Homologation N°

041-ES-03

FICHE D´HOMOLOGATION / *HOMOLOGATION FORM*

COMMISSION INTERNATIONALE DE KARTING - FIA

MOTEUR / *ENGINE*
OK

Constructeur / *Manufacturer*	TM RACING SPA
Marque / *Make*	**TM KART**
Modèle / *Model*	**S3-SENIOR**
Catégorie / Categorie	Group 2
Durée de l'homologation / *Validity of the Homologation*	3 ans / *3 years*
Nombre de pages / *Number of pages*	15
La présente Fiche d'Homologation reproduit descriptions, illustrations et dimensions du moteur au moment de l'homologation CIK-FIA.	*This Homologation Form reproduces descriptions, illustrations and dimensions of the engine at the moment of the CIK-FIA homologation.*
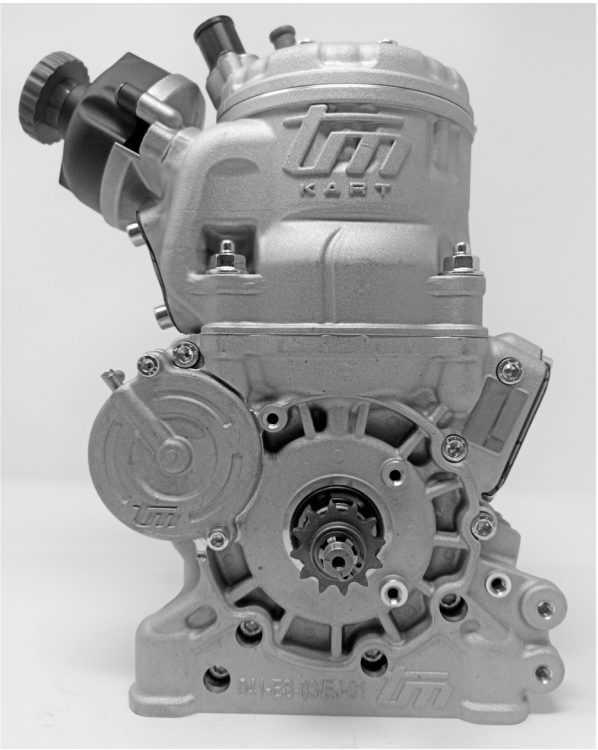	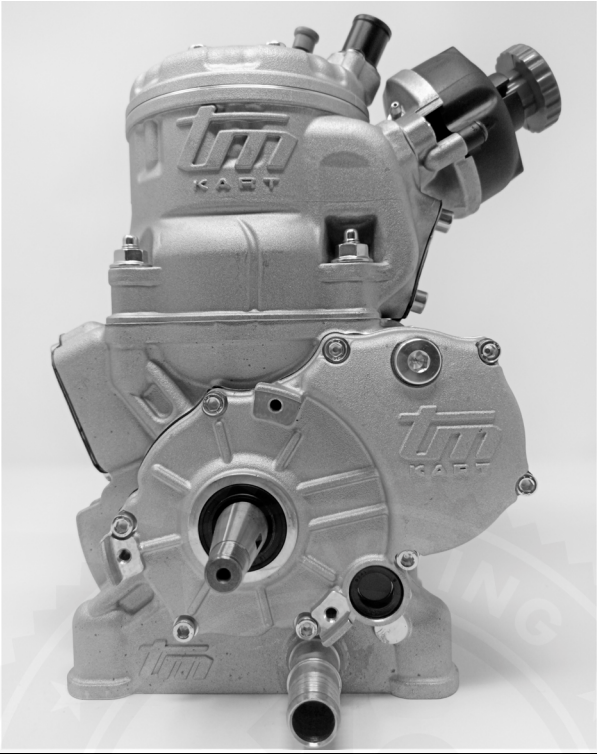
Photo du moteur côté pignon / *Photo of engine drive side*	Photo du moteur côté opposé / *Photo of engine opposite side*
Signature et tampon de l'ASN / *Signature and stamp of the ASN*	Signature et tampon de la CIK-FIA / *Signature and stamp of the CIK-FIA*
Via Solferino 32 - 00186 Roma (RM)	

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Homologation N°

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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*	**124.36 cm³**	< 125 cm³
Alésage d'origine / *Original bore*	**53.95 mm**	--
Alésage théorique maximum / *Maximum theoretical bore*	**54.08 mm**	
Course / *Stroke*	**54.40 mm**	±0.1 mm
Nombre de conduits/lumières de transfert en cylindre et carter / *Number of transfer ports/ducts in cylinder and crankcase*	**5 / 3**	--
Nombre de conduits/lumières d'échappement / *Number of exhaust ports/ducts*	**3**	--
Forme de la chambre de combustion / *Shape of combustion chamber*	Spheric with radiuses & squish	
Vilebrequin / *Crankshaft*		
Poids du vilebrequin complet, sans piston / *Weight of crankshaft complete, without piston*	**1750 gr.**	minimum
Dimensions des paliers / *Dimensions of bearings*	**25 mm**	
Nombre des paliers / *Number of bearings*	**2**	
Bielle / *Conrod*		
Longueur (entre-axe) de la bielle / *Length between the axes of the conrod*	**104 mm**	±0.2 mm
Diamètre de la tête de bielle / *Diameter of big end*	**26.00 mm**	±0.05 mm
Diamètre du pied de bielle / *Diameter of small end*	**19.00 mm**	±0.05 mm
Poids de la bielle / *Weight of conrod*	**92.0 gr.**	minimum
Piston / *Piston*		
Nombre de segments du piston / *Number of piston rings*	**1**	--
Poids du piston, segments du piston inclus / *Weight of the piston including piston rings*	**107 gr.**	minimum
Poids de l'axe de piston / *Weight of gudgeon pin*	**26 gr.**	minimum
Arbre d'équilibrage / *Balance shaft*		
Poids de l'arbre d'équilibrage / *Weight of balance shaft*	**339.0 gr.**	minimum
Pourcentage d'equilibrage / *Percentage of balancing*	**25 %**	minimum

