

# DATA AND SPECIFICATIONS

Porsche Types 356 B/1600, 1600 S, 1600 S-90

Engine Type .....	1600	1600 S	1600 S-90
<b>Engine</b>			
Type .....	air-cooled four-stroke gasoline engine, integral unit with clutch, transmission and rear axle, and fitted at rear of vehicle		
No. of cylinders .....	4		
Cylinder arrangement .....	in pairs, horizontally opposed (flat four)		
Bore, mm (in.) .....	82,5 (3.25)	82,5 (3.25)	82,5 (3.25)
Stroke, mm (in.) .....	74,0 (2.91)	74,0 (2.91)	74,0 (2.91)
Displacement, c. c. (cu. in.) .....	1582 (96.5)	1582 (96.5)	1582 (96.5)
Compression ratio .....	7,5 : 1	8,5 : 1	9 : 1
Total weight (dry), kg, (lbs) approx. ....	110 (242,5)	110 (242,5)	110 (242,5)
Crankcase .....	light alloy, three-part		
Cylinders .....	Separate cylinders		
Cylinder material .....	grey cast	light alloy	light alloy
Cylinder liner .....	—	hard-chromed	Ferral liner
Cylinder head .....	one to each pair of cylinders, light alloy cylinder head		
Valve seat .....	shrunk in place		
Valve guide .....	shrunk in place, special bronze		
Spark plug seat .....	Heli-Coil insert		
Crankshaft .....	forged		
Crankshaft bearings .....	4 plain bearings		
No. 1, 3, and 4 main bearings .....	one-piece bearing bushings, light alloy		
No. 2 main bearing .....	light alloy shells		
No. 1, 2, and 3 main bearings .....			
No. 4 main bearing .....	split, three-layer bearings one-piece, light-alloy bearing bushing, lead-coated		
Connecting rods .....	forged-steel H-section shank		
Big-end bearings .....	three-layer bearings		
Small-end bearings .....	pressed-in bronze bushings		
Pistons .....	light alloy		
Piston rings .....	3 compression rings, 1 oil scraper ring		
Valve timing .....	2 compression rings, 1 oil scraper ring		
Camshaft .....	3 compression rings, 1 oil scraper ring		
Camshaft drive .....	1 camshaft mounted underneath crankshaft, operation through push rods and rocker arms cast, 3 plain bearings directly in crankcase		
Valve arrangement .....	2 helical spur gears		
Valve springs .....	OHV		
Valve clearance, adjust while engine is cold	1 coil spring for each valve		
intake mm (in.)	0,10 (.00394)	0,15 (.0059)	0,15 (.0059)
exhaust mm (in.)	0,15 (.0059)	0,10 (.00394)	0,10 (.00394)
<b>Valve timing with 1mm (0.040 in.) valve clearance</b>			
Intake opens before TDC	7°	17°	17°
Intake closes after BDC	45°	53°	53°
Exhaust opens before BDC	44°	50°	50°
Exhaust closes after TDC	6°	14°	14°

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2 clearance lights for all countries other than USA fitted in headlights; for USA fitted in front direc- tion indicator lights .....Watt	4 each		
2 tail lights in combined flashing direction indicator and stop lights .....Watt	5 each		
2 flashing direction indicator lights, front Watt	18 each		
2 combined flashing direction indicator and stop lights .....Watt	18 each		
2 licence plate lights .....Watt	5 each		
1 back-up light .....Watt	25		
Interior lighting			
2 lights for Coupé .....Watt	10 each		
1 for Convertible/Hardtop .....Watt	10		
Tachometer illumination .....Watt	0,6		
High beam headlight pilot lamp .....Watt	0,6		
Direction indicator pilot lamp .....Watt	1,2		
Combination instrument illumination .Watt	1,2		
Generator indicator lamp .....Watt	1,2		
Oil pressure warning lamp .....Watt	1,2		
Speedometer illumination .....Watt	0,6		
<b>Transmission and Rear Axle</b>			
Type .....	Four-speed transmission and differential gear mounted in common housing		
Transmission .....	4 forward speeds with Porsche baulked synchromesh system		
Gear ratios 1st to 4th speeds see Trans- mission Diagram, section Reduction ratio of reverse gear .....	$i = 3,56$		
Gearchange mechanism .....	rod mechanism, ball and socket lever arranged in centre of car		
Axle drive .....	spiral bevel gears, bevel differential gear, swinging half axles		
Reduction ratio .....	$i = 4,428$		
<b>Chassis</b>			
Frame .....	welded pressed-steel box frame welded to body		
Front wheel suspension .....	independent suspension, 2 trailing arms		
Rear wheel suspension .....	swinging half axles, radius arms forming spring mountings		
Front wheel springing .....	2 transverse continuous square torsion bars laminated		
Rear wheel springing .....	1 transverse round torsion bar on either side		
Adjustment of rear radius arms (Inclination)	Coupé, Convertible/Hardtop 16 ° 30'		with compensating spring:
	Roadster 14 ° 30'		Coupé, Convertible/ Hardtop 15 ° 30'
			Roadster 13 ° 30'
Shock absorbers, front and rear .....	double-acting telescopic shock absorbers	double-acting adjustable telescopic shock absorbers	
Stabilizer .....	transverse anti-roll bar at front		
Steering .....	ZF single-peg steering with divided tie rod and hydraulic steering damper		

