

**2019年CTCC中国房车锦标赛**

**中国杯车型注册表-发动机注册表**

**2019 China Touring Car Championship**

**HOMOLOGATION FORM FOR MODLE IN CHINA CUP-ENGINE**

**车型注册号码/HOMOLOGATION NUMBER**

|  |
| --- |
| CTCC-XXX-1901-YYY-ZZZ-A |

**发动机注册号码/ENGINE HOMOLOGATION NUMBER**

|  |
| --- |
| CTCCEC-XXX-1901-YYY-ZZZ-A |

**注册人/APPLICANT**

|  |
| --- |
| XXX |

**注册有效期/ HOMOLOGATION VAILD**

|  |
| --- |
| 2019年 |

**审核人/AUDIT SIGNATURE**

|  |  |  |
| --- | --- | --- |
| 姓名  签字 | 姓名  签字 | 姓名  签字 |

Part 1. 原型发动机信息/ORIGINAL ENGINE INFORMATION

**1.** 一般项目/ GENERAL

**1.1.** 制造商/ MANUFACTURER

|  |
| --- |
| 填写/Description |

**1.2.** 商品名称-型号和类型/ COMMERCIAL NAME(S)-MODEL AND TYPE

|  |
| --- |
| 填写/Description |

**1.3.** 气缸容积/ CYLINDER CAPACITY

|  |  |  |
| --- | --- | --- |
| a) 气缸容积/ Cylinder capacity | 填写/Description | cm³ |
| b) 修正气缸容积/ Corrected cylinder capacity | 填写/Description×填写/Description=填写/Description | cm³ |

**1.4.** 单个燃烧室最小容积/ MINIMUM VOLUME OF A COMBUSTION CHAMBER

|  |
| --- |
| 填写/Description cm³ |

**1.5** 压缩比/ COMPRESSION RATIO (IN RELATION WITH THE UNIT)

|  |
| --- |
| 最大/Max.填写/Description :1 |

**2.** 缸体/ CYLINDER BLOCK

**2.1.** 曲轴轴承座直径/DIAMETER OF CRANKSHAFT BEARINGS

|  |
| --- |
| 填写/Description +0/-0.1mm |

**2.2.** 缸体最小高度/ MIN. HEIGHT OF THE CYLINDER BLOCK

|  |  |  |
| --- | --- | --- |
| a) 安装油底壳平面到缸垫平面之间  Between sump and head gasket planes | 填写/Description | mm |
| b) 曲轴中心线到缸垫平面之间  Between crankshaft centreline and head gasket plane | 填写/Description | mm |

I2-1）高度测量/Height measurement

|  |
| --- |
| 添加图纸  Drawing |

**2.3.** 缸套/ SLEEVES

|  |  |
| --- | --- |
| a) 材质/Material | 填写/Description |

P2-1）拆下的缸套/ Sleeve dismounted

|  |
| --- |
| 添加照片  Photo |

**3.** 活塞/ PISTON

|  |  |  |  |
| --- | --- | --- | --- |
| a）材质/Material | 填写/Description | | |
| b）活塞环数量/Number of rings | 填写/Description | | |
| b1）活塞环厚度/Thickness of rings | 填写/Description ±0.1mm | | |
| c）最小重量/Min. weight | 填写/Description g | 带活塞环、销、卡子、轴承  With pin, bearing, clips and rings | |
| d）活塞销中心线到活塞顶的距离  Distance from gudgeon pin center line to top of piston crown | 填写/Description ±0.1mm | | |
| e）位于上止点时活塞顶部到缸垫平面的距离  Distance from gudgeon pin center line to top of piston crown | 填写/Description ±0.15/-0.3mm  +上面/above，-下面/below | | |
| f）活塞槽体积（顶部）  Piston groove volume (top) | 填写/Description ±0.5cm³ | | |
| g) 活塞冷却系统/ Piston cooling system | 有/Yes单项勾选/Single choice | | 无/No单项勾选/Single choice |