B — Angles d'ouverture / *Opening angles*

Lumière d'échappement / *Exhaust port*	Selon le reglement / *Acc. to regulations*

C — Matériau / *Material*

Culasse / *Cylinder head*	ALUMINIUM ALLOY
Cylindre / *Cylinder*	ALUMINIUM ALLOY
Carter / *Sump*	ALUMINIUM ALLOY
Vilebrequin / *Crankshaft*	STEEL
Bielle / *Connecting rod*	STEEL
Piston / *Piston*	ALUMINIUM ALLOY

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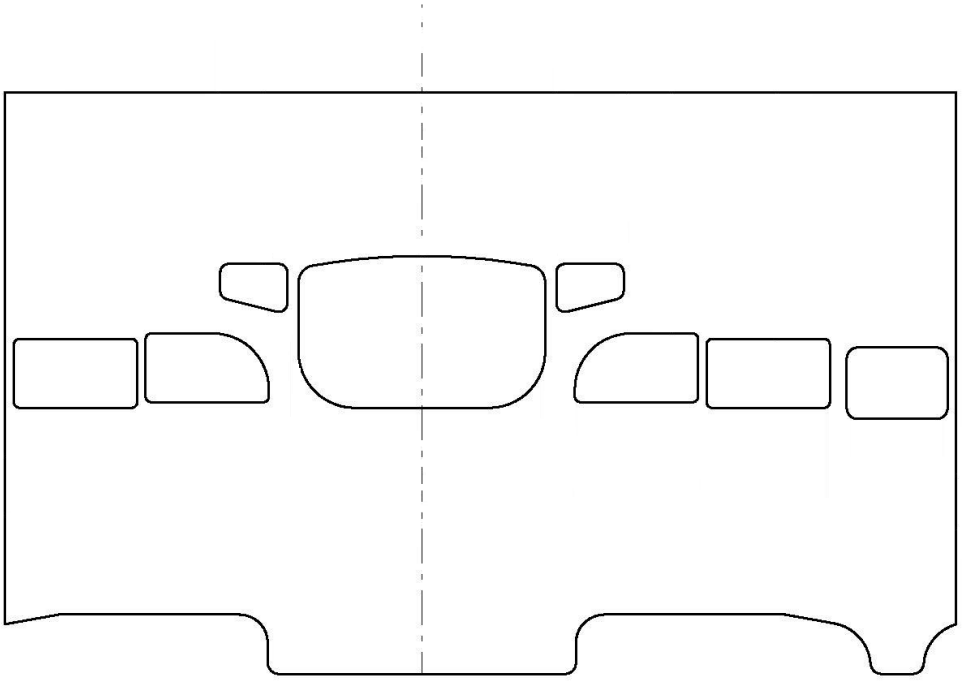
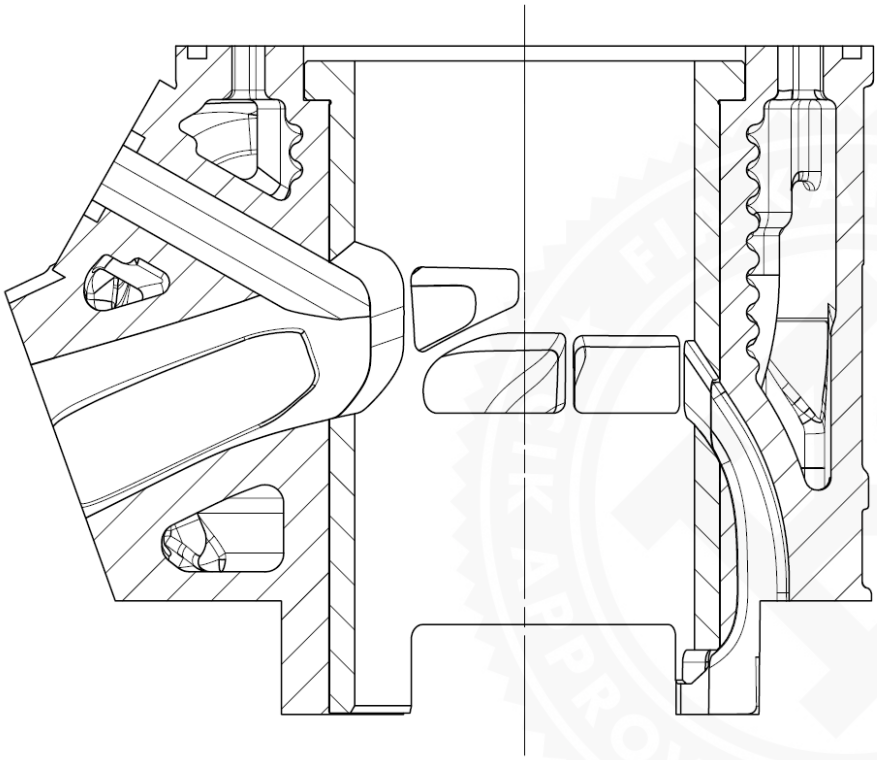
E	Photos, dessins et graphiques / *Photos, drawings and graphs*

1. Cylindre et carter / *Cylinder and crankcase*

Dessin du développement du cylindre (sans dimensions) / *Drawing of the cylinder development (without dimensions)*



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



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Dessin du pied du cylindre / *Drawing of the cylinder base*	Photo du pied du cylindre / *Photo of the cylinder base*

