

2000 Jaguar R1 Formula 1

Jaguar Racing Limited, Bradbourne Drive, Tilbrook, Milton Keynes, England www.jaguar-racing.com

At a Glance

0-60 mph	2.7 sec
0-1/4 mile	9.4 sec
Top speed	220+ mph
Skidpad	4.30g+
Slalom	107.8 mph
Brake rating	excellent

SCALE: 1:10 (1/24th) CIVILIANS
DRAWING BY TIM BARKER



SPECIFICATIONS

Engine

Type	aluminum block & heads, normally aspirated
Valvetrain	dohc 4-valve/cyl, pneumatic closure
Displacement	183 cu in./2998 cc
Bore x stroke	na (likely extremely over-square)
Compression ratio	na (likely quite high: 15:1)
Horsepower (SAE)	800 bhp @ 17,500 rpm
Bhp/liter	267
Engine weight	214 lb
Dimensions	
L x W x H	22.4 x 19.9 x 19.4 in.
Redline	18,000 rpm
Fuel injection	elect. sequential port
Fuel	regulation-specific, 95<RON<102; 95<MON

Instrumentation

steering-wheel digital display, driver-selectable menu including engine rpm, gears, temperatures, pressures, etc.

Safety

6-point harness; headrest; 2-bolt seat removal; driver survival cell; electrical master switch; cockpit and engine compartment fire extinguishers; wheel-retention hardware; fuel cell; accident-data recorder; front, rear, side and rollover certification

Chassis & Body

Layout	mid engine/rear drive
Body/frame	carbon fiber/carbon-fiber monocoque; engine-gearbox, a fully stressed member
Brakes: Front	10.9-in. vented discs, 6-piston lithium-alloy calipers, carbon discs and pads
Rear	10.9-in. vented discs, 6-piston lithium-alloy calipers, carbon discs and pads
Assist type	none
Total swept area	est 400 sq in.
Swept area/ton	est 513 sq in.
Wheels	one-piece magnesium; 13 x 12 f, 13 x 13.4 r
Tires	Bridgestone Formula 1; regulated grooves 265/55R-13 f, 325/45R-13 r
Steering	rack & pinion, variable power-assisted
Overall ratio	11.0:1
Turns, lock to lock	1.22
Turning circle	31.3 ft
Suspension	Front: unequal-length carbon-fiber A-arms, pushrods, torsion bars, two-way adjustable tube shocks; steel anti-roll bar; front wheel travel: approx. 1.0 in.
Rear	multilink with upper carbon-fiber A-arms, steel lower control arms, pushrods, torsion bars, two-way adjustable tube shocks, steel anti-roll bar; rear wheel travel: approx. 3.1 in.

Drivetrain

Clutch	AP Racing pull-type triple-plate
Diameter	3.8 in.
Material	reinforced carbon
Control	electrohydraulic
Transmission	6-speed inline sequential-selection
Case	forged magnesium, integral with bellhousing
Internals	Xtrac, per Jaguar design
Control	electrohydraulic
Lubrication	Integral with engine
Differential	plate-type
Control	electrohydraulic
Driveshafts	hollow steel, integral tripod ends
Note	torque measurement by magnetoelectric sensing
Uprights	titanium front, steel rear
Note	angular-contact ceramic ball bearings
Rpm @ 60 mph in 6th	est 5350 (indy gearing)

General Data

Weight minimum	1323 lb
Race weight, full tank, w/driver	1560 lb
Weight dist (with driver), l/r, %	na (variable; est 42/58 to 45/55)
Wheelbase	na (est 118 in.)
Track, f/r	57.9 in./56.0 in.
Length	182.0 in.
Width	70.9 in.
Height	37.4 in. (excluding TV camera)
Ground clearance	na (variable; skid-block-regulated)

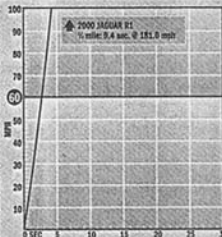
Accommodations

Seating capacity	1
Seat width	driver-dependent
Front seat leg room	driver-dependent
Seatback adjustment	0 deg
Seat travel	0 in.
Note	driver must be capable of undoing belts, removing wheel and exiting cockpit in 5 sec; replacing steering wheel in a total of 10 sec.

PERFORMANCE

Acceleration

Time to speed	Seconds
0-40 mph	1.8
0-60 mph	2.7
0-80 mph	3.5
0-100 mph	4.2
0-120 mph	4.8
0-140 mph	5.6
0-160 mph	6.2
Time to distance	
0-100 ft	2.6
0-500 ft	5.8
0-1320 ft (1/4 mi)	9.4 @ 181.0 mph



Braking

Minimum stopping distance	
From 60 mph	72 ft
From 80 mph	118 ft
Overall brake rating	excellent

Handling

Lateral accel, measured	2.30g (Indy Turn 1)
	2.70g (Indy Turn 3)
	2.80g (Indy Turn 13)
Lateral accel, maximum	4.30g
Balance	driver-dependent
Speed thru 700-ft slalom, calculated	107.8 mph
Lateral seat support	driver-specific

Exterior Noise

Idle in garage, adjacent to car	116 dBA
Idle in pit, adjacent to car	107 dBA
Leaving pit, adjacent to car	120 dBA
Passby, main straight, pit wall	120 dBA
In hospitality tent (ambient 68 dBA)	95 dBA

Fuel Economy

Race consumption	est 2.9-3.0 mpg
Range	est 117 miles
Fuel capacity	est 39.6 gal.