



Chrysler LeBaron Convertible

Hats off to tops down.

• Since we published our preview test of Chrysler's new K-based LeBaron in the October 1981 issue of *Car and Driver*, we've made an important discovery: the Chrysler LeBaron is an awfully nice car—the very antithesis, in fact, of the Chrysler Imperial we hated so much only one year ago. We spent a week with one, and it turned out to be a thoroughly likable luxury automobile; smooth, comfortable, and very pleasant

to drive in all normal highway and home-to-work commuting assignments. Faced with the need for a car to handle a long weekend consisting of back-to-back trips of 200 to 250 miles each, yr. obt. svt. selected the LeBaron over everything else in the *Car and Driver* motor pool, a small fleet that included the new Scirocco, a very nice Renault 18i, a Volvo GLT Turbo wagon, a new Mercury Lynx four-door, a Pontiac Grand Prix

Diesel, two Honda Civics, an Aries K-car, our Datsun 200-SX project car, a Volkswagen Jetta, and a Datsun King Cab four-by-four pickup. Why? Because I truly enjoyed driving the LeBaron.

Now I've driven a LeBaron convertible, and I like it every bit as much as the LeBaron coupe, maybe more. The very sophisticated computer program of finite element analysis that stiffened and strengthened the body for topless oper-

LeBARON



ation, and the simple joy of driving a convertible with the top down—especially a convertible that's tight and rattle-free, with aerodynamics that reduce wind buffeting to perfectly acceptable levels even with the windows down—produce an automotive experience that ranks high on the scale of visceral, fundamental automotive verities.

Convertibles are coming back. Buick will soon have a Riviera convertible. Porsche is very close to a 911 cabriolet. Heinz Prechter's American Sunroof Corporation showed an Opel Ascona (J-car) convertible at Frankfurt, and we know that GM's domestic J-car producers are all studying the feasibility of a J-car convertible of their very own. We're going to see Mustang and Capri convertibles before long, and Japan cannot be far behind. Japan never is.

Apparently, the reason that convertibles went away in the first place was a spurious one, based upon the mistaken belief that the NHTSA—grinding slowly, but exceeding fine—would enact and enforce a rollover-protection standard that would make soft-top cars illegal. This never happened, but that didn't prevent manufacturers here and abroad from dropping convertibles the way you'd drop a hot rock.

It's too bad that convertibles went away as they did, running scared from a monster that never materialized, but a few years spent without open cars will now make it possible for us to welcome them back with rekindled enthusiasm. A convertible, top down, is simply another



level of automotive pleasure, a higher plateau of motorized bliss that is unattainable with T-tops or targas or sunroofs. A convertible with the top down is more like a motorcycle or an open-cockpit airplane in the way that one communes with the wind and the sun and the scenery flashing by.

Chrysler's LeBaron makes a very good entry point for the now not-so-new Chrysler Corporation to get into the convertible business. It's a solid

platform for the modifications—the hacking and hewing—that must be done to convert a LeBaron coupe to a LeBaron convertible. (Don Sherman details those modifications in his story on page 40.) The car is as tight as a tick. We drove the prototype over several miles of bumpy torture road at the Chrysler Proving Grounds, and were never able to induce any cowl shake, hood shake, or rattling of the side glass in the doors—all shortcomings common



quarter- or opera window, looks awkward with its top raised. And, unfortunately, we all know that convertibles—especially in northern climes—spend the bulk of their time with roofs raised.

The bracing and reinforcements installed to restiffen the coupe body after its roof is sawed off really don't make any appreciable difference in the suspension or its performance, nor, I guess, should we expect them to. This again is unfortunate, because the standard LeBaron suspension is pretty flabby, based upon Detroit's unshakable belief that soft, relatively uncontrolled suspension movements are the quickest and cheapest way to impart a "feeling" of luxury. Europe knows better. For them, luxury is control. All those European cars that knock everybody's socks off feature more sophisticated damping and control than anyone in this country has yet been willing to build—the new Camaro and Firebird being the lone exceptions to this dreary tradition. Similarly, the LeBaron's steering leaves much to be desired. In this single area it repeats the cardinal sin of every one of its land-yacht predecessors. Chrysler's old recirculating-ball steering gear always imparted a Novocain-numb non-feeling at the steering-wheel rim, and Chrysler's engineers have managed to transfer that numbness intact to the K-car's rack-and-pinion. Too bad. Here were we in an otherwise delightful American car, pleased as punch at the pleasure it gave us, yet vaguely annoyed at its unwillingness to stay on course without constant attention and the inability of its front wheels to stay stuck to the pavement on washboard sections and frost-damaged rough spots.

to state-of-the-art domestic convertibles of a few years ago.

