



Volvo Engines Specifications

**B4
B**

Description

- Used from 1947 to 1955 in the 444 Series
- 1.4 liters
- 4 cylinders in line
- Overhead valves
- 6 Volts electrical system
- Firing order 1-3-4-2 clockwise
- Oil capacity with filter:

General Specifications

| Engine | Year | CC | Fuel System | HP (SAE) | @RPM | LB-ft (SAE) | @RPM | CR |
|--------|-----------|-------|-------------|----------|------|-------------|------|----|
| B4b | 1947-1953 | 1.414 | Carter | 44 | | | | |
| B4b | 1954-1955 | 1.414 | Zenith | 44 | | | | |

Tune-Up Specifications

| Engine | Year | Idle RPM | Spark Plugs Type | Plug Gap (in.) | Dwell Angle (Deg) | Breaker Point Gap (in.) | Timing BTDC @ 1500 RPM | Valve Clearance Hot or Cold | Warm Cranking Compression (PSI) |
|--------|-----------|----------|------------------|----------------|-------------------|-------------------------|------------------------|-----------------------------|---------------------------------|
| B4b | 1947-1955 | | | | | | | | |

B14



Description

- Used from 1955 to 1957 in the 444 Sport and P1900
- 1.4 liters
- 4 cylinders in line
- Overhead valves
- B14A: dual SU H2 carburetors version
- 6 Volts electrical system
- Firing order 1-3-4-2 clockwise
- Oil capacity with filter: 3.75 liters (8 US pints)

General Specifications

| Engine | Year | CC | Fuel System | HP (SAE) | @RPM | LB-ft (SAE) | @RPM | CR |
|--------|-----------|-------|-------------|----------|------|-------------|------|-----|
| B14A | 1955-1957 | 1.414 | 2 x SU H2 | 70 | 5500 | 75.9 | 3000 | 7.8 |

Tune-Up Specifications

| Engine | Year | Idle RPM | Spark Plugs Type | Plug Gap (in.) | Dwell Angle (Deg) | Breaker Point Gap (in.) | Timing BTDC @ 1500 RPM | Valve Clearance Hot or Cold | Warm Cranking Compression (PSI) |
|--------|-------------|----------|------------------|----------------|-------------------|-------------------------|------------------------|-----------------------------|---------------------------------|
| B14A | 1955 - 1957 | 550 | Champion Y4A/J6 | 0.028 - 0.032 | 47 | 0.018-0.022 | 20 | 0.020 | 142-156 |

B16



Description

- Used from 1957 to 1961 in the 444, 544 and 120 Series
- 1.6 liters
- 4 cylinders in line
- Overhead valves

- B16A: single carburetor, low compression version
- B16D: single carburetor, high compression version
- B16B: dual SU H4 carburetors version
- 6 Volts electrical system
- Firing order 1-3-4-2 clockwise
- Oil capacity with filter: 3.5 liters (7.5 US pints)

General Specifications

| Engine | Year | CC | Fuel System | HP (SAE) | @RPM | LB-ft (SAE) | @RPM | CR |
|--------|-----------|------|-------------|----------|------|-------------|------|-----|
| B16A | 1957-1960 | 1582 | Zenith 34VN | 66 | 4500 | 85.4 | 2500 | 7.4 |
| B16D | 1957-1960 | 1582 | Zenith 34VN | 72 | 5500 | 86.1 | 2600 | 8.2 |
| B16B | 1957-1961 | 1582 | 2 x SU H4 | 85 | 5500 | 86.8 | 3500 | 8.2 |

Tune-Up Specifications

| Engine | Year | Idle RPM | Spark Plugs Type | Plug Gap (in.) | Dwell Angle (Deg) | Breaker Point Gap (in.) | Timing BTDC @ 1500 RPM | Valve Clearance Hot or Cold | Warm Cranking Compression (PSI) |
|--------|-----------|----------|------------------|----------------|-------------------|-------------------------|------------------------|-------------------------------|---------------------------------|
| B16A | 1956-1960 | 500 | Bosch W175T3 | 0.028-0.032 | 47-53 | 0.016-0.020 | 21 | 0.016 Intake 0.018 Exhaust | 135-150 |
| B16D | 1957-1961 | 500 | Bosch W225T3 | 0.028-0.032 | 47-53 | 0.016-0.020 | 21 | 0.020 | 142-156 |
| B16B | 1957-1961 | 550 | Bosch W225T3 | 0.028-0.032 | 47-53 | 0.016-0.020 | 21 | 0.020 | 142-156 |

B18



Description

- Used from 1961 to 1968 in the 544, 120, 1800 and 140 Series
- Different design from its B16 predecessor, but very similar to the later B20 and most parts are interchangeable.

