

FICHE D'HOMOLOGATION / HOMOLOGATION FORM





012-EZ-01



COMMISSION INTERNATIONALE DE KARTING - FIA



MOTEUR / ENGINE KZ

Constructeur / <i>Manufacturer</i>	OTK KART GROUP S.R.L.
Marque / <i>Make</i>	VORTEX
Modèle / <i>Model</i>	VTZ
Catégorie / <i>Categorie</i>	Group 2
Durée de l'homologation / <i>Validity of the Homologation</i>	3 ans / 3 years
Nombre de pages / <i>Number of pages</i>	10
La présente Fiche d'Homologation reproduit descriptions, illustrations et dimensions du moteur au moment de l'homologation CIK-FIA.	<i>This Homologation Form reproduces descriptions, illustrations and dimensions of the engine at the moment of the CIK-FIA homologation.</i>
	
Photo du moteur côté pignon / <i>Photo of engine drive side</i>	Photo du moteur côté opposé / <i>Photo of engine opposite side</i>
Signature et tampon de l'ASN / <i>Signature and stamp of the ASN</i>	Signature et tampon de la CIK-FIA / <i>Signature and stamp of the CIK-FIA</i>
	

INFORMATIONS TECHNIQUES / TECHNICAL INFORMATION

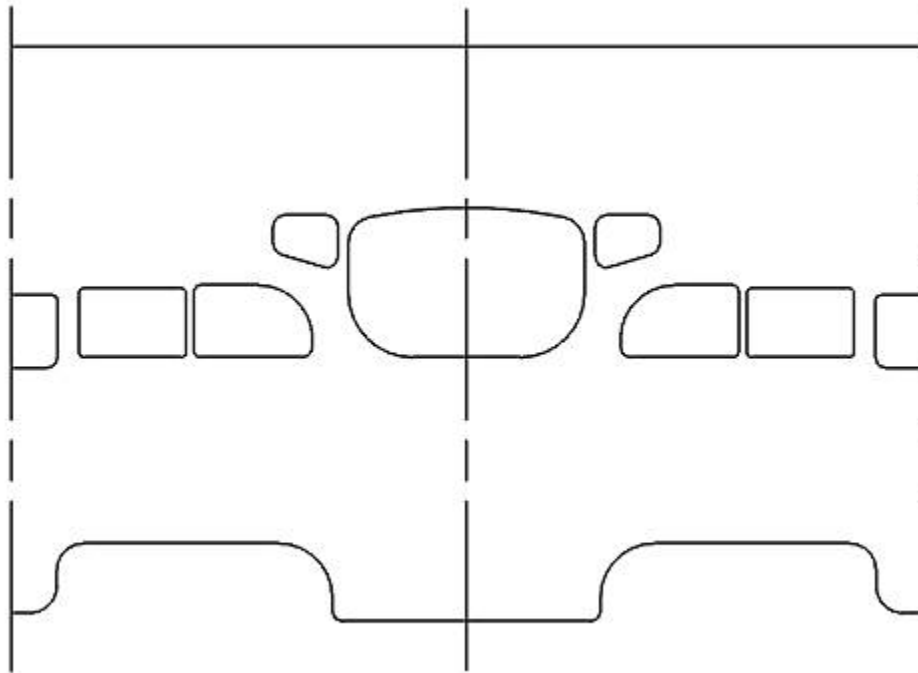
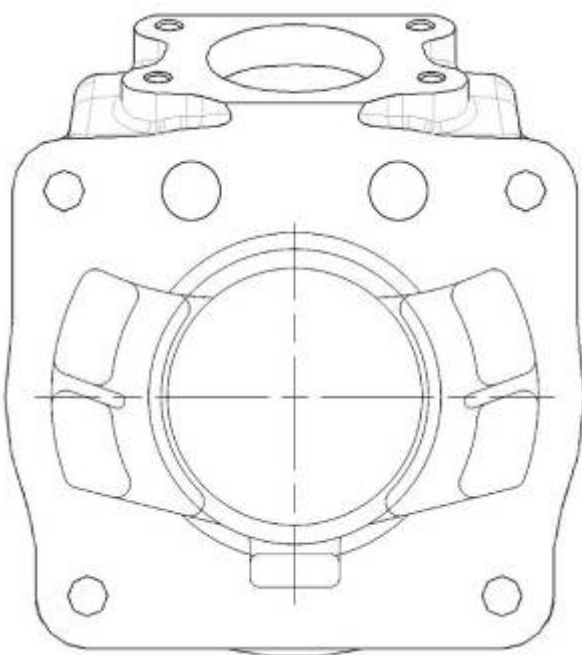
A Caractéristiques / Characteristics