The LeBaron convertible is quite a handsome car when its top is down, with a silhouette that is at first glance reminiscent of the Mercedes-Benz 380SL. It was decided to sacrifice rear seats rather than trunk space in providing top storage, and this helps the car's top-down appearance. Unfortunately, its appearance is less successful with the top up. In consideration of the fact that there's no back seat, Chrysler's designers simply did away with the coupe's opera window and left the sail panel plain, which creates a sort of Conestoga-wagon effect. We're told that subcontractor Cars & Concepts argued for a rear quarter-window of some kind, but lost. We're with them. The car, *sans*

With those three complaints—the top's appearance, the steering's numbness, and the suspension's softness—we rest our case for the Chrysler LeBaron convertible and its Dodge 400 counterpart. It's a damned nice car and a valuable addition to the country's automotive portfolio. We'd certainly recommend it with the upscale Medallion interior and exterior trim—the best part of which is the very handsome and comfortable Mark Cross leather interior—and the optional Mitsubishi 2.6-liter Silent Shaft engine. Mitsubishi's four pulls better than Chrysler's smaller 2.2-liter unit; that's all there is to it. There's also a heavy-duty suspension option available, consisting of firmer springs, tauter shock valving, and a fatter front anti-sway bar. We saw one prototype

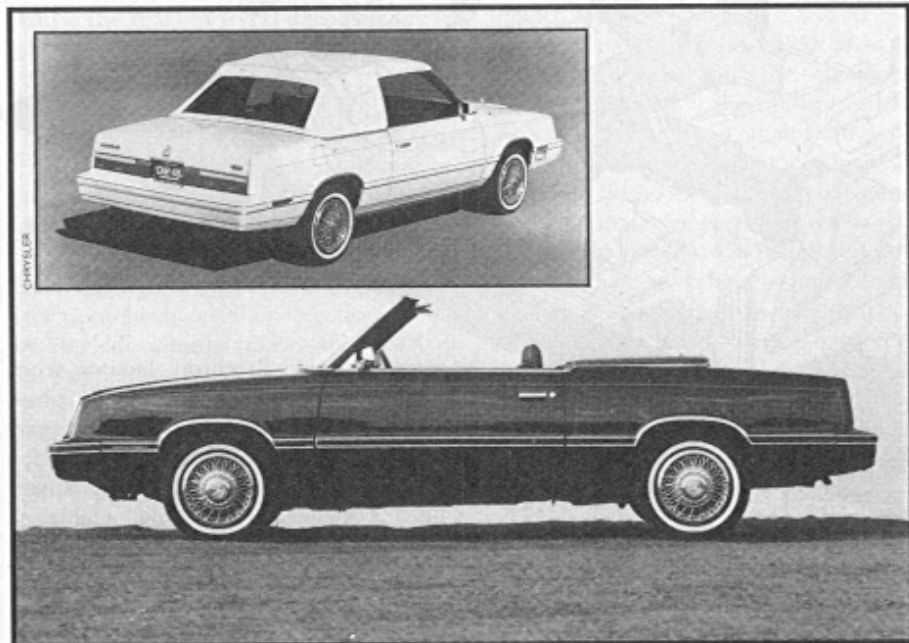
LeBARON

equipped with a good-looking cast-alloy wheel and another equipped with a set of ghastly simulated wire-wheel covers. If you march down to your Chrysler-Plymouth dealer's, cash in hand, for God's sake don't let them sell you the fake wire wheels.

Our brief experience with the LeBaron convertible was nearly perfect. The day was sunny and cool, around 40 degrees Fahrenheit, and we enjoyed a leisurely picnic on the otherwise empty Chrysler Proving Grounds. Driving over the facility's many types of roads and

tracks, usually at about 65 or 70, most of the time with the top and side windows down, we did exactly what one ought to do with a convertible. I wore a lined topcoat and a turtle-neck sweater, and the engineer who accompanied me most of the time wore a ski jacket. The heater was on and we were never uncomfortable, never hammered by the wind. This car makes us optimistic about Chrysler's future to almost exactly the degree that the clumsy, obsolete Imperial made us doubt that it had one.

