

## CAR LIFE ROAD TEST



### ***Even a Dude Will Holler Eeeeeaaaayyhooo!***

**C**AR LIFE said "Howdy" to the Bronco as it came out of the chute at Ford's assembly spread in Pico Rivera, Calif. One look at this palomino's stocky metallic copper lower body and sturdy squared-off, cream-colored steel top and CL's test crewman, previously blasé about both quarter horses and off-the-road vehicles, immediately thought about acquiring an LBJ hat, saddle pants, high-heeled boots and a pair of Mexican spurs. Ford might well add these items in the Bronco option catalog—along with instructions for calling people "Podner," because the Bronco makes its driver feel that(a)way. It may be the

idea of 4-wheel drive and where it will take the hunter, fisherman, rockhound, camping buff or working cattleman, or perhaps it is the trail-ready name, shape and feel of this small vehicle—something awakens the latent Wild West in a driver's personality.

Once seat-belted (saddled) into the gray upholstered bucket driving seat, the Bronco-buster finds his mount not at all skittish, but a docile beast with low gearing and a mild 6-cyl. engine. A tour of Southern California freeways immediately demonstrated the low-g geared Bronco should best be given its head in back country. A comfortable highway cruise for this particular

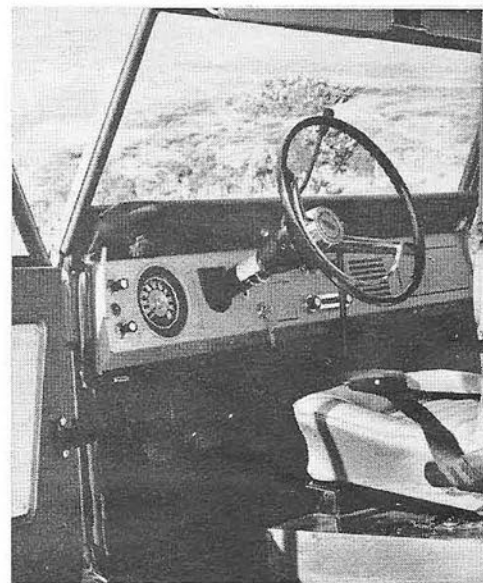
Bronco was 55 mph—slow by the majority of freeway standards. A speed of 60 mph created tight winding of the smallish engine and audible workings of transmission and transfer cases; 74 mph, absolutely the upper limit of Bronco progress, was difficult to maintain, wearying and probably battered the engine unnecessarily.

Thus it was that the Bronco was taken to an area more suitable for assessment of its capabilities—the mountainous spine of California, a land of steep canyons and draws, boulders, brush and pine, wet and splattered with patches of melting snow and ice along the sun-scarce



SCOTT MALCOLM PHOTOS

THIS PALOMINO was built to go anywhere, but, shod with conventional tires, a jaunt through the boondocks was a horse of a different color.



WIDE open spaces are clearly visible through ample glass.

# FORD BRONCO

northern sides of sharp hogback ridges.

From paved roadway the Bronco meandered easily along ever steeper switchbacks of U.S. Forest Service fire trails, through muddy creek beds and a bog or two. Slush, frozen mud, stiff sagebrush and broken rock were taken in stride with the Bronco's range of gearing.

With the 105-bhp/170-cu. in. Falcon Six, the Bronco tested by *CAR LIFE* was equipped with heavy-duty drive axles, the optional 4.57:1 axle ratio, a 3-speed main gearbox and the auxiliary gearing which provides for 2-wheel drive in high range and 4-wheel drive in high and low ranges. It also was fitted with optional locking front hubs which could be set in free-wheeling position for highway travel or secured for 4-wheel tractive operations.

The combinations offered by these gear sets seem much too low, even for off-the-road travel. Four-wheel drive, high range, was more than adequate for sustained climbing and traversing creek beds. Above the snow-line, 4-wheel drive, low range, was used to cope with packed and slushy snow. Even then, the main transmission was operated in top gear. It was only when a series of washtub-like hummocks was encountered that the shift was made to main first gear, 4-wheel drive, low range, more to ease

the progress of the Bronco and to prevent spinal fracture for the driver than because the Bronco couldn't handle the humps at higher speed.

Freeway and off-the-road driving completed, the Bronco was run through the standard *CL* road test procedures which are designed primarily for evaluation of automobiles built to operate on paved city streets and highways. Normal acceleration runs, Tapley pulls and other data, however, cannot provide an exact measure of the Bronco's multiple abilities.

For example, acceleration trials produced 0-70 mph times over 40 sec. and quarter-mile times in the 22-sec. bracket. Coasting tests simply showed that the Bronco, as anyone might have suspected, offers high wind resistance.