- 1.8 liters
- 4 cylinders in line
- Overhead valves
- B18A: single carburetor version
- B18D: dual SU HS6 carburetors, low compression version
- B18B: dual SU HS6 carburetors, high compression version
- 12 Volts electrical system with generator
- Firing order 1-3-4-2 Anti-clockwise
- Oil capacity with filter: 3.75 liters (8 US pints)

General Specifications

| Engine | Year | CC | Fuel System | HP (SAE) | @RPM | LB-ft (SAE) | @RPM | CR |
|--------|-----------|------|--------------|----------|------|-------------|------|-----|
| B18A | 1962-1964 | 1778 | Zenith 36VN | 75 | 4500 | 101 | 2800 | 8.5 |
| | 1965-1968 | 1778 | ZS 175-CD2-S | 85 | 5000 | 108 | 3000 | 8.7 |
| B18B | 1961-1963 | 1778 | 2 x SU HS6 | 100 | 5500 | 108 | 4000 | 9.5 |
| | 1964-1966 | 1778 | 2 x SU HS6 | 108 | 5800 | 110 | 4000 | 10 |
| | 1967-1968 | 1778 | 2 x SU HS6 | 115 | 6000 | 112 | 4000 | 10 |
| B18D | 1961-1963 | 1778 | 2 x SU HS6 | 90 | 5000 | 105 | 3500 | 8.5 |
| | 1964-1966 | 1778 | 2 x SU HS6 | 95 | 5400 | 107 | 3800 | 8.7 |
| | 1967 | 1778 | 2 x SU HS6 | 100 | 5700 | 108 | 3500 | 8.7 |

Tune-Up Specifications

| Engine | Year | Idle RPM | Spark Plugs Type | Plug Gap (in.) | Dwell Angle (Deg) | Breaker Point Gap (in.) | Timing BTDC @ 1500 RPM | Valve Clearance Hot or Cold | Warm Cranking Compression (PSI) |
|--------|-------------|----------|------------------|----------------|-------------------|-------------------------|------------------------|-----------------------------|---------------------------------|
| B18A | 1962 - 1964 | 500-700 | Bosch W175T1 | 0.028 - 0.032 | 59-65 | 0.016-0.020 | 21-23 | 0.016-0.018 | 156-185 |
| | 1965 - 1968 | 600-700 | Bosch W175T1 | 0.028 - 0.032 | 59-65 | 0.016-0.020 | 21-23 | 0.016-0.018 | 156-185 |
| B18B | 1961 - 1963 | 600-800 | Bosch W200T35 | 0.028 - 0.032 | 59-65 | 0.016-0.020 | 17-19 | 0.020-0.022 | 170-200 |
| | 1964 - 1966 | 600-800 | Bosch W200T35 | 0.028 - 0.032 | 59-65 | 0.016-0.020 | 17-19 | 0.020-0.022 | 170-200 |
| | 1967 - 1968 | 600-800 | Bosch W200T35 | 0.028 - 0.032 | 59-65 | 0.016-0.020 | 17-19 | 0.020-0.022 | 170-200 |
| B18D | 1961 | 500- | Bosch | 0.028 | 59-65 | 0.016- | 22-24 | 0.016- | 156-185 |

| | | | | | | | | | |
|---|------|------|--------|-------|-------|--------|-------|--------|---------|
| - | 1963 | 700 | W175T1 | - | | 0.020 | | 0.018 | |
| | 1964 | 500- | Bosch | 0.028 | 59-65 | 0.016- | 17-19 | 0.016- | 156-185 |
| | 1966 | 700 | W175T1 | - | | | | | |
| | 1967 | 500- | Bosch | 0.028 | 59-65 | 0.016- | 17-19 | 0.016- | 156-185 |
| | | 700 | W175T1 | - | | 0.020 | | 0.018 | |
| | | | | 0.032 | | | | | |

