Homologation N°

**37-M-24**

# FICHE D'HOMOLOGATION

## *HOMOLOGATION FORM*

# COMMISSION INTERNATIONALE DE KARTING - FIA

# MOTEUR / *ENGINE*

**KZ**

| | | |
|---|---|---|
| Constructeur | *Manufacturer* | ASPA S.R.L. |
| Marque | *Make* | **MODENA ENGINES** |
| Modèle | *Model* | **MKZ** |
| Type d'admission | *Inlet type* | **REED VALVE** |
| Durée de l'homologation | *Validity of the homologation* | 9 ans / *9 years* |
| Nombre de pages | *Number of pages* | **10** |

La présente Fiche d'Homologation reproduit descriptions, illustrations et dimensions du moteur au moment de l'homologation CIK-FIA. Le Constructeur a la possibilité de les modifier seulement dans les limites fixées par le Règlement CIK-FIA en vigueur. La hauteur du moteur complet sur les photos doit être de 7cm minimum.

*This Homologation Form reproduces descriptions, illustrations and dimensions of the engine at the moment of the CIK-FIA homologation. The Manufacturer may modify them, but only within the limits fixed by the CIK-FIA Regulations in force.*
*The height of complete engines on all photos must be minimum 7cm.*

PHOTO DU MOTEUR CÔTÉ PIGNON

*PHOTO OF DRIVE SIDE OF ENGINE*


PHOTO DU MOTEUR CÔTÉ OPPOSÉ

*PHOTO OF OPPOSITE SIDE OF ENGINE*

| Signature et tampon de l'ASN | Signature et tampon de la CIK-FIA |
|---|---|
| *Signature and stamp of the ASN* | *Signature and stamp of the CIK-FIA* |

| **INFORMATIONS TECHNIQUES** | ***TECHNICAL INFORMATION*** |
|---|---|

| A | CARACTÉRISTIQUES | *A* | *CHARACTERISTICS* |
|---|---|---|---|

| | | | Tolérances |
|---|---|---|---|
| Volume du cylindre | *Volume of cylinder* | **124,66 cm³** | **< 125cm³** |
| Alésage d'origine | *Original Bore* | **54 mm** | |
| Alésage théorique maximum | *Theoretical maximum bore* | **54,07mm** | |
| Course | *Stroke* | **54,43 mm** | |
| Système de refroidissement | *Cooling system* | **WATER** | |
| Nombre de systèmes de carburation | *Number of carburation systems* | **1** | |
| Nombre de canaux de transfert, cylindre/carter | *Number of transfer ducts, cylinder/sump* | **5/3** | |
| Nombre de lumières / canaux d'échappement | *Number of exhaust ports / ducts* | **3** | |
| Forme de la chambre de combustion | *Shape of the combustion chamber* | **HEMISPHERICAL (VAR.RADIUS+SQUISH)** | |
| Matériau de la paroi du cylindre | *Cylinder wall material* | **AL.ALLOY+NICASIL** | |
| Longueur (entre-axe) de la bielle | *Length between the axes of the connecting rod* | **106 mm** | ±0.1mm |
| Volume de la chambre de combustion | *Volume of combustion chamber* | **11 cm³** | Minimum |
| Nombre de segments de piston | *Number of piston rings* | **1** | |

Modifications autorisées selon le Règlement Technique.
Seules les dimensions et cotes qui ne peuvent pas être modifiées doivent figurer sur la Fiche d'Homologation.

*Modification allowed according to the Technical Regulations.*
*Only the dimensions and readings which may not be changed must be mentioned on the Homologation Form.*

