

## Group 3E RECOGNITION DOCUMENT

A) Vehicle seen from 3/4 front



B) Vehicle seen from 3/4 rear



**1. GENERAL**

101. Manufacturer

**BMW**

102. Commercial name(s) - Model and type

**130i M E87**

103. Engine capacity

**2996** cm<sup>3</sup> Corrected engine capacity **2996 x 1 = 2996** cm<sup>3</sup>

104. Type of car construction

a) Type

<input type="checkbox"/> separate chassis	<input checked="" type="checkbox"/> monocoque
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b) Material of chassis / bodyshell

**STEEL**

106. Number of seats

**4**

**2. DIMENSIONS, WEIGHT**

Minimum Racing Weight

**1355** kg

202. Overall length

**4227** mm ± 1 %

203. Maximum overall width

**1993** mm ± 1 % Where measured

**MIRRORS**

204. Width of bodywork

a) At front axle

**1720** mm ± 1 %

b) At rear axle

**1730** mm ± 1 %

206. Wheelbase **2660** mm ± 1 %

207. Maximum track

a) Front **1484** mm

b) Rear **1497** mm

**Make** BMW

**Model** 130i M E87

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**3. ENGINE**

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

301. Location and position of the engine FRONT

302. Number of mounts 2

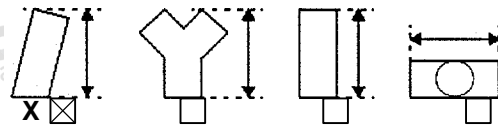
Engine in its compartment



304. Supercharging  yes  no

Type and number of compressors NA

305. Number and layout of cylinders 6



312. Cylinder block material ALLOY

310. Compression ratio 10.7: 1

313. Sleeves a)  yes  no b) Material N/A

c)  wet  dry

314. Bore 88+0/- 0.1 mm

316. Stroke 85+0/- 0.1 mm

321. Cylinderhead a) Number 1 b) Material ALLOY

324. Fuel feed by injection : a) Make BMW b) Model \_\_\_\_\_

f) Position of injectors  
f1)  Manifold  Cylinderhead

325. Camshaft a) Number 2 b) Location O/H

c) Drive system CHAIN f) Type of valve operation HYDRAULIC

**327. Intake**

a) Material of manifold PLASTIC

b) Number of manifold elements 1

c) Number of valves per cylinder 2

**328. Exhaust**

a) Material of manifold S/S

b) Number of manifold elements 2

d) Number of valves per cylinder 2

p) External Diameter of exhaust pipe between manifold and first silencer 55 mm ± 5%



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**330. Ignition system**

- a) Type **COIL OVER**
- b) Number of plugs per cylinder **1**
- c) Number of distributors **NA**
- d) Number of coils **6**

**331. Cooling system**

Capacity **15 l**

**332. Cooling fan**

- a) Number **1**
- b) Diameter of the fan **460 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 **WET**
- c) Total capacity **6.5 L**
- e) Location of the cooler(s) \_\_\_\_\_
- f) Type of the cooler(s) \_\_\_\_\_

**4. FUEL CIRCUIT**

**401. Fuel tank**

- a) Number **1**
- b) Location **UNDER REAR SEAT**
- d) Rated capacity **53 L**
- e) Filler hole locations **1**

**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**

**5. ELECTRICAL EQUIPMENT**

**502. Alternator**

- a) Number **1**
- b) Type **ALTERNATOR**
- c) Drive system **BELT**
- d) Nominal max current **155 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 type="checkbox"/> yes	<input checked="" type="checkbox"/> no
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- rear 

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

- a) Type **ORGANIC**
- b) Control system **HYDRAULIC**





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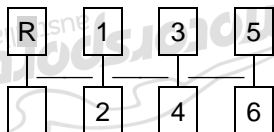
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**603. Gearbox**

- a) Location **CENTRE**
- b) Make **BMW**
- c) Type and location of control **H PATTERN**
- e) Ratios

	Number of teeth	Ratio	Constant Mesh	Synchro
1	_____	<b><u>4.350:1</u></b>	_____	_____
2	_____	<b><u>2.496:1</u></b>	_____	_____
3	_____	<b><u>1.665:1</u></b>	_____	_____
4	_____	<b><u>1.230:1</u></b>	_____	_____
5	_____	<b><u>1.000:1</u></b>	_____	_____
6	_____	<b><u>0.851:1</u></b>	_____	_____
R	_____	<b><u>3.926:1</u></b>	_____	_____
Constant	_____	_____	_____	_____

f) Gear change gate



g) Type of lubrication **oil wet sump**

**604. Transfer box / Centre differential**

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

**605. Final drive**

a) Type of final drive

b) Ratio

f) Oil cooler

g) Cooler Type

	Front	Rear
a) Type of final drive	<b><u>NA</u></b>	<b><u>HYPOID</u></b>
b) Ratio	<b><u>NA</u></b>	<b><u>3.46</u></b>
f) Oil cooler	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
g) Cooler Type	<b><u>N/A</u></b>	_____