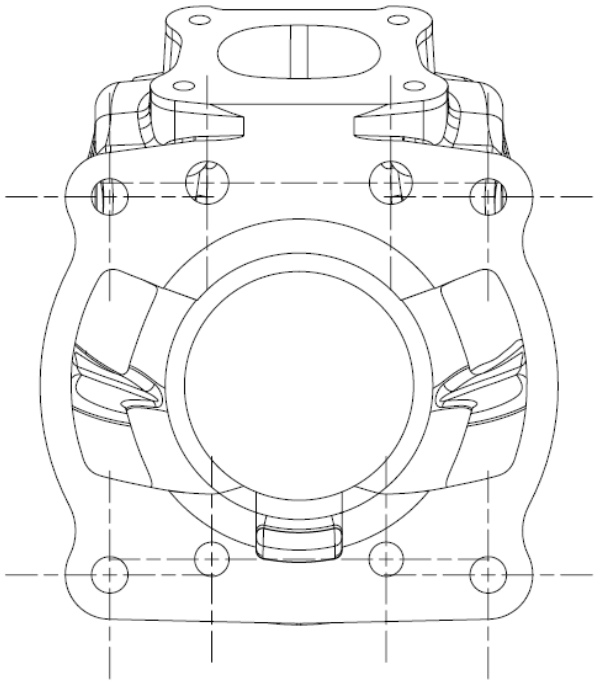
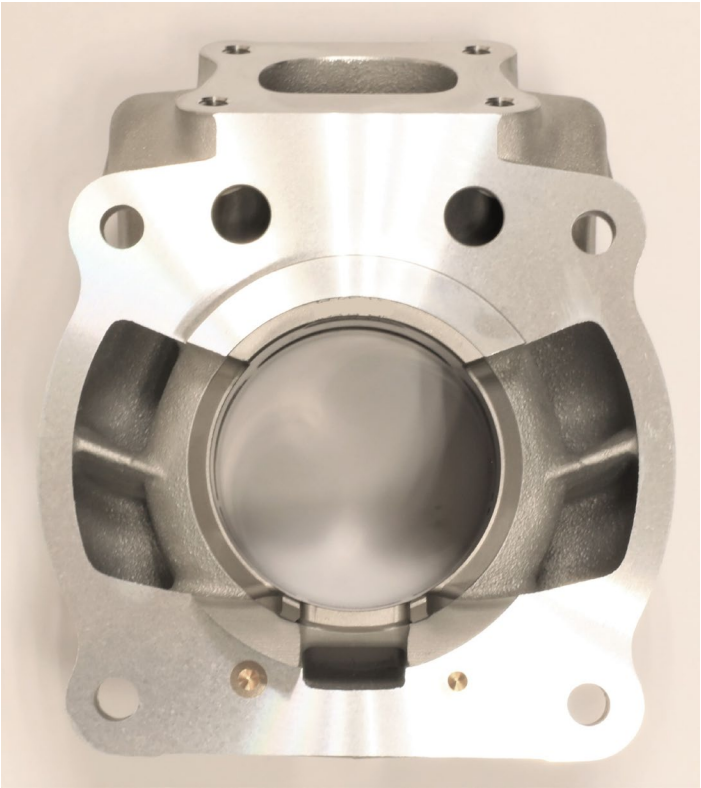
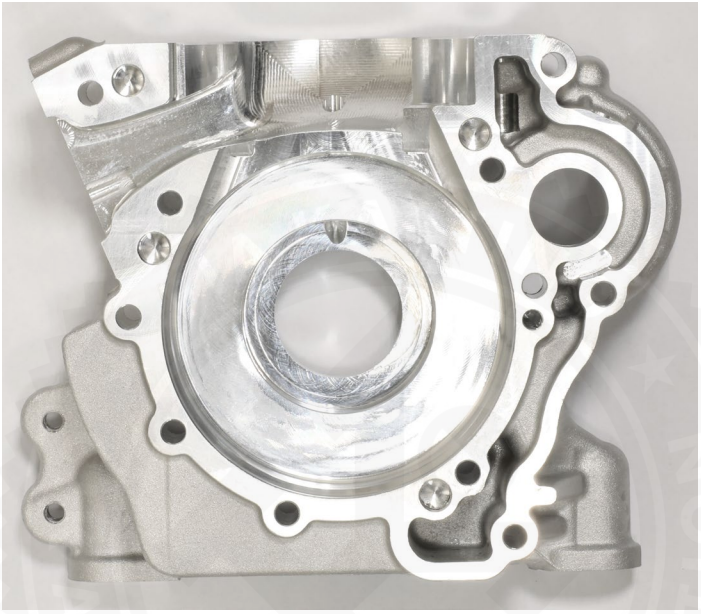

	

Photo de l'intérieur du carter droit / *Photo of the inside of the right crankcase*	Photo de l'intérieur du carter gauche / *Photo of the inside of the left crankcase*
	

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Dessin de la culasse et de la chambre de combustion (sans dimensions) /
Drawing of the cylinder head and the combustion chamber (without dimensions)