One test, however, did indicate that the Bronco could use a bit of black-smithing at the brakes. Panic stops—braking from top speed of 70 mph—produced severe nosedive and a very distinct pull to the right. In the second of two such runs, the Bronco displayed moderate fade and a spongy pedal. In uses for which the Bronco was manufactured, however, it is not likely the vehicle will be driven at 70 mph or often be required to decelerate violently from that speed. Low gearing, used with engine compression, provides excellent braking in downhill situations.

With the Bronco, tires are of prime consideration and it was the view of test drivers that the 4-wheeler would have better performed off-road tasks with tires other than those supplied—8.15-15 Goodyear Power Cushions with a conventional highway travel tread. These just weren't designed as horseshoes. Heavily ribbed, high traction tires would be much more appropriate and usable for wet and slippery situations.

The Bronco buyer who plans both highway and brush use for his vehicle might well consider ownership of two sets of tires and wheels—one set for one job, one set for the other, with quick changes made on the lubrication rack at a friendly local service station. The owner who mistakenly believes his Bronco will produce best off-road performance with street tires should carry at all times a No. 2 shovel—he'll need it, just as did a hapless test driver who attempted to negotiate a particularly marshy piece of ground. Four wheels spinning in soupy muck is a sorry sight.

**T**HE BRONCO is offered in three configurations—the roadster with cut-away doors, the pickup-like sports-utility model and the steel-topped wagon. Standard equipment includes a heater/defroster in sports-utility and wagon models, dash and visor padding, front seat belts, windows on wagon and utility models, a locking liftgate on the wagon, turn signals, and dual vacuum windshield wipers and washer. Also standard are an emergency flasher system, front floor mats and, according to Ford's Bronco brochure, a "standard convenience feature" which is "front floor above door sills."

From there on, as with cigarettes



FOUR-WHEEL drive and low-range gearing invite the driver to go where there are no roads, but if Ford were to offer optional overdrive and larger engines, the Bronco would become a more tractable beast for some civilized folk.

from a Bull Durham sack, Broncos are strictly "roll your own."

**B**ENCH, BUCKET and rear seats, a folding vinyl top and plastic doors for the roadster, a slate of heavy-duty items, wheels and tires, mirrors, and other trim features also are optional. Among Ford-supplied options are a power takeoff, citizens' band radio transceiver, snowplow, trailer hitch, winch, tachometer and tow hooks. Auxiliary devices available are a mower, power broom, posthole digger, sprayer and trencher. The Bronco can be supplied equipped as a diminutive fire truck or as an auto wrecker.

Though the Ford Bronco Bull Durham sack is stuffed with working-type options, it should be topped off with sports-type add-ons—or take-offs. If Ford Motor Co. should decide to make available a variety of engines, gearing and 2- as well as 4-wheel drive, both work and play capabilities of the Bronco will be greatly extended and an even larger number of potential buyers will consider rolling their own vehicles to suit individual work needs or tastes in recreation.

For those who don't want to dig postholes or plow snow, an overdrive of less gristly axle ratio would produce higher, more comfortable road speeds in lower, less engine-punishing rpm ranges and improve the Bronco's ability to travel from town to country.

In every other line, Ford offers optional engines. Why not Bronco? The choice of Ford's 200- or 240-cu. in. Sixes, or, better still, the 289-cu. in. V-8, would allow the Bronco buyer to suit his engine to the work anticipated. The engine selection also would put the Bronco in more direct competition with the 4-wheel-drive vehicles

powered by larger displacement engines.

Going in the other direction, a possibility is elimination of the 4-wheel-drive feature, retention of the 170-cu. in. Six and substitution of a rear axle ratio for around-town and out-of-town duties. Thus would be created a boxy little sports car at just under \$2000 in price. A 2-wheel-drive Bronco could handle with enthusiasm the pickup truck functions for an acre-or-so-sized suburban ranch, haul surfboards to the beach or skis to the mountains, tow small camp trailers and boats, and cover a great deal of unpaved back-country roadway.

But for the nonce, 4-wheel drive is there and among potential buyers are many who are not initiated to the oddities of 4wd. Many people become interested enough to actually go shopping for such a vehicle, and a number of these have come away from the shopping trip disenchanted, put off by such things as a harsh ride or the penchant of some 4-wheelers to wander about the road unduly. The International Harvester Scout, the Toyota Land Cruiser, the Kaiser Jeep and the Land Rover all have idiosyncrasies which those people accustomed to conventional automobiles find disturbing. Of the total group, the Bronco seems to possess fewest of these detractions which would prevent buyer transition from passenger car to 4-wheel-drive sports-utility vehicle.