—David E. Davis, Jr.



Vehicle type: front-engine, front-wheel-drive, 2-passenger, 2-door convertible

Price as tested: \$13,900

Options on test car: none

Sound system: AM/FM-stereo radio, 4 speakers

ENGINE

Type 4-in-line, iron block and aluminum head
 Bore x stroke 3.59 x 3.86 in, 91.1 x 98.0mm
 Displacement 156 cu in, 2555cc
 Compression ratio 8.2:1
 Carburetion 1x2-bbl Mikuni
 Emissions controls 3-way catalytic converter, feedback fuel-air-ratio control, EGR, auxiliary air pump
 Valve gear belt-driven single overhead cam
 Power (SAE net) 92 bhp @ 4500 rpm
 Torque (SAE net) 131 lbs-ft @ 2500 rpm
 Redline 5000 rpm

DRIVETRAIN

Transmission 3-speed automatic
 Final-drive ratio 2.78:1

Gear	Ratio	Mph/1000 rpm	Speed in gears
I	2.69	9.3	47 mph (5000 rpm)
II	1.55	16.1	72 mph (4500 rpm)
III	1.00	25.0	95 mph (3800 rpm)

DIMENSIONS AND CAPACITIES

Wheelbase 99.9 in
 Track, F/R 57.6/57.0 in
 Length 179.7 in
 Width 68.5 in
 Height 54.1 in
 Ground clearance 4.6 in
 Curb weight 2700 lbs
 Weight distribution, F/R 66.4/33.6%
 Fuel capacity 13.0 gal
 Oil capacity 4.3 qt

Water capacity 8.7 qt

CHASSIS/BODY

Type unit construction
 Body material welded steel stampings with pop-riveted and adhesive-bonded reinforcement panels

INTERIOR

SAE volume, front seat 53 cu ft
 trunk space 13 cu ft
 Front seats bucket
 Recliner type ratchet
 General comfort poor fair **good** excellent
 Fore-and-aft support poor fair **good** excellent
 Lateral support poor **fair** good excellent

SUSPENSION

F: ind, MacPherson strut, coil springs, anti-sway bar
 R: rigid axle integral with two trailing arms and an anti-sway bar, Panhard rod, coil springs

STEERING

Type rack-and-pinion, power-assisted
 Turns lock-to-lock 3.2
 Turning circle curb-to-curb 34.6 ft

BRAKES

F: 9.3 x 0.9-in vented disc
 R: 7.9 x 1.2-in cast-iron drum
 Power assist vacuum

WHEELS AND TIRES

Wheel size 5.5 x 14 in
 Wheel type stamped steel
 Tire make and size Goodyear Arriva, P185/70R-14
 Test inflation pressures, F/R 26/26 psi

FUEL ECONOMY

EPA city driving 23 mpg
 EPA highway driving 31 mpg
 EPA combined driving 26 mpg

FREE

CATALOG!

Before you buy a car stereo, portable stereo, personal computer, home stereo, telephone, or telephone answering device, you need enough accurate information to make an intelligent buying decision.

Get *all* the information you need by reading the *CRUTCHFIELD Catalog*. Easy to read articles and in-depth product comparison charts make it simple for you to buy sophisticated electronic equipment at low discount prices!

For the CAR AND DRIVER Car Stereo Connoisseur:
The SONY XR-70



Check these features!

- Electronic scan tuning
- Digital display
- Electronic pushbuttons
- Automatic music search
- Dolby noise reduction
- CrO₂ and Metal Select
- Separate bass and treble
- Tape S/N 66dB

Call NOW for more information and your 116 page FREE catalog!

