

Group 3E Recognition FORM

A) Vehicle seen from 3/4 front

B) Vehicle seen from 3/4 rear



1. GENERAL

101. Manufacturer

BMW AG

102. Commercial name(s) - Model and type

MINI (R53) COOPER S

103. Engine capacity **1598.2** cm³

Corrected engine capacity **1598** x **1.7** = 2716cm³

104. Type of car construction

a) Type

separate chassis

monocoque

b) Material of chassis / bodyshell

STEEL

106. Number of seats

4

2. DIMENSIONS, WEIGHT

Minimum Racing Weight

1110 kg

202. Overall length

3655 mm ± 1 %

203. Maximum overall width

1688 mm ± 1 % Where measured **At front wheels**

204. Width of bodywork

a) At front axle

1688 mm ± 1 %

b) At rear axle

1688 mm ± 1 %

206. Wheelbase **2467** mm ± 1 %

207. Maximum track

a) Front **1540** mm

b) Rear **1540** mm

3-21-010

Make BMW AG

Model Mini Cooper S(R53)

3. ENGINE (In case of rotary engine, see Art. 335 on additional form)

301. Location and position of the engine FRONT / TRANSVERSE

302. Number of mounts 3

Engine in its compartment



304. Supercharging

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
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Maximum manifold pressure

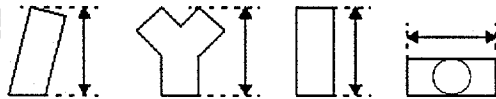
NOT AVAILABLE

Type and number of compressors

EATON M45 SUPERCHARGER/1

305. Number and layout of cylinders

4 IN-LINE



312. Cylinder block material

CAST IRON

310. Maximum compression ratio

10.5 : 1

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	x
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313. Sleeves

a) <input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
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b) Material **GRAY CAST IRON**

<input type="checkbox"/> wet	<input checked="" type="checkbox"/> dry
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314. Bore

77 +0/- 0.1 mm

316. Stroke

85.8 +0/- 0.1 mm

321. Cylinderhead

a) Number **1**

b) Material **ALUMINIUM**

324. Fuel feed by injection : a) Make **SIEMENS**

b) Model **EMS2K**

f) Position of Injectors:

f1) <input checked="" type="checkbox"/> Manifold	<input type="checkbox"/> Cylinderhead
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325. Camshaft

a) Number

1

b) Location

CYLINDER HEAD

c) Drive system

CHAIN

f) Type of valve operation

ROLLER

327. Intake

a) Material of manifold

ALUMINIUM

b) Number of manifold elements

1

c) Number of valves per cylinder

2



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Model **Mini Cooper S(R53)**

328. Exhaust

- a) Material of manifold **CAST IRON**
- b) Number of manifold elements **1**
- d) Number of valves per cylinder **2**
- p) External Diameter of exhaust pipe between manifold and first silencer mm ± 5%

330. Ignition system

- a) Type **Wasted Spark Ignition**
- b) Number of plugs per cylinder **1**
- c) Number of distributors **NIL**
- d) Number of coils **1**

331. Cooling system

Capacity **5 L**

332. Cooling fan

- a) Number **1**
- b) Diameter of the fan **360 mm**
- c) Material of the fan **PLASTIC**
- d) Number of blades **7**
- e) Type of drive **ELECTRIC**
- f) Automatic cut in

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
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333. Lubrication system

- a) Type **MECHANICAL (WET SUMP)**
- b) Number of oil pumps **1**
- c) Total capacity **5 L**
- e) Location of the cooler(s) **FRONT OF ENGINE**
- f) Type of the cooler(s) **WATER COOLED**

4. FUEL CIRCUIT

401. Fuel tank

- b) Location **UNDER REAR SEAT**
- d) Total capacity **50 L**

402. Fuel pump(s)

- a)

<input checked="" type="checkbox"/> Electrical	<input type="checkbox"/> Mechanical
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- b) Number **1**
- d) Location **IN TANK (LOW PRESSURE) / CAMSHAFT (HIGH PRESSURE)** Fuel Pressure **125 BAR**

5. ELECTRICAL EQUIPMENT

502. Alternator

- a) Number **1**
- b) Type **VW AG**
- c) Drive system **BELT**
- d) Nominal power **140 Amp**

503. Retractable headlights

- a)

<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
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- b) Control system _____

6. POWER TRAIN

601. Driven wheels

- front

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
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- rear

<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
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602. Clutch

- a) Type **SINGLE PLATE DRY CLUTCH)**
- b) Control system **MANUAL**

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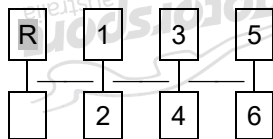
Model **Mini Cooper S(R53)**

603. Gearbox

- a) Location **EAST WEST INLINE**
- b) Make **VW**
- c) Type and location of control **CABLE – FLOOR SHIFT**
- e) Ratios