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Total reduction ratio .....	1 : 16 (average)			
Steering damper .....	double-acting hydraulic shock absorber			
Steering wheel revolutions from lock to lock .....	approx. 2,25			
Minimum turning circle dia., m (St.) .....	approx. 11 (36.1)			
Toe-in, front .....	+ 5' to + 25' (per wheel pressed approx. + 10'), steering gear on pressure point			
Toe-in, rear .....	0° ± 10'			
Camber, front .....	+ 40' ± 30'			
Camber, rear .....	+ 10' to + 1° 30'			
King pin inclination .....	4° 30'			
Caster .....	5° ± 30'			
Difference angle per side .....	3° 10' ± 20' inside wheel (curve) set to 20°			
Wheels .....	perforated steel disc			
Rims .....	4,5 J x 15 well-base			
Tires .....	5.60-15 Sport (upon request 165-15)	5.60-15 Sport (upon request 165-15)	165-15 braced tread tire	5.90-15 Super Sport (upon special request)
Tire pressures, front, atm (nominal values) (psi)	Normal driving (country road)	Normal driving (country road)	Normal driving (country road)	Normal driving (country road)
	1,3 (18.48)	1,3 (18.48)	1,6 (22.75)	1,2 (17.06)
	high-speed driving (Speedway)	high-speed driving (Speedway)	high-speed driving (Speedway)	high-speed driving (Speedway)
	1,5 (21.33)	1,5 (21.33)	1,8 (25.59)	1,4 (19.9)
Tire pressures, rear, atm (nominal values) (psi)	Normal driving (country road)	Normal driving (country road)	Normal driving (country road)	Normal driving (country road)
	1,6 (22.75)	1,6 (22.75)	1,8 (25.59)	1,5 (21.33)
	high-speed driving (Speedway)	high-speed driving (Speedway)	high-speed driving (Speedway)	high-speed driving (Speedway)
	1,8 (25.59)	1,8 (25.59)	2,0 (28.44)	1,7 (24.17)
Driving brake .....	Ate hydraulic brake, front-Duplex, rear Simplex			
Parking brake .....	mechanical, acting on both rear wheels			
Braking area, front, cm <sup>2</sup> (sq. in.) .....	390 (60.5)			
Braking area, rear, cm <sup>2</sup> (sq. in.) .....	390 (60.5)			
Lubrication points .....	individually lubricated			
<b>Body</b>				
Type .....	All-steel body welded to frame, sloping front hood, stepless rear with Coupé			
Doors .....	2 doors hinged to the front door pillars			
Width, mm (in.) .....	1090 (42,9)			
Opening angle .....	approx. 55°			
Windows .....	one piece, curved			
Windshield .....	fitted with crank-operated lowering mechanism; Coupé, Convertible/Hardtop with deflector panes			
Door windows .....	hinged, with locking device			
Quarter panes .....	one piece, curved			
Rear window .....	safety glass			
Glass .....	electrically operated, two parallel wiper arms			
Windshield wipers .....				
Hoods .....	hinged at rear, held open by catch engaging and disengaging automatically. Thief-proof, opened from inside car. Fitted with lock and safety catch.			
Front .....				