P3-1）活塞，从顶部3/4角度看 P3-2）活塞，从底部3/4角度看

Piston from 3/4 top Piston from 3/4 bottom

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

I3-1）活塞销

Piston pin

|  |
| --- |
| 添加图纸  Drawing |

**4.** 曲轴/ CRANKSHAFT

|  |  |
| --- | --- |
| a) 曲拐轴最大直径/ Maximum diameter of crank pins | 填写/Description mm |
| b）材质/Material | 填写/Description |
| c）制造工艺/Manufacturing process | 铸造/Cast 单项勾选/Single choice |
| 锻造/Forged 单项勾选/Single choice |
| 原材料加工/Machined from raw 单项勾选/Single choice |
| d）轴承直径/Diameter of bearings | 填写/Description +0/-0.1 mm |
| e）轴承盖材质/Bearing caps material | 填写/Description |
| f）裸曲轴的最小重量  Min. weight of bare crankshaft | 填写/Description g |
| g）曲柄直径/Diameter of crank pins | 填写/Description +0/-0.1 mm |

P4-1）从曲轴前3/4角度看 P4-2）从曲轴后3/4角度看

Crankshaft from 3/4 front Crankshaft from 3/4 rear

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

**5.** 气缸盖/ CYLINDER HEAD

|  |  |
| --- | --- |
| a）最小高度/Min. height | 填写/Description mm |
| b）测量位置/Where measured | 填写/Description mm |

**6.** 气缸垫/ CYLINDER GASKET

|  |  |
| --- | --- |
| 压紧的气缸垫厚度  Thickness of tightened cylinderhead gasket | 填写/Description ±0.2mm |

**7.** 凸轮轴/ CAMSHAFT

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a）轴承直径/Diameter of bearings | | | 填写/Description ±0.1mm | |
| b）凸轮尺寸  Cam dimensions | A=  B= | 进气/Intake | 排气/Exhaust |  |
| 填写/Description ±0.1 mm | 填写/Description ±0.1 mm |
| 填写/Description ±0.1 mm | 填写/Description ±0.1 mm |
| A和B的公差值必须与表内数值相符  The tolerances must be used with the same sign for A and B | |

P7-1）从进气凸轮轴轴前3/4角度看 P7-2）从进气凸轮轴轴后3/4角度看

Intake camshaft from 3/4 front Intake camshaft from 3/4 rear

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

P7-3）从排气凸轮轴轴前3/4角度看 P7-4）从排气凸轮轴轴后3/4角度看

Exhaust camshaft from 3/4 front Exhaust camshaft from 3/4 rear

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

**8.** 正时/ TIMING

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a）理论间隙  Theoretical clearance | 进气/Intake | 填写/Description mm | | | 排气/Exhaust | | 填写/Description mm |
| b）凸轮升程/毫米（卸载凸轮轴）  Cam lift in mm(dismounted camshaft) | | | | 填写/Description ±0.2mm | | | |
| c）最大气门升程  Max. valve lift | 进气/Intake | | 排气/Exhaust | | | 包括8.a)项理论间隙  with clearance according to Art.8.a) | |
| 填写/Description ±0.2 mm | | 填写/Description ±0.2 mm | | |

**9.** 进气/INTAKE

|  |  |
| --- | --- |
| a）每阀弹簧数量/ Number of springs per valve | 填写/Description |
| b）弹簧最大高度/ Max. length of the spring | 填写/Description mm |
| b1）测量负载/Load of measurement | 填写/Description N |
| c）弹簧外径/ External diameter of springs | 填写/Description ±0.2mm |
| d）弹簧圈数/Number of rings | 填写/Description |
| e）弹簧钢丝直径/ Diameter of spring wire | 填写/Description ±0.1mm |
| f）弹簧最大自由高度/Max. free length of springs | 填写/Description mm |