**606. Shafts**

- a) Type of longitudinal shafts **SLIDING**
- b) Material of longitudinal shafts **STEEL**
- c) Type of transversal half-shafts **CV**
- d) Material of transversal half-shafts **STEEL**



**7. SUSPENSION**

**701. General**

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

**705. Other type of suspension**

See description on additional form

**706. Stabiliser**

	Front	Rear
b) Effective diameter	<b><u>27±0.2 mm</u></b>	<b><u>14 ±0.2mm</u></b>
c) Material	<b><u>STEEL</u></b>	<b><u>STEEL</u></b>

**707. Suspension Dampers**

	Front	Rear
a) Number per wheel	<b><u>1</u></b>	<b><u>1</u></b>
b) Type	<b><u>TELESCOPIC</u></b>	<b><u>TELESCOPIC</u></b>
c) Principle of operation	<b><u>GAS</u></b>	<b><u>GAS</u></b>

**8. WHEELS**

**801. Wheels**

	Front	Rear
a) Diameter	<b><u>18"</u></b>	<b><u>18"</u></b>
b) Width	<b><u>7.5"</u></b>	<b><u>8.5"</u></b>

**803. Brakes**

- a) Braking system
- b) Number of master cylinders
- c) Servo-brakes

**ABS**  
**1**

yes  no

c1) Make and type **BMW**

**Make** **BMW**

**Model** **130i M E87**

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	Front	Rear
e) Number of cylinders per wheel	<b>6</b>	<b>2</b>
f) <b>Drum brakes</b>		
f1) Internal diameter	<b>N/A</b> ± 1.5 mm	<b>N/A</b> ± 1.5 mm
f2) Number of linings per wheel	<b>N/A</b>	<b>N/A</b>
g) <b>Disc brakes</b>		
g1) Number of pads per wheel	<b>2</b>	<b>2</b>
g2) Number of calipers per wheel	<b>1</b>	<b>1</b>
g3) Caliper material		
g4) Thickness of new disc	<b>26</b> ± 1 mm	<b>22</b> ± 1 mm
g5) External diameter of the disc	<b>338</b> ± 1.5 mm	<b>324</b> ± 1.5 mm
g9) Ventilated discs	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
h) Parking brake	h1) Control system <b>CABLE</b>	
h2) Location of lever	<b>BETWEEN SEATS</b>	h3) On which wheels <input type="checkbox"/> Front <input checked="" type="checkbox"/> Rear

**804. Steering**

- a) Type
- b) Servo-assistance
- Type of Assistance

	Front	Rear
a) Type	<b>RACK &amp; PINION</b>	<b>N/A</b>
b) Servo-assistance	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Type of Assistance	<b>HYDRAULIC</b>	<b>N/A</b>

**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

**N/A**

- f2) Control system

**N/A**

- g) Opening system for side windows

Front	Rear
<b>ELECTRIC</b>	<b>ELECTRIC</b>





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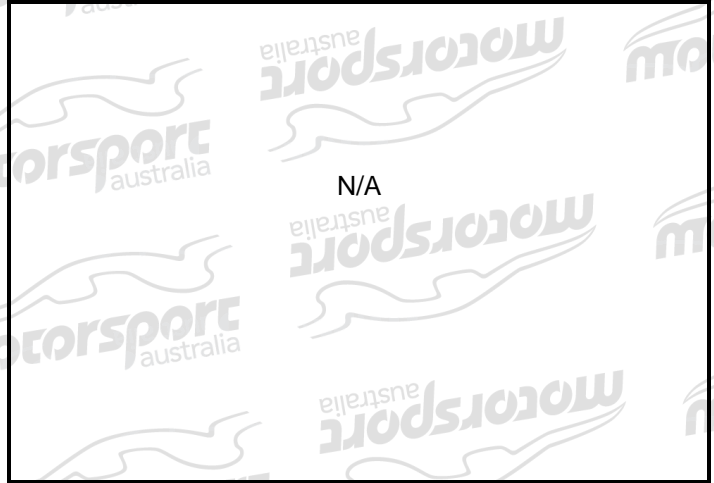
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X) Dashboard