Le nombre de décimales doit être de 2 ou en accord avec la tolérance appliquée. / The number of decimal places must be 2 or comply with the relevant tolerance.		Tolérances et remarques / Tolerances & remarks
Cylindre / Cylinder		
Volume du cylindre / Cylinder volume	124.63 cm³	< 125 cm ³
Alésage d'origine / Original bore	54.01 mm	--
Alésage théorique maximum / Maximum theoretical bore	54.09 mm	--
Course / Stroke	54.40 mm	--
Nombre de lumières d'admission / Number of intake ports		
	1	--
Nombre de lumières de transfert, cylindre/carter / Number of transfer ports, cylinder/sump		
	5 / 3	--
Nombre de lumières d'échappement / Number of exhaust ports		
	3	--
Forme de la chambre de combustion / Shape of combustion chamber	SPHERICAL DOME & SQUISH BAND	
Vilebrequin / Crankshaft		
Poids du vilebrequin complet, sans piston / Weight of crankshaft complete, without piston	2162.0 gr.	Minimum
Bielle / Conrod		
Longueur (entre-axe) de la bielle / Length between the axes of the conrod	115.0 mm	±0.1 mm
Poids de la bielle / Weight of conrod	113.4 gr.	minimum
Piston / Piston		
Poids du piston, segments du piston inclus / Weight of the piston including piston rings	111.6 gr.	Minimum
Poids de l'axe de piston / Weight of gudgeon pin	27.0 gr.	minimum

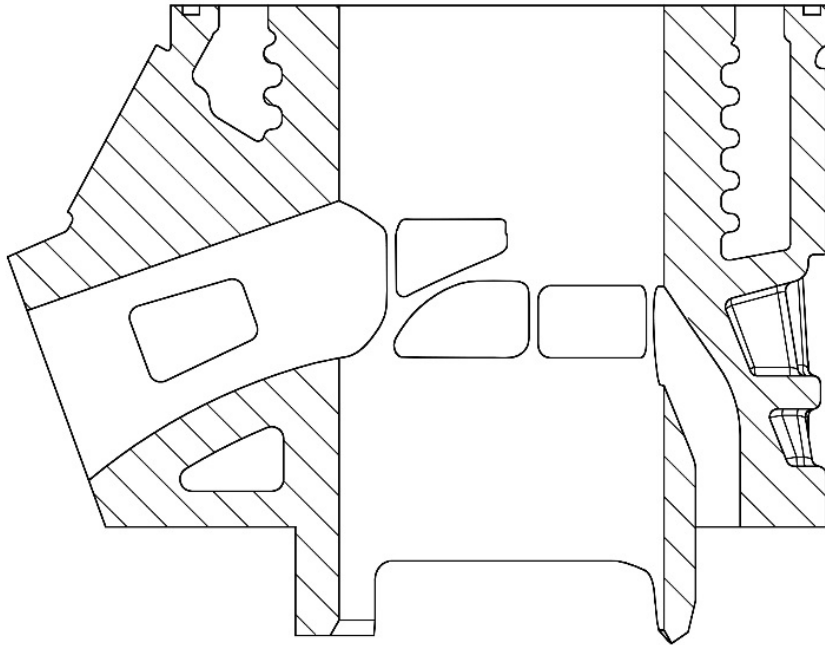
B	Angles d'ouverture / Opening angles
Lumière d'échappement / Exhaust port	selon les règlements/ according to the regulations

C	Matériau / Material
Culasse / Cylinder head	ALUMINIUM ALLOY
Cylindre / Cylinder	ALUMINIUM ALLOY
Matériau de la paroi du cylindre / Cylinder wall material	ALUMINIUM with NIKASIL
Carter / Sump	ALUMINIUM ALLOY
Vilebrequin / Crankshaft	STEEL
Bielle / Connecting rod	STEEL
Piston / Piston	ALUMINIUM ALLOY

D

Photos, dessins et graphiques / Photos, drawings and graphs**1. Cylindre / Cylinder**Dessin du développement du cylindre / *Drawing of the cylinder development*Dessin du pied du cylindre / *Drawing of the cylinder base*Photo du pied du cylindre / *Photo of the cylinder base*

Vue en coupe verticale du cylindre complet (sans dimensions) /
Vertical cross section view of the complete cylinder (without dimensions)



Dessin de la culasse et de la chambre de combustion /
Drawing of the cylinder head and combustion chamber

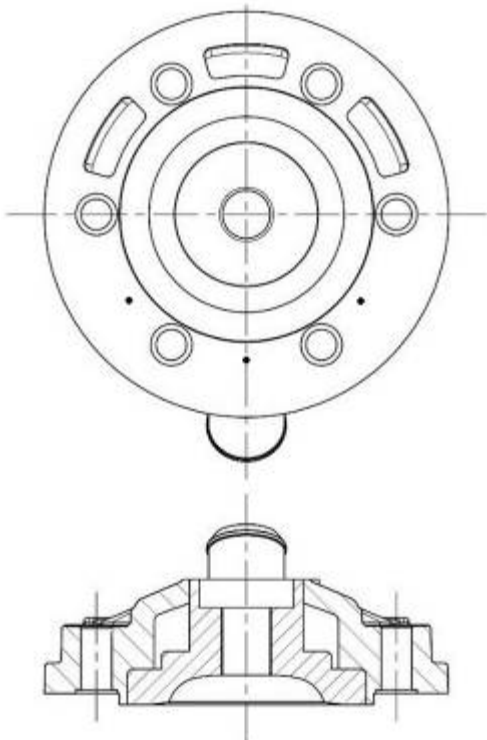


Photo de la culasse et de la chambre de combustion /
Photo of the cylinder head and the combustion chamber



2. Vilebrequin, bielle et carter / Crankshaft, conrod and crankcase

Dessin du vilebrequin complet (dimensions sans tolérances) /
 Drawing of the complete crankshaft (dimensions without tolerances)