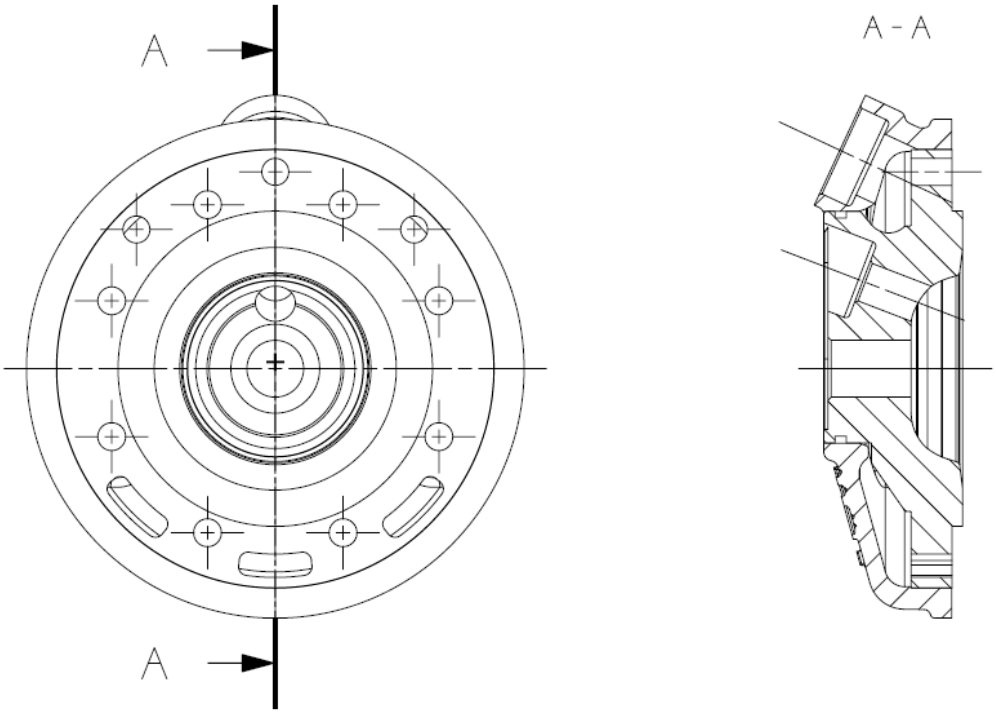
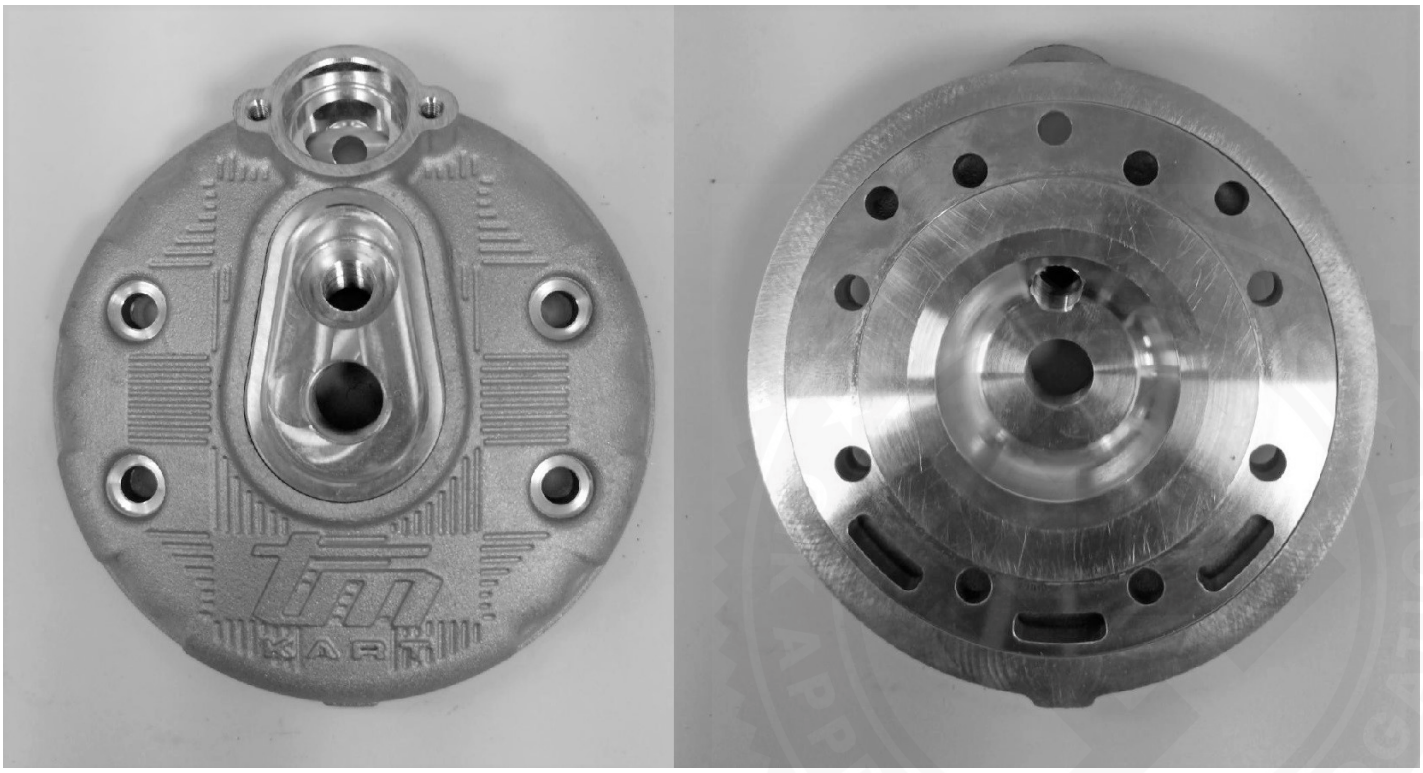


Photo de la culasse et de la chambre de combustion /
Photo of the cylinder head and the combustion chamber



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2. Vilebrequin, bielle et piston / *Crankshaft, conrod and piston*