Engine Types.....	1600	1600 S	1600 S-90
Rear .....	Engine hood is hinged at front. Held open by catch engaging and disengaging automatically. Opened from inside car.		
Seats			
Number .....	2/2		
Front .....	2 adjustable individual seats, backs can be lowered for reclining		
Rear .....	two occasional seats. The back rest hinges forward to serve as luggage rack.		
Instrument panel .....	Speedometer with total mileage recorder and trip mileage recorder, illuminated Tachometer fitted with high beam indicator light and direction indicator pilot light, illuminated Combination instrument comprising remote-reading oil thermometer, fuel gauge, generator indicator light, and oil pressure warning light, illuminated Windshield wiper knob, ignition/starting switch, light, hand throttle knob, socket for inspection lamp, cigar lighter, ash tray, glove compartment with lock, grab handle Direction indicator and low beam headlight switch on steering column. Steering wheel with horn and button for headlight signaling		
Internal trimming and fittings			
Floor .....	covered with rubber mat		
Tunnel .....	front covered with rubber, rear with carpeting		
Front side panels .....	covered with carpeting		
Doors and side walls .....	padded		
Dome .....	fitted with plastic lining		
Heating .....	hotair heating with remote control, 2 defroster nozzles for the windshield and 2 outlets for hot air in the side members under the doors		
Sliding top			
Make .....	Golde		
Length of opening, mm (in.) ..	approx. 260 (10.23)		
Width of opening, mm (in.) ..	approx. 780 (30.7)		
Miscellaneous			
Bumpers .....	at front and rear, each with two overriders		
Spare wheel .....	in thief-proof location under the front hood		
Fuel tank .....	under the front hood		
Tools and Accessories .....	under the front hood		
<b>Dimensions and Weights</b>			
Wheelbase, mm (in.) .....	2100 (82.7)		
Track, front, mm (in.) .....	1306 (51.4)		
Track, rear, mm (in.) .....	1272 (50.1)		
Length, mm (in.) .....	4010 (157.7)		
Width, mm (in.) .....	1670 (65.7)		
Height (empty), mm (in.) .....	Coupé, Convertible 1330 (52.4); Hardtop 1315 (51.7); Roadster 1310 (51.5)		
Overhang, front, mm (in.) .....	865 (34.05)		
Overhang, rear, mm (in.) .....	1055 (41.5)		
Ground clearance, mm (in.) .....	150 (5.9)		
Bulk clearance, mm (in.) .....	140 (5.51)		
Weight, empty, acc. to DIN, ....kg (lbs.)	Coupé, Convertible/Hardtop 900 (1985); Roadster (1918)		

Engine Type .....	1600	1600 S	1600 S-90
Permissible total weight, .....kg (lbs.)	1250 (2760)		
Permissible axle load			
front .....kg (lbs.)	550 (1213)		
rear .....kg (lbs.)	700 (1544)		
<b>Capacities</b>			
Fuel tank .....ltr. (gals)	approx. 52 (13.8 US gals; 11.5 Imp. gals) 5 (1.33 US gals; 1.1 Imp. gals of which are reserve		
Crankcase ..... ltr.	approx. 4 (4.23 US quarts); with bypass oil filter		
Transmission and differential ..... ltr.	approx. 5 (5.28 US quarts)		
Steering gear ..... ltr.	approx. 3,5 (3.5 US quarts)		
Brake fluid container ..... ltr.	approx. 0,25 (0.264 US quarts)		
<b>Performance</b>			
Output .....SAE HP	70	88	102
DIN HP	60	75	90
at engine speed .....(rpm)	4500	5000	5500
Max. torque .....mkg (lbs/ft)	11,2 (81.0)	11,9 (86.0)	12,3 (89.0)
at engine speed .....U/min. (rpm)	2800	3700	4300
Mean piston speed at max. n. p. m/sec.			
(ft/sec) .....	11,1 (36.4)	12,3 (40.3)	13,6 (44.6)
Mean working pressure			
at max n. p. ....kg/cm <sup>2</sup> (psi)	7,6 (108.1)	8,5 (120.9)	9,3 (132.2)
Min. Fuel consumption .....g/PSH	240	245	220
at engine speed .....U/min (rpm)	3300	3700	3500
Max. speed .....km/h (mph)	160 (100)	175 (109)	180 (112)
Specific power output .....PS/ltr.	38	47,5	57
Power/weight ratio			
(in service conditions) kg/PS (lbs/hp)			
Coupé, Convertible/Hardtop .....	15 (27.5)	12 (21.8)	10 (18.8)
Roadster .....	14,5 (26.4)	11,6 (21.0)	9,7 (18.1)
Road speeds .....	see Transmission Diagram, section R		
<b>Fuel consumption</b>			
<b>Standard fuel consumption</b>			
(DIN 70030) ltr/100 km .....	7,6	8,2	8,5
mpg (US) .....	31.5	29.5	27.7
Fuel .....	86 octane	88 octane	92 octane