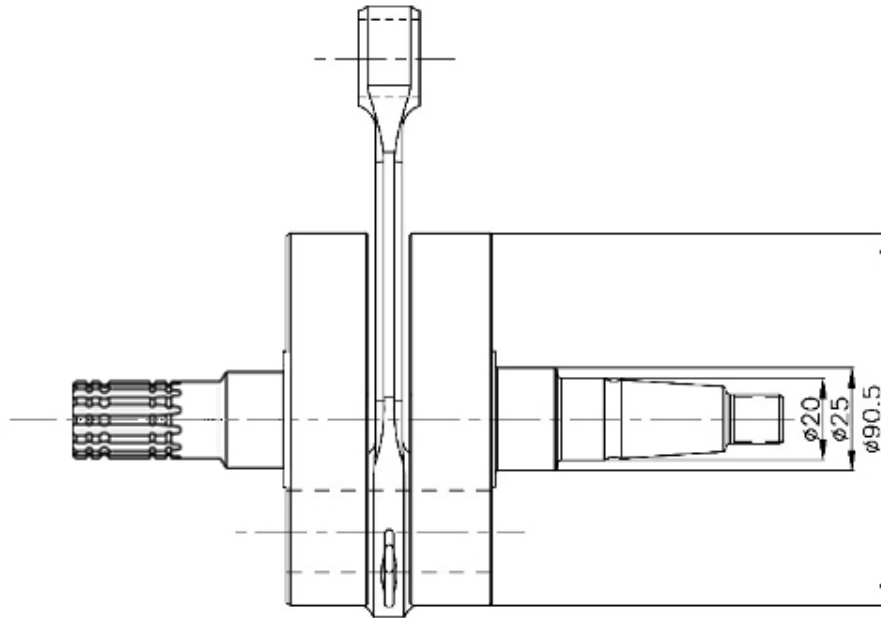


Photo du vilebrequin et de la bielle /
 Photo of the crankshaft and conrod

Photo de la bielle/ Photo of the conrod



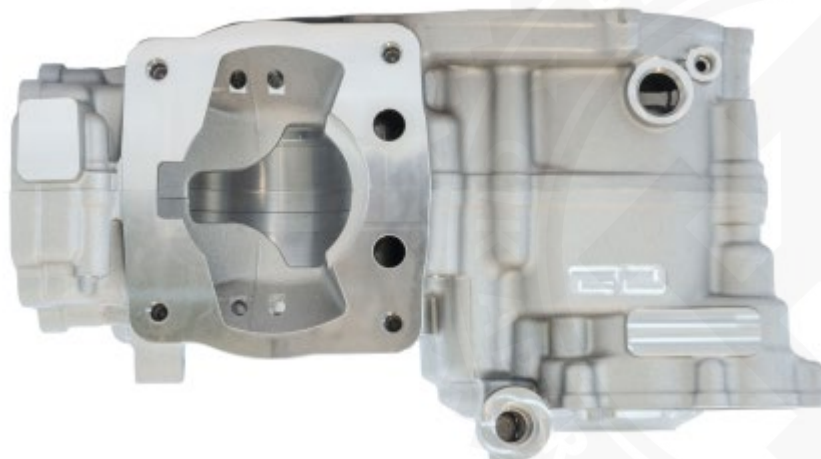
Photo de l'intérieur du carter droit /
Photo of the inside of the right crankcase



Photo de l'intérieur du carter gauche /
Photo of the inside of the left crankcase

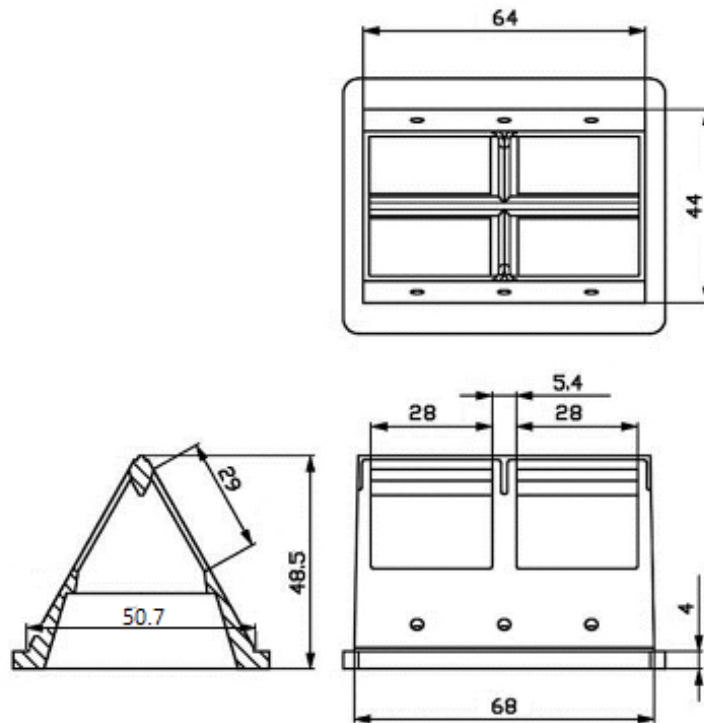


Photo du carter (coté joint) /
Photo of the sump (gasket face)