P9-1）进气歧管 - 拆下状态（正面） P9-2）进气歧管 - 拆下状态（背面）

Intake manifold - dismounted - front Intake manifold - mounted - back

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

**10.** 排气/EXHAUST

|  |  |
| --- | --- |
| a）每阀弹簧数量/ Number of springs per valve | 填写/Description |
| b）弹簧最大高度/ Max. length of the spring | 填写/Description mm |
| b1）测量负载/Thickness of rings | 填写/Description N |
| c）弹簧外径/ External diameter of springs | 填写/Description ±0.2mm |
| d）弹簧圈数/Number of rings | 填写/Description |
| e）弹簧钢丝直径/ Diameter of spring wire | 填写/Description ±0.1mm |
| f）弹簧最大自由高度/Max. free length of springs | 填写/Description mm |
| g）从歧管到第一消声器间排气管直径  Diameter of pipe between manifold and first silencer | 填写/Description mm ±5% |

P10-1）排气歧管 - 拆下状态 （正面） P10-2）排气歧管 - 拆下状态（背面）

Exhaust manifold - dismounted - front Exhaust manifold - dismounted - back

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

P10-3）排气歧管 - 安装状态（如排气歧管无法拆卸）

Exhaust manifold - mounted（if exhaust manifold cannot be dismounted）

|  |
| --- |
| 添加照片  Photo |

**11.** 污染控制系统/ ANTI-POLLUTION SYSTEM

|  |  |
| --- | --- |
| 描述/ Description | 填写/Description |

**12.** 点火系统/ IGNITION SYSTEM

|  |  |  |  |
| --- | --- | --- | --- |
| a）类型/ Type | 填写/Description | b）线圈数量/ Nb. of coils | 填写/Description |

**13.** 冷却系统/ COOLING SYSTEM

|  |  |
| --- | --- |
| 容积/ Capacity | 填写/Description 升/ litres |

**14.** 冷却风扇/ COOLING FAN

|  |  |  |
| --- | --- | --- |
| a）数量/ Number | 填写/Description | |
| b）风扇直径/ Diameter of the screw | 填写/Description mm | |
| c）风扇材料/ Material of the screw | 填写/Description | |
| d）叶片数量/ Number of blades | 填写/Description | |
| e）驱动类型/ Type of drive | 填写/Description | |
| f）自动切断/ Automatic cut off | 是/Yes单项勾选/Single choice | 否/No单项勾选/Single choice |

**15.** 涡轮增压系统/ TURBOCHARGER SYSTEM

|  |  |
| --- | --- |
| 使用原厂/ Using original单项勾选/Single choice | 改装更换/ Refit（提交下列信息）单项勾选/Single choice |

**如使用原厂则只需要填写原型发动机涡轮信息。如改装更换则只需要填写延伸注册信息。**

**15.1.** 涡轮增压器/ TURBOCHARGING

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| a）品牌和型号/ Make and model | | 填写/Description | | | | | | |
| b）排气涡轮壳体/ Turbine housing | | b1）废气出口数量  Number of exhaust gas entries | | | | 填写/Description | | |
| b2）材质  Material | | | | 填写/Description | | |
| c）排气涡轮/ Turbine wheel | | c1）材质  Material | | | | 填写/Description | | |
| c2）叶片数  Number of blades | | | | 填写/Description | | |
| c3）叶片高度  Number of blades | | | | 填写/Description±0.5mm | | |
| c3）根据草图A,B,C的尺寸  Dimensions A, B, C according to the sketch    A=填写/Description±0.4mm B=填写/Description±0.5mm  C=填写/Description±0.3mm | | | | | | |
| c5）可变叶片  Variable blades | | | | 是/Yes单项勾选/Single choice | | |
| 否/No单项勾选/Single choice | | |
| d）叶轮（压缩机）壳/ Impeller housing | | d1）进气口数量（混合）  Number of air entries (mixture) | | | | 填写/Description | | |
| d2）材质  Material | | | | 填写/Description | | |
| e）压缩机叶轮/ Impeller wheel | | e1）材质  Material | | | | 填写/Description | | |
| e2）叶片数  Number of blades | | | | 填写/Description | | |
| e3）叶片高度  Number of blades | | | | 填写/Description±0.5mm | | |
| e3）根据草图A,B,C的尺寸  Dimensions A, B, C according to the sketch    A=填写/Description±0.4mm B=填写/Description±0.5mm  C=填写/Description±0.4mm | | | | | | |
| e5）可变叶片  Variable blades | | | | | 是/Yes单项勾选/Single choice | |
| 否/No单项勾选/Single choice | |
| f）压力调节 | | | | | | | | |
| f1）压力调节类型  Type of pressure adjustment | | 旁通/Pass  单项勾选/Single choice | | 泄压/Relief valve  单项勾选/Single choice | | | | 其他/Other  单项勾选/Single choice |
| f2）压力调节类型  Type of pressure adjustment | | 如其他/If other  填写/Description | | | | | | |
| g）排气系统/ Exhaust system | | | | | | | | |
| g1）歧管和涡轮增压器之间管道的内部尺寸  Internal dimensions of the possible pipes between manifold and turbocharger | | | 填写/Description±2mm | | | | | |
| h）进气冷却/ Exhaust system | | | | | | | | |
| h1）有无/Yes or No | 有/Yes 单项勾选/Single choice | | | | 无/No单项勾选/Single choice | | | |
| h2）系统/System | 空气 单项勾选/Single choice  Air | | | | 空气/水 单项勾选/Single choice  Air/Water | | | |
| 单流 单项勾选/Single choice  Single-flow | | | | 双流 单项勾选/Single choice  Double-flow | | | |
| h3）进气口直径  Diameter of entries | 填写/Description ±1 mm | | | | | | | |
| h4）出气口直径  Diameter of outlets | 填写/Description ±1 mm | | | | | | | |
| i）最大绝对增压压力  Boost pressure (absolute) | 填写/Description mbar | | | | | | | |