	Number of teeth	Ratio	Constant Mesh	Synchro
1	_____	<u>4.45</u>	___	___
2	_____	<u>2.71</u>	___	___
3	_____	<u>1.97</u>	___	___
4	_____	<u>1.61</u>	___	___
5	_____	<u>1.33</u>	___	___
6	_____	<u>1.09</u>	___	___
R	_____	<u>4.16</u>	___	___
Constant	_____	_____	___	___

f) Gear change gate



604. Transfer box / Centre differential

- a) Ratios **N/A**
- c) Control system of transfer box **N/A**
- d) Type of central differential

605. Final drive

- a) Type of final drive
- b) Ratio
- f) Oil Cooler
- g) Cooler Type

	Front	Rear
a) Type of final drive	<u>LSD</u>	<u>N/A</u>
b) Ratio	2.87	
f) Oil Cooler	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
g) Cooler Type	_____	

606. Shafts

- a) Type of longitudinal shafts **N/A**
- b) Material of longitudinal shafts **N/A**
- c) Type of transversal half-shafts **ASYM CV**
- d) Material of transversal half-shafts **STEEL**

Make BMW AG

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7. SUSPENSION

701. General

	Front		Rear	
a) Type of suspension	<u>MCPHERSON STRUT</u>		<u>MULTI LINK</u>	
702. Helical springs	<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no	<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
a) Material	<u>STEEL</u>		<u>STEEL</u>	
703. Leaf springs	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
a) Material	_____		_____	
704. Torsion bars	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
a) Material	_____		_____	

705. Other type of suspension

See description on additional form

706. Stabiliser

	Front	Rear
b) Effective diameter	22.83 mm	17.67 mm
c) Material	<u>STEEL</u>	<u>STEEL</u>

707. Suspension Dampers

	Front	Rear
a) Number per wheel	1	1
b) Type	<u>MCPHERSON STRUT</u>	<u>SHOCK</u>
c) Principle of operation	<u>HYDRAULIC</u>	<u>HYDRAULIC</u>

8. WHEELS

801. Wheels

	Front	Rear
a) Diameter	<u>18"</u>	<u>18"</u>
b) Width	<u>7"</u>	<u>7"</u>
c) Offset	<u>+52</u> mm	<u>+52</u> mm

3-21-010

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Model Mini Cooper S(R53)

803. Brakes

a) Braking system

4 WHEEL DISC (MECHANICAL HYDRAULIC ABS)

b) Number of master cylinders

1

c) Servo-brakes

yes no

c1) Make and type

BREMBO

	Front	Rear
e) Number of cylinders per wheel	<u>1</u>	<u>1</u>
f) Drum brakes		
f1) Internal diameter	_____	_____
f2) Number of linings per wheel	_____	_____
g) Disc brakes		
g1) Number of pads per wheel	<u>2</u>	<u>2</u>
g2) Number of calipers per wheel	<u>1</u>	<u>1</u>
g3) Caliper material	<u>STEEL</u>	<u>STEEL</u>
g4) Thickness of new disc	<u>22 ± 1 mm</u>	<u>10 ± 1 mm</u>
g5) External diameter of the disc	<u>294 ± 1.5 mm</u>	<u>259 ± 1.5 mm</u>
g9) Ventilated discs	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no

h) Parking brake: h1) Control system

MECHANICAL

h2) Location of lever

TRANSMISSION TUNNEL

Front Rear



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3-21-010

804. Steering

- a) Type
- b) Servo-assistance

Type of Assistance

Front		Rear	
<u>ELECTRIC RACK PINNION</u>			
<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no	<input type="checkbox"/> yes	<input type="checkbox"/> no
<u>ELECTRIC</u>			

9. BODYWORK

901. Interior

- a) Ventilation
- c) Air Conditioning

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no

- b) Heating

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
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- f) Optional sun roof

<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
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- f1) Type

- f2)