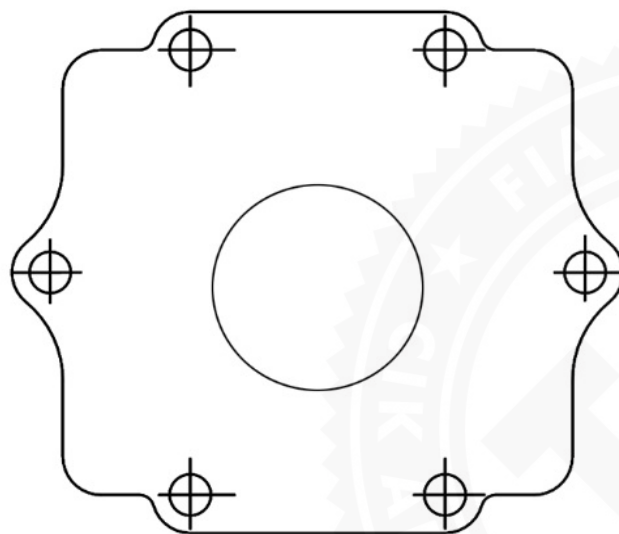


3. Boite à clapets / Reed valve box

Dessin de la boite à clapets (dimensions sans tolérances) /
Drawing of the reed valve box (dimensions without tolerances)



Dessin de la couvercle de la boite à clapets / Drawing of the reed valve box cover



4. Moteur / Engine

Photo du moteur complet de l'avant /
Photo of the complete engine front side



Photo du moteur complet de l'arrière /
Photo of the complete engine rear side



Photo du moteur complet vu du haut /
Photo of the complete engine seen from above



Photo du moteur complet vu du dessous /
Photo of the complete engine seen from below



5. Boite de vitesses / Gearbox

Couple primaire / Primary coupling

17 / 67

Vitesse / Gear	Arbre primaire / Primary shaft	Arbre secondaire / Secondary shaft	Relevé des valeurs obtenues après trois tours moteur / Reading of values obtained after three engines revs
1ère / 1 st	13	33	108.2°
2e / 2 nd	16	29	151.2°
3e / 3 rd	16	24	183.1°
4e / 4 th	18	22	224.2°
5e / 5 th	22	23	262.1°
6e / 6 th	27	25	296.0°