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

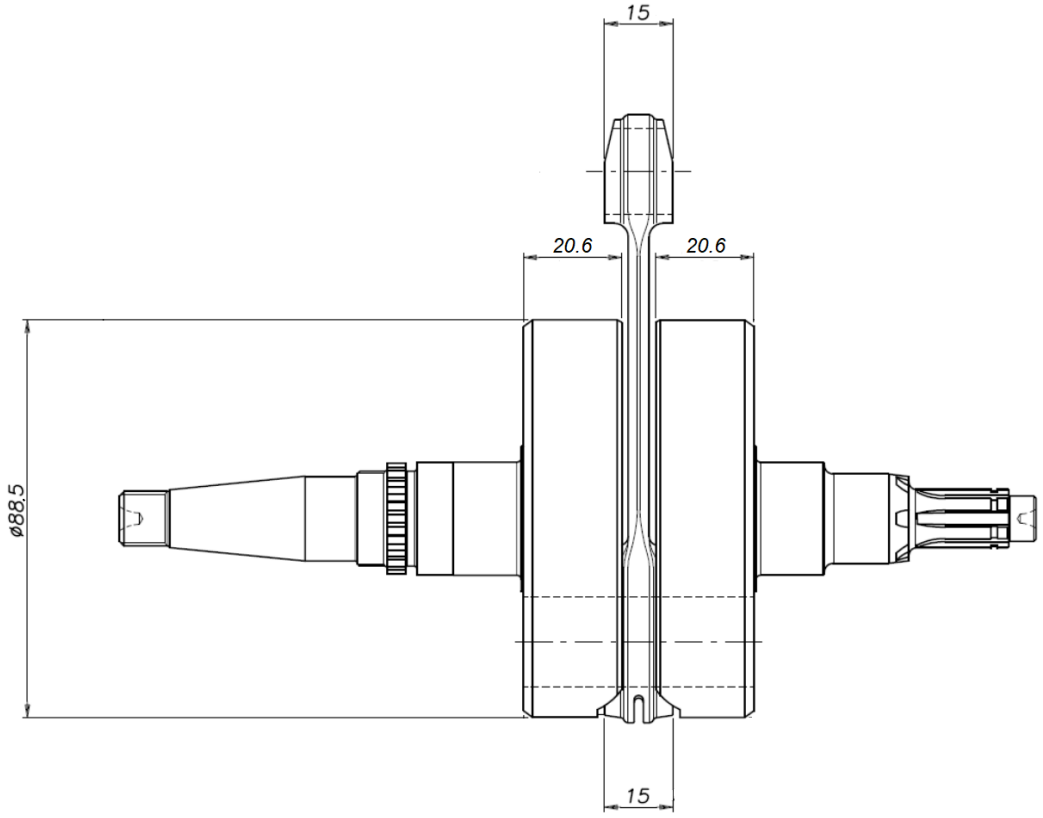
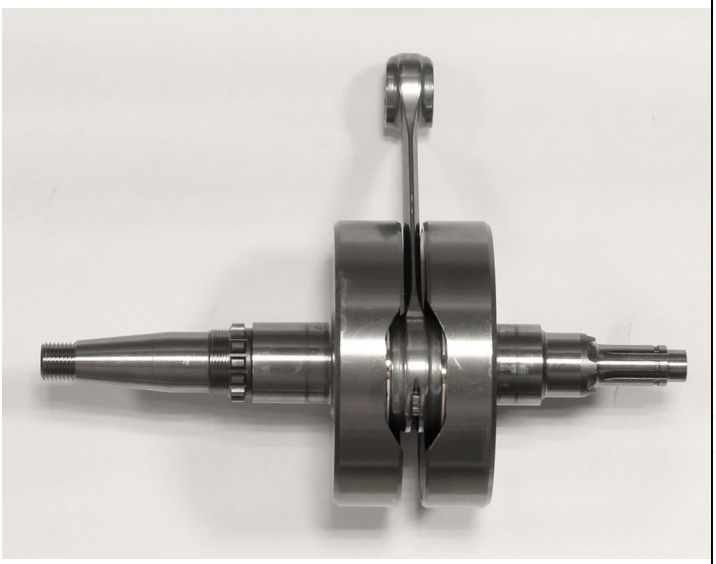


Photo du vilebrequin et de la bielle / *Photo of the crankshaft and conrod*	Photo de la bielle / *Photo of the conrod*
	

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Dessin du piston (dimensions principales sans tolérances) /
Drawing of the piston (main dimensions without tolerances)

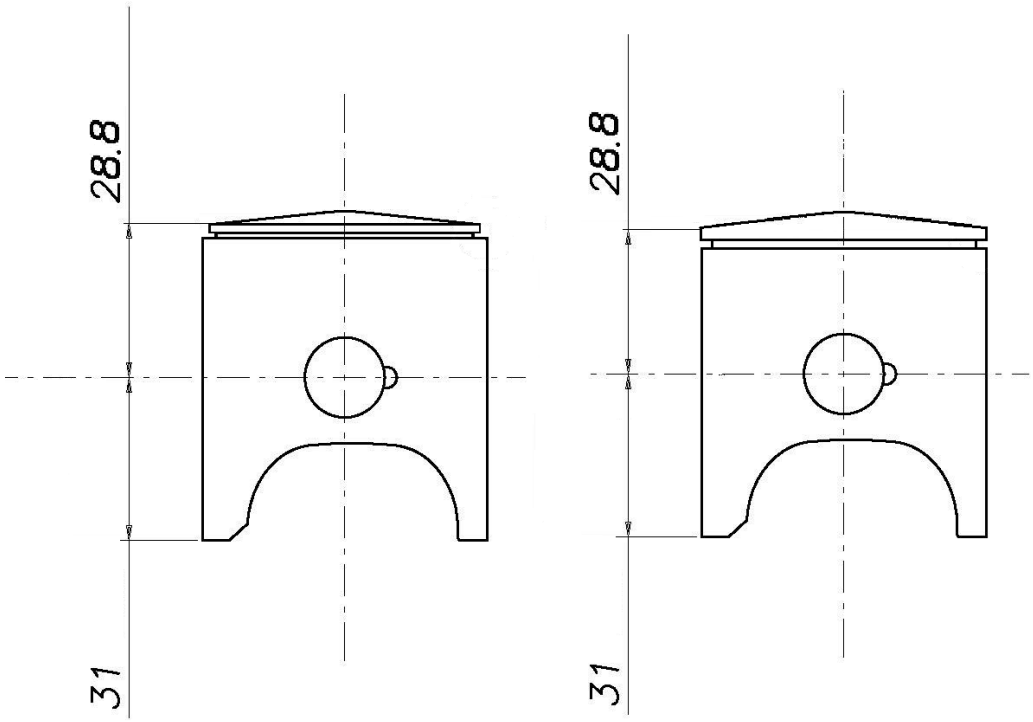

Photo du piston / *Photo of the piston*

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3. Arbre d'équilibrage / *Balance shaft*

Dessin de l'arbre d'équilibrage (dimensions sans tolérances) /
Drawing of the balance shaft (dimensions without tolerances)