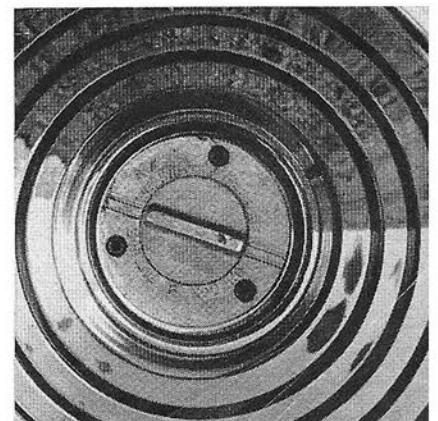
The Bronco's suspension, coil springs in front and longitudinal leaf springs at the rear, hydraulically damped, provides a ride that is stiff, to say the least, but not objectionably harsh. Steering is very positive and effortless, though the overall ratio of 24:1 is sometimes too slow for some

of the quick boulder-dodging maneuvers required of the off-the-road driver. Perhaps at a later date Ford will compromise between effortless and quick.

The Bronco's main gearbox is synchronized in all three speeds, which makes gear changing much less of a chore than with a top-two-only unit. The transfer case lever, floor mounted, is operated in a straight-line shift pattern, front to rear. Most forward is 4-wheel low range; succeeding rearward are neutral, 2-wheel high range and 4-wheel high range. Test crewmen experienced some slight difficulty in engaging the various transfer case positions. The procedure was to come to a dead stop, then wrestle the transfer case lever for the desired drive and range.

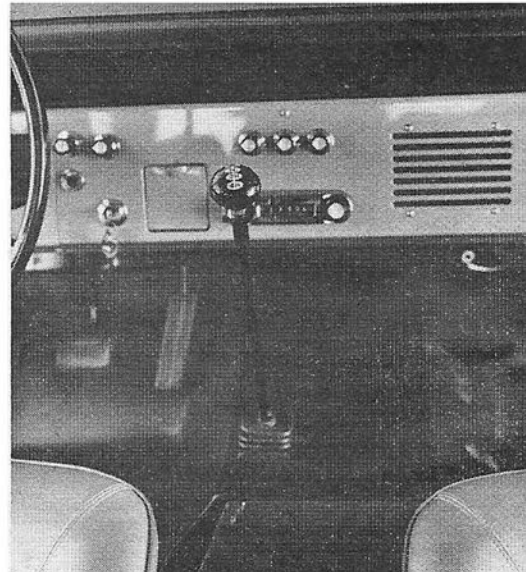
The Bronco's high seating position provides excellent visibility. The test car's bucket seats were comfortable, but gave too little lateral support for the more violent off-the-road maneuvering. Leg, shoulder and head room were more than sufficient for *CL*

HUBS lock for 4wd, unlock for 2-wheel paved roadway travel.





A WAGON was tested, but the Bronco may be ordered as a steel-topped pickup, or as an open sports vehicle with cloth top and plastic doors.



RANGERS will find high, low, 2- and 4-wheel drive handy.

# FORD BRONCO

drivers slight or hefty. The interior was Spartan—truck-like, as it should be for hard use.

In a combination of highway and back-country driving the 170-cu. in. Six delivered over 14 mpg—not exactly in the economy car range, but

## 1966 FORD BRONCO STATION WAGON



### DIMENSIONS

Wheelbase, in.	92.0
Track, f/r, in.	57/57
Overall length, in.	152.1
width	68.8
height	71.4
Front seat hip room, in.	2 x 21.5
shoulder room	56.0
head room	40.9
pedal-seatback, max.	47.8
Rear seat hip room, in.	37.1
shoulder room	56.6
leg room	n.a.
head room	41.03
Door opening width, in.	35.2
Floor to ground height, in.	22.5
Ground clearance, in.	6.6

### PRICES

List, fob factory	\$2551
Equipped as tested	3149
Options included: Flasher, driver & passenger bucket seats, rear seat, rear seat belts, tailgate spare tire mounting, oversize radiator, radio, paint stripe, right hand mirror.	