6.Échappement / Exhaust

Photo de l'échappement vu du haut / Photo of the exhaust seen from above

Photo de l'échappement vu du dessous / Photo of the exhaust seen from below

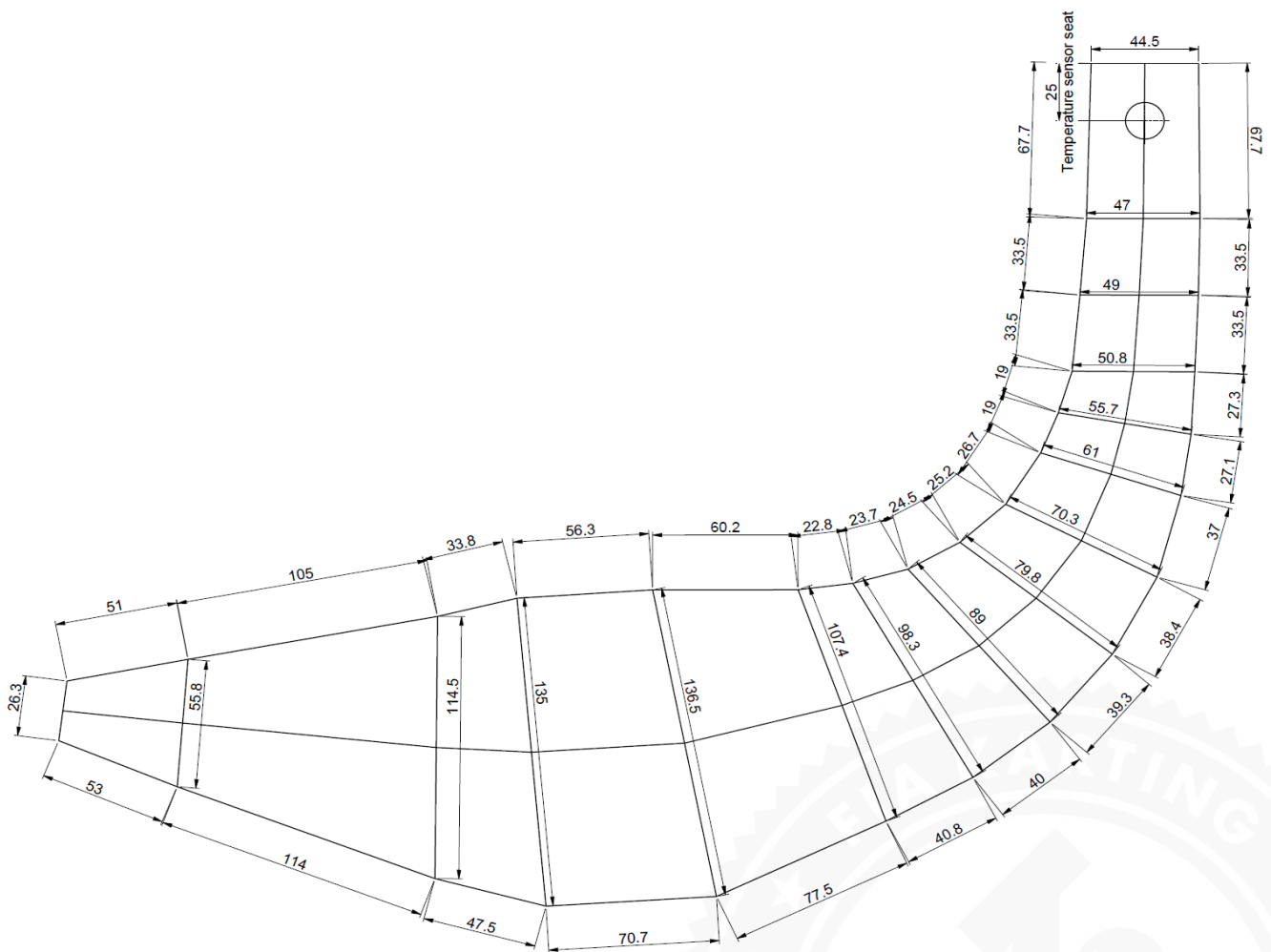


012-EZ-01

Descriptions technique / Technical descriptions

Poids en gramm / <i>Weight in gramm</i>	1113 gr.	minimum
Volume in cm ³ / <i>Volume in cm³</i>	3930 cm³	±5%

Dessin de l'échappement (dimensions sans tolérances) /
Drawing of the exhaust (dimensions without tolerances)



Contenant toutes les informations permettant de construire cet échappement. /
Including all the informations necessary to build this exhaust.

COMPLÉMENT À LA FICHE D'HOMOLOGATION /
SUPPLEMENT TO THE HOMOLOGATION FORM

Homologation N°

012-EZ-01
SUP



COMMISSION
INTERNATIONALE
DE KARTING - FIA



MOTEUR / ENGINE
KZ

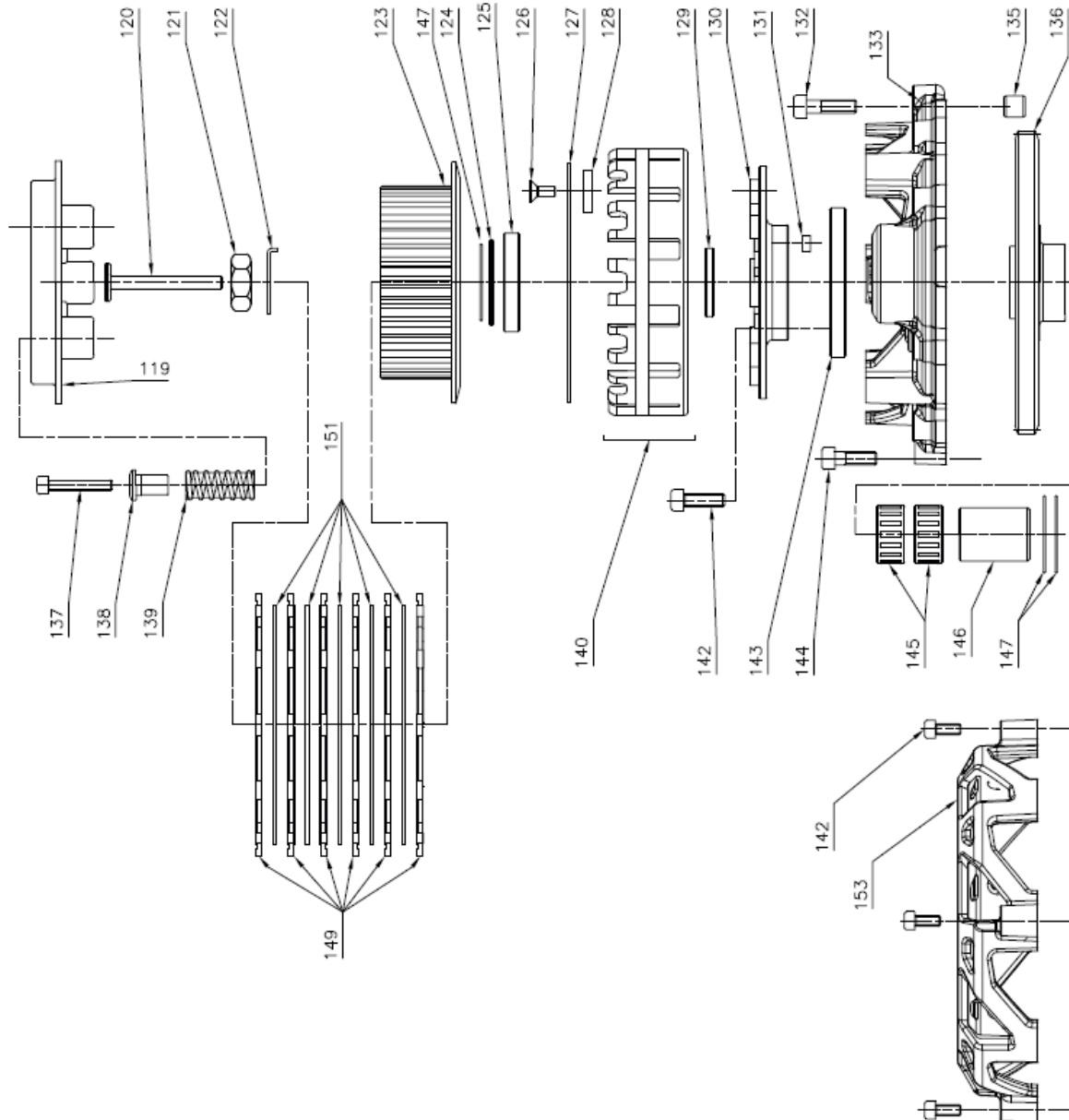
Constructeur / <i>Manufacturer</i>	<u>OTK KART GROUP S.R.L.</u>
Marque / <i>Make</i>	<u>VORTEX</u>
Modèle / <i>Model</i>	<u>VTZ</u>
Catégorie / <i>Category</i>	Group 1/2
Nombre de pages / <i>Number of pages</i>	7
Le présent Complément reproduit descriptions, illustrations et dimensions de la ou des pièces demandées par la CIK-FIA.	<i>This Supplement reproduces descriptions, illustrations and dimensions of the part(s) requested by the CIK-FIA.</i>

