



FEDERATION INTERNATIONALE
DU SPORT AUTOMOBILE

Homologation No

310

FICHE D'HOMOLOGATION POUR MOTEUR DE FORMULE 3
HOMOLOGATION FORM FOR FORMULA 3 ENGINE

Constructeur / Manufacturer: General Motors Europe Modèle et type / Model and type: OPEL/Vauxhall Astra-A 16V

Homologation valable à partir du / Homologation valid as from: 01 AVR. 1993

MOTEUR (version standard)
ENGINE (standard version)

Cycle: Viertakt / Four stroke

Nombre et disposition des cylindres / Number and layout of the cylinders: 4 in Reihe / 4 in line

Mode de refroidissement / Cooling system: Flüssigkeitskühlung / Liquid cooling

Cylindrée: Unitaire 499.50 cm³ Totale 1998.0 cm³
Cylinder capacity: Unitary Total

Matériau du bloc cylindres / Cylinder block material: GuB / Cast iron

Chemises:

oui	non
yes	no

 Type: ./.
Sleeves Type

Alésage / Bore: 86.0 mm Course / Stroke: 86.0 mm

Vilebrequin:
Crankshaft:

Type de paliers / Type of bearings: Gleitlager / Slide bearings

Matériau des chapeaux de paliers / Bearing cap material: GuB / Cast iron

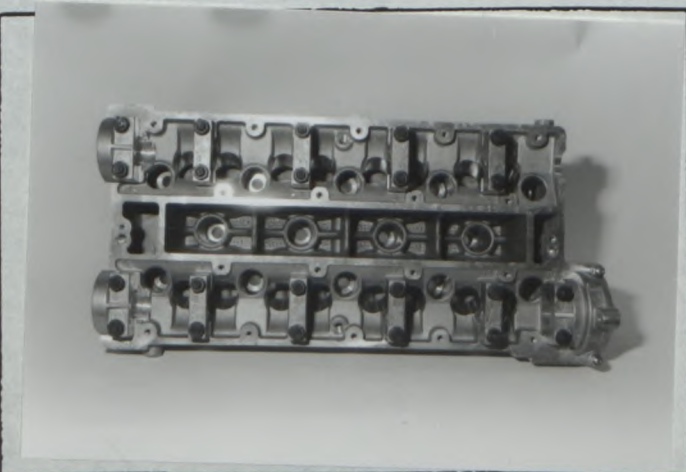
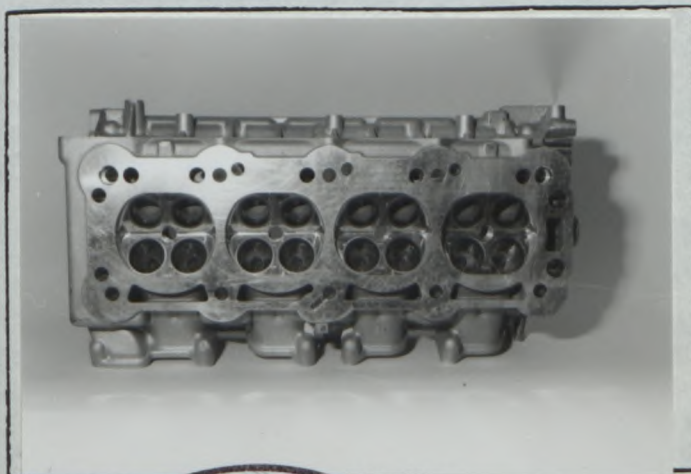