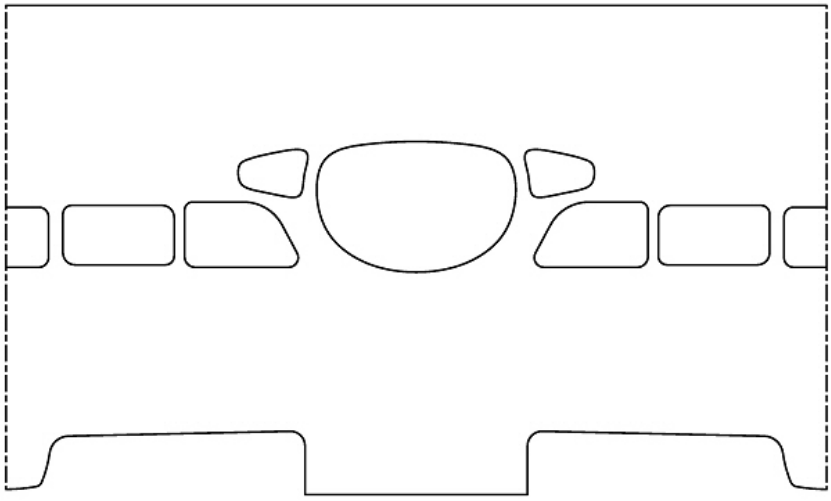
| B | ANGLES D'OUVERTURE | *B* | *OPENING ANGLES* |
|---|---|---|---|

| | | |
|---|---|---|
| | | |
| | | |
| De l'échappement | *Exhaust* | **ACCORDING TO THE REGULATIONS** |

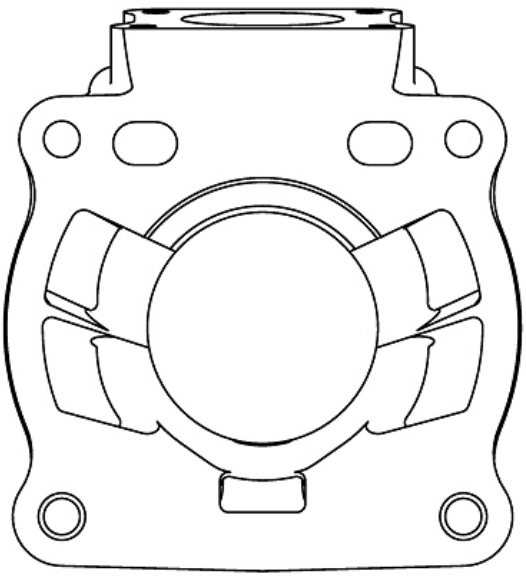
| C | MATÉRIAU | *C* | *MATERIAL* |
|---|---|---|---|

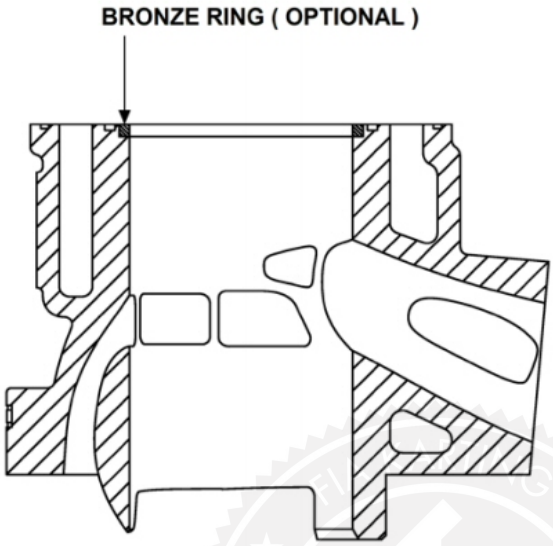
| | | |
|---|---|---|
| Cylindre | *Cylinder* | **ALUMINIUM ALLOY + NICASIL+ BRONZE RING (OPT.)** |
| Culasse | *Cylinder head* | **ALUMINIUM ALLOY** |
| Carter | *Sump* | **ALUMINIUM ALLOY + STEEL BUSHES (OPT.)** |
| Bielle | *Connecting rod* | **STEEL** |