Signature et tampon de l'ASN / <i>Signature and stamp of the ASN</i>	Signature et tampon de la CIK-FIA / <i>Signature and stamp of the CIK-FIA</i>

INFORMATIONS TECHNIQUES / TECHNICAL INFORMATION

B

Pièces de la boîte de vitesses / Gearbox parts



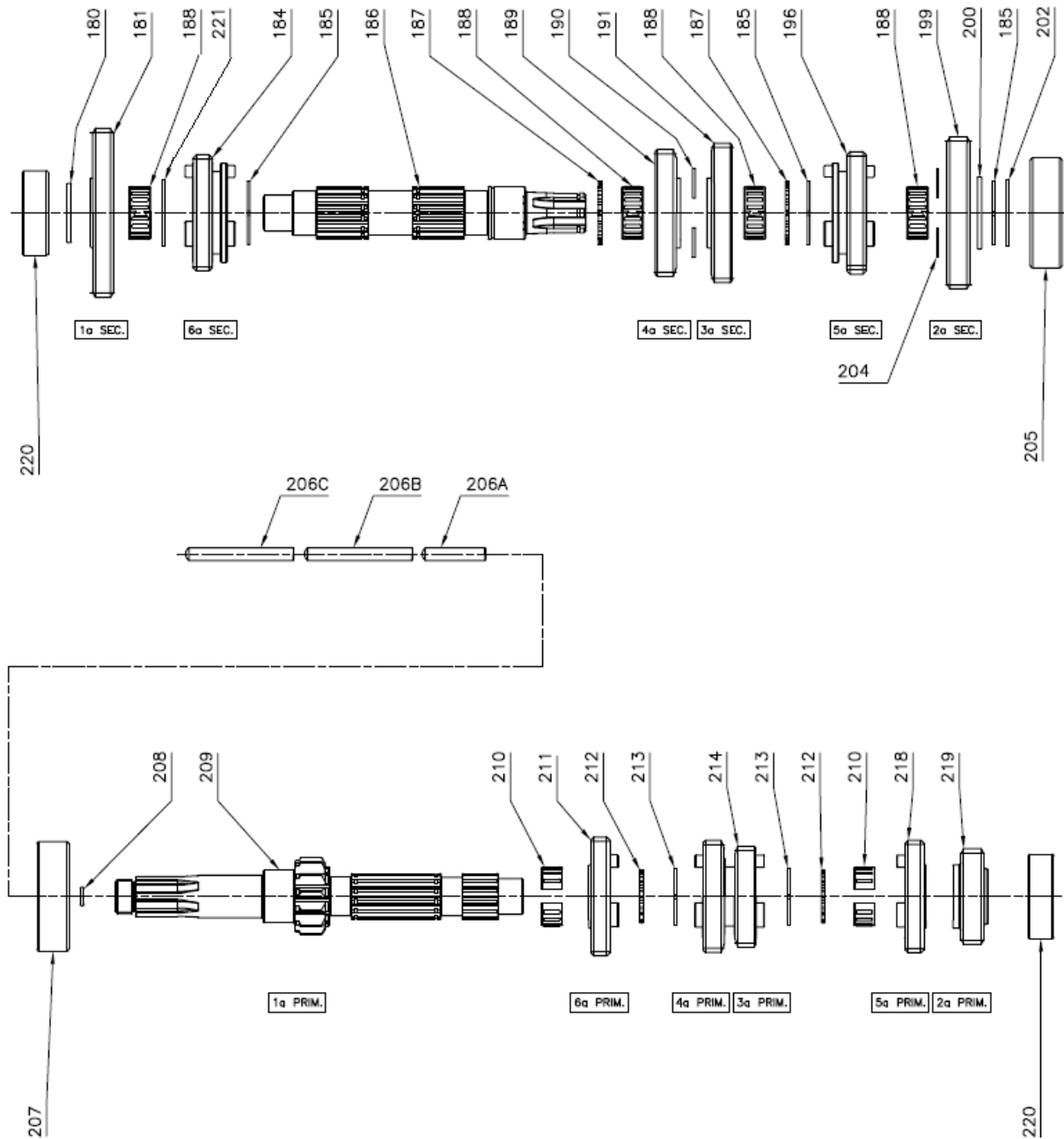
B **Liste des pièces de la boîte de vitesses / Gearbox parts list**