Marque General Motors Europe
MakeModèle OPEL/Vauxhall Astra-A 16V
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Vilebrequin:
Crankshaft:Type de paliers Gleitlager / Slide bearings
Type of bearingsMatériau des chapeaux de paliers Guß / Cast iron
Bearing cap materialCulasse:
Cylinder head:Nombre Emplacement Auf dem Zylinderblock / Top of cylinder block
Number LocationSystème de commande des soupapes Direkt Nockenwelle über Tassenstößel / Direct
Type of valve operation camshaft bucket tappets to valves (cam follower)Angle entre axe de la soupape d'admission et axe de la soupape d'échappement 46°
Angle between inlet valve axle and exhaust valve axleAdmission:
Inlet:Nombre de soupapes par cylindre 2 Type des ressorts de soupape Schraubenfeder / Coil spring
Number of valves per cylinder Type of valve springsEchappement:
Exhaust:Nombre de soupapes par cylindre 2 Type des ressorts de soupape Schraubenfeder / Coil spring
Number of valves per cylinder Type of valve springs

PHOTOS

Culasse nue vue de dessus
Bare cylinder head seen from aboveCulasse nue vue de dessous
Bare cylinder head seen from below

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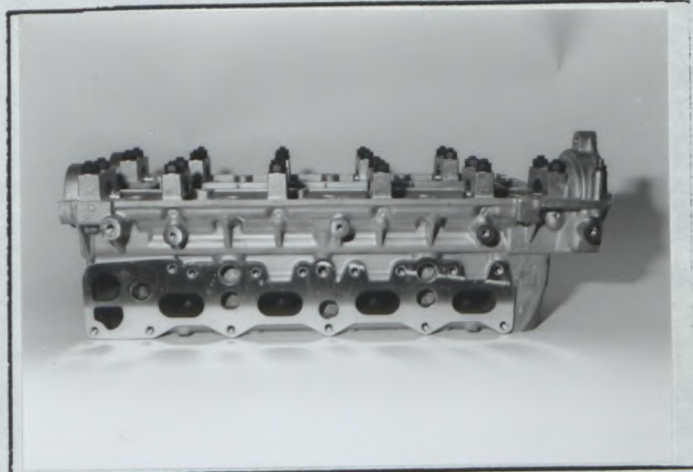
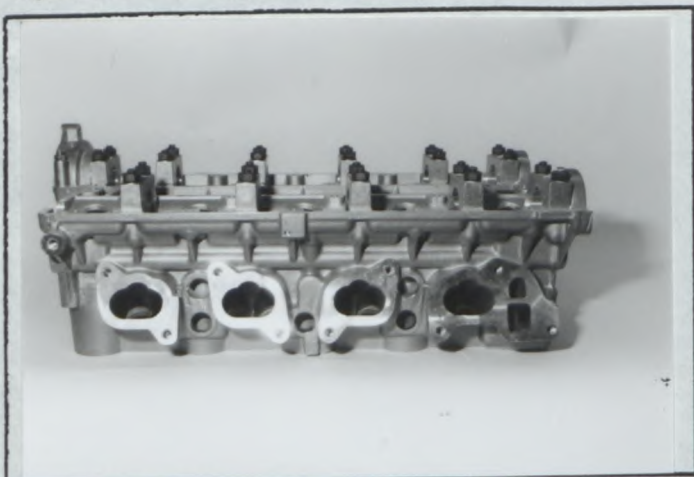
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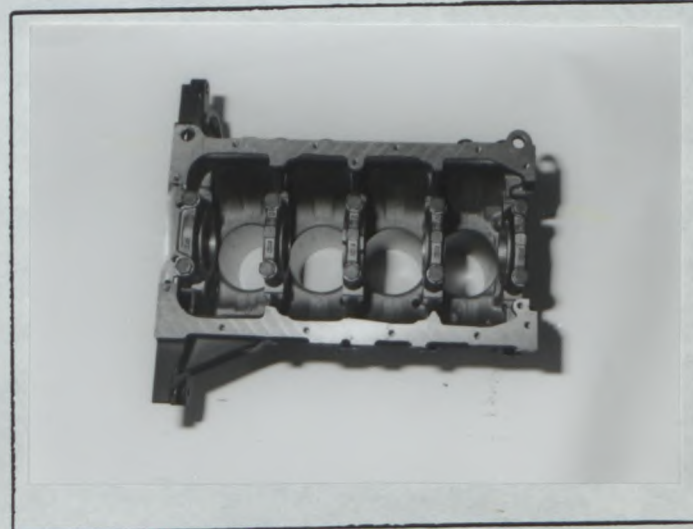
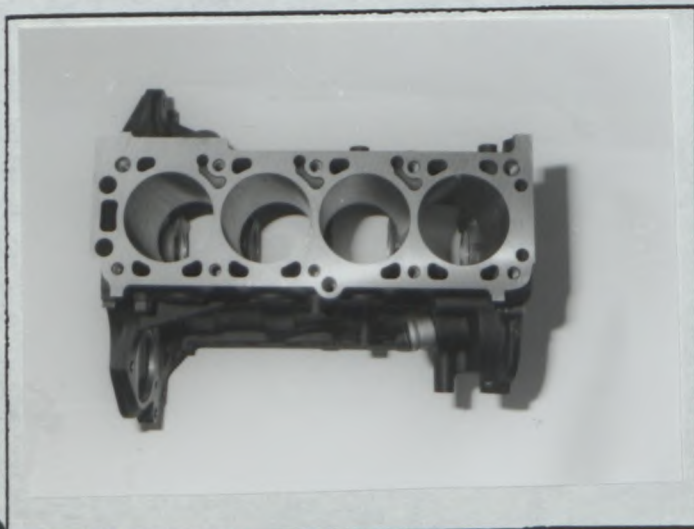
Profil droit de culasse nue
Right hand view of bare cylinder head