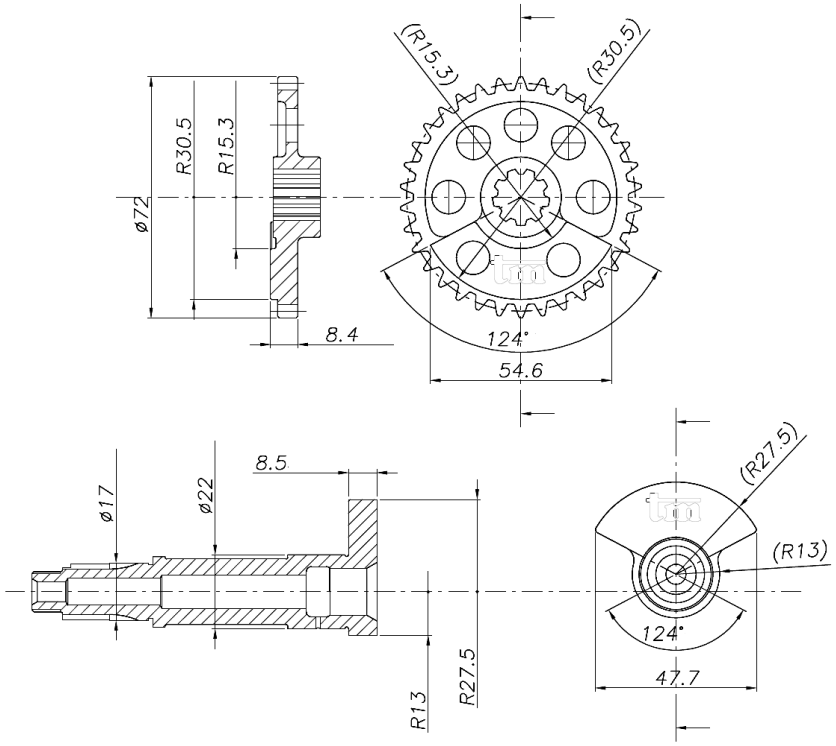

Photo de l'arbre d'équilibrage / *Photo of the balance shaft*

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4. Boîte à clapets / *Reed valve*

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

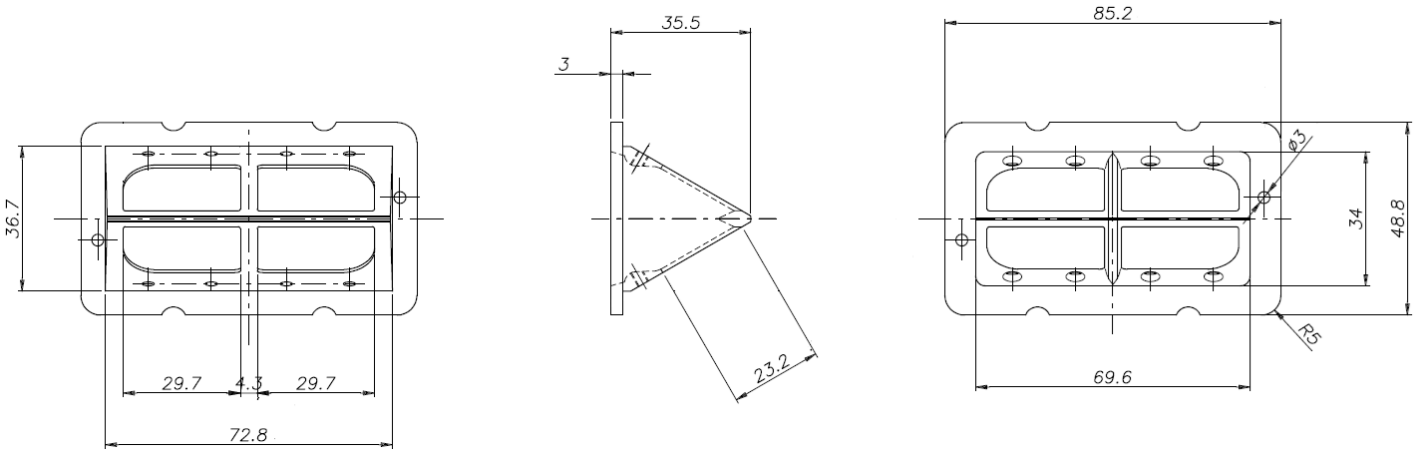

Photo de la boîte à clapets (sans clapets) / *Photo of the reed box (without reeds)*

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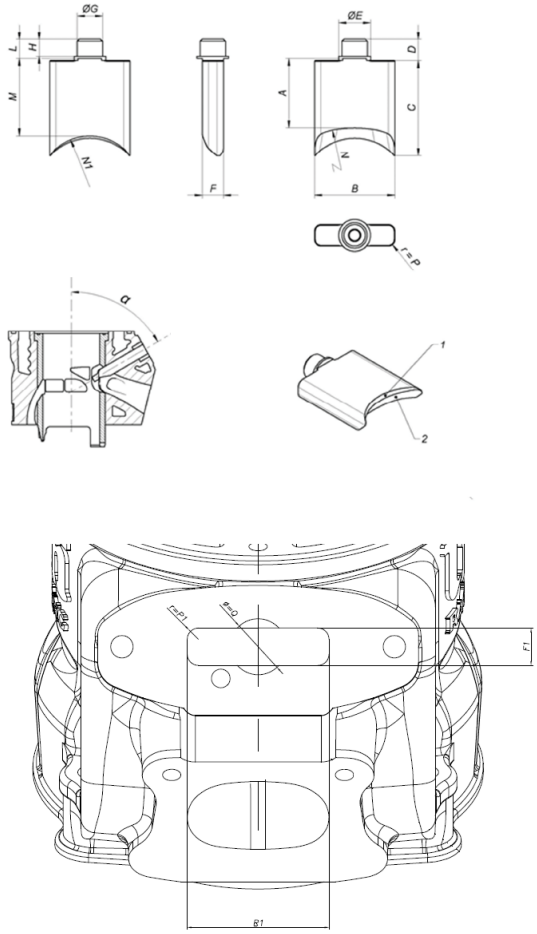
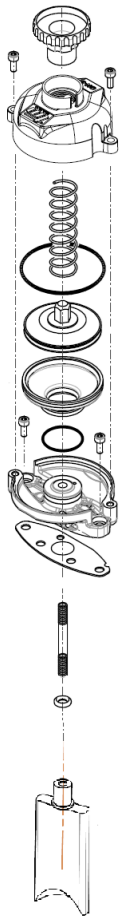
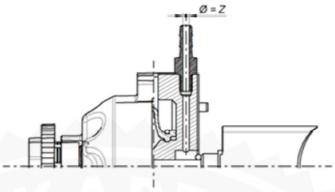
5. Power valve

