Series W121

Engine

Model
Output SAE DIN
Max. torque SAE DIN
Number of cylinders
Bore/stroke
Total piston displacement
Compression ratio
Fuel-min. octane rating
Max. engine speed
Cooling system
Cooling water temperature
Cooling water circulation
Radiator design
Crankshaft bearings
Connecting rod bearings
Valve arrangement
Carburetor
Fuel feed pump
Fuel filter
Oil cooling
Oil pump
Oil filter
Air filter
Distributor

M 121 B V
90 gr. HP/5200 rpm
80 PS/5000 rpm
112,9 ft. lbs./2700 rpm
105 ft. lbs./2500 rpm
4
3.34 ins./3.29 ins.
115.75 cu. ins.
8,7:1
Gasoline 90-96 ROZ
6000 rpm
water cooling with thermostat
158-203° F
centrifugal pump
grilled-tube radiator
3 multi-layer bearings
multi-layer bearings
in-head, overhead camshaft
1 Solex down-draft carburetor type 34 PJCB
membrane pump A. Pierburg K.G. PE 14972
plastic strainer in tank
oil-water heat exchanger
geared pump
lubricating oil filter with micronic element
Pico damper filter, Mann & Hummel
Bosch VJUR 4 BR 27 TmK

Typ 190
Ignition timing  
advanced approx. 2° before UDC

Generator  
Bosch LJ/GE 160/12 - 2500 R 8

Starter motor  
Bosch AL/EF 0,8/12 R 7

Battery  
1 x 52 Ah - 12 Volt

Capacities (Imp./U.S.)

Fuel tank (gals)  
11.5/13.7

inc. reserve (gals)  
1.1/1.3

Oil in sump, max. (pts.)  
7.0/8.5

min. (pts.)  
4.4/5.3

Oil in transmission (pts.)  
2.5/3.0

Oil in rear-axle housing (pts.)  
4.0/4.7

Oil in steering-gear housing (pts.)  
0.52/0.62

Water in cooling system with heater (gals)  
2.2/2.7

Power Transmission

Clutch  
single-plate dry clutch
Fichtel & Sachs type KS 12 KV

Transmission  
DB-4-speed transmission with baulked synchromesh in all forward gears

Reduction ratio  
\[ i_f = 4.05/2.38/1.53/1 \]

\[ i_r = 3.92 \]

Type of gear-shift  
steering column gear-shift

Steering wheel  
two-spoke with padded hub and signal ring

Drive shaft  
divided shafting

Differential gear  
bevel gearing

Drive of axle halves  
hypoid gearing

Rear axle reduction  
\[ i = 4.1 \]
<table>
<thead>
<tr>
<th><strong>Chassis</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame</td>
<td>frame-floor unit</td>
</tr>
<tr>
<td>Wheels</td>
<td>steel disc wheels</td>
</tr>
<tr>
<td>Tires</td>
<td>7.00-13 tubeless</td>
</tr>
<tr>
<td>Tire pressure, front/rear</td>
<td>21.5/27 lbs. per sq. in.</td>
</tr>
<tr>
<td>Type of rim</td>
<td>drop-base rim</td>
</tr>
<tr>
<td>Size of rim</td>
<td>5 JK x 13 B</td>
</tr>
<tr>
<td>Front axle</td>
<td>sub-frame, double wish-bone arms, independent wheel suspension</td>
</tr>
<tr>
<td>Rear axle</td>
<td>single-joint swing axle with low pivot</td>
</tr>
<tr>
<td>Springs, front</td>
<td>coil springs with progressively effective rubber blocks and shock absorbers</td>
</tr>
<tr>
<td>Springs, rear</td>
<td>coil springs and a compensating spring, progressively effective rubber blocks and shock absorbers</td>
</tr>
<tr>
<td>Shock absorbers</td>
<td>hydraulic telescopic shock absorbers on both front and rear axles</td>
</tr>
<tr>
<td></td>
<td>front</td>
</tr>
<tr>
<td></td>
<td>Bilstein type B 36 or Stabilus TG 35x210</td>
</tr>
<tr>
<td></td>
<td>rear</td>
</tr>
<tr>
<td></td>
<td>Stabilus type TG 40 x 205 or Bilstein type B 46</td>
</tr>
<tr>
<td>Stabiliser</td>
<td>torsion bar stabiliser in front</td>
</tr>
<tr>
<td>Chassis lubrication</td>
<td>individual lubrication</td>
</tr>
<tr>
<td>Wheel camber, front</td>
<td>30' ± 10'</td>
</tr>
<tr>
<td></td>
<td>rear left</td>
</tr>
<tr>
<td></td>
<td>1° 30' ± 30'</td>
</tr>
<tr>
<td></td>
<td>right</td>
</tr>
<tr>
<td></td>
<td>1° 40' ± 30'</td>
</tr>
<tr>
<td>King pin inclination</td>
<td>5° 30' ± 10'</td>
</tr>
<tr>
<td>Toe-in</td>
<td>0-0.078&quot;</td>
</tr>
<tr>
<td>Caster</td>
<td>3° 30' ± 15'</td>
</tr>
<tr>
<td>Steering</td>
<td>DB-recirculating ball-type steering with automatic re-adjustment and steering shock absorbers</td>
</tr>
<tr>
<td>Steering reduction</td>
<td>i = 21.0</td>
</tr>
<tr>
<td>Locking angle of wheels, max.</td>
<td>39°</td>
</tr>
</tbody>
</table>
Tie rod
Foot brake
Hand brake
Brake drums = Ø, front/rear
Total braking area

in three parts
4-wheel hydraulic brake
mechanical pistol-grip hand brake acting on rear wheels
9.05"
165 sq. ins.

Weight in lbs.

Dry weight without spare wheel and tool kit 2.591
Empty weight acc. to DIN 70020 2.755
Permissible axle load, front/rear 1.720/2.095
Permissible total weight 3.750
Permissible weight of loaded trailer, with trailer brake 2.650
without trailer brake 1.450

Dimensions

Wheelbase 106.3 ins.
Width of track, front rear
57.8 ins.
58.5 ins.
Overall length of vehicle 186.5 ins.
Max. breadth of vehicle 70.7 ins.
Max. height of vehicle, unloaded 58.8 ins.
Cubic capacity of trunk 22.6 cu. ft.
Turning circle - Ø 37.4 ft.
Max. Speeds in mph

1st gear 26
2nd gear 42
3rd gear 69
4th gear 90

Climbing Ability

1st gear 1 in 1.7
2nd gear 1 in 3.4
3rd gear 1 in 5.9
4th gear 1 in 10.4

Fuel Consumption

Measured acc. to DIN 70030 at 68 m.p.h. 26.1 miles per Imp. gal.
21.8 miles per U.S. gal.

Over average cross-country journeys 37.6-24.5 miles per Imp. gal.
31.3-20.4 miles per U.S. gal.

Stuttgart-Untertürkheim, August 1961.
TYP 190

DIMENSIONS
(dimensions appr. in mm)

TECHNICAL GRAPHS
(load capacity
2 passengers)