800-446-1640

In Virginia call 800-552-3961
 or use coupon below

- Send me your FREE catalog by Third Class Mail
- Rush me your FREE catalog! I'm enclosing \$1 for First Class Mail

Name _____

Address _____

City _____

State _____

Zip _____

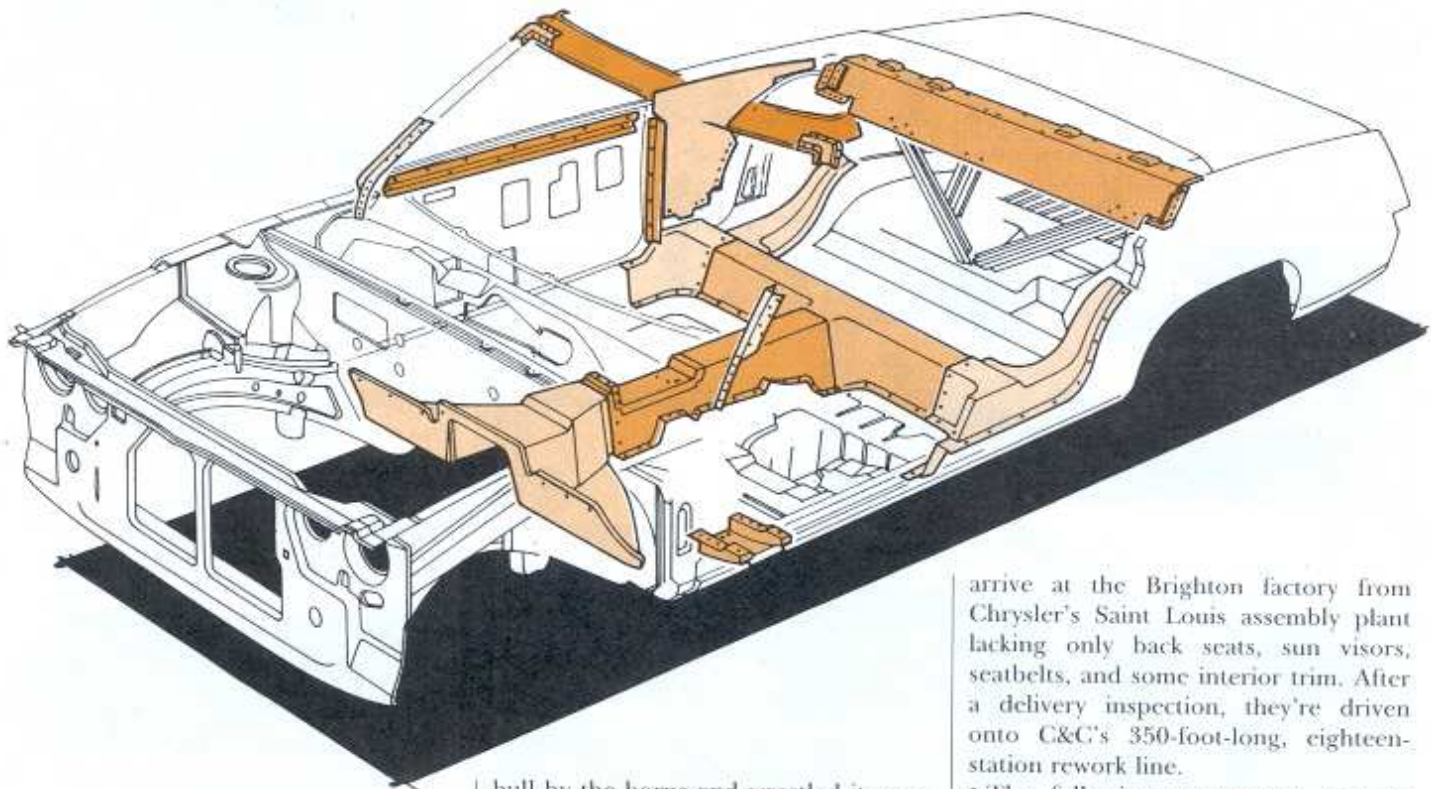
CRUTCHFIELD

1 Crutchfield Park, Charlottesville, VA 22906
 Department C

Sheetmetal Surgery

BY DON SHERMAN

Two-door sedans roll in one door, convertibles out the other. Here's what happens in the operating ward.



• The beauty of the Chrysler convertible is that it flies in the face of the old not-invented-here syndrome. For decades, Detroit has been roundly (and rightfully) criticized for ignoring plenty of great ideas just because they didn't happen to be in-house inspirations. But right here, in 1982, our own at-the-brink Chrysler Corporation saw beauty in somebody else's brainstorm and snapped it up. As a result, spring will bring us the first factory-backed American convertible in over six years.