| DESSIN DU DÉVELOPPEMENT DU CYLINDRE | *DRAWING OF THE CYLINDER DEVELOPMENT* |
|---|---|

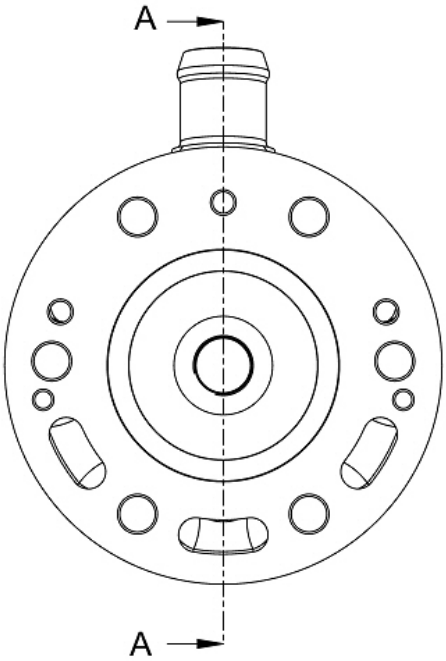


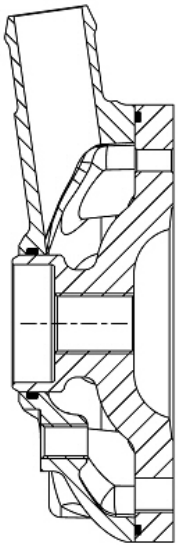
| DESSIN DU PIED DU CYLINDRE | *DRAWING OF THE CYLINDER BASE* | VUE EN SECTION DU CYLINDRE | *SECTION VIEW OF CYLINDER* |
|---|---|---|---|





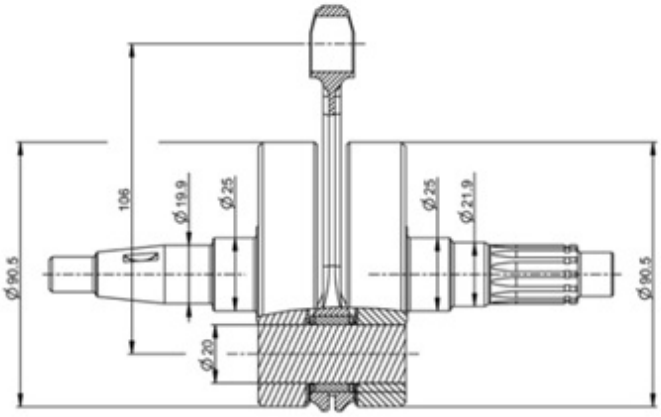
| DESSIN DE LA CULASSE ET DE LA CHAMBRE DE COMBUSTION | *DRAWING OF THE CYLINDER HEAD AND OF THE COMBUSTION CHAMBER* |
|---|---|

