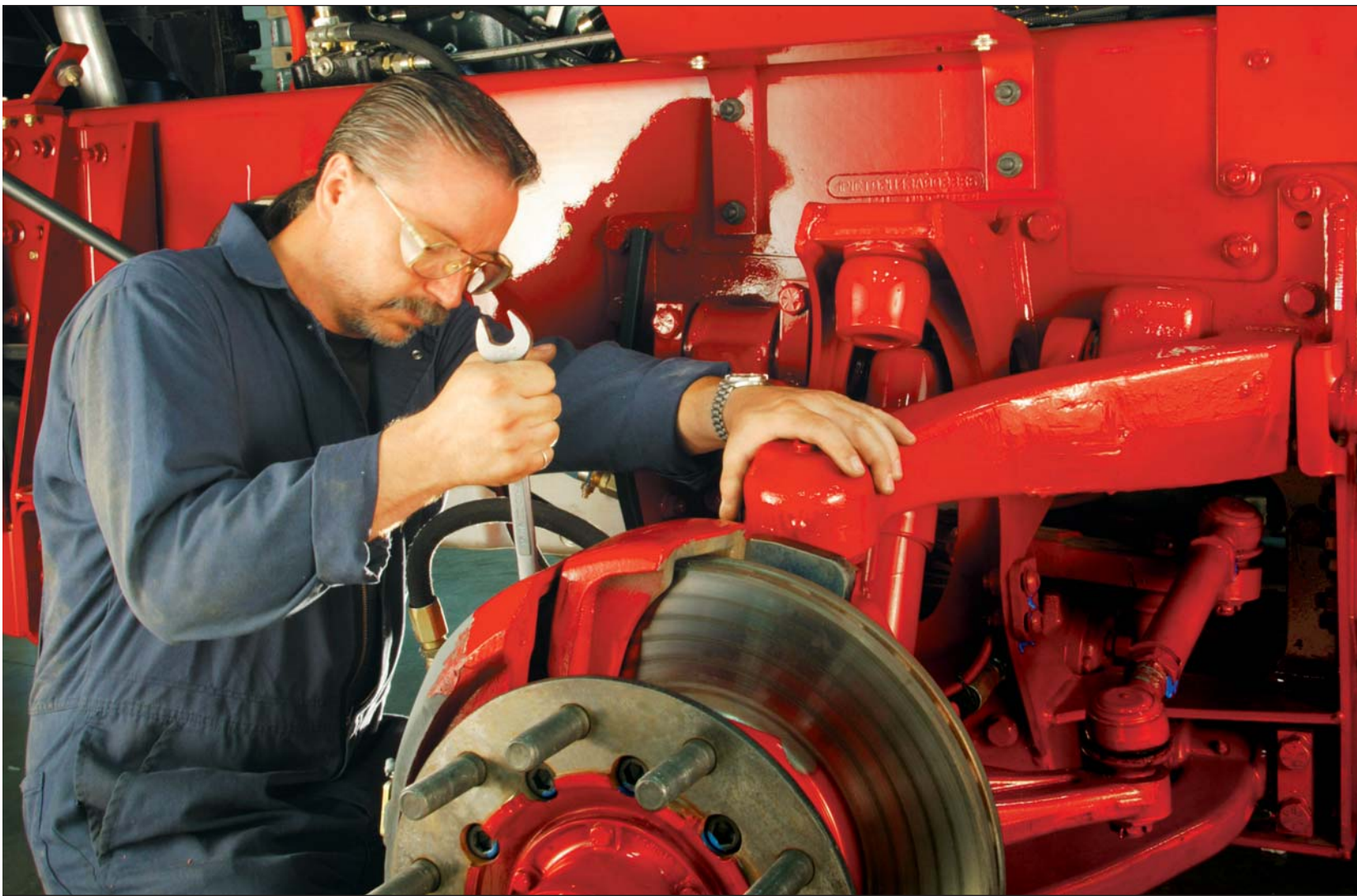
Of course we're going to tell you the TAK-4® IFS delivers a better ride for you, your crew and equipment. You'd expect that from us. You'd also expect us to back that up with cold, hard numbers.

That's why we measured vertical g-forces — the things that bounce you and your equipment around inside the cab when your rig is moving over a rough road (or no road). In accelerometer testing, a rig with a standard taper-leaf suspension system registers 0.51g. But the same vehicle with the TAK-4 IFS system measures 0.15g, an incredible 340% improvement in ride quality.

In other words, with suspension travel of 10" — double that of a standard suspension — TAK-4 IFS gives you a ride that's much more like an SUV than a hayrack.

### GET YOURSELF, YOUR CREW AND ALL THE GEAR YOU NEED TO THE SCENE.

TAK-4 IFS carries its weight — and then some. Now you can get more firefighters and equipment to the scene with a Pierce than you can with a comparable rig. A maximum front axle weight rating of 24,000 lbs is possible with 445/65R22.5 tires. 22,800 lbs max with 425/65R22.5 tires. This increased weight rating lets you add more features and more equipment — such as air conditioning and front suction — to any rig equipped with TAK-4, without exceeding GVW restrictions.



#### **TAK-4® IFS TAKES A POUNDING SO YOU DON'T HAVE TO.**

Perfect road conditions rarely exist. That's why Pierce had the Transportation Research Center in East Liberty, Ohio, subject the TAK-4 IFS system to a full menu of roadway abuse: chatter bumps, staggered bumps, high-crown intersections, ruts, potholes — the works. They put a 24,000-lb load on the front axle of one of our rigs and severely pounded its suspension, steering and braking systems. They then subjected it to 17,700 actual test miles. TAK-4 IFS performed exceptionally well.

#### **GIVE YOUR MECHANICS A BREAK WITH TAK-4.**

The TAK-4 IFS not only maximizes a truck's performance, it minimizes the wear and tear on your equipment, reduces maintenance and saves a whole lot of brake jobs.

The TAK-4 IFS system has an increased brake pad and rotor size (17") that reduces your brake changes and knocks down your maintenance expenditures. In fact, one department's pumper with transmission retarder and TAK-4 IFS is having the pads and rotors replaced about every 50,000 miles, which will save that department about \$12,000 over the life of that rig.

The TAK-4 IFS design also streamlines the maintenance process itself. There are no u-bolts on the front axle, but there are jamb nuts that allow height adjustment in 15 minutes. There is no adjustments needed for the caster angle, and no need for lubricating the ball joints. Your rig spends less time in the shop and more time on the street.

#### **HOW DOES THE WHOLE THING WORK?**

The TAK-4 IFS system is custom built for Pierce chassis to give you better road feel, control and a smoother ride over any kind of surface. It accomplishes this through a mechanical-over-hydraulic steering system with two steering gears that provide power to the steering linkage. A torsion bar set-up, a much beefier version of what is found on many SUVs, also helps deliver superior control. Cast steel alloy and ductile iron upper and lower control arms allow the front wheels to take on potholes one at a time. And the lower spring rates made possible by the independent front suspension smooth out the road better than any straight axle rig.