### CAPACITIES

No. of passengers	4
Luggage space, cu. ft.	n.a.
Fuel tank, gal.	14.5
Crankcase, qt.	3.5
Transmission/diff., pt.	3.5/4.5
Radiator coolant, qt.	12.7
Transfer case	2.75
Front axle diff.	3.5

### CHASSIS/SUSPENSION

Frame type: Ladder, box section.	
Front suspension type: Tubular beam axle, leading radius arms, track bar, coil springs, telescopic shock absorbers.	
ride rate at wheel, lb./in.	n.a.
anti-roll bar dia., in.	n.a.
Rear suspension type: Live axle with twin longitudinal leaf springs.	
ride rate at wheel, lb./in.	.950
Steering system: Worm and roller gear; single, parallel tie-rod.	
gear ratio	24.1
overall ratio	n.a.
turns, lock to lock	5.3
turning circle, ft. wall-wall	36.6
Curb weight, lb.	3277
Test weight	3670
Weight distribution, % f/r	50/50

### BRAKES

Type: Single-line hydraulic; duo-servo shoes in composite drums.	
Front drum, dia. x width, in.	11 x 2.0
Rear drum, dia. x width	11 x 1.75
total swept area, sq. in.	250
Power assist	none
line psi @ 100 lb. pedal	1100

### WHEELS/TIRES

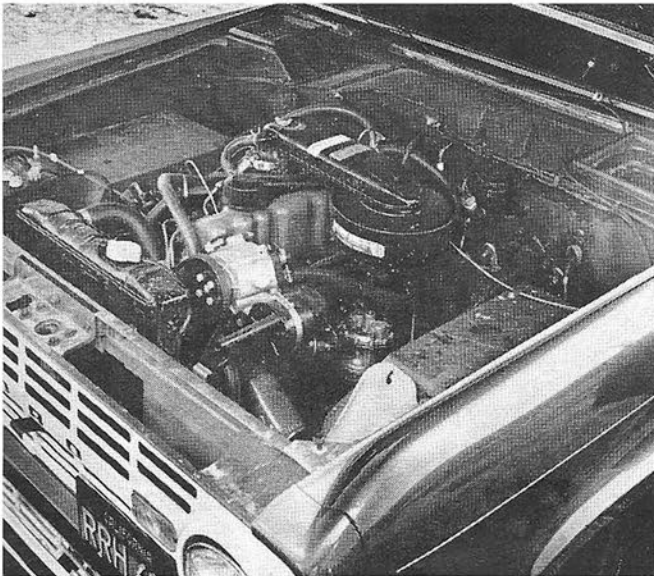
Wheel size	15 x 5.5K
optional size available	16 x 5.0K
bolt no./circle dia., in.	5/4.5
Tire make, brand: Goodyear Power Cushion	
size	8.15-15
recommended inflation, psi	30
capacity rating, total lb.	6000

### ENGINE

Type, no. cyl.	IL-6, ohv
Bore x stroke, in.	3.50 x 2.94
Displacement, cu. in.	170
Compression ratio	9.1
Rated hhp @ rpm	105 @ 4400
equivalent mph	73
Rated torque @ rpm	158 @ 2400
equivalent mph	40
Carburetion	1x1
barrel dia., pri./sec.	1.437
Valve operation: Hydraulic lifters, pushrods and rocker arms.	
valve dia., int./exh.	1.649/1.388
lift, int./exh.	0.348/0.348
timing, deg.	9-51, 42-18
duration, int./exh.	240
opening overlap	27
Exhaust system: Single, reverse flow muffler.	
pipe dia., exh./tail	1.75/1.50
Lubrication pump type	Gerotor
normal press. @ rpm	45-55 @ 2000
Elec rical supply	alternator
an amp rating	45
Battery, plates/amp. rating	66/55

### DRIVE-TRAIN

Clutch: .85 sq. in., semi-centrifugal.	
dia., in.	9.375
Transmission type: 3-speed, all synchromesh. Main case: 2-speed, non-synchro transfer case.	
Gear ratio 4th ( ) overall Low High	
3rd (1.00)	11.24 4.57
2nd (1.86)	20.91 8.50
1st (3.41)	38.33 15.58
transfer (2.46)	
synchromesh: Main only.	
Shift lever location: steering column	
Differential type: Hypoid, limited slip	
axle ratio (2)	4.57:1