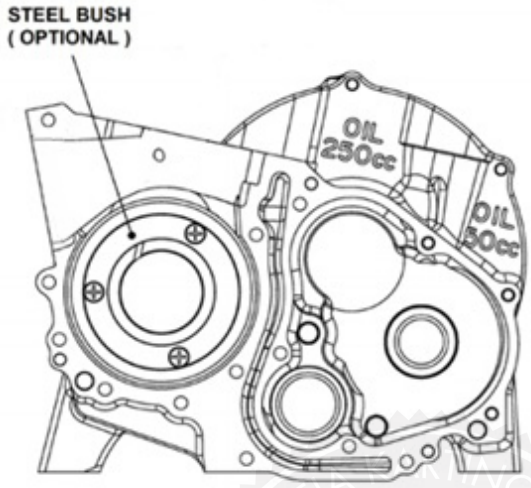


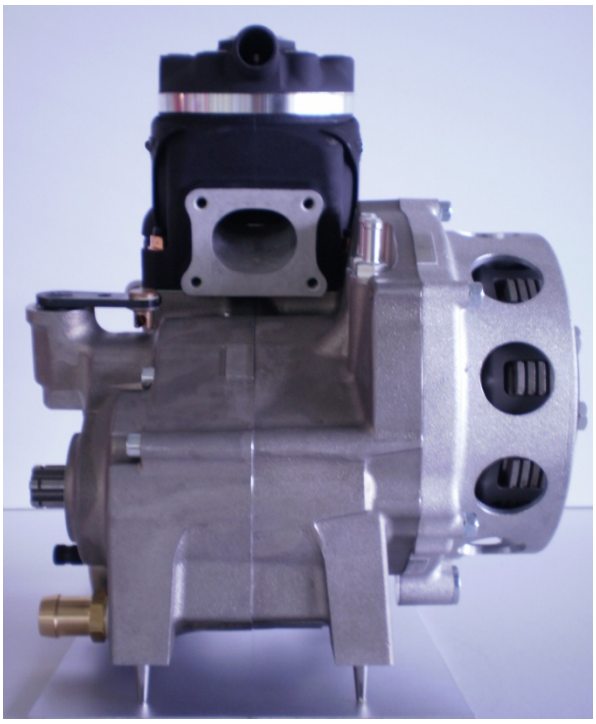



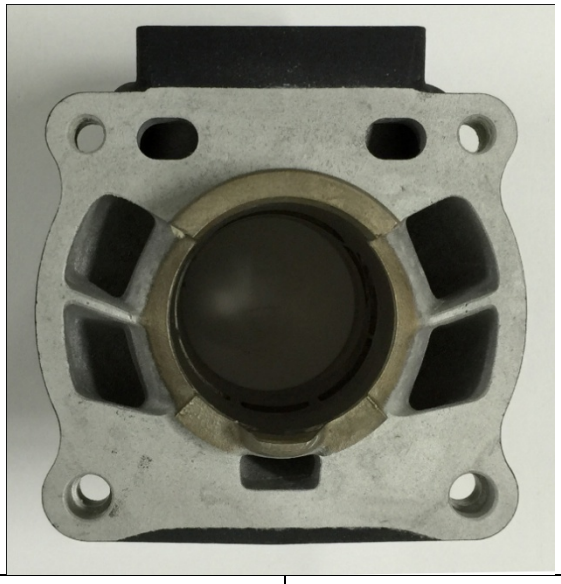