P15-1）排气侧涡轮壳的进气口 P15-2）排气侧涡轮壳的出气口

Exhaust gas inlet to the turbine housing Exhaust gas outlet from the turbine housing

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

P15-3）压缩机外壳空气（气）进口 P15-4）压缩机外壳空气（气）出口

Air (gas) inlet to the compressor housing Air (gas) outlet from the compressor housing

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

P15-5）完整的涡轮增压器单元的主视图 P15-6）完整的涡轮增压器单元的前视图

Plan view of complete turbocharger unit Front view of complete turbocharger unit

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

P15-7）完整的涡轮增压器单元的主视图 P15-6）完整的涡轮增压器单元的前视图

Plan view of complete turbocharger unit Front view of complete turbocharger unit

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

P15-8）完整的涡轮增压器单元的侧视图 P15-9）涡轮增压器阀门和旁通 - 在安装位置

Side view of complete turbocharger unit Turbocharger valve and bypass

- mounted in its location

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

P15-10）歧管和涡轮增压器之间的排气系统

Exhaust system between manifold and turbocharger

|  |
| --- |
| 添加照片  Photo |

P15-11）涡轮增压器涡轮壳 - 拆下状态 P15-12）涡轮增压器压缩机壳 - 拆下状态

Turbine housing of turbocharger Compression housing of turbocharger

– dismounted – dismounted

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

P15-13）调节涡轮压力的设备 / Device regulating turbocharger pressure

|  |
| --- |
| 添加照片  Photo |

**16.** 中冷器冷却系统/ INTERCOOLER SYSTEM

|  |  |  |
| --- | --- | --- |
| 热交换方式/ Heat exchange method | 空气冷却/With Air  单项勾选/Single choice | 液体冷却/With coolant  单项勾选/Single choice |

P16-1）中冷器芯 – 拆下状态 P16-2）中冷器芯 – 在安装位置

Intercooler core – dismounted Intercooler core – mounted in its location

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

I15-1）中冷器芯尺寸的绘图（长x宽 x厚）

Drawing of the intercooler core with dimensions of core (Width x Height x Thickness)

|  |
| --- |
| 添加图纸  Drawing |

**17.** 润滑系统/ LUBRICATION SYSTEM

|  |  |  |
| --- | --- | --- |
| a）总容积/ Total Capacity | 填写/Description 升/ litres | |
| b）机油散热器/ Oil cooler(s) | 有/Yes单项勾选/Single choice | 无/No单项勾选/Single choice |
| b1）数量/ Number | 填写/Description | |
| c）散热器位置/ Location of the coolers | 填写/Description | |
| d）散热器类型/ Type of the coolers | 填写/Description | |