Dessin explosé et dénomination des éléments de la power valve /
Exploded drawing and designation of the power valve components





Parameter	Dimensions	Tolerance
	in mm (or ° if angle)	in mm (or ° if angle)
A	**32.3**	±0,5
B	38	±0,1
C	45.4	±0,5
D	10	±0,1
E	15	±0,1
F	10	±0,1
G	12	±0,1
H	8	±0,1
L	9	±0,1
M	**37.4**	±0,5
N (3D surface n°2)	**37.5**	±0,5
N1 (3D Surface n°1)	**27.15**	±0,5
P	3	±0,1
Q	**15.4**	±0,1
α	**60.5**	±2°
B1	**38.2**	±0,2
F1	**10.1**	±0,2
P1	3	±0,2
Z	4	Maximum



Le dessin explosé de la power valve devra comprendre le tableau indiquant toutes les dimensions indiquées sur le dessin technique n° 2.8, y compris celles marquées « free ». /
The exploded view of the power valve shall include the table indicating all the measurements shown on the technical drawing No. 2.8, including those marked “free”.

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6. Moteur / *Engine*	
Photo du moteur complet de l'avant / *Photo of the complete engine front side*	Photo du moteur complet de l'arriere / *Photo of the complete engine rear side*

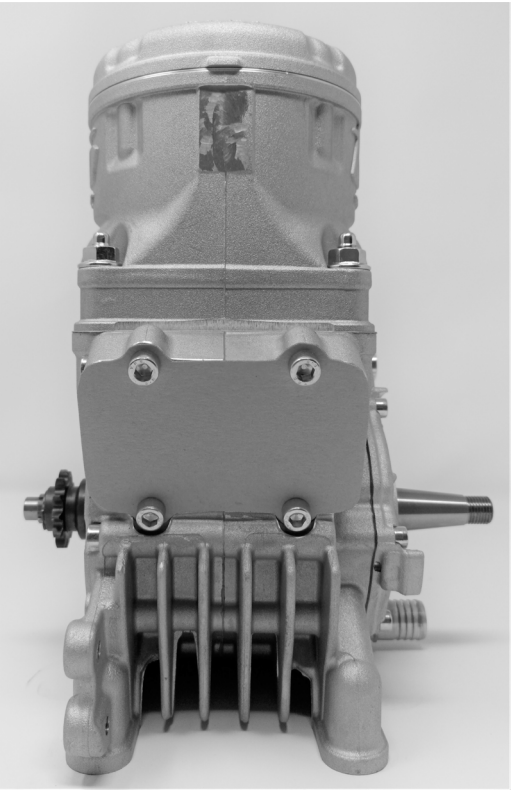
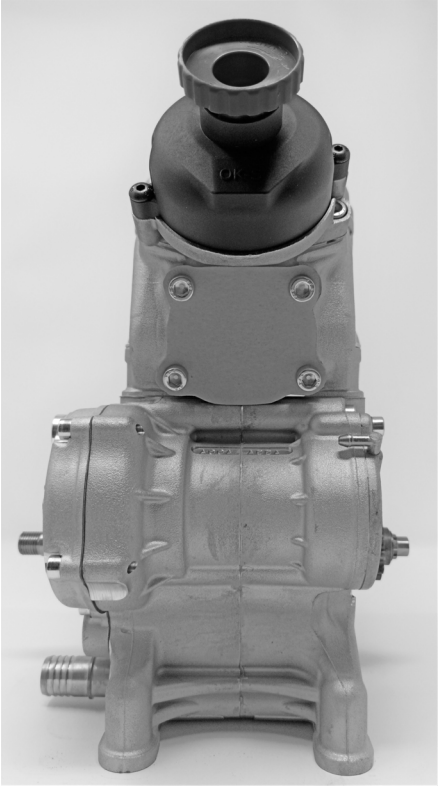
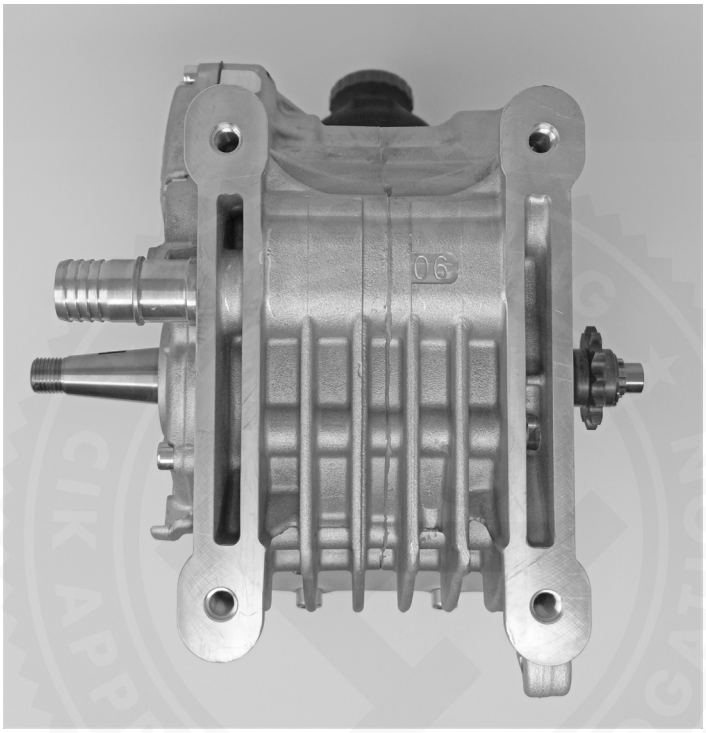

	

Photo du moteur complet vu du haut / *Photo of the complete engine seen from above*	Photo du moteur complet vu du dessous / *Photo of the complete engine seen from below*
	