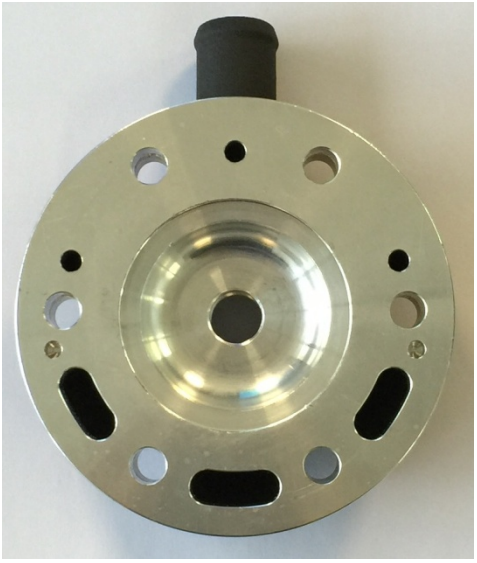
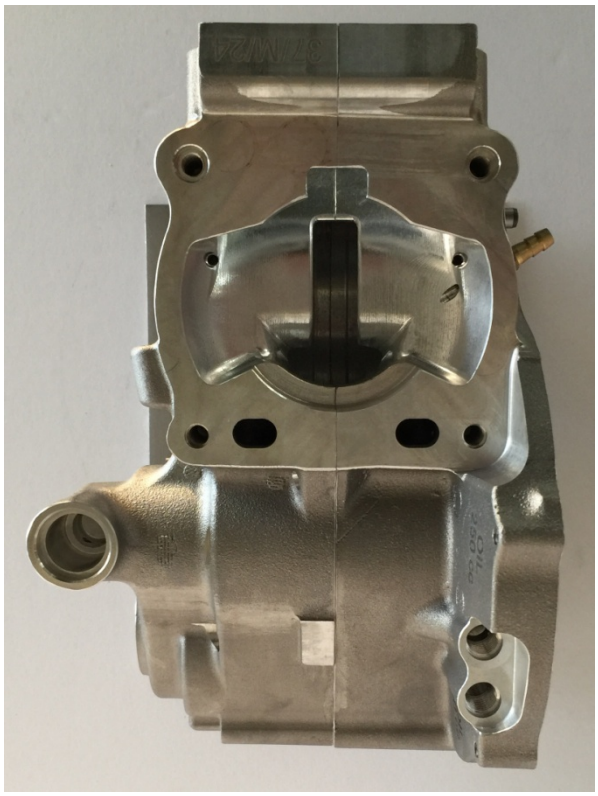
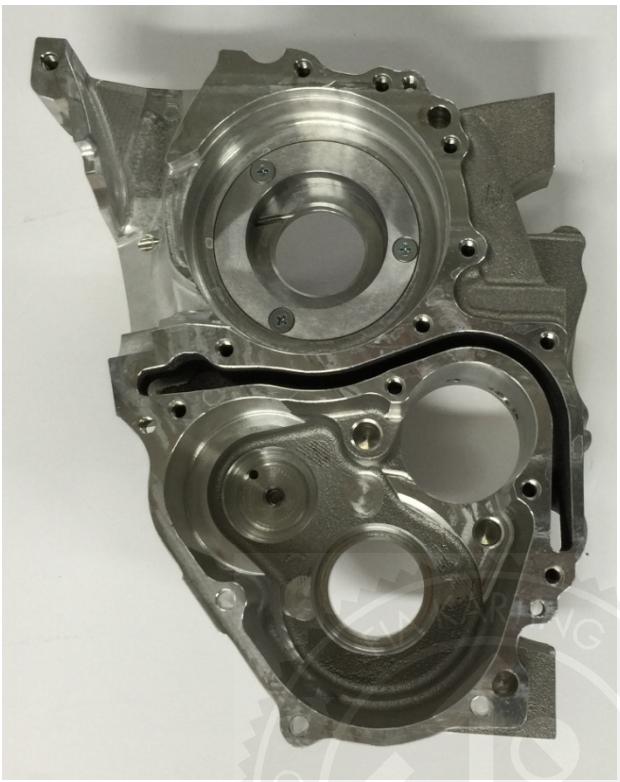
SECTION A-A