In this case, the inspiration came from a small but growing firm (400 employees) called Cars & Concepts. This Brighton, Michigan, specialty builder has enjoyed a fruitful relationship with Detroit over the past six years, subcontracting for work that isn't manageable on regular assembly lines: T-tops, wheel flares, fake convertible tops, and various stripe-and-spoiler packages.

Although the Chrysler convertible job is Cars & Concepts' most ambitious undertaking to date, it is in every way a model program for a specialty builder, says Dave Draper, the firm's president. What he means is that C&C took the

bull by the horns and wrestled its convertible idea all the way through Chrysler's hierarchy and into production. The initial proposal consisted of a simple illustration submitted to Chrysler's product-planning staff nearly two years ago. The two top guns at Chrysler, Lee Iacocca and Hal Sperlich, both loved the idea and sent it out to several aftermarket firms for quotations. According to Draper, C&C won the job because it bounced back with three main strengths: a competitive price; a full-service package of engineering, manufacturing, and after-sale support; and, most important of all, the right concept of how to build convertibles for the Eighties.

Simply put, that concept involves sheetmetal surgery: sawing the roofs off shiny new Chrysler LeBaron and Dodge 400 two-door sedans. Of course, there's a lot more to building a convertible than wielding a hacksaw. To illustrate the complexity that's involved, we'd like to guide you through the Cars & Concepts assembly process right here in the comfort of your own car magazine. Here's how it's done, step-by-step:

• Chrysler LeBarons and Dodge 400s

arrive at the Brighton factory from Chrysler's Saint Louis assembly plant lacking only back seats, sun visors, seatbelts, and some interior trim. After a delivery inspection, they're driven onto C&C's 350-foot-long, eighteen-station rework line.

• The following components are removed and attached to an overhead conveyor: deck lid, door trim, windshield moldings, windshield wipers, seats, and the top of the instrument panel. The rear-view mirrors and the windshield are removed (the latter is merely taped in place at the Saint Louis plant) and shipped back to Chrysler for reuse.

• The gearshift-mechanism mounting bracket is cut out of the center console.

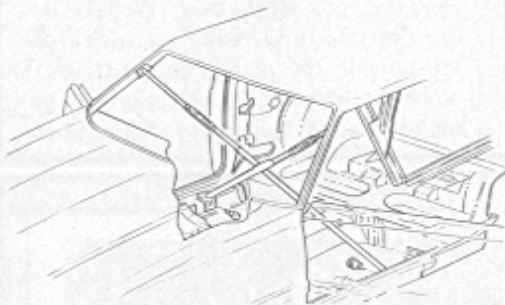
• Two under-floor reinforcements are added to create torque boxes between the forward longitudinal members and the rocker panels.

• Doubler plates are pop-riveted in place along both left and right A-pillars (windshield posts) to make them stiffer after the roof is removed. This step is typical of nearly all the added reinforcements in that no welding is involved, so repainting is unnecessary; new parts are instead bonded to the car with rivets and a special urethane adhesive that sets within 72 hours. Wherever cuts are made, the raw edges are coated with an anticorrosion sealer and then hidden under new trim panels.

• The first panel of a five-part floorpan-reinforcement assembly is pop-riveted

inside the car. This design forms not just a boxed-in backbone running down the center of the car, but a whole skeleton, with a pair of arms that splay out from the backbone toward the front and a pair of legs that mate with the existing structure at the back. The "pelvis" of this new skeleton actually comes with the car from Saint Louis, already spot-welded along its rearmost edge (because of the fuel tank's proximity). Rivets are added along the front edge of this panel.

- The legs of the skeleton are installed to tie the rear transverse reinforcement to the K-car's original under-floor longitudinal structure.
- The arms of the skeleton are riveted down as a one-piece panel that sweeps across the forward floor and up the toeboard areas.
- The last of the floorpan reinforcements is added: a new stamping that effectively makes the K-car's original center tunnel into a tall box-section.
- The side-window frames are sawed off at the beltline.
- The forward three inches of the package-shelf panel is sawed off. A new shelf is riveted between what's left of the old one and the existing rear-seatback braces.
- Two temporary braces are installed

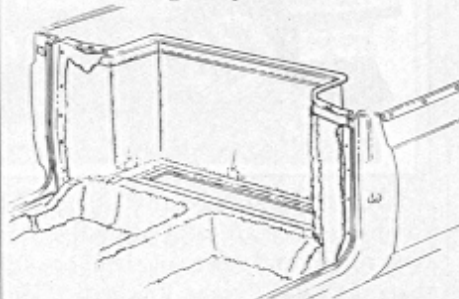


diagonally between the A-pillars and the rocker panels.