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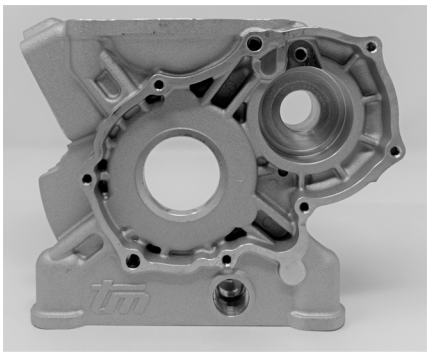
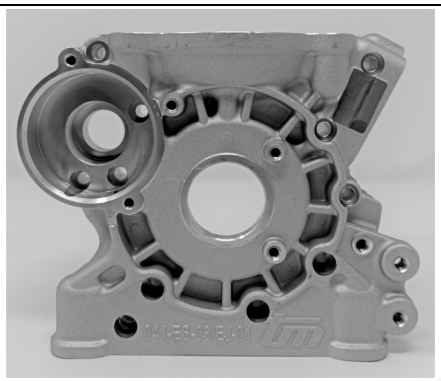
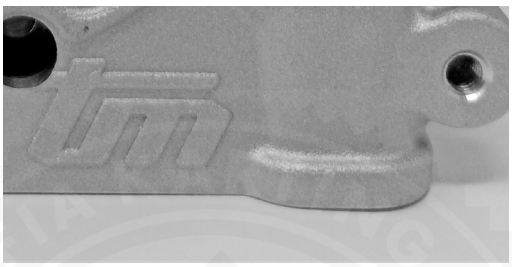
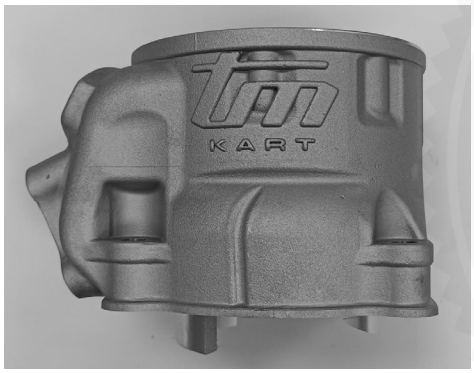
F	Marquage des pièces principales / *Main parts marking*

Pour chaque pièce, photo d'ensemble avec le marquage et photo avec zoom sur le marquage /
For each part, overall photo with marking and zoomed photo of marking

1. Fonderies des carters droit et gauche	*1. Castings of LH & RH crankcases*
2. Fonderie de cylindre	*2. Casting of cylinder*
3. Culasse	*3. Cylinder head*
4. Chemise en fonte	*4. Cast iron liner*
5. Demi-vilebrequins	*5. Half-crankshafts*
6. Bielle	*6. Conrod*
7. Piston	*7. Piston*
8. Arbre d'équilibrage	*8. Balance shaft*
9. Engrenages	*9. Gears*
10. Couvercle d'engrenages	*10. Gears cover*
11. Couvercle plastiques de la power valve	*11. Power valve plastic cover*
12. Guillotine de la power valve	*12. Power valve slide*

Pièces N° / *Parts no.*	Photo d'ensemble / *Overall picture*	*Zoom*
1		
1		
2		

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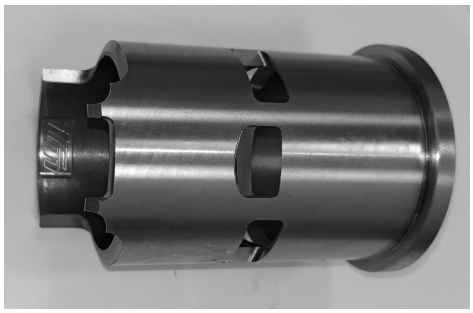
3		
4		
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5		
6		

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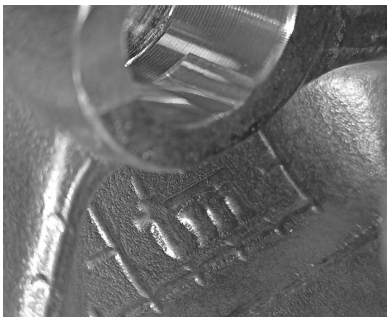
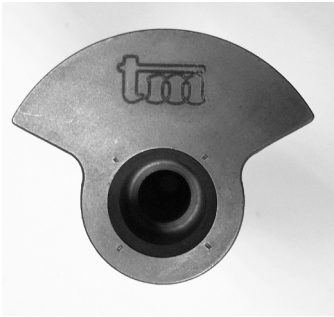
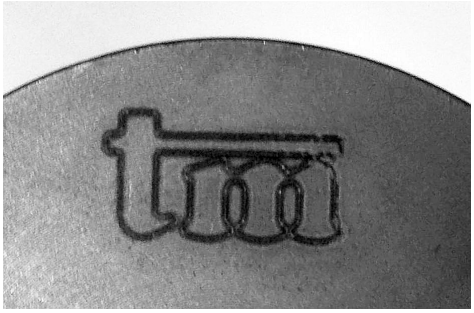
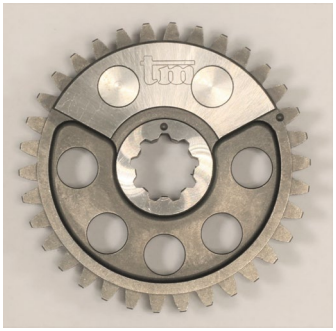
7		
8		
9		
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10		

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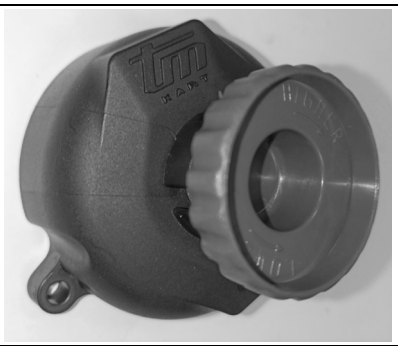
11		
12		

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