**18.** 喷油嘴/ FUEL SPRAY NOZZLE

|  |  |
| --- | --- |
| a）品牌和型号/ Make and model | 填写/Description |
| b）稳态流量/ Steady state flow | 填写/Description cc/min |
| c）该流量时的燃油压力  Fuel presser at this flow | 填写/Description Bar |
| d）该流量时液体密度:  Liquid density at this flow | 填写/Description kg/L |

|  |
| --- |
| 补充信息/ COMPLEMENTARY INFORMATION |
| 补充添加进气歧管照片 |

进气歧管/ Intake manifold

|  |  |
| --- | --- |
| 进气歧管开口封堵材料  Intake manifold openings sealing material | 填写/Description |

进气歧管所有原装开口标记(用数字标识每个开口)

Marking with number of original openings in intake manifold

|  |  |
| --- | --- |
| 添加照片  Photo  正面  Front view | 添加照片  Photo  反面  Back view |

进气歧管所有开口封堵方式(用数字标识每个封堵)

Marking with number of sealing in intake manifold

|  |  |
| --- | --- |
| 添加照片  Photo  正面  Front view | 添加照片  Photo  反面  Back view |

Part 2. 发动机延伸注册信息/EXTENSION ENGINE INFORMATION

**1.** 涡轮增压系统/ TURBOCHARGER SYSTEM

|  |  |
| --- | --- |
| 如适用/ If applicable | |
| a）所属车辆制造商/ Manufacturer of car | 填写/Description |
| b）所属车辆型号/ Model and type of cars | 填写/Description |
| c）所属车辆发动机型号/Model and type of engine | 填写/Description |
| d）涡轮零件号码/ Turbocharger part number | 填写/Description |

**1.1.** 涡轮增压器/ TURBOCHARGING

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| a）品牌和型号/ Make and model | | 填写/Description | | | | | | |
| b）排气涡轮壳体/ Turbine housing | | b1）废气出口数量  Number of exhaust gas entries | | | | 填写/Description | | |
| b2）材质  Material | | | | 填写/Description | | |
| c）排气涡轮/ Turbine wheel | | c1）材质  Material | | | | 填写/Description | | |
| c2）叶片数  Number of blades | | | | 填写/Description | | |
| c3）叶片高度  Number of blades | | | | 填写/Description±0.5mm | | |
| c3）根据草图A,B,C的尺寸  Dimensions A, B, C according to the sketch    A=填写/Description±0.4mm B=填写/Description±0.5mm  C=填写/Description±0.3mm | | | | | | |
| c5）可变叶片  Variable blades | | | | 是/Yes单项勾选/Single choice | | |
| 否/No单项勾选/Single choice | | |
| d）叶轮（压缩机）壳/ Impeller housing | | d1）进气口数量（混合）  Number of air entries (mixture) | | | | 填写/Description | | |
| d2）材质  Material | | | | 填写/Description | | |
| e）压缩机叶轮/ Impeller wheel | | e1）材质  Material | | | | 填写/Description | | |
| e2）叶片数  Number of blades | | | | 填写/Description | | |
| e3）叶片高度  Number of blades | | | | 填写/Description±0.5mm | | |
| e3）根据草图A,B,C的尺寸  Dimensions A, B, C according to the sketch    A=填写/Description±0.4mm B=填写/Description±0.5mm  C=填写/Description±0.4mm | | | | | | |
| e5）可变叶片  Variable blades | | | | | 是/Yes单项勾选/Single choice | |
| 否/No单项勾选/Single choice | |
| f）压力调节 | | | | | | | | |
| f1）压力调节类型  Type of pressure adjustment | | 旁通/Pass  单项勾选/Single choice | | 泄压/Relief valve  单项勾选/Single choice | | | | 其他/Other  单项勾选/Single choice |
| f2）压力调节类型  Type of pressure adjustment | | 如其他/If other  填写/Description | | | | | | |
| g）排气系统/ Exhaust system | | | | | | | | |
| g1）歧管和涡轮增压器之间管道的内部尺寸  Internal dimensions of the possible pipes between manifold and turbocharger | | | 填写/Description±2mm | | | | | |
| h）进气冷却/ Exhaust system | | | | | | | | |
| h1）有无/Yes or No | 有/Yes 单项勾选/Single choice | | | | 无/No单项勾选/Single choice | | | |
| h2）系统/System | 空气 单项勾选/Single choice  Air | | | | 空气/水 单项勾选/Single choice  Air/Water | | | |
| 单流 单项勾选/Single choice  Single-flow | | | | 双流 单项勾选/Single choice  Double-flow | | | |
| h3）进气口直径  Diameter of entries | 填写/Description ±1 mm | | | | | | | |
| h4）出气口直径  Diameter of outlets | 填写/Description ±1 mm | | | | | | | |
| i）最大绝对增压压力  Boost pressure (absolute) | 填写/Description mbar | | | | | | | |