| DESSIN DU VILEBREQUIN | *DRAWING OF THE CRANKSHAFT* | DESSIN INTÉRIEUR DU CARTER | *DRAWING OF THE INSIDE OF SUMP* |
|---|---|---|---|



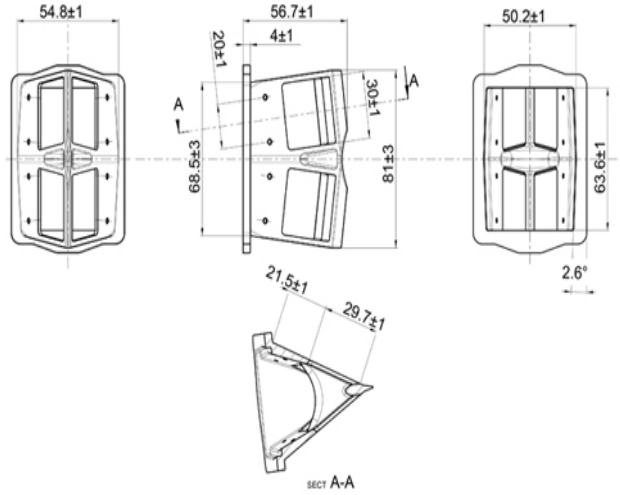



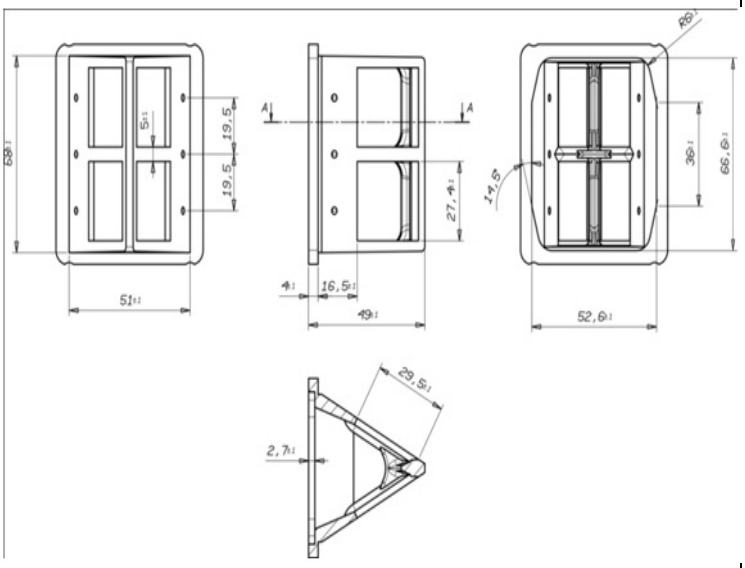
| PHOTO DE L'ARRIÈRE DU MOTEUR | *PHOTO OF THE BACK OF THE ENGINE* | PHOTO DE L'AVANT DU MOTEUR | *PHOTO OF THE FRONT OF ENGINE* |
|---|---|---|---|
|  | |   | |
| PHOTO DU MOTEUR PARTIE SUPÉRIEURE | *PHOTO OF THE ENGINE TAKEN FROM ABOVE* | PHOTO DU MOTEUR PARTIE INFÉRIEURE | *PHOTO OF THE ENGINE TAKEN FROM BELOW* |
|   | |  | |

| PHOTO DU PIED DU CYLINDRE | *PHOTO OF THE BASE OF THE CYLINDER* | PHOTO DE LA CHAMBRE DE COMBUSTION | *PHOTO OF COMBUSTION CHAMBER* |
|---|---|---|---|
|  | |  | |
| PHOTO DU CARTER ( CÔTÉ JOINT ) | *PHOTO OF THE SUMP ( GASKET FACE )* | PHOTO D'UNE PARTIE INTÉRIEURE DU CARTER | *PHOTO OF AN INTERNAL PART OF THE SUMP* |
|  | |  | |

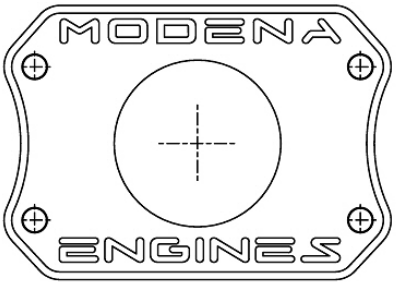
| DESSIN DE LA BOÎTE À CLAPETS | *DRAWING OF REED VALVE* |
|---|---|

(OPTIONAL)