**THE FALCON Six** handles off-the-road chores easily, but takes a high rpm beating in highway cruising.



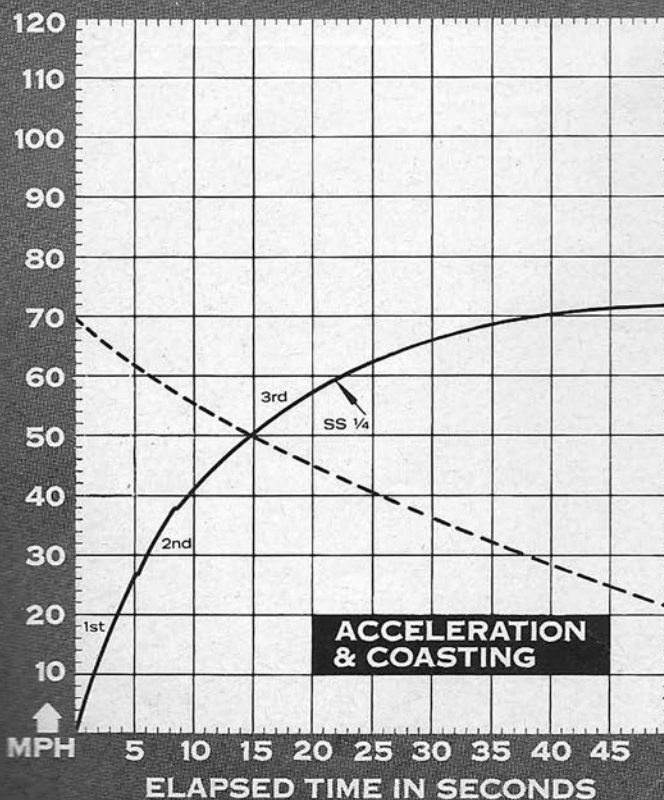
**COIL SPRINGS**, forged steel radius rods and a 1-in. dia. track bar locate the Bronco's front drive axle.

economical enough when a 4-wheel drive climb to a 5000-ft. mountain top is taken into consideration. The engine's 9.1:1 compression ratio required premium fuel, hence the 100-miles cost can be computed to be in the neighborhood of \$2.50.

The Bronco is fine for *hombres* who don't care for horses, but who want to hit the horse trails. The Bronco can tote grub from the general store or pack the young'uns off to the schoolhouse. In a pinch the Bronco can help with the spring plowing.

But best of all about the Bronco is that West of the Pecos rodeo aura that makes a driver shout, "Eeeee-aaaaayyhoo!" as he plows 4-wheel full tilt through a mountain stream or breaks airborne over a mountain top. ■

## CAR LIFE ROAD TEST



### CALCULATED DATA

Lb./bhp (test weight).....	34.9
Cu. ft./ton mile.....	178
Mph/1000 rpm (high gear).....	17.5
Engine revs./mile (60 mph).....	3620
Piston travel, ft./mile.....	1770
Car Life wear index.....	63.8
Frontal area, sq. ft.....	27.3
Box volume, cu. ft.....	433

### SPEEDOMETER ERROR

30 mph, actual.....	30.5
40 mph.....	40.6
50 mph.....	50.2
60 mph.....	60.5
70 mph.....	69.6
80 mph.....	
90 mph.....	

### MAINTENANCE INTERVALS

Oil change, engine, miles.....	6000
transmission/differentials.....	6000
transfer case.....	6000
Oil filter change.....	6000
Air cleaner service ml.....	6000
Chassis lubrication.....	6000
Wheelbearing re-packing.....	24,000
Universal joint service.....	36,000
Coolant change, mo.....	24

### TUNE-UP DATA

Spark plugs.....	Autolite BF-82
gap, in.....	0.032
Spark setting, deg./idle rpm.....	0/750
cent. max. adv., deg./rpm. 30/4700	
vac. max. adv., deg./in. Hg.....	24/19
Breaker gap, in.....	0.024
cam dwell angle.....	35/38
arm tension, oz.....	17/20
Tappet clearance, int./exh.....	0/0
Fuel pump pressure, psi.....	4
Radiator cap relief press., psi.....	12

### PERFORMANCE

Top speed (4200), mph.....	74
Shifts (rpm) @ mph	
3rd to 4th ( ).....	
2nd to 3rd (4200).....	38
1st to 2nd (4200).....	27

### ACCELERATION

0-30 mph, sec.....	5.8
0-40 mph.....	8.8
0-50 mph.....	14.9
0-60 mph.....	22.6
0-70 mph.....	40.5
0-80 mph.....	
0-90 mph.....	
0-100 mph.....	
Standing 1/4-mile, sec.....	21.9
speed at end, mph.....	59
Passing, 30-70 mph, sec.....	34.7

### BRAKING

(Maximum deceleration rate achieved from 70 mph)	
1st stop, ft./sec./sec.....	23
fade evident?.....	no
2nd stop, ft./sec./sec.....	23
fade evident?.....	moderate

### FUEL CONSUMPTION

Test conditions, mpg.....	14.15
Est. normal range, mpg.....	13-16
Cruising range, miles.....	188-232

### GRADABILITY

4th, % grade @ mph.....	
3rd.....	11 @ 40
2nd.....	19 @ 28
1st.....	26 @ 18

### DRAG FACTOR

Total drag @ 60 mph, lb.....	184
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