- Both A-pillars are sawed off approximately six inches from the top of the roof.
- A jig is laid against the body in the area of the B- and C-pillars to help scribe a cut line. Inner and outer panels are then sawed along this horizontal mark to free the entire roof assembly from the lower body.
- A new "wet" inner quarter-panel is installed. ("Wet" means there are provisions for channeling rainwater through this area.)
- A three-piece windshield-header assembly is welded to the A-pillar stubs. (This is the only welding done on the

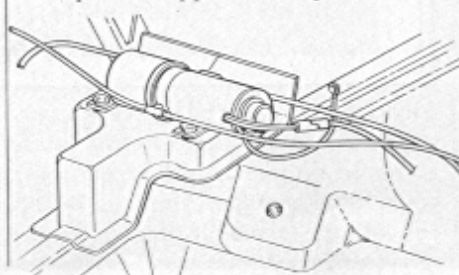
LeBarons and 400s at Cars & Concepts.)

- A reinforcement member is riveted inside the doorjamb on each side of the car. Water-drainage troughs are also added in this area.
- The door glass is removed and returned to Chrysler for recycling. A stiffener rail is added to the top of each inner door panel to help the body structure absorb longitudinal loads in the event of a forward impact. Additional reinforcements are riveted in place between the door hinges and the side-impact beams.
- New door glass is installed with upper-limit stops that push the top edge of the glass inboard at the full-up position to produce a tight fit against the roof and A-pillar seals. Door wedges are added on both sides—one on each door panel, a mate in each doorjamb—for better door retention in the closed position. "Blow-out" tabs are added to the A-pillar seal retainers to help grip the door glass at its top forward corner.
- A new fiberglass panel is installed in



the old rear-seat location. (An inner liner, two radio speakers, and upholstery trim are added later.)

- Omni 024 door mirrors are installed with new mounting brackets.
- Guide-pin blocks (to locate the forward edge of the soft top) are attached to the windshield header. The new windshield (shorter by two inches) is installed in the reshaped opening.
- Outside A-pillar moldings are added. New window seals are clipped in place and interior A-pillar trim is attached.
- The original shift-lever assembly is reinstalled on the new structural console.
- A bracket is riveted to the rear floorpan to support the top's electrohy-



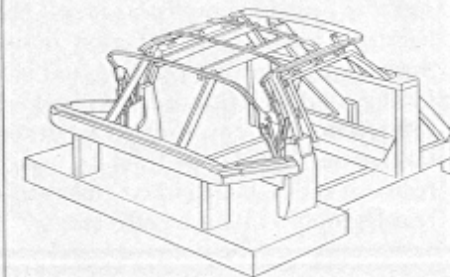
draulic motor. The motor (with electrical wiring and hydraulic plumbing) is then bolted to its mounting bracket.

- The original interior door-trim panels are reinstalled.
- Sound-deadening material is glued to the floorpan. New carpeting, molded to



cover the structural skeleton, is dropped in place, and the last interior trim panels are installed.

- A pair of struts are added to strengthen the shoulder-belt mounting areas, and then new lap and shoulder belts are bolted in place.
- A new console with a built-up armrest is screwed down to the backbone structure.
- Convertible-top latches and new sun visors are added to the windshield header.
- The convertible-top assembly (built up off-line) is lowered in place, and



hinge mechanisms are bolted into the rear-quarter-area mounting brackets. Tack strips that grasp the convertible-top fabric are screwed down to surrounding bodywork. A pair of hydraulic rams are attached between their anchor points and the top hinge mechanism.

- Final exterior trim is added: a new sheetmetal panel between the rear edge of the convertible top and the deck lid (this is the only freshly painted component), a vinyl trim strip that hides a seam at the upper rear edge of the top, and snap-fastener moldings around the periphery of the top (these hold a tonneau cover in place).
- The car's original bucket seats are bolted to revised tracks that shift the seating positions slightly down and to the rear.
- A protective cover is taped in place over the new soft top and the finished convertible is prepared for shipment. •