Control system

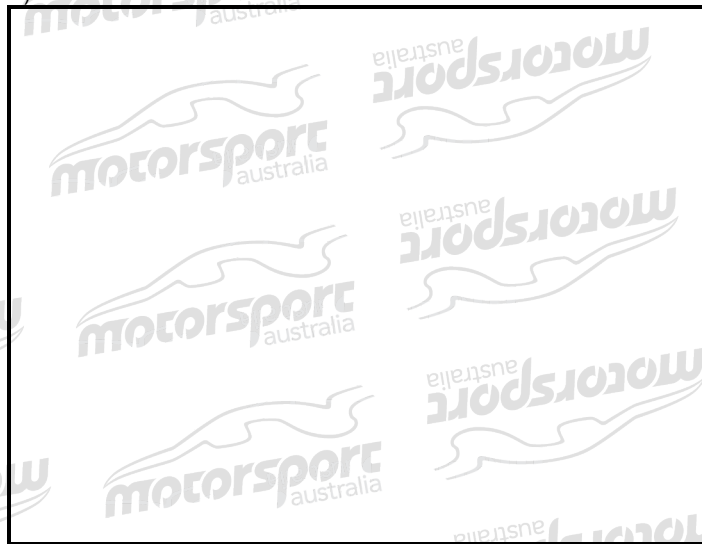
- g) Opening system for side windows

Front	Rear
<u>ELECTRIC</u>	<u>FIXED</u>

- X) Dashboard



- Y) Sunroof



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902. Exterior

a) Number of doors **2**

b) Tailgate yes no

c) Door material

Front	Rear
STEEL	N/A

d) Front bonnet material

STEEL

e) Rear bootlid / tailgate material

STEEL

f) Bodywork material

STEEL

h) Rear window material

GLASS

i) Rear quarter window material

GLASS

k) Side window material

Front	Rear
GLASS	GLASS
PLASTIC	PLASTIC

l) Material of bumper

n) Exterior Rear wiper

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
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XIII) NON METALLIC PARTS OF THE BODY

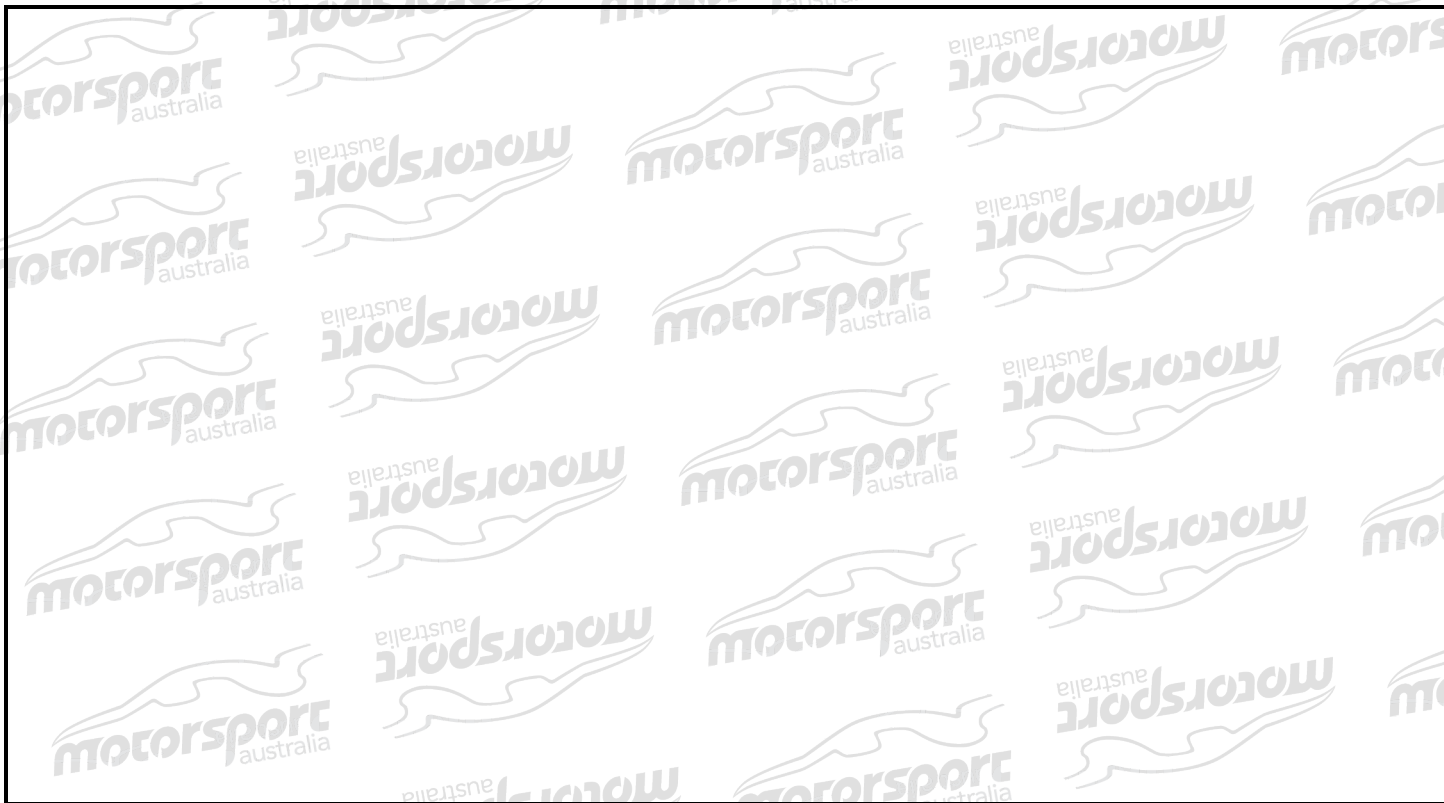
Number	Part	Material
	Front Bumper	Plastic
	Rear Bumper	Plastic
	Side Skirts	Plastic
	Rear Spoiler	Plastic
	Radiator Support Panel	Plastic
	Grill	Plastic
	Head Lights	Plastic
	Tail Lights	Plastic
	External Rear Vision Mirrors	Plastic

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Recognition N°

3-21-010



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COMPLEMENTARY INFORMATION