B20



Volvo 1800E B20E engine shown

Description

- Used from 1969 to 1975 in the 120, 1800, 140 and 240 Series
- Same design as its B18 predecessor with a bigger bore, most parts are interchangeable
- 2.0 liters
- 4 cylinders in line
- Overhead valves
- B20A: single carburetor version
- B20B: dual carburetors version
- B20E: fuel injection, high compression version
- B20F: fuel injection, low compression version sold in the USA. From 1972 all cars sold in the USA had this engine.
- 12 Volts electrical system with alternator
- Firing order 1-3-4-2 Anti-clockwise
- Oil capacity with filter: 3.75 liters (8 US pints)

General Specifications

| Engine | Year | CC | Fuel System | HP (SAE) | @RPM | LB-ft (SAE) | @RPM | CR |
|--------|------|------|---------------|----------|------|-------------|------|-----|
| B20A | 1969 | 1986 | ZS 175-CD2-SE | 90 | 4800 | 119 | 3000 | 8.7 |
| | 1970 | 1986 | ZS 175-CD2-SE | 90 | 4800 | 119 | 3000 | 8.7 |
| | 1971 | 1986 | ZS 175-CD2-SE | 90 | 4800 | 119 | 3000 | 8.7 |
| B20B | 1969 | 1986 | 2x175-CD2-SE | 118 | 5800 | 123 | 3500 | 9.5 |
| | 1970 | 1986 | 2x175-CD2-SE | 118 | 5800 | 123 | 3500 | 9.5 |

| | | | | | | | | |
|------|------|------|-----------------------------|-----------------|------|------------------|------|------|
| | 1971 | 1986 | 2 x SU HIF6 2x175-CD2-SE | 118 | 5800 | 123 | 3500 | 9.3 |
| | 1972 | 1986 | 2 x SU HIF6 | 97 | 5800 | 103 | 3500 | 8.7 |
| | 1973 | 1986 | 2 x SU HIF6 | 97 | 5800 | 103 | 3500 | 8.7 |
| | 1974 | 1986 | 2 x SU HIF6 | 97 | 5800 | 103 | 3500 | 8.7 |
| B20E | 1970 | 1986 | Bosch D jet | 130 | 6000 | 130 | 3500 | 10.5 |
| | 1971 | 1986 | Bosch D jet | 130 | 6000 | 130 | 3500 | 10.5 |
| | 1972 | 1986 | Bosch D jet | 130 | 6000 | 130 | 3500 | 10.5 |
| | 1973 | 1986 | Bosch D jet | 130 | 6000 | 130 | 3500 | 10.5 |
| B20F | 1972 | 1986 | Bosch D jet | 107 | 6000 | 113 | 3500 | 8.7 |
| | 1973 | 1986 | Bosch D jet | 112 | 6000 | 115 | 3500 | 8.7 |
| | 1974 | 1986 | Bosch K jet | 109 | 5500 | 115 | 2500 | 8.7 |
| | 1975 | 1986 | Bosch K jet | 98 94 w/ cat | 6000 | 110 105 w/cat | 3500 | 8.7 |

Tune-Up Specifications

| Engine | Year | Idle RPM | Spark Plugs Type | Plug Gap (in.) | Dwell Angle (Deg) | Breaker Point Gap (in.) | Timing BTDC | Valve Clearance Hot or Cold (in.) | Warm Cranking Compression (PSI) |
|--------|------|----------|------------------|---------------------|-------------------|-------------------------|---------------------|-----------------------------------|---------------------------------|
| B20A | 1971 | 700 | Bosch W175T35 | 0.028 - 0.032 | 59-65 | 0.016- 0.020 | 22 @ 1500 RPM | 0.016- 0.018 | 156-185 |
| B20B | 1971 | 800 | Bosch W200T35 | 0.028 - 0.032 | 59-65 | 0.016- 0.020 | 10 @ 700 RPM | 0.020- 0.022 | 170-200 |
| B20E | 1971 | 900 | Bosch W225T35 | 0.028 - 0.032 | 59-65 | 0.016- 0.020 | 10 @ 750 RPM | 0.016- 0.018 | 170-200 |
| B20F | 1973 | 900 | Bosch W225T35 | 0.028 - 0.032 | 59-65 | 0.016- 0.020 | 10 @ 700 RPM | 0.016- 0.018 | 156-185 |
| | 1975 | 900 | Bosch W200T35 | 0.028 - 0.032 | | | 5 @ 700 RPM | 0.016- 0.018 | 156-185 |