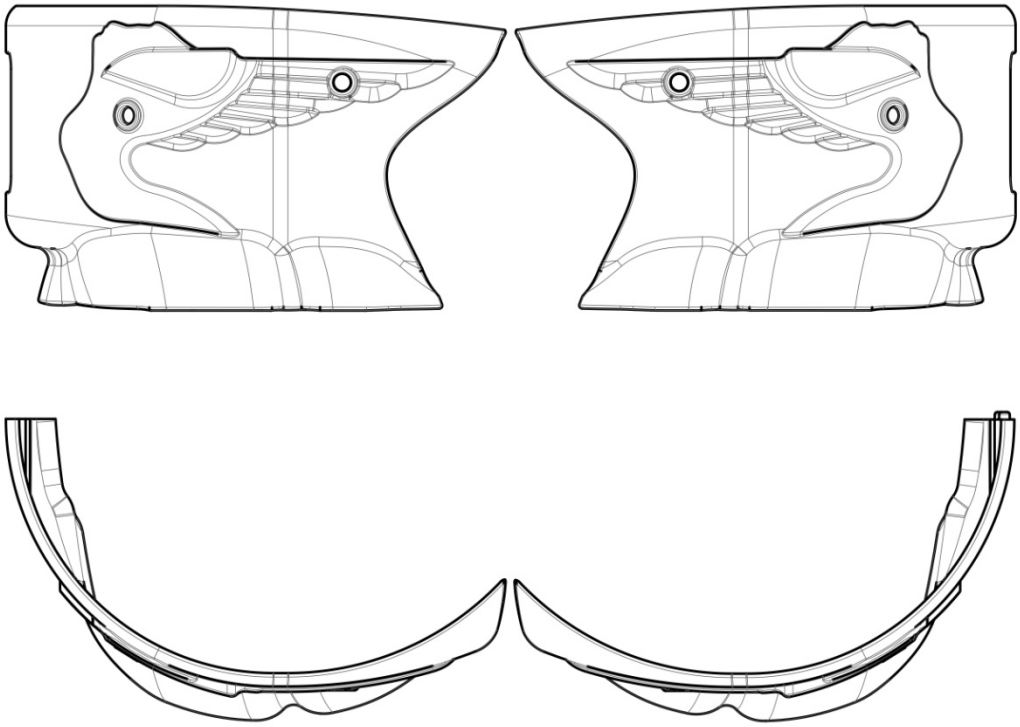



| DESSIN DU COUVERCLE DE LA BOÎTE À CLAPETS | *DRAWING OF REED VALVE COVER* |
|---|---|



| DESSIN DES COUVERCLES CYLINDRE (OPTIONAUX) | *DRAWING OF CYLINDER COVERS (OPTIONALS)* |
|---|---|

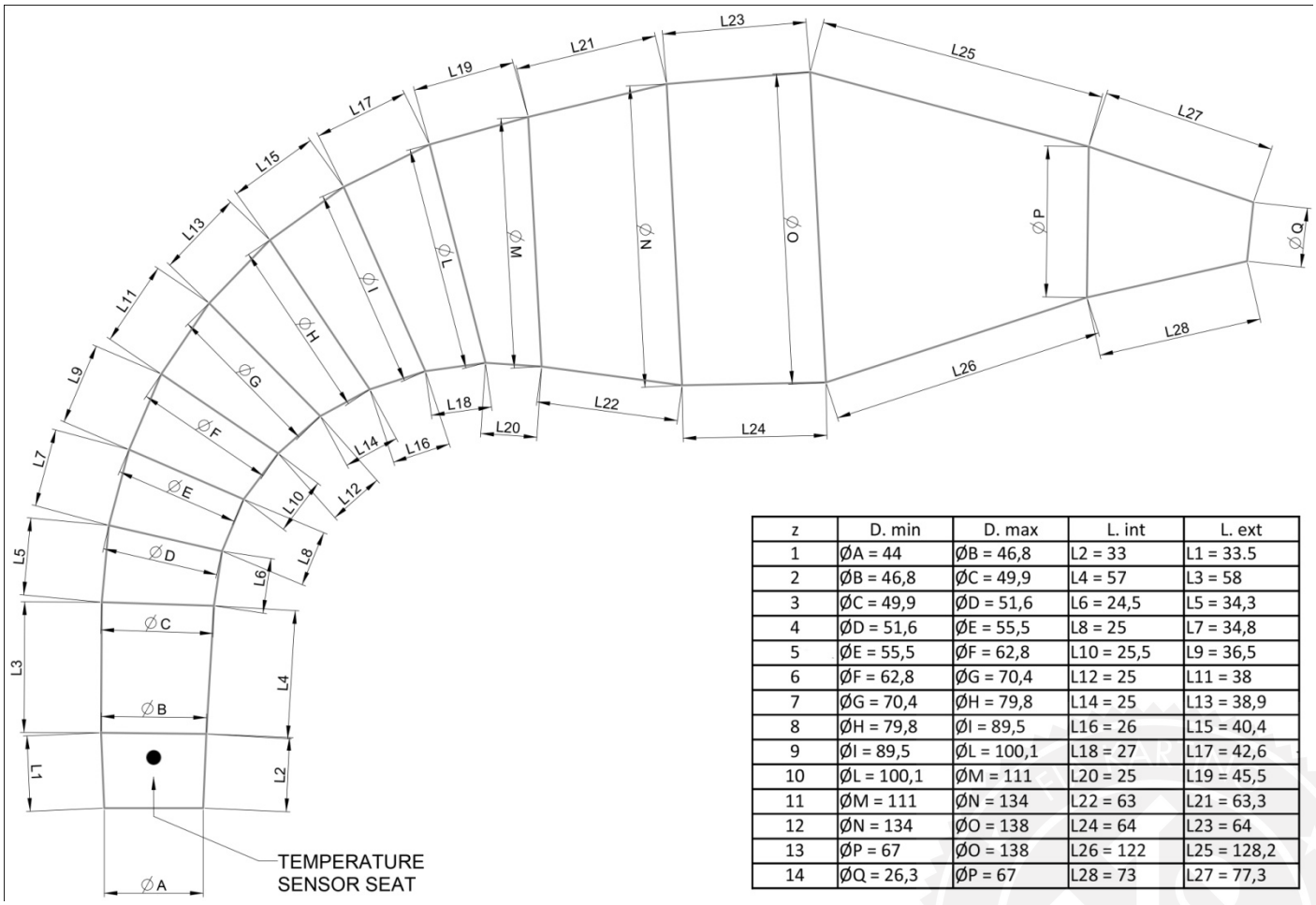


| BOÎTE DE VITESSES | | *GEARBOX* | |
|---|---|---|---|
| | | | |
| Couple primaire | *Primary coupling* | **19/75** | |
| Rapports de boîte de vitesses | | *Gearbox ratios* | |
| | | | |
| Vitesse | Arbre primaire | Arbre secondaire | Relevé des valeurs obtenues après trois tours moteur |
| *Gear* | *Primary shaft* | *Secondary shaft* | *Reading of values obtained after three engine revs* |
| 1ère/1st | **13** | **33** | **107,8** |
| 2e/2nd | **16** | **29** | **151** |
| 3e/3rd | **18** | **27** | **182,4** |
| 4e/4th | **22** | **27** | **222,9** |
| 5e/5th | **22** | **23** | **261,7** |
| 6e/6th | **26** | **24** | **296,4** |
| | | | |

| PHOTOS DE L'ÉCHAPPEMENT | PHOTOS OF THE EXHAUST |
|---|---|
|  |  |

| **DESCRIPTIONS TECHNIQUES** | | ***TECHNICAL DESCRIPTIONS*** | |
|---|---|---|---|