Profil gauche de culasse nue
Left hand view of bare cylinder head



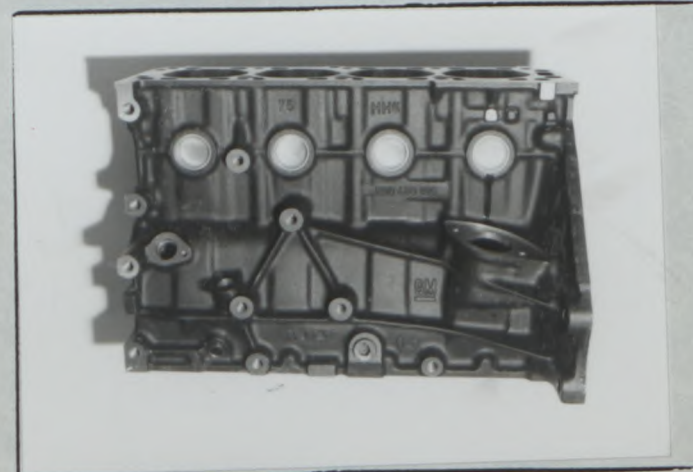
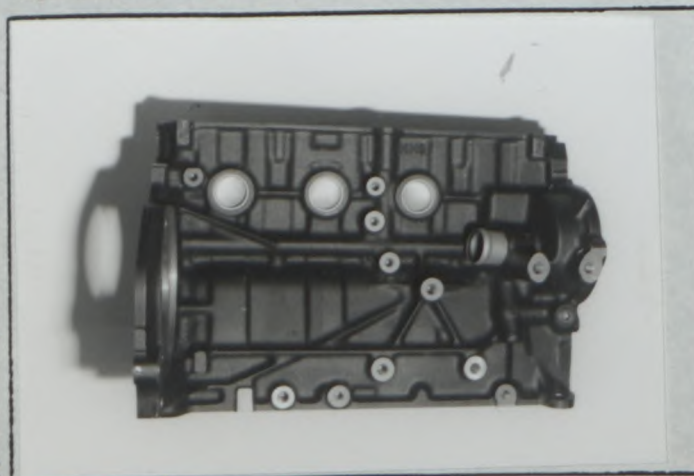
Bloc nu vu de dessus
Bare block seen from above

Bloc nu vu de dessous
Bare block seen from below



Profil droit du bloc nu
Right hand view of bare block

Profil gauche du bloc nu
Left hand view of bare block



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