P1-1）排气侧涡轮壳的进气口 P1-2）排气侧涡轮壳的出气口

Exhaust gas inlet to the turbine housing Exhaust gas outlet from the turbine housing

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

P1-3）压缩机外壳空气（气）进口 P1-4）压缩机外壳空气（气）出口

Air (gas) inlet to the compressor housing Air (gas) outlet from the compressor housing

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

P1-5）完整的涡轮增压器单元的主视图 P1-6）完整的涡轮增压器单元的前视图

Plan view of complete turbocharger unit Front view of complete turbocharger unit

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

P1-7）完整的涡轮增压器单元的主视图 P1-6）完整的涡轮增压器单元的前视图

Plan view of complete turbocharger unit Front view of complete turbocharger unit

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

P1-8）完整的涡轮增压器单元的侧视图 P1-9）涡轮增压器阀门和旁通 - 在安装位置

Side view of complete turbocharger unit Turbocharger valve and bypass

- mounted in its location

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

P1-10）歧管和涡轮增压器之间的排气系统

Exhaust system between manifold and turbocharger

|  |
| --- |
| 添加照片  Photo |

P1-11）涡轮增压器涡轮壳 - 拆下状态 P1-12）涡轮增压器压缩机壳 - 拆下状态

Turbine housing of turbocharger Compression housing of turbocharger

– dismounted – dismounted

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

P1-13）调节涡轮压力的设备 / Device regulating turbocharger pressure

|  |
| --- |
| 添加照片  Photo |

**2.** 中冷器冷却系统/ INTERCOOLER SYSTEM

|  |  |  |
| --- | --- | --- |
| a）所属车辆制造商/ Manufacturer of car | 填写/Description | |
| b）所属车辆型号/ Model and type of cars | 填写/Description | |
| c）所属车辆发动机型号/Model and type of engine | 填写/Description | |
| d）中冷器零件号码/ Intercooler Part Number | 填写/Description | |
| 热交换方式/ Heat exchange method | 空气冷却/With Air  单项勾选/Single choice | 液体冷却/With coolant  单项勾选/Single choice |

P2-1）中冷器芯 – 拆下状态 P2-2）中冷器芯 – 在安装位置

Intercooler core – dismounted Intercooler core – mounted in its location

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

I2-1）中冷器芯尺寸的绘图（长x宽 x厚）

Drawing of the intercooler core with dimensions of core (Width x Height x Thickness)

|  |
| --- |
| 添加图纸  Drawing |

**3.** 排气歧管/ EXHAUST MANIFOLD

P3-1）排气歧管 - 拆下状态 （正面） P3-2）排气歧管 - 拆下状态（背面）

Exhaust manifold - dismounted - front Exhaust manifold - dismounted - back

|  |  |
| --- | --- |
| 添加照片  Photo | 添加照片  Photo |

**4.** 喷油嘴/ FUEL SPRAY NOZZLE

|  |  |
| --- | --- |
| a）品牌和型号/ Make and model | 填写/Description |
| b）稳态流量/ Steady state flow | 填写/Description cc/min |
| c）该流量时的燃油压力  Fuel presser at this flow | 填写/Description Bar |
| d）该流量时液体密度:  Liquid density at this flow | 填写/Description kg/L |