| Poids en gr | *Weight in gr* | **1100** | *Minimum* |
| Volume in $cm^3$ | *Volume in cc* | **4030** | *+/-5 %* |

| **DESSINS TECHNIQUES** | ***TECHNICAL DRAWINGS*** |
|---|---|
| Contenant toutes les informations permettant de construire cet échappement. | *Including all the information necessary to build this exhaust.* |




| z | D. min | D. max | L. int | L. ext |
|---|---|---|---|---|
| 1 | ØA = 44 | ØB = 46,8 | L2 = 33 | L1 = 33.5 |
| 2 | ØB = 46,8 | ØC = 49,9 | L4 = 57 | L3 = 58 |
| 3 | ØC = 49,9 | ØD = 51,6 | L6 = 24,5 | L5 = 34,3 |
| 4 | ØD = 51,6 | ØE = 55,5 | L8 = 25 | L7 = 34,8 |
| 5 | ØE = 55,5 | ØF = 62,8 | L10 = 25,5 | L9 = 36,5 |
| 6 | ØF = 62,8 | ØG = 70,4 | L12 = 25 | L11 = 38 |
| 7 | ØG = 70,4 | ØH = 79,8 | L14 = 25 | L13 = 38,9 |
| 8 | ØH = 79,8 | ØI = 89,5 | L16 = 26 | L15 = 40,4 |
| 9 | ØI = 89,5 | ØL = 100,1 | L18 = 27 | L17 = 42,6 |
| 10 | ØL = 100,1 | ØM = 111 | L20 = 25 | L19 = 45,5 |
| 11 | ØM = 111 | ØN = 134 | L22 = 63 | L21 = 63,3 |
| 12 | ØN = 134 | ØO = 138 | L24 = 64 | L23 = 64 |
| 13 | ØP = 67 | ØO = 138 | L26 = 122 | L25 = 128,2 |
| 14 | ØQ = 26,3 | ØP = 67 | L28 = 73 | L27 = 77,3 |