Rif.	Descrizione	Description	N°
119	Coperchio spingidisco frizione	Clutch disks cover	1
120	Fungo spingidisco	Clutch lifter	1
121	Dado tamburo frizione	Clutch drum nut	1
122	Fermo dado tamburo frizione	Drum nut retainer	1
123	Tamburo frizione completo	Complete clutch drum	1
124	Ralla tamburo frizione	Clutch drum washer	1
125	Distanziale mozzo frizione parastrappi	Clutch drum spacer for damper	1
126	Vite	Screw	8
127	Coperchio parastrappi	Damper cover	1
128	Gommino parastrappi	Damper rubber	8
129	Paraolio campana frizione	Clutch housing oil seal	1
130	Piatto parastrappi	Damper plate	1
131	Linguetta campana frizione	Clutch housing key	4
132	Vite	Screw	2
133	Coperchio trasmissione primaria	Primary transmission cover	1
135	Bussola carter	Crankcase dowel	2
136	Ingranaggio trasmissione primaria	Primary transmission gear	1
137	Vite	Screw	6
138	Distanziale molla frizione	Clutch spring spacer	6
139	Molla frizione	Clutch spring	6
140	Campana frizione con anello	Clutch housing	1
142	Vite	Screw	10
143	Paraolio coperchio trasmissione primaria	Primary transmission cover oil seal	1
144	Vite	Screw	5
145	Gabbia primaria	Primary cage	2
146	Anello interno	Internal ring	1
147	Ralla trasmissione Primaria	Primary transmission washer	3
149	Disco guamito	Lined disk	6
151	Disco nudo in ferro	Iron bare disk	5
153	Carterino frizione	Clutch guard	1

INFORMATIONS TECHNIQUES / TECHNICAL INFORMATION

B

Pièces de la boîte de vitesses / Gearbox parts



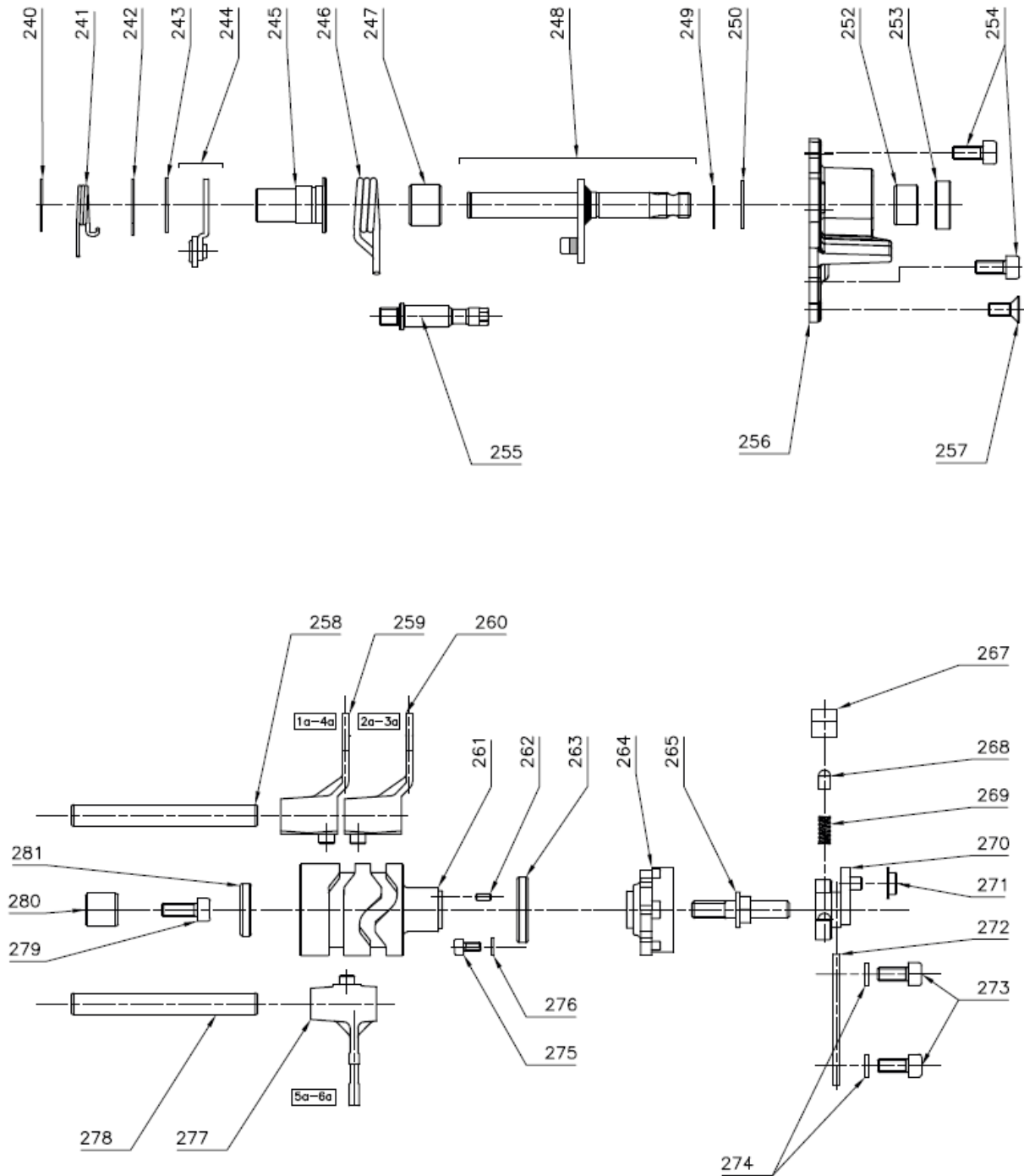
B**Liste des pièces de la boîte de vitesses / Gearbox parts list**