B30 Description

- Used from 1969 to 1975 in the 164 Series
- Same basic design as the B18 and B20 with 2 more pistons, many parts are interchangeable.
- 3.0 liters
- 6 cylinders in line
- Overhead valves
- B30A: dual carburetor version

- B30E: fuel injection high compression version
- B30F: fuel injection low compression version for USA market
- 12 Volts electrical system
- Firing order 1-5-3-6-2-4 clockwise
- Oil capacity with filter: 6 liters (12.6 US pints)

General Specifications

| Engine | Year | CC | Fuel System | HP (SAE) | @RPM | LB-ft (SAE) | @RPM | CR |
|----------|------|------|--------------|----------|------|-------------|------|-----|
| B30A | 1969 | 2982 | 2x175-CD2-SE | 145 | 5500 | 163 | 3000 | 9.3 |
| | 1970 | 2982 | 2x175-CD2-SE | 145 | 5500 | 163 | 3000 | 9.3 |
| | 1971 | 2982 | 2x175-CD2-SE | 145 | 5500 | 163 | 3000 | 9.3 |
| | 1972 | 2982 | 2x175-CD2-SE | 145 | 5000 | 163 | 3000 | 9.3 |
| B30A USA | 1972 | 2982 | 2x175-CD2-SE | 120 | 5000 | 142 | 3000 | 8.7 |
| B30E | 1972 | 2982 | Bosch D jet | 175 | 5800 | 178 | 2500 | 10 |
| | 1973 | 2982 | Bosch D jet | 160 | 5500 | 170 | 2500 | 10 |
| | 1974 | 2982 | Bosch D jet | 160 | 5500 | 170 | 2500 | 10 |
| | 1975 | 2982 | Bosch D jet | 160 | 5500 | 170 | 2500 | 10 |
| B30F | 1973 | 2982 | Bosch D jet | 138 | 5500 | 154 | 3500 | 8.7 |
| | 1974 | 2982 | Bosch D jet | 145 | 5500 | 160 | 2500 | 8.7 |
| | 1975 | 2982 | Bosch D jet | 130 | 5500 | 150 | 3500 | 8.7 |

Tune-Up Specifications

| Engine | Year | Idle RPM | Spark Plugs Type | Plug Gap (in.) | Dwell Angle (Deg) | Breaker Point Gap (in.) | Timing BTDC @ RPM | Valve Clearance Cold | Warm Cranking Compression (PSI) |
|----------|------|----------|------------------|----------------|-------------------|-------------------------|-------------------|----------------------|---------------------------------|
| B30A | 1969 | 900 | Bosch W200T35 | 0.028 | 40 | 0.01 | 10@700 | 0.020-0.022 | 142-170 |
| | - | | | | | | | | |
| B30A USA | 1969 | 900 | Bosch W200T35 | 0.028 | 42 | 0.01 | 10@700 | 0.020-0.022 | 128-156 |
| | - | | | | | | | | |
| B30E | 1972 | 900 | Bosch W200T35 | 0.028 | 42 | 0.01 | 10@700 | 0.020-0.022 | 156-185 |
| | - | | | | | | | | |
| B30F | 1973 | 900 | Bosch W200T35 | 0.028 | 42 | 0.01 | 10@700 | 0.020-0.022 | 128-156 |
| | - | | | | | | | | |
| B30F | 1973 | 900 | Bosch W200T35 | 0.028 | 42 | 0.01 | 10@700 | 0.020-0.022 | 128-156 |
| | - | | | | | | | | |
| | 1975 | | | 0.032 | | | | | |