Y) Sunroof



**902. Exterior**

a) Number of doors **4**

b) Tailgate

yes  no

c) Door material

Front	Rear
<b><u>STEEL</u></b>	<b><u>STEEL</u></b>

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
<b><u>GLASS</u></b>	<b><u>GLASS</u></b>
<b><u>PLASTIC</u></b>	<b><u>PLASTIC</u></b>

l) Material of bumper

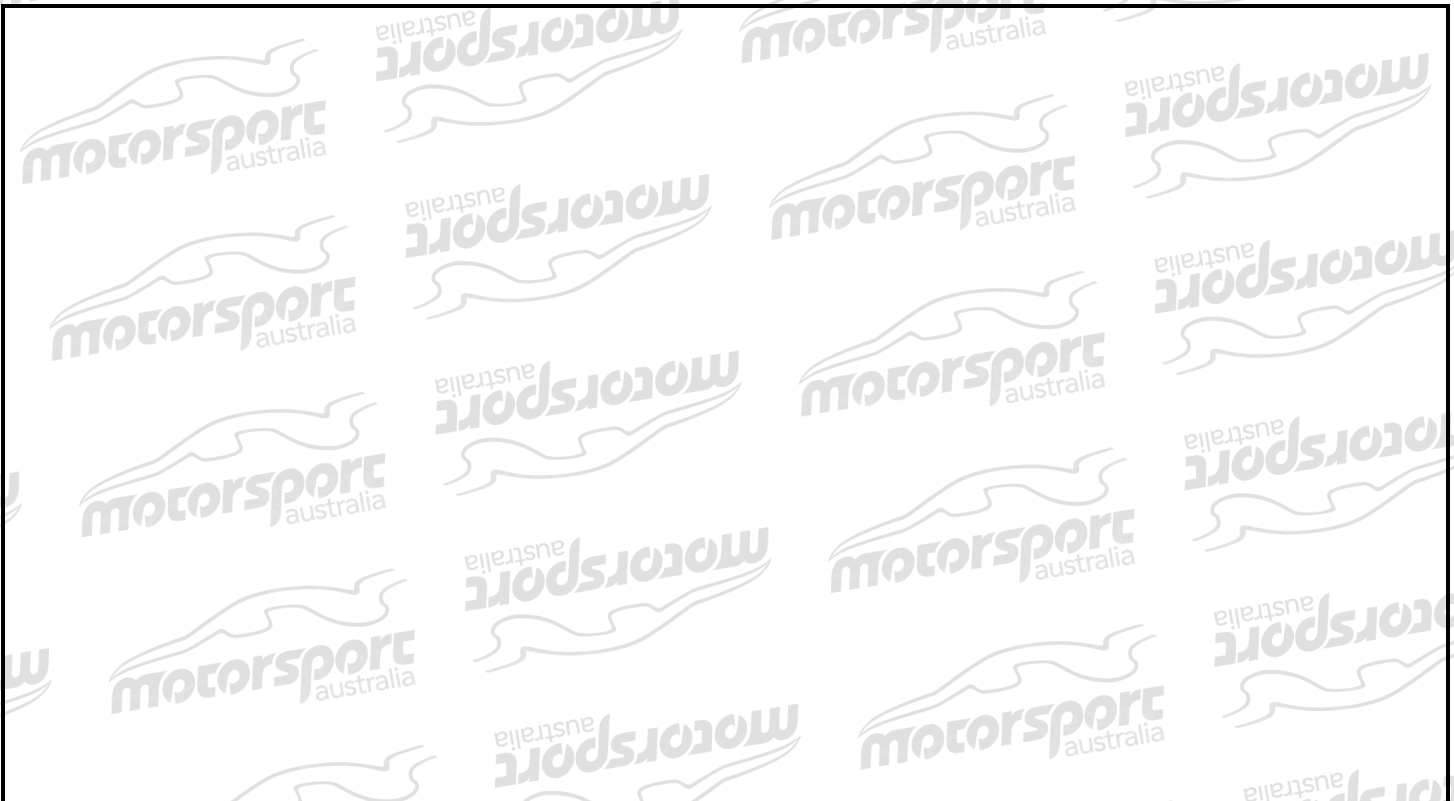
n) Exterior Rear wiper

yes  no



**XIII) NON METALLIC PARTS OF THE BODY**

Number	Part	Material
2	Inner front guard liners	Plastic





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**COMPLEMENTARY INFORMATION**