Rif.	Descrizione	Description	N°
180	Ralla rasamento cuscinetto	Bearing washer	1
181	Ingranaggio 1 ^A albero secondario	Gear 1 TH countershaft	1
184	Ingranaggio 6 ^A albero secondario	Gear 6 TH countershaft	1
185	Anello seeger esterno	Seeger external	3
186	Albero secondario	Countershaft	1
187	Ralla brocciata albero secondario	Secondary broached washer	2
188	Gabbia	Cage	4
189	Ingranaggio 4 ^A albero secondario	Gear 4 TH countershaft	1
190	Ralla spaccata	Split washer	1
191	Ingranaggio 3 ^A albero secondario	Gear 3 TH countershaft	1
196	Ingranaggio 5 ^A albero secondario	Gear 5 TH countershaft	1
199	Ingranaggio 2 ^A albero secondario	Gear 2 TH countershaft	1
200	Ralla spallam. Cambio	Gearbox washer	1
202	Ralla cambio	Gearbox washer	1
204	Ralla spaccata	Split washer	1
205	Cuscinetto banco	Insert crankcase	1
206A	Asta alza frizione	Clutch lifter rod	1
206B	Asta alza frizione	Clutch lifter rod	1
206C	Asta alza frizione	Clutch lifter rod	1
207	Cuscinetto	Insert	1
208	O-ring fungo spingidisco	Clutch lifter o-ring	1
209	Albero primario	Mainshaft	1
210	Gabbia spaccata	Split cage	2
211	Ingranaggio 6 ^A albero primario	Gear 6 TH mainshaft	1
212	Ralla brocciata albero primario	Broached washer primary shaft	2
213	Anello seeger esterno	Seeger external	2
214	Ingranaggio 3 ^A /4 ^A albero primario	Gear 3 TH /4 TH mainshaft	1
218	Ingranaggio 5 ^A albero primario	Gear 5 TH mainshaft	1
219	Ingranaggio 2 ^A albero primario	Gear 2 TH mainshaft	1
220	Cuscinetto	Insert	2
221	Ralla spallam. Cambio	Gearbox washer	1

INFORMATIONS TECHNIQUES / TECHNICAL INFORMATION

B

Pièces de la boîte de vitesses / Gearbox parts



B **Liste des pièces de la boîte de vitesses / Gearbox parts list**

Rif.	Descrizione	Description	N°
240	Rondella elastica posizionatore	Locating spring washer	1
241	Molla posizionatore marce	Locating spring	1
242	Seeger	Seeger	1
243	Ralla boccola preselettore	Pawl bush washer	1
244	Leva posizionatore marce completa	Complete locating lever	1
245	Boccola per posizionatore marce	Locating bush	1
246	Molla preselettore	Preselector spring	1
247	Distanziale molla preselettore	Preselector spring spacer	1
248	Perno preselettore cambio completo	Complete gearbox preselector pin	1
249	Anello seeger	Seeger	1
250	Ralla perno preselettore	Preselector pin washer	1
252	Astuccio a rullini	Roller case	1
253	Paraolio preselettore	Preselector oil seal	1
254	Vite	Screw	3
255	Fermo molla preselettore rinforzato	Reinforced preselector spring stop reinforced	1
256	Coperchio preselett.cambio	Gearbox preselector cover	1
257	Vite	Screw	2
258	Asta forchette	Shifter forks pin	1
259	Forcella 1ª e 4ª marcia	1st and 4th speed shifter fork	1
260	Forcella 2ª e 3ª marcia	2nd and 3rd speed shifter fork	1
261	Albero desmodromico	Shift cam	1
262	Rullo desmodromico	Roller cam	1
263	Cuscinetto desmo	Insert cam	1
264	Stella selettore	Preselector cam	1
265	Perno stella selettore	Preselector cam pin	1
267	Cricchetto	Preselector ratchet driving dog	2
268	Puntalino cricchetti	Driving dogs spring cap	2
269	Molla cricchetti	Driving dogs spring	2
270	Selettore porta cricchetti	Preselector ratchet wheel	1
271	Ruotina preselettore	Preselector crank wheel	1
272	Piastrina cricchetti	Driving dogs retain plate	1
273	Vite	Screw	2
274	Rondella piana	Flat washer	2
275	Vite	Screw	1
276	Rondella piana	Flat washer	1
277	Forcella 5ª e 6ª velocità	5th and 6th speed shifter fork	1
278	Asta forchette	Shifter forks pin	1
279	Vite	Screw	1
280	Boccola porta cuscinetto desmo	Shift cam bearing support	1
281	Cuscinetto desmo	Insert cam	1